United States
International Trade Commission

Distributional Effects of Trade and Trade Policy on U.S. Workers

October 2022
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United States International Trade Commission

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Abbreviations and Acronyms

Terms	Definitions
AAFA	American Apparel & Footwear Association
AAM	Alliance for American Manufacturing
ABS	Annual Business Survey (U.S. Census Bureau and National Science Foundation)
ADA	Autos Drive America (industry association)
AD/CVD	antidumping/countervailing duty
AfCFTA	African Continental Free Trade Area
AFL-CIO	American Federation of Labor and Congress of Industrial Organizations
AP	Advanced Placement (College Board program)
BDS	Business Dynamics Statistics (U.S. Census Bureau)
BEA	U.S. Bureau of Economic Analysis (U.S. Department of Commerce)
CAFTA-DR FTA	Dominican Republic-Central America Free Trade Agreement
CE	consumer expenditure
CGE	computable general equilibrium (model)
CME	California Manufacturing and Engineering Co.
CPS	Current Population Survey (U.S. Census Bureau)
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CTA	Consumer Technology Association
CUSFTA	Canada-United States Free Trade Agreement
CWA	Communications Workers of America
CZ	commuting zone
DE	distributional effect
EE	Element Electronics (South Carolina-based company)
FDI	foreign direct investment
FMLA	Family Medical Leave Act
FTA	free trade agreement
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GIF	Global Innovation Forum (National Foreign Trade Council Foundation)
GM	General Motors
HTS	Harmonized Tariff Schedule of the United States
HUD	U.S. Department of Housing and Urban Development
HWLV	high wage labor value
ISDS	investor-state dispute settlement
LBD	Longitudinal Business Database (U.S. Census Bureau)
LEHD	Longitudinal Employer Household Dynamics (U.S. Census Bureau)
LFTTD	Longitudinal Firm Trade Transactions Database (U.S. Census Bureau)
LGBTQ+	lesbian, gay, bisexual, transgender, and queer
MFN	Most-Favored Nation
MREP	Madison Region Economic Partnership
MSA	metropolitan statistical areas
MSI	minority serving institution
MTB	Miscellaneous Tariff Bill
NACo	National Association of Counties
NAFTA	North American Free Trade Agreement
NAICS	North American Industry Classification System
NAWS	National Agricultural Workers Survey
NEA	National Education Association
NGO	nongovernmental organization

Terms	Definitions
NMPF	National Milk Producers Federation
NRF	National Retail Federation
NTR	normal trade relations
NTUF	National Taxpayers Union Foundation
OECD	Organisation for Economic Co-Operation and Development
PC-GTW	Public Citizen Global Trade Watch
PhRMA	Pharmaceutical Research and Manufacturers of America
PNTR	permanent normal trade relations
PPI	Progressive Policy Institute
PRO Act	Protect the Right to Organize Act
RI	Roosevelt Institute
SBTC	skill-biased technological change
SIPP	Survey of Income and Program Participation (U.S. Census Bureau)
SMEs	small and medium-sized enterprises
SOC	Standard Occupational Classification (U.S. Bureau of Labor Statistics)
SSI	Supplemental Security Income
TAA	Trade Adjustment Assistance
TiSI	Trade in Services International
UAW	United Auto Workers
UPS	United Parcel Service
USDA	U.S. Department of Agriculture
USDEC	U.S. Dairy Export Council
USDOL	U.S. Department of Labor
USITC	U.S. International Trade Commission
USMCA	United States-Mexico-Canada Agreement
USTR	Office of the U.S. Trade Representative
USW	United Steelworkers
WB	World Bank
WTO	World Trade Organization

Executive Summary

This report responds to a request received by the U.S. International Trade Commission (Commission) from the U.S. Trade Representative on October 14, 2021. In her request letter, the U.S. Trade Representative asked the Commission to conduct a two-part investigation on the distributional effects of trade and trade policy on U.S. workers.

For part one, the Commission was asked to provide a public report that catalogues information on the distributional effects of trade and trade policy on underrepresented and underserved communities gathered through (1) roundtable discussions with representatives of these communities, (2) an academic symposium, and (3) a literature review. The Commission also conducted a public hearing and accepted written submissions in connection with this investigation. This report catalogues the information gathered through the events held in connection with this investigation and the Commission's critical review of the literature on distributional trade effects, while presenting recommendations on future research. Complete transcripts of all events are available on the Commission's electronic document information system (EDIS) located on its website, and direct links to the transcripts are also available in those chapters that present information gathered at the roundtables, academic symposium, and hearing.

For part two of this investigation, the U.S. Trade Representative requested that the Commission expand its research and analysis capabilities so that future probable economic effects advice might include estimates of the potential distributional effects of trade and trade policy, including goods and services imports and exports (including indirect export effects), on U.S. workers. The U.S. Trade Representative did not request a written report on part two of this investigation. As directed by the letter, the Commission will brief U.S. Trade Representative (USTR) staff on its expanded analytical capabilities.

Roundtables

The Commission held a series of seven roundtables between March 1 and April 1, 2022. The goal of these roundtables was to gather information on distributional effects of trade and trade policy from representatives of underrepresented and underserved communities. The roundtables were organized by the following themes: race and ethnicity (the focus of two events); gender and orientation; disability, age, and education; economic impacts in local communities; economic impacts specific to the region surrounding Fresno, California; and economic impacts specific to the region surrounding Detroit, Michigan.

Participants at the roundtables spoke largely from their personal experience or experience working directly with underrepresented and underserved communities. Participants often did not explicitly state the community with which they identified, or how their experience, or the experience of the community with which they identified, differed from the experience of other workers or other communities. As a result, while the experiences and perspectives shared in some instances specifically addressed how certain workers, for example based on race or gender, were impacted by trade and trade policy differently than other workers, in many instances participants simply spoke to their experiences as workers. These experiences and perspectives sometimes concerned the impacts of trade and trade policy and other times concerned the impact more generally of job loss and other issues affecting their

communities. Many participants also spoke to factors such as discrimination or access to resources that made it more difficult for them and workers in their communities to overcome economic shocks.

The summaries of the roundtable discussions in this report catalog the perspectives and experiences of the participants of the roundtables; they do not attempt to assess, analyze, or draw conclusions. Nor should they be understood to reflect broadly the views of workers that share the same identities or communities of the individuals that participated in the roundtables. The summaries are a record of what participants shared, with a view that such a record—comprising the perspectives and experiences of a diverse spectrum of communities and identities, including workers of different races, ethnicities, genders, orientations, education levels, abilities, and geographic locations—offers insight on the varied and disparate impacts trade and trade policy can have on workers from underrepresented and underserved communities.

Participants in the roundtables discussed a variety of topics whether or not explicitly connected to trade, including the implications of factory closings, reductions in production, and the loss of manufacturing jobs in the United States. They also discussed the role of labor unions and manufacturing jobs, which they viewed as an important route to the middle class for underserved populations. Roundtable participants also spoke about challenges that workers may face depending on their age, disability status, race, ethnicity, gender, sexual orientation, education, or income level. These challenges included discrimination, lack of childcare availability, barriers to relocation, challenges in gaining access to training or education, and disparate access to transportation, technology, internet connection, and health care, among others.

Participants shared their perspectives on trade and trade policy, with many sharing the view that policies resulting in increased import competition had negative effects on workers in their communities and that imports were competing unfairly, for example, due to dumping or lack of worker protections in exporting countries. Others noted some positive impacts of trade or trade policy, such as the ability to source lower-priced products abroad and higher wages and job creation due to export markets.

Roundtable participants suggested several ways to address the challenges workers face in underserved and underrepresented communities, such as government funding for training and community programs, expansion of the Trade Adjustment Assistance (TAA) program, on-the-job training and apprenticeship programs, and additional investment. In addition, many participants said that U.S. trade policy needs to move toward a framework that better protects U.S. workers and strengthens domestic supply chains. Participants suggested that governments should include workers and affected communities in policy- and decision-making processes. Also, participants recommended collecting more detailed data to better understand effective policy interventions.

While some issues were raised at multiple roundtables, it is also notable that each roundtable featured a unique set of participants who focused on issues affecting the specific underserved and underrepresented communities with which they identified. The following summaries identify some of the topics and views that participants shared at specific roundtable events:

- ***Roundtable 1 – Race and Ethnicity***: Roundtable participants included union representatives, NGO representatives, an academic, community college representatives, and others. Participants from worker groups described how international competition reduces workers' bargaining power, leading to lower wages and benefits, particularly among Black workers. Several participants

spoke about the negative spillover effects of factory closures and job losses on local businesses and surrounding communities, while some indicated that trade has had positive impacts in their localities. Other topics discussed by participants included job-related discrimination, the role of education in addressing economic inequality, challenges in accessing training and educational programs, the importance of the manufacturing sector and unions in providing higher quality jobs, and barriers to minority participation in the import or export of goods. Participants also expressed a need for increased data availability and new analytical approaches, among other recommendations.

- ***Roundtable 2—Impacts on Underserved Communities, Fresno, California***: Roundtable participants included a union representative, NGO representatives, an academic, a government representative, industry representatives, and manufacturing workers. Participants noted that the agriculture industry is important to employment and economic health in the San Joaquin Valley. Speaking about both the agriculture and manufacturing sectors, they identified several factors—including import competition and automation—that impact workers and employment. Participants also discussed positive and negative impacts of trade and other factors (such as rising costs and water scarcity) on businesses. Several participants discussed the TAA program, and some suggested TAA reauthorization or expansion or highlighted gaps in coverage. Participants also mentioned the impacts of the Farm Bill, the Farmers to Families Food Box Program, and Section 232 tariffs, among other policies and programs.
- ***Roundtable 3—Race and Ethnicity***: Roundtable participants included union representatives, NGO representatives, an academic, community college representatives, a business owner, as well as others. Participants noted numerous factors that make members of minority groups less able to weather trade-related and other economic disruptions. Among these factors were wage and wealth gaps between minority and White workers, limited educational opportunities for minority workers, minority workers' relatively low geographic mobility, and discrimination. Participants also discussed the importance of manufacturing jobs for minority communities, expressed a wide range of opinions on the best ways to prepare workers for current and future economic conditions, and provided suggestions on trade policy (such as the TAA program).
- ***Roundtable 4—Gender and Orientation***: Roundtable participants included union representatives, NGO representatives, a government representative, as well as others. Several roundtable participants cited family care responsibilities and the lack of childcare as a pressing issue, and how childcare affects women's overall labor force participation. Participants also identified discrimination and limited access to transportation as challenges to workforce participation. Several participants mentioned the lack of and need for data on workers by LGBTQ+ and gender identity. Other focus areas included the role of manufacturing jobs and unions and the potential benefits of training programs.
- ***Roundtable 5—Disability, Age, and Education***: Roundtable participants included union representatives, NGO representatives, academics, a government representative, and a retired steelworker. Many of the participants said that older workers, workers with disabilities, and less-educated workers were disproportionately affected by economic shocks. Participants also said that discrimination increases workplace challenges for older workers and workers with disabilities. A few participants commented on the effect of certain trade policies such as Section 232 tariffs. Other issues covered in this roundtable discussion included the use of offshoring threats as a negotiating tool; the lack of economic data, particularly on workers with disabilities;

the need for more retraining and apprenticeship programs; domestic policy constraints affecting workers with disabilities (such as Supplemental Security Income (SSI) limitations on work hours and asset level); and recommendations for the inclusion of workers from underserved communities in decision-making processes.

- ***Roundtable 6—Impacts on Underserved Communities, Detroit, Michigan***: Roundtable participants included union representatives, NGO representatives, an academic, an industry representative, a government representative, and a retired steelworker. Several participants discussed the potential for job disruption or loss due to international trade and trade agreements and identified trade policy as the cause of job losses. Some participants also said that companies sometimes use the threat of offshoring to limit the power of labor unions and suppress domestic wages. Some participants indicated that trade, foreign direct investment, or both have benefitted workers and local communities. Participants also addressed issues such as the negative impacts of job losses on local businesses, community services, and communities; difficulties that workers from underserved populations face in switching jobs; the role of unions; declines in government investment and resources; and negative perceptions of the skilled trades.
- ***Roundtable 7—Local Impacts on Underserved Communities***: Roundtable participants included union representatives, a retired union representative, NGO representatives, academics, manufacturing workers, a business owner, a retired steelworker, as well as others. Participants indicated that plant closures and cutbacks had affected their communities and reported that these events had led to the loss of career opportunities, lower wages, and negative impacts on local businesses and communities, among other effects. Participants also discussed a number of other issues, such as challenges faced by women, Latinos, and older workers; the benefits and drawbacks of foreign investment and U.S. trade agreements; the role of tariffs and U.S. trade laws in protecting U.S. jobs; the importance of manufacturing jobs and providing awareness of jobs that do not require a college education; and current worker training programs.

Hearing and Written Submissions

On April 19, 2022, the Commission held a public hearing—which was intended to supplement the roundtables and provide an opportunity for organizations and officials, many with a national reach, to contribute to the conversation on the distributional effects of trade and trade policy—in connection with this investigation. The hearing was held virtually and included testimony from 13 individuals: three government officials in the first panel, followed by 10 members of the public in two panels of five each. The second hearing panel included representatives of labor and industry focused organizations, and the third included a more diverse group of interested persons, including a Washington, DC trade attorney and representatives of other groups. As with roundtables, the summaries of the hearing catalogue the views of the hearing witnesses and do not attempt to assess, analyze, or draw conclusions. While many witnesses spoke specifically about the distributional effects of trade and trade policy on underrepresented and underserved communities, others spoke more generally about the impact of trade and trade policy on workers.

- ***Panel 1:*** The three government officials who testified in the first panel were a member of Congress and two county commissioners. They discussed several issues, including the effects of trade policies, foreign investment, and exports on manufacturing workers and agricultural communities.

- ***Panel 2*:** Five witnesses, including workers' union representatives and industry-focused advocacy organizations, testified in the second panel. Their statements touched on many topics, including the impacts of trade and other factors on workers and communities, as well as public and private sector assistance to workers impacted by trade, unions, and U.S. exports.
- ***Panel 3*:** Five witnesses, including a trade attorney and representatives of advocacy groups, a policy think-tank, and a county government association, testified in the third panel. Their testimonies touched on many topics, including the impact of trade and trade policy on communities, labor market factors, workforce labor shocks, and the importance of manufacturing jobs.

In addition, the Commission received 15 written submissions during the investigation. These submissions addressed several topics, including benefits and challenges associated with trade, the effect of tariffs on consumers and industries, the impact of trade policy on job losses and gains, and distributional effects of trade across workers and the industries and establishments in which they are employed.

Literature Review

As requested by USTR, the literature review provides a critical and detailed assessment of academic and policy research examining the distributional impact of trade and trade policy on workers in underserved and underrepresented groups and communities. The review focuses primarily on outcomes for U.S. workers; however, some studies examining foreign countries are included, when appropriate, to highlight certain gaps in the literature focused on the United States.

The review begins with an overview of the analytical methodologies used within the literature, then proceeds to discuss specific studies. Studies included in the literature review are organized on the basis of the economic outcomes of interest in each study, including employment, wages, and other labor market effects such as consumption or health outcomes. Within each of these economic outcome-based groupings, studies are further grouped according to the main worker characteristics or communities studied. These worker characteristic groupings divide research into studies that primarily focus on the distributional effects of trade across education and skill levels, gender, or race and ethnicity.

Methodologies

Existing research on distributional effects of trade generally employs two broad types of methodologies: descriptive and model-based. Descriptive methods use data to identify trends and other relationships between explanatory and outcome variables such as job losses. Model-based methodologies use statistical or mathematical methods to isolate and quantify relationships between explanatory variables and economic outcomes while accounting or controlling for other variables that may also be influencing outcomes.

Employment Effects

A large body of literature addresses the impact of trade and trade policy shocks on levels of employment across geographic regions, industries, and workers. Much of this literature has documented that increased U.S. imports from low-wage economies reduce domestic employment in import-competing industries. Research broadly finds that U.S. workers in import-competing industries experienced significantly higher rates of unemployment or underemployment, transition to different industries or occupations, or exit from the labor force. The effects of exports on employment remains largely underresearched, but existing studies suggest that exporting may positively impact employment outcomes.

- ***Employment effects across different education and skill levels***: Existing research finds evidence that trade shocks have led to different employment outcomes for workers across education and skill levels. The literature is clear that increased offshoring and import competition from low-wage economies reduced employment for manufacturing workers commonly defined as low-skill. However, other dimensions, including effects of exports or services trade, remain relatively underresearched, with only a small number of studies.
- ***Employment effects by gender***: Literature on the impact of trade on the employment and labor force participation of men and women in the United States links trade exposure to the gender composition of the labor force in different industries, showing that men are more likely to work in import-competing firms that tend to contract with increased import competition. The literature shows inconclusive effects of trade liberalization on labor force participation by gender.
- ***Employment effects by race/ethnicity***: Literature on the impact of trade on employment and labor force outcomes by race or ethnicity is limited and predominantly focuses on measuring impacts of imports on Black and Hispanic workers, but not other racial minority groups. The limited literature shows that, in the face of trade shocks, Black and other Nonwhite workers fare worse than their White counterparts.

Wage Effects

A substantial body of research has documented the effects of various trade policy shocks on wages and income across different groups of workers. Researchers have found that wage and income vary significantly depending on workers' exposure to trade shocks, whether workers change occupations or industries in response to a shock, as well as worker characteristics such as educational attainment, gender, or race.

- ***Wage effects across different education and skill levels***: Several studies find that import competition-induced transitions between industries and occupations significantly reduce earnings for workers and these adverse wage effects are especially pronounced for non-college-educated workers or those previously employed in manufacturing jobs. Conversely, college-educated workers and non-production manufacturing workers such as managers experience lower or no wage or income loss following trade-induced employment transitions.
- ***Wage effects by gender***: Literature on the impact of trade on wages by gender suggests that the gender wage gap declines in the presence of import competition. This result is generally not due

to increases in wages of women but rather declines in wages of men who switch out of import-competing sectors.

- ***Wage effects by race/ethnicity***: Literature on the impact of trade on wages by race or ethnicity is limited and predominantly focused on measuring the impact of imports on Black and Hispanic workers, but not other minority groups. The limited literature suggests that import competition had a large and disproportionately negative effect on wages of minority workers.

Gaps in the Literature and Data

A robust literature on the distributional effects of trade on U.S. worker outcomes has emerged, but several gaps remain. Data gaps are covered in detail in the literature review and the academic symposium chapter and are also discussed in the roundtable chapter. The current literature largely focuses on the trade effects of goods imports, covers only a limited number of demographics and communities, includes little research on distributional effects of services trade, and focuses on wages rather than also examining effects on wealth. In addition, researchers' ability to conduct distributional effects analysis would be improved if adequate longitudinal and employer-employee matched data were available.

Some of these gaps in the literature are fueled by gaps in data. The lack of available data on the production and trade of services has largely prevented researchers from conducting analyses on the impacts of services trade similar to those performed for merchandise trade. The lack of research on the impact of trade on long-term wealth outcomes is due in part to limited data on individual wealth as well as difficulties in accessing data sources that track individuals' cumulative income through time. Data sources that contain longitudinal worker-level data sufficient for long-term income and wealth analyses commonly have prohibitive restrictions in place to ensure individuals' anonymity. Filling these services and wealth data gaps could permit researchers to investigate the effect of trade shocks on understudied communities, shed more light on how trade shocks affect workers employed in the services sector, and identify how workers of similar wages and different wealth classes respond to trade shocks. In addition, longitudinal data that links employees and employers could permit simultaneous analysis of supply- and demand-side factors, respectively, related to wages and employment.

Overcoming Data Gaps

A few mutually reinforcing avenues may be possible for mitigating the data gaps affecting distributional effects research. These avenues include oversampling small demographic groups to facilitate intersectional analysis or analysis of smaller demographic subgroups, broadening the scope of survey questions to include information on understudied groups, and increasing the granularity of industry and geographic variables to permit detailed analysis of how trade is affecting specific industries and location types.

A powerful avenue for expanding distributional effects literature would be to make restricted-use data more easily accessible to researchers conducting distributional effects research. This restricted-use data is only available to select researchers who are granted conditional access by the data provider.

Researchers with access to restricted-use employer-employee matched longitudinal data can exploit rich firm- and worker-level variables over a long time horizon. Because workers experience trade shocks when changes in the volume of imports or exports affect demand for labor at the firms, the ability to simultaneously analyze firm-level and worker-level effects is key to analyzing these worker-level effects and identifying the mechanisms by which these trade impacts are distributed across different workers. Researchers with access to restricted-use data can expand the analysis on the persistence of trade shocks and how different worker subgroups adjust to job transitions following trade shocks. In addition, because identifying wage impacts as workers transition requires a sufficient number of data points to pinpoint changes in earnings after a trade shock, the longer time horizon available in restricted-use longitudinal data is integral for quantification of demographic-specific wage impacts.

Academic Symposium

As requested, the Commission held a symposium focusing on academic or similar research on the distributional effects of trade and trade policy on underrepresented and underserved communities. The Commission extended invitations both to researchers conducting distributional effects research and to government agencies providing data used in distributional effects research. In addition, the Commission solicited presentations from persons conducting distributional effects research through a notice published in the Federal Register.

The academic symposium, convened on April 5–6, 2022, consisted of eight sessions that focused on objectives outlined in the request letter. The symposium included 48 speakers, presenters, and moderators; between 85 and 112 individuals attended each session. Several of the authors whose work is discussed in this report's literature review also chose to present their work at the academic symposium. As such, the symposium provided a forum for authors to detail nuances in their published analysis, put their work in conversation with other literature on the topic, and provide an aerial view of how their work furthers the investigation of the distributional effects of trade and trade policy.

The academic symposium's keynote speaker was Dr. David Autor, who presented an overview of findings from his work with co-authors on the local labor market effects of the sudden increase in imports from China during the 1990s and 2000s (commonly referred to as the "China shock"). This China shock research informed the methodological approach used in much of the work presented at the symposium as well as the discussion of distributional effects of trade on U.S. workers throughout the event.

- ***Session A—Distributional effects of trade and trade policy on U.S. workers by education and skill level:*** Presenters provided analysis on trade-induced economic losses, especially from increased import competition, that have been concentrated among workers with low levels of education. In addition, they noted that U.S. exports increased employment and wage growth for workers with a college education or relevant experience in manufacturing. Multiple presenters identified transitions from manufacturing to non-manufacturing sectors and occupations as a major driver of adverse economic outcomes for workers with low education levels who are exposed to import competition or employment offshoring. Regarding mitigating adverse labor market effects due to trade, presenters cited the importance both of worker educational attainment and of public policies focusing on displaced workers and workers in lower-skilled services jobs. In addition, presenters identified empirical challenges and next steps for research,

including the need for longer time horizons for the longitudinal Current Population Survey, occupation information in Longitudinal Employer-Household Dynamics program data, and additional research on the distributional effects of services trade. Extending time horizons would allow researchers greater opportunity to capture the effects of trade shocks on key variables in a comprehensive manner. Employer-employee-linked data allows effects of trade shocks on employers and employees to be studied simultaneously and facilitating access to such restricted-use data would permit more researchers to pursue such research.

- ***Session B—Distributional effects of trade and trade policy on workers by race and ethnicity:*** Presenters provided analysis that increased import competition has led to negative employment outcomes for Black and minority workers. Several presenters provided data showing that differences in educational attainment across racial and ethnic groups can influence their reactions to import competition shocks: for example, racial and ethnic minority groups may fare worse because their average educational attainment is lower. Nevertheless, presenters also provided data showing that, even when controlling for education level, White workers fared better than their Nonwhite counterparts. Throughout the session, presenters described data-related issues—such as data gaps, limited time horizons, and insufficient data granularity—that imposed limitations on past analyses, and they described how data limitations inhibit new avenues for research.
- ***Session C—Distributional effects of trade and trade policy on gender*:** The presentations focused on the heterogeneous impact of import competition on U.S. employment and wage by gender. Specific characteristics such as industry, occupation, and women's representation in government resulted in differential effects by gender. Session presenters identified potential research questions on the distributional impact of trade by gender, including intersectional effects (such as how trade might differentially affect a person who is both a racial and a gender minority), the effect of trade by gender within service sectors, and heterogeneity in wealth as a determinant of workers' ability to withstand trade shocks. In addition, presenters discussed the need for longitudinal employer-employee matched data that track information on individual workers' characteristics, occupation, employer, and industry over their whole careers. Presenters stated that access to panel datasets with detailed individual information over decades could enable the study of trade impacts on indicators such as long-term effects on wealth, wellness, and other household socioeconomic outcomes.
- ***Session D—Existing methodologies and their limitations, and new labor modeling work**:* The presentations focused on different approaches to measuring the distributional effects of trade on workers and consumers. Some participants noted that computable general equilibrium models are limited by their assumptions of costless labor mobility and economy-wide wage setting, so these models were unable to examine whether trade generated sectoral differences in wages. They described how refining assumptions—such as differences in worker skill across sectors—could result in more realistic estimates. Presenters discussing structural econometric models said that they found tariff reductions did not generate large impacts across households of different incomes but did contribute to within-income group inequality. Presenters discussing models that measure the effect of trade shocks on consumers noted that they found counties with greater exposure to Chinese retaliation during the recent U.S.-China trade tensions experienced disproportionately large declines in consumer expenditure on automobiles. These presenters said that these large changes in consumption suggest that workers, particularly the low-income

population, are vulnerable to trade shocks. In addition, several presenters suggested that demographic groups with low levels of wealth will likely find it difficult to overcome even a small income shock.

- ***Session E—Value of access to restricted-use data for distributional effects analysis:*** The presentations focused on restricted-use datasets to answer questions on the distributional effects of trade on workers. The analyses presented relied on restricted-use longitudinal employer-employee matched datasets that allow researchers to track individual firms, workers, or both over time. Presenters described how this feature of the data is crucial to understanding the persistence of trade impacts on worker outcomes and the various ways in which workers may adjust. In addition, panelists described how access to restricted-use data resources that include worker-level demographic, economic, geographic, and firm-industry information allows researchers to focus on drivers of the distributional effects of trade. Presenters provided several findings based largely on restricted-use U.S. data, for example, that the closure of U.S. companies' manufacturing plants, rather than the companies shuttering entirely, drove manufacturing job loss in the United States; and that U.S. job losses resulting from the China shock were more closely tied to workers' geographic location than to their industry. In addition, presenters discussed their research and findings using extensive foreign datasets, many of which have features and coverage unavailable in U.S. datasets.
- ***Session F—Government datasets for analyzing the distributional effects of trade among different subgroups****:* Presenters described the content, scope, and accessibility of various government data products that could be used to answer questions relating to the distributional effects of trade on U.S. workers. Presenters in this session focused on the datasets themselves rather than the analysis performed with them and commented on the public-use and restricted-use components of each dataset when known to them. This session, which focused on 10 data products in depth, included a discussion on the limitations and opportunities these data products present. The discussion encompassed the challenges of using public data that have been aggregated or otherwise adjusted to protect confidentiality of respondents and the possibilities for linking different government data products. Presenters said that creating linkages between datasets—for example, datasets that provide household- and firm-level data--provides the opportunity to address simultaneously supply- and demand-side economic conditions.
- ***Session G—The global research agenda on distributional effects of trade****:* Presenters gave brief summaries of research initiatives by international organizations and national governments related to the distributional effects of trade and discussed the differential economic outcomes resulting from both international trade and macroeconomic shocks. To avoid mistakenly attributing outcomes to trade caused by other factors, panelists recommended using analytical frameworks that consider macroeconomic factors to separate the trade impacts from impacts due to other factors. Participants also noted current distributional effects analyses in Canada and New Zealand, two countries actively incorporating distributional effects analysis into their trade policy agendas. Additionally, presenters identified and discussed data gaps and empirical challenges, including assessment of adjustment costs.
- ***Session H—Moderated discussion on future directions for distributional effects research****:* The final session of the academic symposium focused on insights for distributional effects research that could be gleaned from other academic disciplines. The session covered input from academics with expertise outside international trade, with a focus on issues such as economic

mobility and outcomes for specific underresearched and underserved communities. Presenters emphasized the importance of using more disaggregated data to understand how outcomes may differ across groups of individuals. They stated that researchers need to account for different dimensions of economic well-being, such as wealth, when conducting analyses. Multiple presenters noted the importance of institutions and historical context in driving economic outcomes across underserved and underrepresented communities and stated that a lack of data often limits the ability to study economic well-being.

Chapter 1
Introduction

This report, *Distributional Effects of Trade and Trade Policy on U.S. Workers,* was requested by the U.S. Trade Representative in a letter received by the U.S. International Trade Commission (Commission) on October 14, 2021 (appendix A). In the letter, the Trade Representative stated that the request for the investigation and report are part of her office's efforts, "to realize the goals of Biden-Harris Administration's equity initiatives and respond to congressional requests for trade policy to have positive and equitable impact on marginalized, underserved, and disadvantaged communities in the United States and abroad."

The Request

In the request letter, the U.S. Trade Representative asked the Commission to conduct a two-part investigation. For part one, the Commission was asked to provide a public report that catalogues information on the distributional effects of trade and trade policy on underrepresented and underserved communities. The letter requested that the Commission gather this information through:

1. Roundtable discussions among representatives of underrepresented and underserved communities as identified in the January 2021 Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government. The letter indicated that discussants should also include representatives of think tanks, academics and researchers, unions, state and local governments, nonfederal governmental entities, civil society experts, community-based stakeholders such as minority-owned businesses, business incubators, minority-serving institutions, and local and national civil rights organizations.
2. A symposium focused on academic or similar research on the distributional effects on underrepresented and underserved communities of trade and trade policy, including results of existing analysis, evaluation of methodologies, use of public and restricted data in current analysis, identifying gaps in data and/or in the economic literature, and proposed analysis that could be done with restricted data.
3. A critical review of the economic literature on the distributional effects on underrepresented and underserved communities of trade and trade policy including the data limitations raised in these analyses.

Under part two of the investigation, the U.S. Trade Representative requested that the Commission expand its research and analysis capabilities so that future probable economic effects advice can include estimates of the potential distributional effects of trade and trade policy, including goods and services imports and exports (including indirect export effects), on U.S. workers.

Scope and Approach

The Commission gathered information from representatives of a wide range of underrepresented and underserved communities, government leaders, academic researchers, and other experts in the field.

The coverage was extensive in terms of both the types of organizations that were included in staff outreach efforts and the scope of the information that is included in this report. Whereas the term distributional effects can include any disparate impact across groups within an economy (for example, between workers and capital-owners), for the purposes of this investigation, "distributional effects of trade and trade policy" refers to the different effects that trade and trade policy have on workers based on one or more common characteristics (for example, gender, race, income level, and skill, among others).

Underserved and underrepresented communities are also defined broadly and encompass those specified in the January 2021 Executive Order—namely, Black, Latino, Indigenous and Native American persons, Asian Americans and Pacific Islanders, and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons in specific age, skill, or income groups; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

Information for this report was collected, as requested by the letter, through roundtable discussions, an academic symposium, and a literature review. The Commission also conducted a public hearing and accepted written submissions in connection with this investigation. Notice of the investigation, including dates and times of the roundtable discussions, academic symposium, and public hearing, as well as the deadlines for filing information for the record of the investigation, was published in the *Federal Register* and also posted on the Commission's website. The roundtables, symposium, and hearing were all open to the public, made available to the public virtually, and were transcribed by a court reporter. The transcripts and all written submissions were made part of the Commission's public record in the investigation (with the exception of any confidential business information) and are available on the Commission's electronic document information system (EDIS).

The Commission held two hybrid (simultaneously in-person and virtual) roundtables and five virtual roundtables between March 1 and April 1, 2022. Participants were identified through a combination of research, responses to information published on the Commission's website and in the *Federal Register* (appendix B), and consultation with national organizations and experts on underrepresented and underserved communities. Further, each roundtable focused on a particular theme or geographic area: race and ethnicity (which was the focus of two events); gender and orientation; disability, age, and education; and economic impacts in local communities (which was the focus of one virtual roundtable and two hybrid roundtables in Fresno, California, and Detroit, Michigan). However, input on any topic was welcome from participants at each of these events.

The academic symposium consisted of two days of separate sessions on April 5 and 6, 2022. The first day featured presentations of existing and ongoing research on the distributional effects of trade and trade policy on U.S. workers by education and skill level, race and ethnicity, and gender. Day one also included a session on existing methodologies and new labor modeling work. The second day of the symposium featured panel discussions on data availability, obstacles to analysis, and approaches to overcome current data gaps. The Commission identified symposium participants though research aided by the literature review. The Commission also held a public hearing on April 19, 2022, which included appearances by government officials, representatives of labor unions, business organizations, and think tanks, among others. Both the symposium and the hearing were held virtually.

This report catalogues—rather than assesses or analyzes—the information gathered through these outreach efforts. Additional details regarding the approach, organization, and the extensive outreach effort for each of these events are provided in the chapters that follow.

To respond to the third point in the request letter, the Commission also conducted a critical review of the economic literature on distributional trade effects, including both short- and long-term effects. In contrast to the descriptive literature reviews that appear in many recent investigations instituted by the Commission under section 332(g) of the Tariff Act of 1930, this review—per the request letter—analyzes each paper's contribution to the literature and assesses and identifies the strengths and weaknesses of each general analytical approach used in the literature. Additionally, as directed by the letter, the literature review discusses data limitations raised in these analyses. The literature review includes qualitative and quantitative work that uses descriptive and inferential methods to analyze the effects of trade and trade policy on any of the groups referred to in the request letter. While the review focuses on analyses of the U.S. market, it incorporates papers on foreign markets to the extent that such papers serve to provide examples of the types of analyses that could be performed for the U.S. market given sufficient data availability.

Organization of the Report

The following chapters of this report catalogue the information gathered through the events held in connection with this investigation and include the Commission's critical review of the literature on distributional trade effects. Specifically, chapter 2 explains the planning and outreach efforts for the roundtable series, reports some of the issues that were raised at multiple roundtables, and provides separate, more detailed summaries of each roundtable discussion. Chapter 3 briefly describes the outreach effort for the hearing and includes separate summaries of the information provided during each of the hearing panels and in written submissions. Chapter 4 presents the Commission's critical review of the literature on distributional effects of trade and trade policy. Finally, chapter 5 describes Commission efforts to identify themes and panelists for the academic symposium, cites the papers presented at the event, and summarizes each panel discussion. The appendices include the request letter and the *Federal Register* notices for this investigation; reference material for chapters 3, 4, and 5; and summaries of written submissions provided to the Commission.

Chapter 2
Summaries of Roundtable Discussions

In her letter, the U.S. Trade Representative asked the U.S. International Trade Commission (USITC or Commission) to gather and catalogue information on the distributional effects of trade and trade policy on underrepresented and underserved communities through several methods, including roundtable discussions. Following the request, the Commission organized a series of seven roundtables that were held between March 1 and April 1, 2022. The goal of these roundtables was to gather views on distributional effects of trade and trade policy from representatives of underrepresented and underserved communities. This chapter describes the Commission's efforts to organize and conduct outreach for these roundtables, provides an overview of the issues raised at the roundtables and provides summaries of each of the roundtable discussions.

Roundtable Organization, Outreach, and Structure

Roundtable themes and locations

As requested by the U.S. Trade Representative, the Commission planned and held a series of roundtable discussions among representatives of underrepresented and underserved communities as identified in the January 2021 Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government.[1] The Order defines these communities as groups of people "sharing a particular characteristic, as well as geographic communities . . . ," including:

> "Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality."

The request letter also requested that the Commission include in these roundtables:

> "think tanks, academics and researchers, unions, State and local governments, non-Federal governmental entities, civil society experts, community-based stakeholders, such as minority-owned businesses, business incubators, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), other minority serving institutions (MSIs), and local and national civil rights organizations. . . ."

Based on these parameters, as well as an initial scoping effort by the Commission to identify individuals and organizations that could speak to the effects of trade and trade policy on one or more of these diverse groups, the Commission organized seven roundtables around certain themes and geographic locations. Specifically, the Commission held five virtual roundtables: two on race and ethnicity and one

[1] White House, "Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government," January 20, 2021.

each on gender and orientation; disability, age, and education; and economic impacts in local communities.[2] The Commission also held two roundtables—in Fresno, California, and Detroit, Michigan—using an in-person/virtual hybrid format. These locations were chosen due to their traditional reliance on agricultural (Fresno) or manufacturing (Detroit) production, racial and ethnic diversity, above-average poverty and below-average median income rates, and proximity to large-scale transportation hubs.

The theme, format, date, and number of participants for each of the roundtables are listed in table 2.1. The full roundtable transcripts are linked to each roundtable theme listed in the table below.

Table 2.1: Overview of USITC Distributional Effects Roundtables, by theme, format, date, and number of participants

Theme	Format	Date of roundtable	Number of roundtable participants
Race and Ethnicity	Virtual	March 1, 2022	14
Impacts on Underserved Communities, Fresno, CA	In-person/virtual (hybrid)	March 8, 2022	19
Race and Ethnicity	Virtual	March 10, 2022	13
Gender and Orientation	Virtual	March 14, 2022	17
Disability, Age, and Education	Virtual	March 22, 2022	17
Impacts on Underserved Communities, Detroit, MI	In-person/virtual (hybrid)	March 30, 2022	17
Local Impacts on Underserved Communities	Virtual	April 1, 2022	25

Note: Based on available information, the number of participants listed in the table corresponds to the external registered participants that attended each event.

Outreach

In order to reach representatives from the wide variety of communities and entities specified in the Trade Representative's request, the Commission staff shared information about the roundtables with a large and diverse group of potential participants. This outreach was conducted through a combination of generalized announcements (such as in the *Federal Register* and on the USITC website),[3] email messages to specific individuals and groups, and consultations with pertinent government agencies, national organizations, and other groups and individuals with expertise on underrepresented and underserved communities. For example, an email notice was sent to over 1,600 potential participants from relevant communities, including representatives of about 700 minority serving institutions, more than fifty U.S. state and territory development agencies, almost 700 tribal governments, and more than 200 entities identified by the Commission in its initial research effort.[4]

[2] Because this chapter summarizes and paraphrases the contributions of multiple roundtable participants, descriptors in the text are not always those used by the speaker.
[3] For the full text of the notice of this investigation in the *Federal Register* (86 FR 67970), see appendix B.
[4] These contacts were obtained though Commission research based, in part, on *List of Minority-serving Institutions 2021* obtained from Rutgers Center for Minority-serving Institutions and from the *Tribal Leaders Directory* published by the U.S. Department of the Interior, Bureau of Indian Affairs.

Commission consultations with national organizations, advocacy groups, and experts on underrepresented and underserved communities were critical in disseminating information to potential roundtable participants. The Commission consulted with government agencies—including the U.S. Department of Commerce's Economic Development Administration and Minority Business Development Agency; the Small Business Administration; and the U.S. Department of Labor's Women's Bureau and Office of Trade Adjustment Assistance—to help identify and notify potential roundtable participants through their networks. The Commission also shared information about the roundtables with several congressional caucuses—such as the Congressional Asian Pacific American Caucus, the Congressional Black Caucus, the Congressional Hispanic Caucus, the Congressional Native American Caucus, the Bipartisan Disabilities Caucus, the Congressional LGBTQ+ Equality Caucus, and the Congressional Caucus for Women's Issues—asking members to share information about the Commission roundtables with pertinent contacts.

Roundtable Attendance and Participation

Each roundtable was moderated by a USITC Commissioner. Participants generally included workers, worker advocates, minority business owners, academics and experts, representatives of Historically Black Colleges and Universities (HBCUs) and other minority serving institutions, unions, think tanks, community colleges, state and local governments, policy advocacy organizations, and other nongovernmental organizations (NGOs), among others. Roundtables were also open to observers. No limit was placed on the number of participants or observers at any event. Overall, each roundtable event was attended by 86 to 112 individuals, among whom 13 to 25 were active participants. The Commission accepted all requests to participate, and multiple registrants were allowed from the same organization. Each of the roundtables lasted for more than two hours.

Overview of the Issues Raised at Roundtables

While each roundtable focused on the unique issues affecting a different set of underserved and underrepresented communities, several common themes emerged during the seven discussions. This section highlights several issues that were raised at more than one event.

At every roundtable, Commissioners asked questions about the impacts of trade and trade policy on individuals from underserved and underrepresented communities, as well as questions aimed more broadly at understanding how individuals from such communities may be affected differently than other individuals by economic conditions, such as changes in employment. In response, participants shared experiences and perspectives about challenges faced by underserved communities. Some experiences were specifically connected to trade or trade policy while others addressed underlying issues such as discrimination in labor markets and unequal access to education or other resources. The summaries in this chapter link issues with trade or trade policy only when participants explicitly made these connections.

Participants at the roundtables spoke largely from their personal experience or experience working directly with underrepresented and underserved communities. Participants sometimes did not explicitly state the community with which they identified, or how their experience, or the experience of the community with which they identified, differed from the experience of other workers or other

communities. As a result, while the experiences and perspectives shared in some instances specifically addressed how certain workers, for example based on race or gender, have been impacted by trade and trade policy differently than other workers, in many instances participants simply spoke to their experiences as workers. These experiences and perspectives sometimes concerned the impacts of trade and trade policy and at other times concerned the impact more generally of job loss and other issues affecting their communities. Many participants also spoke about factors such as discrimination or access to resources that made it more difficult for them and workers in their communities to overcome economic shocks.

The summaries of the roundtable discussions in this report catalog the perspectives and experiences of the participants of the roundtables; they do not attempt to assess, analyze, or draw conclusions. Nor should they be understood to reflect broadly the views of workers that share the same identities or communities of the individuals that participated in the roundtables. The summaries are a record of what participants shared, with a view that such a record—comprising the perspectives and experiences of a diverse spectrum of communities and identities, including workers of different races, ethnicities, genders, orientations, education levels, abilities and geographic locations—offers insight on the varied and disparate impacts trade and trade policy can have on workers from underrepresented and underserved communities.

Participants discussed a variety of topics, including the implications of factory closings, reductions in production, and the loss of manufacturing jobs in the United States, whether or not explicitly connected to trade. Participants indicated that factory closings and job losses had knock-on effects in the local community, such as a decrease in the community tax base, negative effects for supplier businesses, the loss of infrastructure and community businesses, and increased poverty, crime, drug use, and domestic abuse, among others. Participants reported that workers in some underserved communities disproportionately work in manufacturing industries and positions that are heavily affected by trade. Additionally, they reported the negative effects that plant closures and offshoring have on many of the communities that were the focus of these roundtables. Participants indicated that after a job disruption, workers from underserved populations may be unable or unwilling to relocate due to factors such as connections in the local community, a lack of accumulated wealth and savings, their partner's employment situation, their children's educational needs, and the lack of lesbian, gay, bisexual, transgender, and queer (LGBTQ+) protections in many states. Participants shared their perspectives on trade and trade policy, with many sharing the view that policies resulting in increased import competition had negative effects on workers in their communities and that imports were competing unfairly, for example, due to dumping, or lack of worker protections in exporting countries. Others noted some positive impacts of trade or trade policy, such as the ability to source lower-priced products abroad and higher wages and job creation due to export markets.

Participants indicated that workers face discrimination based on factors such as age, race, sexual orientation, gender, or disability, and that this discrimination impacts hiring, layoffs, advancement, and treatment in the workplace. Roundtable participants at all the sessions also spoke about different challenges and availability of resources that workers may face based on their age, disability status, race, ethnicity, gender, sexual orientation, education, or income level. Participants identified childcare as a substantial barrier to workers' ability to find and maintain a job. This factor was generally acknowledged to disproportionately affect women, but it was reported that workers from other underserved communities may also be affected. Participants reported that workers may face challenges in gaining

access to training or education, some of which include insufficient accommodations for certain groups, administrative burdens, and financial constraints, among others. Participants at several roundtables also reported disparate access to other resources, such as transportation, technology and internet connection, and health care.

Participants emphasized the role of manufacturing jobs and labor unions. These jobs were viewed as an important route to the middle class for underserved populations. Unionized manufacturing facilities were seen as providing benefits—such as higher wages, pensions, and training—that others may not offer. Some participants also indicated that unions have worked toward improving diversity in the workplace, such as by including antidiscrimination clauses in contracts and advocating for equal pay for all races and genders.

Roundtable participants suggested many ways to address the challenges faced by workers in underserved and underrepresented communities. Government funding of training and community programs was suggested by participants at many roundtables. Participants from most roundtables discussed expansion, reauthorization of the Trade Adjustment Assistance (TAA) Program, or both as a means to help address the challenges facing workers in underserved communities. For example, several roundtable participants suggested that the TAA program should cover childcare, while others recommended the addition of health coverage tax credits. On-the-job training and apprenticeship programs, and additional investment in communities negatively affected by trade were also discussed as potential means to address these issues.

At most roundtables, many participants said that U.S. trade policy needs to move toward a framework that better protects domestic workers and strengthens domestic supply chains. For example, several participants suggested that trade policy needs to do more to protect domestic manufacturing, and others voiced support for binding and enforceable provisions to protect U.S. workers, including provisions relating to gender and sexual orientation. Speakers also suggested that governments should include workers and affected communities in policy- and decision-making processes.

Collecting more thorough data to better understand the effectiveness of policy interventions was also recommended. For example, multiple participants stated that the lack of data makes finding effective ways to address unemployment for workers with disabilities difficult; participants discussing LGBTQ+ workers also expressed a need for more data. Other participants recommended collecting or using more detailed demographic data in Commission surveys or analysis.

The rest of the chapter presents summaries of each roundtable in chronological order. Participant affiliations included in the transcripts and the footnote citations are based on the information provided to USITC staff by each individual before or during the roundtables. Participants' comments may not necessarily represent the views of the organizations, companies, or any entity listed in the footnote citations.

Roundtable 1: Race and Ethnicity

On March 1, 2022, the Commission hosted the first of two virtual roundtables focusing on race and ethnicity. Commissioner Rhonda Schmidtlein moderated this roundtable. Roundtable participants included union representatives (Ephrin "E.J." Jenkins, USW Local 1014, Gary, IN; Keith Odume, USW

Local 1277, Syracuse, NY); NGO representatives (Todd Tucker, Roosevelt Institute; Amanda Mayoral, Coalition For A Prosperous America; Jeff Ferry, Coalition for A Prosperous America; Toni Stanger-Mclaughlin, The Native American Agriculture Fund); an academic (William Spriggs, AFL-CIO and Howard University); community college representatives (Michael Baston, Rockland Community College; Bill Pink, Grand Rapids Community College; Joy Gates Black, Delaware County Community College); as well as other participants (Derick G. Holt, Wiley Rein; Jennifer Diaz, Diaz Trade Law; Gabriel Rodriguez, A Customs Brokerage, Inc.; Mike Mitchell). Issues addressed during the discussion included the effects of competition, trade, and foreign investment; discrimination; the role of education; the importance of manufacturing and unions; obstacles affecting minority-owned businesses; new analytical approaches and data availability; and potential ways to address negative trade impacts.

Effects of Competition, Trade, and Foreign Investment

Several participants from worker groups described how international competition reduces the bargaining power of workers, leading to lower wages and benefits.[5] One participant noted that jobs requiring different skills are often combined into a single position in order to stay competitive globally.[6] He also indicated that increased competition resulting from trade agreements made employees less willing to push for better benefits (such as pensions) for fear it would hurt their company's survival.[7] The same participant also mentioned that his union agreed to an hourly pay cut in order to increase the competitiveness of a steel plant, and that wages remained at the same level through the next decade.[8] An NGO representative mentioned that employers are able to increase their bargaining power and oppose union activity by threatening to offshore jobs.[9] An additional NGO representative suggested that wages can be negatively affected by increased competition with low-wage countries.[10]

There was also discussion of how Black workers have been disproportionately affected by increased competition from imports. One academic noted that competition from Chinese imports in industries, such as furniture and textiles, disproportionately affected manufacturing in southeastern states including North Carolina, South Carolina, and Virginia, particularly in areas where Black workers live.[11]

Participants spoke about how factory closures and job losses related to trade and other factors such as technology had spillover effects on local businesses, the tax base, schools, social services, addiction, and poverty in surrounding communities.[12] An academic discussed how factory closures in a community led

[5] USITC, Distributional Effects: Race/Ethnicity Roundtable Transcript, March 1, 2022, 93 (Mike Mitchell) and 28 (Todd Tucker, Roosevelt Institute).
[6] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 95 (Mike Mitchell).
[7] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 93 (Mike Mitchell).
[8] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 95 (Mike Mitchell).
[9] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 28 (Todd Tucker, Roosevelt Institute).
[10] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 86–88 (Jeff Ferry, Coalition for a Prosperous America).
[11] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 98–99 (William Spriggs, AFL–CIO and Howard University). For a longer discussion on Spriggs, Browne, and Cole-Smith, "China Import Penetration and US Labor-Market Adjustment," May 2021, see the "Race and ethnicity" section of chapter 4 (literature review).
[12] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 10 (Mike Mitchell), 20–21 (Keith Odume, USW Local 1277, Syracuse, NY), and 68–69 (Amanda Mayoral, Coalition for a Prosperous America).

to a zero-sum game with not enough jobs for the former factory workers.[13] A union representative stated that trade policy led a number of manufacturers to leave Syracuse, New York, and that this resulted in job loss and an increase in the crime rate in his community.[14] Similarly, an NGO representative reported that competition from China and the closure of a manufacturing facility in Sherrill, New York resulted in job losses that negatively impacted the region, including a rise in crime and drug abuse.[15]

Some participants indicated that trade has had positive impacts in their locality, including in underserved communities. Specifically, two participants indicated that trade has had a positive effect on South Florida's economy, creating new jobs in the region.[16] One mentioned that his company, whose workforce is primarily composed of minorities, has benefited from increased trade.[17] Additionally, the other participant mentioned that exporters generally tended to hire more women, which is also true for her South Florida firm.[18] In addition, a community college representative mentioned that the revitalization of the manufacturing industry in his region has been led by firms with a global footprint, including plants built by foreign investors, and that the resurgence of the sector there has increased opportunities for Nonwhite workers.[19]

Discrimination

Several participants discussed job-related discrimination. Three participants referenced hiring practices that discriminate against minority workers.[20] An academic discussed research suggesting that because of discrimination, Black workers experience disproportionately more job losses related to trade competition.[21] This academic also reported that after displacement White workers are better able to find union jobs with benefits.[22] Further, he said that antidiscrimination laws are not properly enforced and called for more funding of such enforcement.[23] Finally, he noted that the attention given to education and training levels can sometimes distract from the issue of discrimination, which is the

[13] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 49 (William Spriggs, AFL-CIO and Howard University).
[14] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 20–21 (Keith Odume, USW Local 1277, Syracuse, NY).
[15] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 68–69 (Amanda Mayoral, Coalition for a Prosperous America).
[16] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 24–25 (Gabriel Rodriguez, A Customs Brokerage, Inc.) and 37–38 (Jennifer Diaz, Diaz Trade Law).
[17] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 24–25 (Gabriel Rodriguez, A Customs Brokerage, Inc.).
[18] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 40 (Jennifer Diaz, Diaz Trade Law).
[19] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 18–19 (Bill Pink, Grand Rapids Community College).
[20] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 44–45 (Ephrin "E.J." Jenkins, USW LU 1014, Gary, IN), 10–12 (William Spriggs, AFL-CIO and Howard University), and 63 (Derick G. Holt, Wiley Rein).
[21] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 10–12 (William Spriggs, AFL-CIO and Howard University).
[22] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 10–11 (William Spriggs, AFL-CIO and Howard University).
[23] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 50 (William Spriggs, AFL-CIO and Howard University).

critical issue.[24] A community college representative noted some improvement in recent years, stating that manufacturers in his area had made progress in recruiting a more diverse workforce, and that they are also increasingly focused on having a supportive and inclusive environment for Nonwhite workers once they are working in the company.[25]

Participants also discussed the ways in which communities of color have often been left behind, emphasizing the need to build workforces that represent their local communities.[26] For example, a union representative pointed out that while his city was predominantly Black, the workforce in the steel industry did not reflect this because Black workers were often last to be hired in the steel mills.[27] Another union representative said that decisions in his community are often made by people who are not local and have little knowledge of what would benefit workers like him.[28]

Several participants noted the need to address discrimination by doing more to ensure that Nonwhite workers and businesses are represented in the institutions where decisions are made. For instance, a community college representative mentioned that there are Black and Brown business owners who want to have more of a voice in trade policy, but that the country needs to do more to support them.[29] Similarly, another participant stated that Black and Brown people have not had access to the policymaking process, and that one way to address this historic bias is by investing in minority business ownership because such ownership leads to opportunities to communicate with policymakers.[30] The same participant also noted that minority-owned businesses tend to hire more diverse teams.[31]

Education-related Challenges

Participants shared a range of perspectives on the role of education in addressing economic inequality and enabling participation in trade. An NGO representative noted that a larger share of White Americans have a four-year college degree relative to Black Americans, and that this affects the quality of jobs available to Black workers.[32] Two community college representatives suggested that community colleges can play an important role in providing individuals with the skills and education needed for success in the workforce.[33] One of these community college representatives emphasized that community colleges are particularly good at combining technical skills and higher education, allowing workers to learn a skilled trade quickly while also working toward a degree.[34] An academic noted that

[24] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 50 (William Spriggs, AFL-CIO and Howard University).
[25] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 18 (Bill Pink, Grand Rapids Community College).
[26] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 62–63 (Derick G. Holt, Wiley Rein), 44–45 (Ephrin "E.J." Jenkins, USW LU 1014, Gary, IN), and 65 (Bill Pink, Grand Rapids Community College).
[27] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 16 (Ephrin "E.J." Jenkins, USW LU 1014, Gary, IN).
[28] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 22 (Keith Odume, USW Local 1277, Syracuse, NY).
[29] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 33–34 (Michael Baston, Rockland Community College).
[30] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 63 (Derick G. Holt, Wiley Rein).
[31] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 63 (Derick G. Holt, Wiley Rein).
[32] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 32 (Amanda Mayoral, Coalition for a Prosperous America).
[33] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 70 (Joy Gates Black, Delaware County Community College) and 64 (Bill Pink, Grand Rapids Community College).
[34] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 64 (Bill Pink, Grand Rapids Community College).

training a community's workforce in the types of jobs the community hopes to attract may help draw new employers to that area.[35]

Several participants raised concerns about disadvantaged workers' ability to access training and educational programs.[36] For example, one participant mentioned that in his location there are apprenticeship programs for three skilled trades—carpentry, ironwork, and pipe setting—but none are located in minority neighborhoods.[37] Similarly, a union representative described how a program in his area that was designed to provide specialized training was plagued by barriers to access, including the lack of advertising to reach relevant workers, excessive paperwork, required testing for skills that workers were already using on the job, and long delays in the process.[38] Finally, another participant suggested that some cities lack vocational training and sufficient infrastructure to access such training.[39]

The Roles of Manufacturing and Unions

Several participants emphasized the importance of the manufacturing sector and unions in providing higher-quality jobs. For example, one NGO representative pointed to the opportunities for high-paying jobs that a manufacturing career presents to individuals without a college degree.[40] The same participant indicated that job loss in the manufacturing industry has a particularly large impact on racial and ethnic minorities, given that they are less likely to hold postsecondary degrees.[41] A union representative mentioned "a sense of pride" that a manufacturing job provides to those working in the industry.[42] The same union representative also mentioned that job mobility has declined, in contrast to the 1980s and 1990s when manufacturing jobs were so plentiful in his city that workers could easily move between them.[43] One participant discussed the challenges associated with lower pay he experienced after transitioning from a steel mill to a minimum-wage job.[44] Other participants discussed the benefits unions brought to manufacturing jobs, such as livable wages, pensions, and health insurance.[45]

Participants also discussed how trade policy affects the ability of unions to negotiate with employers. For example, an NGO representative suggested that when an employer has the ability to move jobs

[35] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 50 (William Spriggs, AFL-CIO and Howard University).
[36] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 42 (Mike Mitchell), 52, 54–56 (Keith Odume, USW Local 1277, Syracuse, NY), and 38 (Jennifer Diaz, Diaz Trade Law).
[37] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 42 (Mike Mitchell).
[38] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 52, 54–56 (Keith Odume, USW Local 1277, Syracuse, NY).
[39] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 38 (Jennifer Diaz, Diaz Trade Law).
[40] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 35–36 (Jeff Ferry, Coalition for a Prosperous America).
[41] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 36 (Jeff Ferry, Coalition for a Prosperous America).
[42] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 20–21 (Keith Odume, USW Local 1277, Syracuse, NY).
[43] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 20–21 (Keith Odume, USW Local 1277, Syracuse, NY).
[44] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 9 (Mike Mitchell).
[45] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 11–12 (William Spriggs, AFL-CIO and Howard University) and 15–17 (Ephrin "E.J." Jenkins, USW LU 1014, Gary, IN).

offshore, they are more likely to oppose unionization.[46] Similarly, an academic stated that in the 1980s, for example, unions like the United Auto Workers (UAW) were able to engage in negotiations that saved jobs, but by the 21st century, global trade had eroded unions' power because there is little room for bargaining if the plant is moving out of the country.[47] Finally, the same academic mentioned that when foreign companies invest in manufacturing plants in the United States, those plants typically are not unionized; in his view, the United States should insist that these companies recognize the right of American workers to organize.[48]

Some participants emphasized that when workers are forced to find jobs outside of manufacturing, these jobs usually offer lower pay.[49] For instance, an NGO representative cited data on job quality, stating that job quality in the United States has declined as manufacturing jobs have declined. According to her description, trade has been associated with the replacement of manufacturing by services jobs, many of which are lower-quality jobs, and this trend disproportionately affects minority workers.[50] Similarly, a union representative mentioned that retail jobs have flourished in his community, but these jobs do not allow the worker to make a decent living.[51]

Participants discussed strategies for increasing minority workers' participation in manufacturing. A community college representative cited a lack of information among younger people in communities of color about manufacturing and skilled trades, adding that many of them have an outdated view of these jobs as "dirty" or less desirable.[52] However, an academic said that younger workers may simply be responding to the economic conditions of recent years; if they have seen parents or other family members lose jobs in manufacturing, perhaps it is understandable that they would not seek to join that industry.[53]

Obstacles Affecting Minority-Owned Businesses

Participants discussed the barriers to minority participation in the import or export of goods. For example, one participant mentioned that the Black community has not benefited from potential trade opportunities and cited statistics indicating that Black-owned businesses represent a very low share of all exports (including goods and services), adding that this share is considerably lower when considering only manufactured goods.[54] Another participant said that while it is relatively easy for a business to

[46] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 28 (Todd Tucker, Roosevelt Institute).
[47] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 85 (William Spriggs, AFL-CIO and Howard University).
[48] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 99 (William Spriggs, AFL-CIO and Howard University).
[49] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 30–32 (Amanda Mayoral, Coalition for a Prosperous America) and 21 (Keith Odume, USW Local 1277, Syracuse, NY).
[50] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 30–32 (Amanda Mayoral, Coalition for a Prosperous America). For a longer discussion on Ferry and Mayoral, "Quantifying Job Quality," May 2021, see the "Race" section of chapter 4 (literature review).
[51] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 21 (Keith Odume, USW Local 1277, Syracuse, NY).
[52] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 71 (Joy Gates Black, Delaware County Community College).
[53] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 89 (William Spriggs, AFL-CIO and Howard University).
[54] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 14–15 (Derick G. Holt, Wiley Rein).

begin importing, she has seen minority-owned and small- and medium-sized businesses forced into bankruptcy because they did not understand laws governing imports.[55] She also stressed the importance of access to information and education for small or newer businesses to be competitive and compliant with laws and regulations.[56] A community college representative noted that including minority entrepreneurs in discussions about trade policy was important, because when their views are not considered they can be (perhaps inadvertently) negatively affected by subsequent policy decisions.[57]

Data Availability and New Analytical Approaches

Several participants had suggestions about ways the Commission could better understand the distributional effects of trade. One NGO representative suggested that analyses of distributional effects should consider both race and class.[58] He encouraged the Commission to present the connection between trade policy and the prevalence of manufacturing and union jobs for workers generally, and for workers of color specifically, using descriptive statistics when establishing a strict causal relationship is not possible.[59] Another participant suggested that specific data on employment by gender, race, and ethnicity might be collected by the Commission in its import injury investigations.[60]

Several participants had suggestions for changes in analytical approach for the Commission. One academic urged the Commission to incorporate into its studies the full extent and consequences of job loss to individuals and their communities.[61] An NGO representative expressed the need for more data and indicated that standard models may miss some indirect trade effects that make it difficult for communities to recover when a significant employer in a community shuts down.[62] Another NGO representative suggested studying a counterfactual scenario where Black workers continued to be employed at manufacturing union jobs at peak historical levels and how that would impact racial equality.[63]

Suggested Changes

Participants suggested several broad national-level tools to address the challenges discussed at the roundtable. A community college representative mentioned that no national goals or strategy exists to address differing trade impacts by race and ethnicity.[64] Similarly, an NGO representative discussed

[55] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 75–76 (Jennifer Diaz, Diaz Trade Law).
[56] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 75–80 (Jennifer Diaz, Diaz Trade Law).
[57] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 33–34 (Michael Baston, Rockland Community College).
[58] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 27–28 (Todd Tucker, Roosevelt Institute).
[59] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 27–28 (Todd Tucker, Roosevelt Institute).
[60] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 61 (Derick G. Holt, Wiley Rein). For information on USITC's role and the rules governing the data collected for antidumping and countervailing duty investigations, please see the USITC's *Antidumping and Countervailing Duty Handbook*, Publication 4540, 2015.
[61] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 48 (William Spriggs, AFL-CIO and Howard University).
[62] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 68–69 (Amanda Mayoral, Coalition for a Prosperous America).
[63] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 28–29 (Todd Tucker, Roosevelt Institute).
[64] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 59–60 (Michael Baston, Rockland Community College).

collecting information on and analyzing the distributional impacts of a wider range of trade-related issues (such as intellectual property protections) on communities of color, and recommended trade agreement provisions that require parties to compensate displaced workers.[65] Another NGO representative mentioned that domestic firms are competing with foreign firms that benefit from subsidies and currency manipulation, and suggested that this needs to be addressed.[66] An academic advocated for trade agreements that protect U.S. labor and environmental standards and asserted the importance of the passage of the Protect the Right to Organize (PRO) Act, among other policy-related approaches.[67] Regarding trade agreements, another NGO representative proposed greater worker participation in discussions under the Tri-National Accord, an agricultural agreement between Canada, Mexico, and the United States.[68] One participant suggested that enforcement of trade rules (such as those concerning dumping and subsidies and other tariffs) would help save U.S. jobs.[69]

Participants also suggested the need to address community impacts of trade, and that policies should be created with the participation of members of those communities. A community college representative mentioned the need for continuous planning that addresses the loss of businesses in less affluent communities and a need to promote the value of employment in skilled trades and manufacturing.[70] A union representative advocated for including representatives of Black communities in discussions on trade.[71] Similarly, a community college representative discussed the need to fund strategies to include Black and Brown communities as participants in trade discussions.[72]

One participant discussed successful public and private sector partnerships, such as internships connected with community colleges that have led to job opportunities.[73] An NGO representative suggested using tribal sovereignty and tribal rights and benefits, such as tax exemptions and the ability to establish free trade zones, as a means of protecting domestic jobs.[74] A community college representative stated that community colleges should be a forum for discussing pertinent issues that affect different groups of people.[75]

[65] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 57–58 (Todd Tucker, Roosevelt Institute).
[66] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 67 (Amanda Mayoral, Coalition for a Prosperous America).
[67] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 82–84 (William Spriggs, AFL-CIO and Howard University).
[68] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 100 (Toni Stanger-McLaughlin, The Native American Agriculture Fund).
[69] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 60–61 (Derick G. Holt, Wiley Rein).
[70] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 70–71 (Joy Gates Black, Delaware County Community College).
[71] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 43–45 (Ephrin "E.J." Jenkins, USW LU 1014, Gary, IN).
[72] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 59–60 (Michael Baston, Rockland Community College).
[73] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 75 (Jennifer Diaz, Diaz Trade Law).
[74] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 99–100 (Toni Stanger-McLaughlin, The Native American Agriculture Fund).
[75] USITC, Race/Ethnicity Roundtable Transcript, March 1, 2022, 66 (Bill Pink, Grand Rapids Community College).

Roundtable 2: Impacts on Underserved Communities, Fresno, California

On March 8, 2022, the Commission hosted a roundtable focusing on the predominately agricultural community of the San Joaquin Valley and its surrounding areas. The roundtable was held at California State University, Fresno, and was hosted using an in-person/virtual hybrid platform. Roundtable participants included a union representative (Wyatt Meadows, Operating Engineers Local 3); NGO representatives (Niaz Dorry, National Family Farm Coalition and Northwest Atlantic Marine Alliance; Ismael Herrera, California Forward; Dean Showers, Alliance for American Manufacturing; Mily Treviño-Sauceda, Alianza Nacional de Campesinas; Will Wiltschko, California Trade Justice Coalition; Sonia Murphy, Institute for Agriculture and Trade Policy; Antonio Tovar, National Family Farm Coalition); an academic (Serhat Asci, California State University, Fresno); a government representative (Alicia Barker, Oregon Employment Department); industry representatives (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California; Casey Creamer, California Citrus Mutual; Ian LeMay, California Fresh Fruit Association); and manufacturing workers (Leonard Hamilton, MEC; Aurora Rios, MEC). Participants addressed issues relevant to workers in their communities, including protections for agricultural workers; effects of trade on manufacturing workers; effects of trade on businesses, including small farmers; and positive and negative effects of selected trade policies. Commissioner David Johanson moderated the session.

Following the roundtable, Commission staff had a virtual meeting on April 25, 2022, with individuals who were unable to attend the roundtable but wanted to share their views on issues affecting the Central Valley, such as the reliance on agribusiness as well as other topics. This discussion is summarized in box 2.1.

Factors Affecting Workers and Employment

An NGO representative indicated that agricultural workers in the United States are not afforded the same protections that cover other workers under the Fair Labor Standards Act.[76] She pointed out that agricultural workers are sometimes subject to sexual abuse, harassment, and wage theft, and that some companies take advantage of workers.[77]

A separate NGO representative noted that foreign competition has led to the decline of manufacturing jobs paying union wages in his Pennsylvania community.[78] Another NGO representative spoke about California generally and noted that manufacturing industries that face the greatest amount of import competition—furniture and chemicals, among others—employ a disproportionate share of Black and Latino workers. He also noted that these workers are less able than White workers to withstand job loss

[76] USITC, Distributional Effects: Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 22–23 (Mily Treviño Sauceda, Alianza Nacional de Campesinas).
[77] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 23 (Mily Treviño Sauceda, Alianza Nacional de Campesinas).
[78] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 60–61 (Dean Showers, Alliance for American Manufacturing).

due to relatively lower levels of savings.[79] He indicated that Black and Latino workers face difficulties in relocating or accessing training after a trade-related job loss and they find it particularly difficult to find new jobs.[80] He also said that job loss can have wider community impacts, as workers are less able to support local businesses.[81]

The same NGO representative also noted that trade policies have contributed to inequality in the United States.[82] He argued that the North American Free Trade Agreement (NAFTA) and China's entry into the World Trade Organization led to offshoring and to lower wages and benefits for U.S. workers and had a particularly large effect on Nonwhite communities.[83]

Other factors that affect employment and reshoring were also discussed. An NGO representative noted how cost-cutting practices like automation have had an impact on jobs along the supply chain resulting in displacement of workers and suggested these displaced workers should have access to transitional opportunities.[84] He urged the U.S. government to see if certain offshored activities could be brought back to the United States, stating that activities such as chopping and dicing of almonds could be done domestically rather than abroad, thus creating jobs.[85] A manufacturing worker stated that section 301 tariffs threaten U.S. manufacturing jobs and revenue growth, as companies must pay more for imported inputs used to produce domestically assembled finished goods.[86]

While much of the discussion focused on negative job impacts, a union representative noted that exporting has increased jobs with favorable working conditions in the transportation sector.[87] A manufacturing worker also noted that trade has benefited his job in welding through imports of inputs that are assembled into finished goods in the United States.[88] An NGO representative indicated that a community's ability to take advantage of new trade opportunities is related to a worker's resources, such as education and credit.[89]

[79] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 15–16 (Will Wiltschko, California Trade Justice Coalition).
[80] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 16 (Will Wiltschko, California Trade Justice Coalition).
[81] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 16 (Will Wiltschko, California Trade Justice Coalition).
[82] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 57 (Will Wiltschko, California Trade Justice Coalition).
[83] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 57 (Will Wiltschko, California Trade Justice Coalition).
[84] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 55 (Ismael Herrera, California Forward).
[85] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 54 (Ismael Herrera, California Forward).
[86] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 17–18 (Aurora Rios, MEC).
[87] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 9 (Wyatt Meadows, Operating Engineers Local 3).
[88] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 20 (Leonard Hamilton, MEC).
[89] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 67 (Sonia Murphy, Institute for Agriculture and Trade Policy).

Box 2.1 Summary of Staff Meeting with Individuals Unable to Attend Roundtable

On April 25, 2022, U.S. International Trade Commission staff conducted a virtual meeting with Fresno, California, area representatives who were unable to attend the roundtable due to a conflicting event. The virtual meeting included seven participants from labor groups, nongovernmental organizations (NGOs), and academia. The discussion focused mainly on structural economic factors that have negatively affected the workforce in the Central Valley.

Nearly all the participants in the meeting emphasized the Central Valley's reliance on agribusiness jobs. Several mentioned ways in which the region's heavy reliance on this industry negatively affects workers. For example, an NGO representative mentioned that jobs in agricultural processing industries pay relatively high wages, but they are seasonal and offer little job security. A union representative mentioned that most agricultural jobs are nonunion, offering less protection when jobs are eliminated. He added that automation has had a big impact on the agribusiness sector in the Central Valley.

Participants also discussed how the Central Valley's reliance on the H-2A visa program affects worker rights. An NGO representative described poor labor conditions for H-2A visa holders, including a situation in which twenty-five farmworkers were let go overnight and sent back to Mexico without receiving wages; instances of up to 10 workers sharing a single hotel room; and employer policies that put workers at undue risk during the COVID-19 pandemic. She added that the export-oriented agribusiness industries that rely on these workers invest little back into their communities. Another NGO representative added that the entire system of democratic governance in the Central Valley is harmed because of the number of workers that are not enfranchised (due to their noncitizen status as H-2A workers), coupled with high poverty. In his view, a regional economy works better when capital circulates many times in a community before it leaves, and this is not happening in the Central Valley.

Finally, several participants discussed efforts to diversify the Central Valley's economy and workforce. A union representative mentioned that because the past 30 years of U.S. trade policy have resulted in more imports, it has harmed efforts to bring manufacturing jobs to the Central Valley. He added that most nonagricultural jobs in the area are in warehousing and transportation, and while his organization has made efforts to improve the quality of these jobs, they are still less desirable than manufacturing jobs. Another representative emphasized the importance of efforts to train workers for jobs outside of agribusiness that are available in the region, such as in healthcare and the solar power industry.

Source: USITC staff, virtual meeting with Fresno-area representatives, April 25, 2022.

Factors Impacting Businesses (including Agribusiness)

Many workers and businesses in the Central Valley region have ties to the agricultural industry. An industry representative noted that agriculture makes up over half of the gross domestic product of the California Central Valley.[90] He discussed the importance of the agriculture industry for economic welfare of underserved communities by detailing how the industry encompasses not only farm employees but

[90] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 79 (Casey Creamer, California Citrus Mutual).

also individuals providing pest control, nutrient management, irrigation technology, and insurance.[91] This industry representative also discussed how the California agriculture industry is extremely diverse and that the industry will likely shift in the next couple of decades, with the participation of younger workers.[92]

While the focus of the roundtable was on effects on workers, representatives from different industries (including blueberries, citrus, and fisheries) also discussed at length the benefits and challenges related to trade and other factors (such as rising costs and water scarcity) on businesses.[93] On the positive side, two industry representatives noted that exporting has helped sustain and expand U.S. businesses.[94] Another industry representative highlighted how increasing market access for U.S. exports would positively impact the growers she works with. She indicated that growing pressure from imports has made exports particularly important for industries like blueberries.[95]

Participants also discussed challenges related to exporting and foreign competition. An industry representative discussed the seasonality of the fruit industry with domestic growers selling during one season and offshore growers selling throughout the rest of the year.[96] He noted that seasons are expanding for offshore growers and beginning to overlap with the production of domestic growers, and as such, growers are seeing increased shipments from other countries and the positive impacts of exporting are declining.[97] He also reported that the recent transportation crisis has made exporting more difficult.[98]

Others remarked on the impact of overseas production. A government representative stated that China purchases U.S. logs and then exports finished products back to the United States, earning profits and competing against both U.S. manufacturers and purchasers of raw materials.[99] Similarly, an NGO representative said that fisherman who catch the fish do not receive the full economic benefits from seafood that is exported abroad and brought back to the United States.[100]

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[91] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 79 (Casey Creamer, California Citrus Mutual).
[92] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 64 (Casey Creamer, California Citrus Mutual).
[93] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 9–10 (Casey Creamer, California Citrus Mutual), 8 (Ian Lemay, California Fresh Fruit Association), and 11 (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California).
[94] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 8 (Ian Lemay, California Fresh Fruit Association) and 9 (Casey Creamer, California Citrus Mutual).
[95] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 11 (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California).
[96] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 10 (Casey Creamer, California Citrus Mutual).
[97] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 9–10 (Casey Creamer, California Citrus Mutual).
[98] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 10 (Casey Creamer, California Citrus Mutual).
[99] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 41 (Alicia Barker, Oregon Employment Department).
[100] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 45 (Niaz Dorry, National Family Farm Coalition and Northwest Atlantic Marine Alliance).

Participants stated that imports, foreign investment, dumping, and consolidation have had a particularly significant impact on small family farms, leading to the loss of some minority-owned operations.[101] For example, an industry representative discussed how family olive farmers from small communities lost their contracts to supply a U.S. processor after the processor merged with a foreign company that imports a large amount of table olives into the United States.[102]

An industry representative from the citrus industry pointed out that the cost of production is hurting a lot of growers particularly relative to foreign competitors facing less regulation.[103] Based on a pre-pandemic survey, he indicated that navel orange production costs (excluding the cost of harvesting, packing, and transportation) have increased significantly over the previous decade.[104] A follow-on survey indicated that these costs rose two years later, partly due to impacts from the drought and the COVID-19 pandemic.[105] Further, another industry representative indicated that drought has also affected farmers, resulting in a loss of farmland and jobs.[106] The same representative pointed to studies suggesting that a significant number of agricultural jobs could be lost in the coming decades due to a lack of water availability.[107]

The Trade Adjustment Assistance (TAA) Program

Two participants discussed the TAA program, recommended TAA expansion, and highlighted gaps in coverage. An NGO representative noted the high number of TAA program recipients in California as well as in Washington state—highlighting trade-related job losses.[108] A government representative noted that a large share of TAA recipients are members of underserved communities.[109] This same government representative stated her understanding that not all workers employed by foreign-owned companies in the United States are eligible for TAA benefits.[110] The NGO representative recommended that the TAA program should include benefits such as childcare and moving expenses so that workers with fewer

[101] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 31 (Antonio Tovar, National Family Farm Coalition) and 30–31 (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California).
[102] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 48 (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California).
[103] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 49, 50–51 (Casey Creamer, California Citrus Mutual).
[104] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 49 (Casey Creamer, California Citrus Mutual).
[105] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 49 (Casey Creamer, California Citrus Mutual).
[106] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 53 (Ian Lemay, California Fresh Fruit Association).
[107] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 53 (Ian Lemay, California Fresh Fruit Association).
[108] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 15, 76 (Will Wiltschko, California Trade Justice Coalition).
[109] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 29 (Alicia Barker, Oregon Employment Department).
[110] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 58–59 (Alicia Barker, Oregon Employment Department).

financial resources are able to take advantage of the program.[111] He also stated that eligibility should be extended to all affected workers, including those in services industries.[112] The government representative recommended that the TAA program should be funded to include access to technology.[113]

Other Programs and Policies

Multiple programs and policies were mentioned as affecting workers and businesses, including federal bills and programs such as the Farm Bill and the Farmers to Families Food Box Program, among others. A few participants discussed the benefits of the Farm Bill, including its support of domestic supply (such as by addressing pests and diseases) and programs that support new farmers and farmers from underserved communities.[114] These participants went on to emphasize the continuing need for the Farm Bill.[115]

Another program mentioned by participants was the Farmers to Families Food Box Program that was implemented during the COVID-19 pandemic.[116] An industry representative noted that the U.S. Department of Agriculture (USDA) program distributed fresh produce, meat, and dairy products through food banks.[117] The same representative reported that this program process simplified distribution of food to people in need.[118] However, an NGO representative noted that smaller producers were not necessarily the principal participants in this program.[119]

One industry representative listed programs that have benefited exports, including federal programs administered under the USDA such as the Market Access Program, the Emerging Market Promotion Program, and the Technical Assistance for Specialty Crops Program.[120] She stated that these federal programs assist small agricultural operations that may be unable to market their products

[111] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 28–29 (Will Wiltschko, California Trade Justice Coalition).
[112] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 28–29 (Will Wiltschko, California Trade Justice Coalition).
[113] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 29 (Alicia Barker, Oregon Employment Department).
[114] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 32–33 (Casey Creamer, California Citrus Mutual), 38 (Ian Lemay, California Fresh Fruit Association), 42–43 (Mily Treviño Sauceda, Alianza Nacional de Campesinas).
[115] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 32–33 (Casey Creamer, California Citrus Mutual) and 40 (Ian Lemay, California Fresh Fruit Association).
[116] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 36 (Casey Creamer, California Citrus Mutual), 39 (Ian Lemay, California Fresh Fruit Association), and 44 (Niaz Dorry, National Family Farm Coalition and Northwest Atlantic Marine Alliance).
[117] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 37 (Casey Creamer, California Citrus Mutual).
[118] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 37 (Casey Creamer, California Citrus Mutual).
[119] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 40 (Antonio Tovar, National Family Farm Coalition).
[120] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 34 (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California).

internationally.[121] An academic stated that USDA policies provide some benefits and advocated support for the development of technology that would help agricultural producers.[122]

An NGO representative encouraged the use of tariffs as a trade policy instrument.[123] For example, he indicated that section 232 tariffs were beneficial to U.S. steel and aluminum manufacturers who were competing against subsidized and lower-priced imports from China.[124]

Roundtable 3: Race and Ethnicity

On March 10, 2022, the Commission held its third roundtable, which was the second to focus on race and ethnicity. The roundtable was held virtually and participants included union representatives (Emmanuel Flores, Washington State Labor Council, AFL-CIO; Lindsay Patterson, United Steelworkers); NGO representatives (Ofronama Biu, Urban Institute; Michelle Burris, The Century Foundation; Valerie Wilson, Economic Policy Institute); an academic (Gbadebo Odularu, Bay Atlantic University); community college representatives (Pam Eddinger, Bunker Hill Community College; Christopher Lewis, Berkeley City College); a business owner (George Salmeron, IntlSupplyChain.com); as well as other participants (Antonio Flores, Hispanic Association of Colleges and Universities; Mike Mitchell; Irving Williamson). The topics of discussion included the structural barriers facing minority workers; the importance of manufacturing jobs to minority communities; and needed changes to address economic challenges. Commissioner Jason Kearns moderated the session.

Discrimination and Other Barriers Facing Racial and Ethnic Minorities

A theme discussed at this roundtable was the interaction between the structural barriers that members of racial and ethnic minorities face and economic disruptions. Participants emphasized that there are numerous factors that make members of minority groups less able to weather economic disruptions, including those related to trade.[125] These factors include, but are not limited to, the wage and wealth gaps between minority and White workers, limited educational opportunities for minority workers, and the lower rate of geographic mobility for minority workers compared to White workers.

Employment and Wage Gaps

Several participants emphasized the history of employment disparities between Black and White workers as important context for the discussion and noted the ways in which disparities persist. For

[121] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 34 (Elizabeth Carranza, California Apple Commission and Olive Growers Council of California).
[122] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 56 (Serhat Asci, California State University, Fresno).
[123] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 35 (Dean Showers, Alliance for American Manufacturing).
[124] USITC, Impacts on Underserved Communities Roundtable Transcript, Fresno, CA, March 8, 2022, 35 (Dean Showers, Alliance for American Manufacturing).
[125] USITC, Distributional Effects: Race/Ethnicity Roundtable Transcript, March 10, 2022, 19 (Lindsay Patterson, United Steelworkers), 26 (Irving A. Williamson), and 32 (Antonio R. Flores, Hispanic Association of Colleges and Universities).

example, an NGO representative mentioned that historically, unemployment has been twice as high among Black workers than among White workers; wages are lower among Black workers than among White workers who have attained the same education level; and Black workers often hold positions with less pay.[126] On this last point, the same representative said that, across occupations, as average wages increase, the share of Black men—compared to White men—employed in that occupation falls.[127]

Limited Mobility and Supporting Infrastructure

Several participants said that a lack of supporting infrastructure, limited wealth to fall back on, and lower geographic mobility limit the ability of Nonwhite workers to adapt to an economic setback. For example, one participant noted that when jobs were cut in Gary, Indiana, there were very few other jobs available within that area, and few options for transportation that would enable workers to look for jobs further from home.[128] A union representative said that because the communities where racial and ethnic minorities live often have fewer resources, workers in these communities have an especially pressing need for support services such as safe childcare, reliable transportation, and expanded TAA programs.[129] An academic mentioned that trade policies do not exist in isolation, but instead interact with a wide range of other policies—such as those involving access to health care and food—and all of these things together can interfere with achieving racial justice.[130]

Difficulty Accessing Education or Retraining

The importance of education and training in overcoming economic barriers, and the obstacles minority workers may face in obtaining them, was a significant topic of discussion at this roundtable. The conversation covered all levels of education, including kindergarten through 12th grade (K–12), college, and postsecondary technical education programs, as well as retraining or certificate programs that may be important when workers are displaced. In the view of one participant, the long-term effects from lack of adequate education and training for minority and low-income communities have led to structural economic problems.[131] Another participant mentioned that the K–12 school system is more focused on preparing students for college than for manufacturing jobs, and that manufacturers are often not willing to step in and provide this training due to the cost. As a result, he said that workers coming out of high school are unprepared for manufacturing jobs and must pick up necessary skills through apprenticeships or additional training programs.[132] At the postsecondary level, a community college representative explained how a confluence of economic factors—including cost of living increases and the need to continue working while in college—contribute to the challenges he sees in educating students at his

[126] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 15–16 (Ofronoma Biu, Urban Institute).
[127] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 16 (Ofronoma Biu, Urban Institute).
[128] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 14 (Mike Mitchell).
[129] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 60–61 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[130] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 98 (Gbadebo l, Bay Atlantic University).
[131] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 31 (Antonio R. Flores, Hispanic Association of Colleges and Universities).
[132] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 62 (Mike Mitchell).

school; he added that higher college costs disproportionately affect those students who are starting the college process with fewer resources.[133]

A union representative similarly highlighted that people who have both the resources to know about an opportunity and the economic stability to pursue training typically are those who wind up taking advantage of educational opportunities in technical and emerging fields. He mentioned that the disparity in access to educational opportunities disproportionately affects people of color.[134] Another union representative mentioned that some employers care a great deal about the caliber of school a potential employee attended, creating a barrier for workers who may not have had the same opportunities to attend more prestigious schools.[135]

Participants also discussed the difficulty that older workers face in obtaining retraining after a job loss. In the view of the same union representative, aging workers are being left out of the conversation about adaption to economic change because employers often will not consider older workers for training programs like apprenticeships, despite these workers' experience and ability to quickly learn new skills.[136] This union representative added that transitioning to an entirely different line of work at an older age can be very difficult because, in his experience, even if an older Black worker learns a new skill, such as computer repair, they will need to compete against younger, non-Black workers in the job market, and will be affected by perceptions of what types of candidates are best qualified for these kinds of jobs.[137]

Discrimination

Some participants highlighted examples of discrimination in the workforce that have contributed to challenges for Nonwhite workers. According to one union representative, systemic racism has coincided with inadequate education, jobs without opportunities for advancement, and unfavorable trade policies, leading some workers like him to feel stuck in difficult situations.[138] Similarly, an NGO representative stated that her colleagues have completed studies showing that Black workers face economic disparities even when they have the same education and credentials as White workers and noted that this may indicate that discrimination plays a role in workers' outcomes.[139]

Some participants said that it is important for Nonwhite workers to see themselves represented in management and noted a lack of this representation. A community college representative shared how the climate at some workplaces can be unwelcoming to Nonwhite workers, saying that graduates of her school sometimes go through education and training only to end up at companies that do not create a welcoming environment for workers like them, and then they end up leaving. According to her, this unwelcoming culture prevents workers of different backgrounds from entering management roles.[140] A

[133] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 94 (Christopher Lewis, Berkeley City College).
[134] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 91 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[135] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 24–25 (Lindsay Patterson, United Steelworkers).
[136] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 22 (Lindsay Patterson, United Steelworkers).
[137] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 24 (Lindsay Patterson, United Steelworkers).
[138] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 96 (Lindsay Patterson, United Steelworkers).
[139] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 79–80 (Ofronoma Biu, Urban Institute).
[140] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 69 (Pam Eddinger, Bunker Hill Community College).

union representative also emphasized the importance of having representation in upper management and policymaking circles in combatting discrimination and improving policies for underrepresented workers. He reported that current managers' approaches still reflect old ways of thinking, and a change in approach is needed so that workers whose jobs are displaced by trade policy will be represented by policymakers who see the value of these jobs and workers.[141]

Vulnerability to Economic Disruptions

Several participants pointed out that the structural factors mentioned above make the economic disruptions that arise from sudden crises like the COVID-19 pandemic or a natural disaster particularly acute for workers with fewer resources. For example, a union representative emphasized the lack of a support structure for agricultural and foodservice workers when the COVID-19 pandemic began, stating that these workers often lacked unemployment insurance and other supports, even as they were working to keep grocery shelves stocked for others.[142] A community college representative shared how these factors can limit students' ability to attend school, stating that even an increase in the cost of gas can prevent students from getting to class.[143]

Two participants highlighted how multiple economic factors, including trade-related effects, combine in ways that can create difficulties for workers who are already disadvantaged.[144] A union representative summarized the difficulties associated with overlapping economic factors, including general financial hardships, natural disasters or pandemics, and trade-related impacts.[145] A community college representative also emphasized the interrelated nature of various economic factors, stating that access to education, childcare, healthcare, housing, and transportation combine to create a safety net that allows workers the flexibility to change jobs or pursue training, and when that safety net erodes, there can be a cascade of negative effects for the workers and communities who rely on it.[146]

Importance of Manufacturing to Minority Communities

Participants representing several different organizations emphasized the importance of manufacturing jobs to communities of color. In the view of many of the participants, manufacturing jobs—owing largely to their connection to labor unions—offer an important pathway to healthcare and other benefits, and to a middle-class lifestyle.[147] Current and former manufacturing workers who participated in the

[141] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 97 (Lindsay Patterson, United Steelworkers).
[142] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 37 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[143] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 42 (Christopher Lewis, Berkeley City College).
[144] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 59 (Emmanuel Flores, Washington State Labor Council, AFL-CIO) and 12 (Pam Eddinger, Bunker Hill Community College).
[145] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 59 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[146] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 12 (Pam Eddinger, Bunker Hill Community College).
[147] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 45 (Valerie Rawlston Wilson, Economic Policy Institute), 95 (Michelle Burris, The Century Foundation), and 16–17 (Ofronoma Biu, Urban Institute).

roundtable had a similar perspective.[148] One union representative said that his union apprenticeship (with the International Brotherhood of Electrical Workers) put him and his family on a path to economic stability.[149]

Some participants offered historical perspective on the importance of manufacturing jobs. An NGO representative reported that in the 1970s and 1980s, U.S. regions with a lot of manufacturing jobs (e.g., the Midwest) had smaller racial wage gaps than other regions, but wage gaps increased in these regions as manufacturing jobs declined and eventually equaled those seen in the South, where wage gaps had been the largest. The NGO representative indicated that this is connected to positive impacts of unions on wages and benefits.[150] She also shared research findings that, between 1998 and 2021, millions of manufacturing jobs were lost and were largely replaced by lower-wage service sector jobs. She noted that wages of manufacturing workers (including the lowest paid workers) were more than double those in other industries.[151] She further offered that trade policy-related job losses have coincided with declining employment in manufacturing among Black workers despite the rising share of Black workers in the labor force generally, when in previous periods Black workers' share of the labor force and share of manufacturing employment had moved together.[152]

Another NGO representative indicated that manufacturing jobs offered Black families a route to the middle class as well as a path out of the South, especially among Black workers without a college degree. She said that this historical context has consequences for trade policy, as data show that negative effects of trade are concentrated among Black and Brown workers.[153] According to another NGO representative, data show that a decline in manufacturing jobs has contributed to Black workers being less likely to have jobs that offer health insurance and retirement benefits; even when they have jobs that offer these benefits, Black workers have lower coverage rates.[154]

Finally, two participants discussed the location of manufacturing plants relative to the neighborhoods where workers live. An NGO representative mentioned that workers may not have adequate access to the places where manufacturing jobs are located.[155] Another NGO representative similarly cited research finding that Black and Latino workers tend to live furthest away from manufacturing plants and stated that jobs need to be brought to these communities.[156]

[148] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 97 (Lindsay Patterson, United Steelworkers) and 14 (Mike Mitchell).
[149] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 36 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[150] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 45–46 (Valerie Rawlston Wilson, Economic Policy Institute).
[151] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 46 (Valerie Rawlston Wilson, Economic Policy Institute).
[152] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 45 (Valerie Rawlston Wilson, Economic Policy Institute).
[153] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 95 (Michelle Burris, The Century Foundation).
[154] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 16–17 (Ofronoma Biu, Urban Institute).
[155] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 45 (Valerie Rawlston Wilson, Economic Policy Institute).
[156] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 66 (Michelle Burris, The Century Foundation).

While emphasizing the importance of the manufacturing sector, two participants also mentioned the need to make service sector jobs more comparable to manufacturing jobs in terms of wages and benefits. One NGO representative stated that there is a need to make jobs in services more "supportive" and "tenable" so that non-college educated workers can have better options outside of the manufacturing sector.[157] Similarly, another participant stated that both manufacturing jobs and service sector jobs are important, and recommended that attention be given to ensuring that good service sector jobs are equally available to all workers and to supporting minority-owned small and medium-sized businesses in all sectors.[158]

Education and Training Needs

Participants expressed a wide range of opinions about the best ways to prepare workers for current and future economic conditions. Some participants emphasized the need to better train students for manufacturing jobs, while others emphasized the need to train them for work in emerging sectors.[159] An NGO representative said that today's students see manufacturing jobs as lower skill and lower wage, and that they need to be educated about the benefits of a manufacturing career, including that it allows them to enter the middle class and helps narrow racial wealth disparities.[160] Similarly, a union representative shared that college is too often the goal for students after high school, when in fact apprenticeships would be a better fit for those who enjoy working with their hands.[161] Another participant likewise supported certification programs, job placement services, and jobs that offer mentorship.[162]

A community college representative shared her perspective on training students for the jobs of the future, emphasizing that emerging and growing industries such as clean energy will need a lot of skilled labor.[163] One participant emphasized the importance of minority-serving educational institutions in preparing workers for the economy of the future and called for much more investment from Congress and from the states in these institutions, stressing that without such support, existing inequities would continue.[164]

Another participant indicated that schools do not provide the type of training needed for manufacturing jobs, and that manufacturers are unwilling to provide this training as the costs are too high. He also suggested that trade agreements have a larger negative effect on workers than does a lack of training opportunities.[165]

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[157] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 79–80 (Ofronoma Biu, Urban Institute).
[158] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 50–51 (Irving A. Williamson).
[159] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 22 (Lindsay Patterson, United Steelworkers) and 39 (George Salmeron II, IntlSupplyChain.com).
[160] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 95–96 (Michelle Burris, The Century Foundation).
[161] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 22 (Lindsay Patterson, United Steelworkers).
[162] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 39 (George Salmeron II, IntlSupplyChain.com).
[163] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 13 (Pam Eddinger, Bunker Hill Community College).
[164] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 32 (Antonio R. Flores, Hispanic Association of Colleges and Universities).
[165] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 62–63 (Mike Mitchell).

Suggested Policy Changes

Throughout the discussion, participants suggested several potential policy changes, including additional support for minority-owned small businesses and farmers, improvements to how trade remedies are implemented, changes to ensure health coverage for workers during training programs, and modifications to the TAA program.

One participant suggested that government programs could be restructured to better assist minority-owned small businesses and farms. He suggested that the programs' effectiveness in helping these businesses compete in the global economy should be considered.[166] He also indicated that Black farmers, who may be more likely to grow specialty crops than commodity crops, often do not benefit from farm assistance programs.[167]

The same participant suggested that policymakers should do more to help workers in these cases. He pointed out that, in the solar industry safeguard case, the Commission recommended that tariffs be paired with other measures to support the industry; however, no such additional measures were implemented.[168] He hoped that in the future, remedies in such cases could be more sophisticated and directed toward disadvantaged workers.[169]

A union representative emphasized the need for continuing health care coverage when workers are engaged in training programs.[170] He stated that a tax credit that used to cover most of a person's health insurance premiums is no longer provided, which creates a barrier for disadvantaged workers who want to pursue training programs but cannot afford to lose health coverage.

Finally, one participant suggested that labor unions should be global in scope. In his view, a global labor union would avoid a situation where firms continually chase the lowest wages, forcing workers around the world to compete for low-paying jobs.[171]

Trade Adjustment Assistance

There were several comments from participants about the TAA program and how it could be improved. The two main themes of these comments were that the TAA program should be made permanent to provide predictability, and that TAA should cover more types of worker retraining programs and expenses.

An NGO representative brought up the 2021 changes to the program, known as TAA reversion a few times. In his view, the TAA program has become more restrictive under the 2021 changes, with difficult timelines making it harder for workers to access benefits.[172] He further emphasized the need for policies

[166] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 29 (Irving A. Williamson).
[167] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 73–74 (Irving A. Williamson).
[168] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 73 (Irving A. Williamson).
[169] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 73 (Irving A. Williamson).
[170] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 71 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[171] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 79 (Mike Mitchell).
[172] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 38–39 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).

to be made permanent in order to provide predictability for TAA program beneficiaries.[173] The same representative also mentioned the need to integrate the TAA program with other benefits and support services, such as childcare, health coverage, and tax credits, among others.[174]

Two participants mentioned that TAA benefits should extend to more types of training programs. A union representative said that the TAA program should be connected to on-the-job training, not just classroom or certificate programs.[175] Similarly, another union representative pointed out that TAA does not connect beneficiaries to registered apprenticeships.[176]

Roundtable 4: Gender and Orientation

On March 14, 2022, the Commission held a roundtable on the distributional effects of trade by gender and LGBTQ+ identity. The roundtable was held virtually and moderated by Commissioner Amy Karpel. Roundtable participants included union representatives (Janet Hill, United Steelworkers and Coalition of Labor Union Women; Cheryl Husk, USW Local 9423; Andy Meserve, USW Local 9423); NGO representatives (Mary Borrowman, International Center for Research on Women; Jerame Davis, Pride at Work; Latoya Faustin, She Built This City; Oleta Fitzgerald, Children's Defense Fund; Aria Grabowski, International Center for Research on Women; Sharita Gruberg, Center for American Progress; Morgan Mentzer, Reckoning Trade Project; Nora E. Spencer, Hope Renovations; Ada'Zane Williams, National Women in Agriculture Association); a government representative (Kate W. James, Oregon TAA); as well as other participants (Jamaica Gayle, National Foreign Trade Council's Global Innovation Forum; Linda Schmid, Trade in Services International). Availability of resources (such as childcare and transportation); discrimination; the lack of economic data; the role of manufacturing jobs and unions; and the potential benefits of training programs were among the focus areas of this roundtable discussion.

Childcare and Resource Availability

Numerous roundtable participants discussed responsibility of family care and the lack of childcare as a pressing issue, particularly for women.[177] An NGO representative pointed out that childcare availability affects the LGBTQ+ community as well, especially because members of the LGBTQ+ community are more likely to live in poverty.[178] A union representative recalled that a lack of childcare was a big factor

[173] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 62 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[174] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 77–78 and 61 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[175] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 63–64 (Lindsay Patterson, United Steelworkers).
[176] USITC, Race/Ethnicity Roundtable Transcript, March 10, 2022, 71 (Emmanuel Flores, Washington State Labor Council, AFL-CIO).
[177] USITC, Distributional Effects: Gender and Orientation Roundtable Transcript, March 14, 2022, 42 (Jerame Davis, Pride at Work), 9–10 (LaToya Faustin, She Built This City), 44, 64 (Andy Meserve, USW Local 9423), 69–70 (Cheryl Husk, USW Local 9423), 17–18 (Janet Hill, United Steelworkers and Coalition of Labor Union Women), 50, 58–59 (Linda Schmid, Trade in Services International), 19, 48, 62–63 (Mary Borrowman, International Center for Research on Women), 10–11 (Aria Grabowski, International Center for Research on Women), 54 (Kate James, Oregon Trade Adjustment Assistance), and 60–61 (Oleta Garrett Fitzgerald, Children's Defense Fund).
[178] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 42 (Jerame Davis, Pride at Work).

in keeping coworkers from work and getting them into attendance trouble.[179] A second union representative supported this account and said it was an especially big problem during the COVID-19 pandemic, as the Family and Medical Leave Act offered protection for workers only after one year on the job.[180] A third union representative pointed out that childcare responsibilities may affect workers' ability to relocate and find a new job after a trade-related employment shock, stating that it is hard to move away from one's family.[181]

Participants further discussed how childcare affects women's overall labor force participation. According to one participant, Bureau of Labor Statistics data show that childcare is a primary reason that women are not entering the labor force.[182] An NGO representative identified childcare as one of the biggest barriers to employment for women both when they are looking for work and again while they are trying to maintain a job.[183] Another NGO representative spoke about the need for programs in Mississippi that provide childcare not only while women are working, but while they are searching for work.[184] Further, two other NGO representatives added that discrimination combined with a lack of leave to manage household and family care responsibilities, which includes long-term care and elder care, keeps women out of the workforce.[185]

To address this issue, some participants suggested that a broader set of worker concerns, including access to childcare resources, should be included in trade agreements.[186] One participant spoke about the United States-Mexico-Canada Agreement (USMCA) and said that there is existing language in the agreement that says the parties will cooperate on retaining women in the job market by addressing childcare issues. However, she projects that the focus of these efforts will be on Mexico, not the United States.[187] A government representative suggested that childcare should be added to the TAA program.[188]

[179] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 44–45, 64 (Andy Meserve, USW Local 9423).
[180] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 69–70 (Cheryl Husk, USW Local 9423).
[181] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 17–18 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[182] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 58–59 (Linda Schmid, Trade in Services International).
[183] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 9–10 (LaToya Faustin, She Built This City).
[184] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 60–61 (Oleta Garrett Fitzgerald, Children's Defense Fund).
[185] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 19, 62–63 (Mary Borrowman, International Center for Research on Women) and 10 (Aria Grabowski, International Center for Research on Women).
[186] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 19, 48 (Mary Borrowman, International Center for Research on Women), 50 (Linda Schmid, Trade in Services International), and 54 (Kate James, Oregon Trade Adjustment Assistance).
[187] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 50 (Linda Schmid, Trade in Services International).
[188] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 54 (Kate James, Oregon Trade Adjustment Assistance).

In addition, roundtable participants offered ways in which agreements could potentially help workers to navigate adverse trade impacts.[189] A union representative suggested that trade agreements should provide maternity leave and guarantee that women can access education and jobs and noted the negative effects that she perceived as stemming from disinvestment in her community resulting from trade policies. She also suggested that the TAA program be expanded to provide help at the community level instead of just for individuals.[190] An NGO representative said that it is important for U.S. trade policy to include binding protections within trade agreements to help workers; she referenced draft provisions in the USMCA relating to protections for gender identity and sexual orientation that were omitted from the final text.[191]

Participants also identified transportation as a challenge to finding and keeping work.[192] An NGO representative pointed out that while there are partnership programs under the U.S. Department of Health and Human Services that pay for childcare and transportation during work force training, her community needs more.[193] She shared that she has researched alternative economic development approaches to provide jobs to communities where they may be lacking and highlighted a cooperative of women in agriculture in Mississippi focused on vegetable production. Although the group had been working with USDA to get equipment necessary for farming, she noted a lack of investment in transportation needed to get their produce from farm to market.[194] Another NGO representative pointed out that because a disproportionate number of LGBTQ+ people live in poverty, transportation can be a big burden.[195] A union representative spoke of how public transportation in her community is no longer sufficient to connect workers to educational opportunities, citing previously available (and later discontinued) public transportation to local community colleges in her Western Pennsylvania community.[196]

[189] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 53 (Janet Hill, United Steelworkers and Coalition of Labor Union Women) and 46–47 (Mary Borrowman, International Center for Research on Women).
[190] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 53 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[191] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 46–47 (Mary Borrowman, International Center for Research on Women).
[192] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 26, 39 (Oleta Garrett Fitzgerald, Children's Defense Fund), 42 (Jerame Davis, Pride at Work), and 52–53 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[193] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 26 (Oleta Garrett Fitzgerald, Children's Defense Fund).
[194] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 39 (Oleta Garrett Fitzgerald, Children's Defense Fund).
[195] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 42 (Jerame Davis, Pride at Work).
[196] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 52 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).

Discrimination

Participants identified discrimination as another challenge that women and members of the LGBTQ+ population experience in the workforce.[197] One NGO representative pointed out that more than half of U.S. states lack job protections for LGBTQ+ workers at a time when LGBTQ+ people face widespread discrimination that impacts hiring and firing. She said this lack of protection limits the ability of LGBTQ+ workers to move for jobs.[198] This representative also said that discrimination, along with other factors, prevents LGBTQ+ workers from accessing or benefiting from training provided by public work force initiatives that do not incorporate explicit language including such communities.[199]

An NGO representative stated that LGBTQ+ people are concentrated in certain industries and jobs because of discrimination. He also said that because LGBTQ+ populations face discrimination, they are more likely to seek government services and suffer a disproportional impact if those services go underfunded.[200] He said the TAA program should specifically address the disproportionate impact of trade on the LGBTQ+ community.[201] A government representative stated that LGBTQ+ individuals fear that discrimination will arise from the inclusion of their partner's information on TAA paperwork, and they do not feel safe revealing this information to TAA offices for this reason. She also stated that gender expression could hinder a worker's ability to get a job.[202] Another NGO representative confirmed that discrimination is especially bad against transgender individuals, and that employers do not have information on what policies they could or should implement.[203] She said that there is a lot of interest from the LGBTQ+ community in the trades and manufacturing, but that there are issues with creating a safe space for these workers to remain in their positions.[204]

Another NGO representative said discrimination shapes occupational segregation, especially along gender lines, and that this segregation influences the impacts from trade.[205] She also stated that discrimination impacts are cumulative, so that limited access to education, labor markets, and health

[197] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 12, 37 (Sharita Gruberg, Center for American Progress), 14–15 (Jerame Davis, Pride at Work), 21 (Kate James, Oregon Trade Adjustment Assistance), 2, 23–24, 78 (Morgan Mentzer, Reckoning Trade Project), 19–20, 48 (Mary Borrowman, International Center for Research on Women), 35 (Ada'Zane Williams, National Women in Agriculture Association), and 51 (Linda Schmid, Trade in Services International).
[198] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 12 (Sharita Gruberg, Center for American Progress).
[199] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 37 (Sharita Gruberg, Center for American Progress).
[200] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 14–15 (Jerame Davis, Pride at Work).
[201] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 41 (Jerame Davis, Pride at Work).
[202] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 21 (Kate James, Oregon Trade Adjustment Assistance).
[203] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 23–24 (Morgan Mentzer, Reckoning Trade Project).
[204] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 78 (Morgan Mentzer, Reckoning Trade Project).
[205] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 18–19 (Mary Borrowman, International Center for Research on Women).

resources, among other factors, accumulate over time to shape poverty rates.[206] She highlighted the need for binding and enforceable policies that protect people's identities to be included in trade agreements, as well as policies that address gender-based harassment in the workplace.[207] An NGO representative discussed discrimination against immigrant women in their work environments, and indicated that immigrant women may not feel comfortable reporting discrimination because they come from different cultural backgrounds or do not feel that they can afford to make objections.[208] One participant suggested that one step the United States could take would be to ratify the Convention on the Elimination of All Forms of Discrimination Against Women.[209]

Data

Several participants mentioned the need for more and better-quality data disaggregated by LGBTQ+ identity and gender, as currently this information is not widely collected; therefore, it is difficult to conduct analysis on the impact of trade specifically on these groups.[210] An NGO representative said scholars need data on sexual orientation and gender identity in order to assess the impacts of trade on these specific populations.[211] Another NGO representative stated they did not know where their community stood in terms of economic progress because data are not available.[212] A third NGO representative stated that poverty rates are relatively high in the LGBTQ+ community, but that, again, scholars need more data.[213] She asked for more and better-quality gender data that reports on identities beyond the male-female binary.[214] She would also like to see impact assessments of trade policies by gender and on LGBTQ+ populations, as well as very detailed LGBTQ+ occupational and industry sector employment data.[215] Another NGO representative recounted experiences where employers denied having LGBTQ+ workers even when there were some, and suggested that data on LGBTQ+ employment would help convince employers of the need for nondiscrimination policies.[216] She also expressed a need

[206] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 20 (Mary Borrowman, International Center for Research on Women).
[207] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 46–48 (Mary Borrowman, International Center for Research on Women).
[208] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 35 (Ada'Zane Williams, National Women in Agriculture Association).
[209] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 51 (Linda Schmid, Trade in Services International).
[210] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 11 (Sharita Gruberg, Center for American Progress), 14 (Jerame Davis, Pride at Work), 20, 28–29, 47 (Mary Borrowman, International Center for Research on Women), and 23–24, 29–30 (Morgan Mentzer, Reckoning Trade Project).
[211] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 11 (Sharita Gruberg, Center for American Progress).
[212] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 14 (Jerame Davis, Pride at Work).
[213] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 20 (Mary Borrowman, International Center for Research on Women).
[214] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 28, 47 (Mary Borrowman, International Center for Research on Women).
[215] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 28–29 (Mary Borrowman, International Center for Research on Women).
[216] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 23–24 (Morgan Mentzer, Reckoning Trade Project).

for data about people who identify as transgender, nonbinary, or gender diverse, as well as on what discrimination looks like and how supervisors respond to it.[217]

The Manufacturing Sector and the Role of Unions

Participants shared information about how experiences in the manufacturing sector were shaped by gender or LGBTQ+ status.[218] One union representative observed that, after big steel plants shut down, women were not able to find good-paying jobs in the same community.[219] She also said that there are uniquely difficult challenges when a family member works in a steel plant, because manufacturing jobs do not provide the flexibility needed for caregiver duties.[220] Another union representative shared her perspective on working in a primary aluminum smelter during a period in which she indicated the aluminum industry was struggling due to trade and other factors. She explained that the smelter combined the physical requirements of multiple jobs into one position in order to save money and stay competitive, which made the job too physically demanding for women to succeed and has resulted in the smelter employing and hiring fewer women today than it did before the downturn.[221] An NGO representative noted the rising unemployment among Black women in some of the areas where manufacturing and textile jobs were lost after trade policies in the 1990s.[222] One of the aforementioned union representatives said there was a lack of outreach in the manufacturing sector to women in general, particularly in schools.[223] Amid this focus on manufacturing, one participant suggested that there is a need to look into why certain service sectors, such as leisure and hospitality, and retail trade continue to be low-wage.[224]

Another union representative commented that unions evened the playing field and provided the best jobs in their area of the country.[225] He said antidiscrimination clauses in their union contracts protected people so that the only thing that mattered is whether a worker can train and learn the job.[226]

[217] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 23–24, 29–30 (Morgan Mentzer, Reckoning Trade Project).
[218] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 16, 76–77 (Janet Hill, United Steelworkers and Coalition of Labor Union Women), 14 (Oleta Garrett Fitzgerald, Children's Defense Fund), and 30–32 (Cheryl Husk, USW Local 9423).
[219] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 16 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[220] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 77 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[221] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 30–32 (Cheryl Husk, USW Local 9423).
[222] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 14 (Oleta Garrett Fitzgerald, Children's Defense Fund).
[223] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 76 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[224] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 66–67 (Linda Schmid, Trade in Services International).
[225] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 44 (Andy Meserve, USW Local 9423).
[226] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 75 (Andy Meserve, USW Local 9423).

Training Programs

Roundtable participants highlighted training programs as one possible way to help workers find employment, navigate job disruptions, or take advantage of trade opportunities.[227] A union representative in Kentucky had a very positive view of training programs, stating that their locality has a lot of resources such as trade schools and apprenticeships. He said that federal and state government should focus on apprenticeships as a way into the middle class.[228] A government representative called for more pre-apprenticeships for women and LGBTQ+ individuals.[229] Another participant said women need training in digital skills to access export markets.[230] However, an NGO representative cautioned that training is not everything; she indicated that in a competitive labor market, job experience is still necessary.[231]

Some participants referred to the resources needed to take advantage of training opportunities. An NGO representative suggested that there should be more programs that link childcare and transportation assistance with workforce training.[232] Another NGO representative suggested that rent support would facilitate workers' ability to look for or engage in training.[233] Further, a participant commented that women are less able to afford education and retraining as they have fewer resources to draw upon.[234]

Participants discussed training opportunities provided through the TAA program. A union representative reported that three workers laid-off from his facility used TAA funding to retrain and have now been hired back by the company. For this reason, he feels that TAA-funded training benefitted his facility.[235] A government representative described her state's technology pilot program for workers qualifying for TAA program benefits. She said that in the absence of approved training, the TAA program typically did not cover technology-related expenses but, through the pilot program, they were able to provide for such needs including laptops and internet access.[236]

[227] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 26 (Oleta Garrett Fitzgerald, Children's Defense Fund), 22 (LaToya Faustin, She Built This City), 36–37 (Nora Spencer, Hope Renovations), 59 (Linda Schmid, Trade in Services International), and 56 (Jamaica Gayle, National Foreign Trade Council's Global Innovation Forum).
[228] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 45 (Andy Meserve, USW Local 9423).
[229] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 42 (Kate James, Oregon Trade Adjustment Assistance).
[230] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 56 (Jamaica Gayle, National Foreign Trade Council's Global Innovation Forum).
[231] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 37 (Nora Spencer, Hope Renovations).
[232] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 25–26 (Oleta Garrett Fitzgerald, Children's Defense Fund).
[233] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 22 (LaToya Faustin, She Built This City).
[234] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 59 (Linda Schmid, Trade in Services International).
[235] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 92 (Andy Meserve, USW Local 9423).
[236] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 32–33 (Kate James, Oregon Trade Adjustment Assistance).

It was reported that some workers may not be able to participate in training programs.[237] An NGO representative noted that a USA Today study said a vast majority of women in apprenticeship settings reported the settings as hostile.[238] Another NGO representative cautioned that publicly funded workforce initiatives do not significantly increase wages for LGBTQ+ workers because they do not account for how discrimination and economic disparities can prevent these workers from accessing training opportunities.[239] A union representative also noted that training is very hard for women at her plant due to expansion of the tasks a worker is expected to perform as firms downsized and consolidated positions.[240]

Roundtable 5: Disability, Age, and Education

The Disability, Age, and Education Roundtable was held virtually on March 22, 2022, and moderated by Commissioner Amy Karpel. Roundtable participants included union representatives (William Attig, Union Veterans Council; Dan Boone, United Steelworkers; Janet Hill, United Steelworkers and Coalition of Labor Union Women; Mike Noll, USW Local 1237); NGO representatives (Deb Ackerman, Alliance for American Manufacturing; Isabel Hodge, US International Council on Disabilities; Peter Kaldes, American Society on Aging; Dahlia Shaewitz, Institute for Educational Leadership); academics (Hassan Enayati, Cornell; Bill Erickson, Cornell; Bonnielin Swenor, Johns Hopkins); a government representative (Edwin Walker, Administration on Aging); and a retired steelworker (Robert Morrison). The conversation during this roundtable covered how discrimination increases challenges for many workers; the negative effects of economic shocks; the threat of offshoring as a negotiating tool; how lack of data hampers the creation of good policy; issues that many of the participants had with current government policies; and possible policy approaches to trade issues.

Discrimination

Several participants noted that discrimination makes gaining and maintaining employment difficult for older workers. An NGO representative claimed discrimination was the cause of many of the challenges older workers face in finding work, and that when they do find work, wages are often less than the value they create.[241] He referred to research reporting that more than half of workers over age 50 lose positions they have held for a long time before they were ready to retire.[242] An academic discussed research showing that older workers that lose their jobs during times of high unemployment tend to find jobs paying substantially less than they made before.[243] This academic also explained that age and

[237] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 79 (LaToya Faustin, She Built This City), 37 (Sharita Gruberg, Center for American Progress), and 82 (Cheryl Husk, USW Local 9423).
[238] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 79 (LaToya Faustin, She Built This City).
[239] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 37 (Sharita Gruberg, Center for American Progress).
[240] USITC, Gender and Orientation Roundtable Transcript, March 14, 2022, 82 (Cheryl Husk, USW Local 9423).
[241] USITC, Distributional Effects: Disability, Age, and Education Roundtable Transcript, March 22, 2022, 28–29 (Peter Kaldes, American Society on Aging).
[242] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 29–30 (Peter Kaldes, American Society on Aging).
[243] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 47 (Hassan Enayati, Cornell).

disability are connected, as some workers will "age into a disability."[244]A union representative said that companies prefer to hire younger workers because they think older workers will stay in their positions for only a few years.[245]

Participants reported that people with disabilities also face discrimination and workers are often afraid to reveal their disability. An academic stated that many workers with disabilities experience job insecurity because of "stigma and stereotype" related to their disability.[246] An NGO representative said that workers with disabilities fear negative consequences from revealing their disability to their employer—including harassment, non-promotion, negative perception of coworkers and supervisors—and that these fears are well-founded.[247] The same NGO representative mentioned research into white-collar workers in which 30 percent reported having a disability, but only 3 percent had revealed their disability to their employer.[248] A union representative stated that disabled workers often have trouble getting necessary accommodations from employers, even minor ones.[249] Another union representative claimed that discrimination against disabled workers has declined, but continues at many plants.[250]

Negative Effects of Economic Shocks

Many roundtable participants indicated that when a community was negatively affected by economic shocks (e.g., via plant closure due to import competition, buyout, or technological change), older workers, workers with disabilities, and less-educated workers were disproportionately affected. An NGO representative described the challenges older workers had finding employment after a plant closed.[251] A retired steelworker said that the plant he had worked at for decades closed due to the relocation of production to North Carolina and abroad. Following the plant closure, he felt forced into early retirement at age 64 because it seemed impossible to find another job due to his age and partial disability.[252] He also stated that coworkers from his plant were severely affected as well, with one committing suicide.[253] A union representative described a similar experience in his community—following the closure of a local steel plant due to the bankruptcy of its parent company, older workers (many with physical difficulties due to hard labor at the steel plant) had trouble finding employment.[254]

[244] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 45 (Hassan Enayati, Cornell).
[245] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 13–14 (Mike Noll, USW).
[246] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 39 (Bonnielin Swenor, Johns Hopkins).
[247] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 43 (Dahlia Shaewitz, Institute for Educational Leadership).
[248] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 43 (Dahlia Shaewitz, Institute for Educational Leadership).
[249] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 16 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[250] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 55 (Dan Boone, USW).
[251] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 18–19 (Deb Ackerman, Alliance for American Manufacturing).
[252] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 23–24 (Robert Morrison).
[253] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 24 (Robert Morrison).
[254] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 25–27, 54 (Dan Boone, USW).

Another NGO representative stated that workers with disabilities lost their jobs quite early on during the Great Recession and also were the last to be rehired.[255]

One union representative indicated that veterans had trouble competing with workers that have college degrees because the market was saturated.[256] He described his own situation leaving the military and interviewing for a job that he had the skills for as a result of his military training, but they did not hire him because of his lack of a college degree.[257] Another union representative highlighted that when the workforce is saturated with unemployed people, it is easier for employers to overlook—and thus avoid making accommodations for—disabled workers and older workers.[258]

Participants noted that the closure of a plant affects an entire community. Suppliers to that plant are hurt, as are local service providers (such as restaurants) that cater to workers at the plant.[259] A union representative stated that the tax base is also affected, which hinders the ability of the local government to provide needed services.[260] According to the union representative, this has a domino effect, as social programs are actually in greater demand when fewer people are working.[261]

A government representative also noted that tariff increases can negatively affect the budgets of nonprofit community-based organizations.[262] An NGO representative highlighted that nonprofit entities on a fixed federal grant budget may not be able to absorb costs associated with tariffs, while private entities can absorb those tariffs or pass them on to the consumer.[263]

The Threat of Offshoring as a Negotiating Tool

Roundtable participants reported that the threat of moving production or an entire manufacturing plant to another country is used in contract negotiations to push workers to accept lower wages and/or benefits.[264] A union representative indicated that at one factory in Chicago, the company decided during its negotiation with the union that it would rather produce in Mexico than meet the union's demands.[265]

[255] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 43 (Dahlia Shaewitz, Institute for Educational Leadership).
[256] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 35 (William Attig, Union Veterans Council).
[257] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 97–98 (William Attig, Union Veterans Council).
[258] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 61 (Mike Noll, USW)
[259] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 53 (Dan Boone, USW).
[260] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 60 (Mike Noll, USW).
[261] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 60–61 (Mike Noll, USW).
[262] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 80 (Edwin Walker, Administration for Community Living).
[263] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 69 (Peter Kaldes, American Society on Aging).
[264] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 32–33 (William Attig, Union Veterans Council) and 20 (Deb Ackerman, Alliance for American Manufacturing).
[265] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 32–33 (William Attig, Union Veterans Council).

An NGO representative stated that—whether the threat is explicitly stated or not—workers are aware of the possibility that a company might close a plant and move it to a lower-cost location.[266]

Lack of Data

Participants indicated that data gaps make it challenging for policymakers to know which policy mechanisms might ameliorate these issues. An academic stated that lack of data hampers finding tools to address unemployment among disabled workers.[267] She stated that there are no data on accommodations received (or denied) in the workplace, or the career trajectories of disabled workers.[268] Further, the same academic said there needs to be more intersectional data because a Black person and a White person with a disability will have different experiences.[269] Similarly, an NGO representative said data on the success or failure of policies are lacking.[270] She also said that there is a need for data on the effectiveness of policies to help workers stay in place when they become disabled on the job.[271] A union representative indicated that there is a need to more closely examine data that reflect long-term impacts in communities that have experienced job losses due to trade.[272] Another academic noted that even though the quality of data on disability are not perfect, it has been improving.[273]

An academic stated that the lack of data collected on people with disabilities was not a coincidence and reflected society's view of these individuals. She added that this lack of data leaves these individuals out of data-based policy decisions.[274] She added that it is necessary to include these communities in policy-making discussions to advance policy and to provide valuable input on both how data should be collected and which data would be most useful.[275]

[266] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 20 (Deb Ackerman, Alliance for American Manufacturing).
[267] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 38 (Bonnielin Swenor, Johns Hopkins).
[268] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 40 (Bonnielin Swenor, Johns Hopkins).
[269] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 40 (Bonnielin Swenor, Johns Hopkins).
[270] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 42 (Dahlia Shaewitz, Institute for Educational Leadership).
[271] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 42–43 (Dahlia Shaewitz, Institute for Educational Leadership).
[272] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 59–60 (William Attig, Union Veterans Council).
[273] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 84–85 (Bill Erickson, Cornell University).
[274] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 76–77 (Bonnielin Swenor, Johns Hopkins).
[275] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 76–77 (Bonnielin Swenor, Johns Hopkins).

Suggested Changes and Shortcomings of Existing Policies

Many participants believed that expansion of the TAA program is necessary because it is currently unavailable to many workers. A union representative said that the TAA program does not cover everything people need, such as healthcare and mental health programs.[276] Another union representative expressed support for the reinstatement and expansion of the TAA program.[277] An NGO representative stated that the median age of the TAA beneficiary is 51 years old, and as such, it needs to be expanded with a view to—and to account for—the large number of older adults impacted by trade displacement.[278]

Multiple participants also believed that there needs to be a strong push toward providing more support—such as retraining and apprenticeship programs—among government entities, nongovernmental organizations, and private entities. For example, a union representative highlighted that there should be more focus on apprenticeship programs and retraining because there currently seems to be a shortage of skilled workers.[279] A government representative agreed, stating that the focus should be on the concept of apprenticeship and retraining, with the goal of leading people with disabilities to quality employment.[280] Relatedly, an academic suggested encouraging state vocational rehabilitation centers to get people into community colleges to get credentials for a career, not just help them find a job.[281] An NGO representative explained that as 80 percent of U.S. businesses have five employees or fewer, training and placement opportunities need to include small businesses.[282] A union representative stated that when plants shut down, the government should make compensating investments in that community, and suggested providing a moving allowance for workers to reestablish themselves in another community.[283]

An academic discussed how a lack of knowledge about laws and rights for disabled workers makes it harder for workers to get necessary accommodations, and can also lead to inequitable hiring decisions.[284] An NGO representative said employers are often unaware of resources and supports that exist nationally and locally, and that this lack of knowledge affects their willingness to hire workers with

[276] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 51 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[277] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 59 (William Attig, Union Veterans Council).
[278] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 67 (Peter Kaldes, American Society on Aging)
[279] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 62–63 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[280] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 78–79 (Edwin Walker, Administration for Community Living).
[281] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 47–48 (Hassan Enayati, Cornell).
[282] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 44 (Dahlia Shaewitz, Institute for Educational Leadership).
[283] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 63 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[284] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 38 (Bonnielin Swenor, Johns Hopkins).

disabilities.[285] As mentioned above, a union representative described the challenge in getting employers to agree to accommodations;[286] an academic mentioned that the Employer Assistance and Resource Network can help with this.[287] The NGO representative stated that many are not aware (including employers) that there are vocational rehabilitation systems for people with disabilities. She also said that some other existing federal, state, and local job training and retraining programs are not designed to be inclusive.[288]

An academic stated that Supplemental Security Income (SSI) limitations on income and asset levels hamper the ability of people with disabilities to work.[289] An NGO representative mentioned that there is a lack of policy support for long-term support services in the workplace (such as personal assistant services). She indicated that these services are provided via the Individuals with Disabilities Education Act while individuals are in school, but upon graduation those supports are not available in the workplace, creating a significant hurdle for many disabled workers.[290]

A union representative pointed out that it may take a long time (up to two years) to get SSI disability benefits as there is a long backlog, and that SSI disability needs to have higher payments.[291] She also reported that individuals have difficulties surviving on SSI disability payments and may need additional services.[292] She stated that workers with disabilities also need paid leave, not just unpaid leave under the Family Medical Leave Act (FMLA).[293]

Another union representative mentioned that trade policies should be designed to give workers a fair shot to compete.[294] A different union representative added that for U.S. workers to get a fair chance to succeed, there need to be improvements in labor standards and policies both in the United States and overseas.[295] Another union representative also explained that disabled workers can make meaningful contributions to society and that redefining the term "disability" would help give people with a disability

[285] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 42 (Dahlia Shaewitz, Institute for Educational Leadership).
[286] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 16 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[287] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 46 (Hassan Enayati, Cornell).
[288] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 65 (Dahlia Shaewitz, Institute for Educational Leadership).
[289] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 39 (Bonnielin Swenor, Johns Hopkins).
[290] It was noted that these services may be offered at home via Medicaid. USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 15 (Isabel Hodge, United States International Council on Disabilities).
[291] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 82 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[292] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 82 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[293] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 49 (Janet Hill, United Steelworkers and Coalition of Labor Union Women).
[294] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 61 (Mike Noll, USW)
[295] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 70 (William Attig, Union Veterans Council)

more of a fair shot.[296] Similarly, an academic agreed that society's negative connotation of the term "disability" needs to change.[297]

Many participants recommended that workers from underserved communities be included in the decision-making process. An academic emphasized that disabled and marginalized people must be included in outreach and given accessible opportunities to participate in policy conversations and decisions more often.[298] An NGO representative stated that policymakers need to conduct outreach directly to stakeholders, rather than simply posting a notice in the *Federal Register*.[299] He added that the impact on older adults should be considered when making trade policy decisions.[300] Another NGO representative explained that programs at the federal, state and local levels need to be designed to think about inclusion from the start, such as having loans for disabled business owners.[301]

A couple of participants also pointed out ways that joining existing international agreements or including better protections in future agreements can help. For example, an NGO representative noted that the failure of Congress to ratify the Convention on the Rights of Persons with Disabilities. She indicated that this has caused U.S. firms to miss out on contracts and orders from foreign countries on products related to disability and accessibility, because foreign customers prefer to source these products from countries that have ratified the convention.[302]

While the majority of the roundtable discussion focused on issues faced by underserved communities and the need for solutions, there were also a few comments on the positive effects of certain policies. For example, a union representative stated that he believes the section 232 tariffs have helped steelworkers.[303] An NGO representative mentioned that the federal government is a "model employer" with specific programs for hiring disabled workers, and that businesses and industries could learn from its example. She also acknowledged the Federal Contractor Requirements that target awards to service-disabled veterans.[304] This representative appreciated that the roundtable included people from the disability community, as people with disabilities should be part of conversations about designing policy and measuring implementation.[305]

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[296] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 73–75 (Dan Boone, USW).
[297] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 75 (Bonnielin Swenor, Johns Hopkins).
[298] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 76 (Bonnielin Swenor, Johns Hopkins).
[299] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 69 (Peter Kaldes, American Society on Aging)
[300] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 67–68 (Peter Kaldes, American Society on Aging).
[301] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 65–66 (Dahlia Shaewitz, Institute for Educational Leadership).
[302] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 80–81 (Isabel Hodge, United States International Council on Disabilities).
[303] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 53 (Dan Boone, USW).
[304] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 65–66 (Dahlia Shaewitz, Institute for Educational Leadership).
[305] USITC, Disability, Age, and Education Roundtable Transcript, March 22, 2022, 66 (Dahlia Shaewitz, Institute for Educational Leadership).

Roundtable 6: Impacts on Underserved Communities, Detroit, Michigan

On March 30, 2022, the Commission hosted a roundtable on the distributional effects of trade on underserved communities, focusing on the predominately urban community of Detroit, Michigan, and its surrounding areas. The roundtable was held at the Detroit Marriott Southfield and was hosted using an in-person/virtual hybrid platform. Roundtable participants included union representatives (Mikyia S. Aaron, Laborers' Local 1191; Dorethea Brown-Maxey, National Association of Broadcast Employees and Technicians [NABET]; Mark DePaoli, UAW Local 600; Andrea Hunter, USW Local 1299; Ric Preuss, International Brotherhood of Electrical Workers [IBEW]; Anthony Robbins, International Association of Machinists and Aerospace Workers [IAMAW]; Ian Robinson, Huron Valley Area Labor Federation); NGO representatives (John Jeffers, Alliance for American Manufacturing; Noel Nevshehir, Automation Alley); an academic (Sharon Milberger, Wayne State University's Michigan Developmental Disabilities Institute [MI-DDI]); an industry representative (Chad Johnson, The Akana Group); a government representative (Pierce O'Connell, Michigan Department of Labor and Economic Opportunity, Trade Adjustment Assistance and Rapid Response [TAA/RR]); and a retired steelworker (Victor Storino). Participants in the roundtable discussed several issues, including the positive and negative impacts of trade (including trade-related job loss); views on trade policies; community impacts of job losses; challenges with job transitions; the role of unions; and the availability of resources and challenges related to how certain professions are perceived. While the roundtable was held in the Detroit area, participants spoke broadly about experiences and issues in other parts of the country as well. Commissioner Jason Kearns moderated the session.

Participant Characterization of the Detroit Region

Many of the participants at this roundtable provided facts and characterizations of the region. One union representative noted Detroit's high poverty rate and wealth gap, declining investment in school systems, and the city's majority Black population.[306] As evidence of the barriers underserved communities face in the city, the same union representative called attention to the low number of mortgages given in Detroit.[307] The impacts of trade on the city were also highlighted. For example, as discussed below, a government representative indicated that a significant amount of recent job loss has been due to international trade.[308]

[306] USITC, Distributional Effects: Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 39–40, 91 (Ric Preuss, IBEW).
[307] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 91 (Ric Preuss, IBEW).
[308] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 10, 96 (Pierce O'Connell, Michigan Department of Labor and Economic Opportunity, TAA/RR). For more information on job loss and Trade Adjustment Assistance, see section on negative impacts.

Impacts of Trade and Foreign Direct Investment

A common theme discussed by several participants throughout the roundtable was the potential for job disruption or loss due to international trade and trade agreements. A government representative noted that, in the city of Detroit alone, there were several organizations and a large number of jobs that have been certified for the TAA program in recent years due to trade impacts.[309] The representative went on to note that there have also been a large number of jobs and organizations impacted by trade (or certified for the TAA program) nationwide.[310] Union representatives also noted that a large number of jobs have been lost throughout Michigan due to trade.[311]

Various union representatives provided examples of negative impacts of trade in specific plants, facilities, and localities encompassing various sectors, including steel production, automotive production, and shipping/logistics.[312] One of the aforementioned union representatives went on to note that workers have been negatively impacted by wage stagnation, such as those workers at the Nicholson Terminal and Dock in Ecorse, Michigan, which went three years without wage increases and laid off nearly all of the company's employees.[313] He went on to note that jobs were lost in plants in Lansing, Michigan, when General Motors Company was no longer exporting cars overseas from those facilities.[314] Another of the union representatives further explained that, due in large part to work lost to China, a Ford tool and die plant became a niche plant that now does only Class A services and employs less than half as many people as it used to.[315] Similarly, one union representative also gave an example of call center jobs being lost to the lower-cost labor in the Philippines.[316] Another union representative noted that these negative impacts of trade are not limited to union-represented jobs, and that the losses extend to nonunion jobs, small business owners, and the surrounding locations as well.[317] One retired steelworker claimed that imports had a negative effect on the domestic steel industry.[318] Additionally,

[309] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 10, 96 (Pierce O'Connell, Michigan Department of Labor and Economic Opportunity, TAA/RR).
[310] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 10, 96 (Pierce O'Connell, Michigan Department of Labor and Economic Opportunity, TAA/RR).
[311] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 11 (Andrea Hunter, USW Local 1299) and 9 (Dorethea Brown-Maxey, NABET).
[312] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 10–12 (Andrea Hunter, USW Local 1299), 12–13 (Anthony Robbins, IAMAW), and 13–14, 55–56 (Mark DePaoli, UAW Local 600).
[313] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 12–13 (Anthony Robbins, IAMAW).
[314] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 83 (Anthony Robbins, IAMAW).
[315] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 55–56 (Mark DePaoli, UAW Local 600).
[316] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 58 (Dorethea Brown-Maxey, NABET).
[317] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 11–12 (Andrea Hunter, USW Local 1299).
[318] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 16 (Victor Storino).

an NGO representative stated that the United States should not wait for job loss to stop imports and provide assistance to the companies negatively impacted.[319]

Some participants indicated that trade, foreign direct investment (FDI), or both have benefitted workers and local communities. In general, there seemed to be two ways in which people saw potential positive impacts of international trade: increases in exports or increases in FDI. It was noted that a significant value of goods and services pass through the port of Detroit annually.[320] One NGO representative mentioned that, according to the U.S. Department of Commerce International Trade Administration, there is a link between job creation in the United States and U.S. exports.[321] However, a union representative noted that the integration (in terms of both automotive labor and automotive exports) between Ontario, Canada, and Michigan used to be more evenly distributed under the Auto Pact of 1965 than it was under its successor, NAFTA, due in large part to firm relocation toward lower-cost labor in Mexico.[322]

A government representative pointed out that various foreign investments in recent years (including in Auburn Hills, Dundee, and Ann Arbor), increased jobs and contributed to growth in these communities.[323] In total, it was noted that FDI has led to a large number of foreign companies operating in Michigan and creating jobs in the state, a majority of which are in manufacturing.[324] Furthermore, this representative indicated that these jobs supplied by foreign companies are high tech and pay higher wages than their domestic counterparts.[325] However, one union representative pushed back on the notion that these investments benefited underserved communities, noting that foreign-owned investments and new facilities are often not located in underserved or underrepresented communities, and a lack of transportation or other factors often prevent individuals from accessing these new, higher-paying jobs.[326]

Trade Policies and Domestic Regulation

Participants identified trade policy as the cause of job losses. One union representative noted that trade policies often have loopholes or are manipulated by China and other countries so that the policies are

[319] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 108–09 (John Jeffers, Alliance for American Manufacturing).
[320] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 90–91 (Ric Preuss, IBEW).
[321] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 67 (Noel Nevshehir, Automation Alley).
[322] The union representative specifically compared the Canada-U.S. Automotive Products Agreement to NAFTA. USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 92–94 (Ian Robinson, Huron Valley Area Labor Federation).
[323] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 24–25, 97–98 (Pierce O'Connell, Michigan Department of Labor and Economic Opportunity, TAA/RR).
[324] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 68 (Noel Nevshehir, Automation Alley).
[325] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 99 (Noel Nevshehir, Automation Alley).
[326] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 31, 73–74 (Andrea Hunter, USW Local 1299).

not operating as intended.[327] Another union representative stated that current trade agreements allow for more capital mobility than the agreements prior to the 1980s, enabling auto, electronics, and steel manufacturers to move overseas for any number of reasons.[328] Various union representatives explained that companies are able to use the threat of moving jobs overseas for various reasons—such as better tax implications and lower wages—to limit the power of labor unions and keep domestic wages down.[329] For example, some union representatives noted that unions have to balance goals, such as pushing for higher wages, with the risk of jobs moving overseas. They noted that in many cases this balance has led to two- and three-tier wage systems under which certain workers receive lower pay or benefits for the same jobs.[330] Two union representatives went on to state that this continuous threat led to the divergence of productivity and wages beginning in the 1960s and 1970s, which coincided with a decline in unions at the workplace.[331] One also indicated that, as a result of trade policies, union jobs have decreased (and unions have weakened) in recent years.[332] The other criticized the underlying intents of trade agreements, which she feels typically prioritize doing business abroad, not the workers and worker rights in the participating countries.[333] A different union representative claimed that reliance on foreign countries and a lack of domestic production can create shortages, such as the ongoing semiconductor chip shortage.[334] Finally, an industry representative noted that there is a lack of coverage of the needs of some underserved communities in some U.S. free trade agreements, such as indigenous communities.[335]

Several participants also noted that there are differences in the regulations that U.S. facilities and their foreign competitors must adhere to regarding pollution, wage rates, and labor standards.[336] For example, two union representatives noted that wages in Mexico are consistently lower than those in the United States and Canada.[337] Another union representative and a retired steelworker indicated that many corporations find dealing with unions to be difficult, and find it easier to operate abroad where

[327] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 10–12 (Andrea Hunter, USW Local 1299).
[328] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 48–50 (Ian Robinson, Huron Valley Area Labor Federation).
[329] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 9 (Dorethea Brown-Maxey, NABET), 37 (Ric Preuss, IBEW), 47–48 (Ian Robinson, Huron Valley Area Labor Federation).
[330] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 47–48 (Ian Robinson, Huron Valley Area Labor Federation) and 60 (Mark DePaoli, UAW Local 600).
[331] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 50–51 (Ian Robinson, Huron Valley Area Labor Federation) and 57 (Dorethea Brown-Maxey, NABET).
[332] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 50–51 (Ian Robinson, Huron Valley Area Labor Federation).
[333] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 111–12 (Dorethea Brown-Maxey, NABET).
[334] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 72–73 (Andrea Hunter, USW Local 1299).
[335] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 27–29 (Chad Johnson, The Akana Group).
[336] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 16 (Victor Storino), 10–12 (Andrea Hunter, USW Local 1299), 94–95 (Ian Robinson, Huron Valley Area Labor Federation).
[337] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 94–95 (Ian Robinson, Huron Valley Area Labor Federation), 95 (Mark DePaoli, UAW Local 600).

unions are not as common.[338] One of the aforementioned union representatives stated that the United States should rethink having trade agreements with (or giving most-favored nation [MFN] status to) countries that do not have democratic systems of government and respect labor rights.[339]

Impacts on Surrounding Communities

Many participants discussed the community impacts of job losses. Participants noted that, when jobs are lost, local businesses—such as gas stations and restaurants—that rely on affected workers as customers and clients, as well as other businesses in the industry's supply chain, suffer as a result.[340] A retired steelworker also noted that company bankruptcies can have effects beyond job loss, such as lost pensions.[341] Participants mentioned several societal impacts of plant closures, job loss, and relocation, such as mental health issues and stress, suicide and other loss of life, divorce, domestic violence, and higher crime rates.[342] A government representative pointed out that community services, such as education, often suffer because funding for the counties declines as plants close and/or relocate.[343] An NGO representative explained that when a company in Beaver County, Pennsylvania, closed due to trade and hundreds of workers lost their jobs, then mom-and-pop shops, grocery stores, and other local businesses suffered and, in many cases, eventually shut down.[344] A union representative noted that, in the automotive industry, job losses at vehicle production facilities also negatively impact smaller upstream parts suppliers, and that these smaller companies often employ a disproportionate amount of minority workers.[345] The union representative went on to note that the loss of business at Ford plants in the Detroit area also impacted upstream suppliers, many of whom do not have the same protections (such as bargaining agreements and potential for relocation of positions) as Ford employees.[346] Another union representative noted that, when General Motors Company shut down production in Lansing, Michigan, jobs throughout the local community suffered as a result.[347] A third union representative cited

[338] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 16–17 (Victor Storino), 57–59 (Dorethea Brown-Maxey, NABET).
[339] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 110–11 (Ian Robinson, Huron Valley Area Labor Federation).
[340] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 11–12 (Andrea Hunter, USW Local 1299), 13 (Anthony Robbins, IAMAW), 18 (Victor Storino).
[341] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 17–18 (Victor Storino).
[342] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 18 (Victor Storino) and 21–22 (John Jeffers, Alliance for American Manufacturing).
[343] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 23–24 (Pierce O'Connell, Michigan Department of Labor and Economic Opportunity, TAA/RR).
[344] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 21 (John Jeffers, Alliance for American Manufacturing).
[345] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 14 (Mark DePaoli, UAW Local 600).
[346] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 14 (Mark DePaoli, UAW Local 600).
[347] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 83–84 (Anthony Robbins, IAMAW).

recent University of Michigan research that found that the negative effects of job loss in the automotive manufacturing sector extends to a much wider group of people than those who are directly displaced.[348]

Job Transitions

Participants indicated that workers from underserved populations face difficulty in switching jobs. A retired steelworker noted that members of underserved communities are less likely to possess the education necessary for some newer jobs.[349] For example, the retired steelworker stated that jobs in demand for people migrating to the United States were historically manual labor jobs but are now technology jobs that require specific education and for which many migrants are likely to be less qualified.[350] Moreover, a union representative and an NGO representative noted that new jobs often pay less, necessitate relocation or separation from families (which may not be an option for some), may be unwilling to hire older workers, or may require skills that are difficult for older workers to acquire or perform.[351] The NGO representative reported that the TAA program can help displaced workers move into new jobs and professions, but noted that not everyone is able to get into the TAA program and the program's training can sometimes be limited.[352]

Participants indicated that there are disparities in the opportunities available to different groups of people. For example, a retired steelworker and an NGO representative noted that it is harder for older people to find new positions following job loss, due to a perceived difference in their ability to learn new skills as compared to younger workers.[353] The retired steelworker and a union representative noted that race, religion, and language barriers often come into play, especially in places with highly diverse populations.[354] Another union representative noted that this is especially true in Detroit, due to its wide wage gap and large minority population.[355] An academic added that these problems are worse for individuals with disabilities.[356]

[348] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 37 (Ric Preuss, IBEW).
[349] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 15–16 (Victor Storino).
[350] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 17–18 (Victor Storino).
[351] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 22–23, 108–09 (John Jeffers, Alliance for American Manufacturing) and 30–33, 36 (Andrea Hunter, USW Local 1299).
[352] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 108–09 (John Jeffers, Alliance for American Manufacturing).
[353] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 19 (Victor Storino) and 23 (John Jeffers, Alliance for American Manufacturing).
[354] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 16 (Victor Storino) and 35 (Andrea Hunter, USW Local 1299).
[355] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 91 (Ric Preuss, IBEW).
[356] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 41–42 (Sharon Milberger, MI-DDI).

Role of Unions

Two union representatives noted that union jobs are disappearing at a faster rate than nonunion jobs, and indicated that this disproportionately impacts people of color and other minority groups.[357] For example, one union representative indicated that unions are more intentional about hiring minorities than nonunion employers, which means that the ease with which a person can switch from one job type (union) to the other (nonunion) may be disproportionately burdensome for some workers compared to others.[358] The other union representative stated that the gender pay gap is significantly narrower in union workplaces than in nonunion workplaces, and that union workplaces help bridge various economic divides and employ individuals from underserved groups. For example, he stated that public sector unions account for half of all union members in the United States, and that the public sector has a much higher proportion of women and people of color in its labor force.[359] A third union representative noted that the vast majority of women and minorities on construction sites are union workers.[360]

Two other union representatives noted that the state of Michigan has passed laws preventing local communities from raising the minimum wage and limiting the ability of teachers and the National Education Association to collectively bargain.[361]

Availability of Resources and Perceptional Challenges

Participants consistently noted declines in government investment and resources that result in significant hardship for underserved communities. Two union representatives noted that various services like childcare used to be available 24 hours per day (or have off-shift options) but are not anymore. As a result, they noted that workers are left to rely on their communities (which can make the relocation discussed above even more difficult). The same union representatives added that the drop in the availability of these services is disproportionately problematic for underserved communities.[362] An academic added that individuals with disabilities often have similar concerns with disability support.[363] Another concern raised by one of the aforementioned union representatives was the lack of public transportation and drivers' education courses in various areas, making it difficult for underserved

[357] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 75–76 (Andrea Hunter, USW Local 1299), 77 (Ian Robinson, Huron Valley Area Labor Federation).
[358] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 75 (Andrea Hunter, USW Local 1299).
[359] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 79–80 (Ian Robinson, Huron Valley Area Labor Federation).
[360] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 61 (Ric Preuss, IBEW).
[361] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 52–53 (Anthony Robbins, IAMAW), 85 (Mark DePaoli, UAW Local 600).
[362] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 25–27 (Dorethea Brown-Maxey, NABET) and 33–34 (Andrea Hunter, USW Local 1299).
[363] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 42 (Sharon Milberger, MI-DDI).

community members to easily commute to areas where the investments and higher-paying jobs are being placed.[364]

Several participants discussed the negative perceptions toward trade skills and the jobs associated with them. Specifically, various participants discussed the challenges of overcoming the belief that every child needs to go to college and pushing youth toward college instead of trade skills (with some schools getting rid of trade programs altogether) due to the perception that trade skills and union jobs are "low skill" or lack many of the benefits and opportunities that jobs requiring a college degree offer.[365] A union representative noted that many employers are using college degrees as a sorting mechanism, even if the job does not benefit from a college degree.[366] Another union representative said that this all leads to a shortage of workers with the skills appropriate for certain jobs, despite a surplus of workers.[367] To this end, he flagged that some unions have taken it upon themselves to set up their own apprenticeship programs instead of waiting for the government or schools to assist them.[368] This union representative also indicated that a lack of corporate tax payers has led to decreased investment in schools, and another stated that manufacturing leads to job creation, which, in turn, results in increased funding for education.[369]

Roundtable 7: Local Impacts on Underserved Communities

The roundtable on local impacts on underserved communities was held virtually on April 1, 2022. Twenty-five registered participants attended the roundtable, which was moderated by Commissioner Randolph Stayin. Roundtable participants included union representatives (Teresa Cassady, USW District 1; Bill Draves, International Union of Electronic, Electrical, Salaried, Machine and Furniture Workers - Communications Workers of America [IUE-CWA] Sustainable Energy Solutions; Kevin Key, USW District 9; Greg Pallesen, Association of Western Pulp and Paper Workers Union; Rick Pietrick, USW Local 979; William Padisak, Mahoning/Trumbull AFL-CIO; Adam Schelske, CWA Local 4603); a retired union representative (Jaladah Aslam); NGO representatives (John Bozek, Invest Puerto Rico; Sergio Contreras, Rio Grande Valley Partnership; Ruth Mazara, Moore Community House; Beatriz Ricartti, Alliance for Better Communities); academics (Juan Lara, University of Puerto Rico; David M. Mitchell, Missouri State University; Thomas O'Brien, University of California, Long Beach); manufacturing workers (Ryan Crumpton, Element Electronics; James Small, Element Electronics); a government representative (Ty

[364] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 30, 73–74 (Andrea Hunter, USW Local 1299).
[365] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 45 (Mikyia Aaron, Laborers' Local 1191), 63 (Ric Preuss, IBEW), 68–69 (Noel Nevshehir, Automation Alley), 78 (Ian Robinson, Huron Valley Area Labor Federation), and 82–83 (Anthony Robbins, IAMAW).
[366] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 101 (Ian Robinson, Huron Valley Area Labor Federation).
[367] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 88–89 (Ric Preuss, IBEW).
[368] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 87 (Ric Preuss, IBEW).
[369] USITC, Impacts on Underserved Communities Roundtable Transcript, Detroit, MI, March 30, 2022, 37-39 (Ric Preuss, IBEW), and 73 (Andrea Hunter, USW Local 1299).

Davenport, Fairfield County, SC); a business owner (Zachary Justin Mottl, Atlas Tool Works); a retired steelworker (Victor Storino); as well as other participants (Derick Holt, Wiley Rein; Mousa Kassis, Youngstown State University). Roundtable participants were from geographically diverse areas: the Midwest, Southeast, Southwest, West Coast, Puerto Rico, and other locations around the United States. Several issues—such as the impact of plant closures; challenges faced by workers; effects of foreign investment; trade policies; and manufacturing jobs and worker training—were discussed during the event.

The Impact of Reduced Production and Plant Closures

Several participants indicated that their regions had been affected by plant closures and cutbacks, particularly in the manufacturing sector.[370] A union representative also stated that call center jobs have moved overseas where wages are much lower than at U.S. call centers.[371]

Two other union representatives spoke about the impact of plant closures and production cutbacks on employees.[372] An academic and a business owner reported that plant closures can lead to the loss of opportunity for upward career mobility and a shift to services jobs that tend to have lower wages and fewer benefits.[373] Other union representatives, including one who is retired, said that the closure of the General Motors plant in Lordstown, Ohio, in 2019, and the threat of offshoring has been used to suppress worker wages and benefits.[374] Another union representative spoke about Cooper Tire in Finley, Ohio, which reportedly faced competition from dumped imports from China in 2007. Employees at this facility were reportedly scheduled for shifts that were two days on and two days off and could not file for unemployment.[375]

Several participants also spoke about the impact of plant closures on related businesses and surrounding communities. Two union representatives indicated that closures of manufacturing plants can affect vendors, contractors, and local businesses.[376] Another union representative and a business owner mentioned several community impacts, including population loss, a lack of hope and opportunity, increased crime, loss of training programs, and challenges in raising children in deteriorating

[370] USITC, Distributional Effects: Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 21–22 (Rick Pietrick, USW Local 979), 23–24 (William Padisak, Mahoning/Trumbull AFL CIO), 33–35 (Jaladah Aslam), and 37–39 (Teresa Cassady, USW District 1).
[371] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 35–36 (Adam Schelske, CWA Local 4603).
[372] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 22 (Rick Pietrick, USW Local 979), 29–32 (Kevin Key, USW District 9).
[373] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 60–61 (David Mitchell, Missouri State University) and 11 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[374] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 24 (William Padisak, Mahoning/Trumbull AFL CIO), 33–34 (Jaladah Aslam), 39–40 (Bill Draves, IUE-CWA Sustainable Energy Solutions).
[375] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 37–38 (Teresa Cassady, USW District 1).
[376] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 22 (Rick Pietrick, USW Local 979) and 29–32 (Kevin Key, USW District 9).

communities that have fewer activities or amenities such as parks and swimming pools.[377] A different union representative spoke of the effects of layoffs at the U.S. steel mill in Fairfield, Alabama, in 2009, where the number of employees and contractors experienced a substantial decline. He reported that these layoffs led to a range of business closures from local mom-and-pop stores to Walmart, and that the city of Fairfield went bankrupt due to the declining tax base.[378] A retired union representative said that families and neighborhoods in the Mahoning Valley and Youngstown, Ohio, are still being affected by manufacturing job losses that occurred over 40 years ago, as well as more recent plant closures. She described a cycle of decline, decay, and blight, as the population has dropped to one-third of its previous size and homes lay vacant as children and grandchildren move away.[379]

An NGO representative added that increased automation has also led to decreased employment. He indicated that a pharmaceutical factory that may have once employed a large number of workers in assembly jobs might now employ a much smaller number of higher-skilled and higher-paid employees such as engineers and technicians.[380]

Challenges Faced by Workers

Several participants discussed the challenges in their communities faced by certain workers including women, Latinos, and older workers. An NGO representative stated that in Mississippi, women traditionally work in lower-paid occupations and comprise two-thirds of the minimum wage earners although they make up half of the workforce. She added that underrepresented workers often lack social capital and connections.[381] Another NGO representative discussed the importance of a livable wage and employee training (for example, in the healthcare and biotechnical industries) for Latinos and Mexican Americans in Los Angeles.[382] A retired steelworker addressed the difficulties older workers face following job loss and suggested that manufacturers that move production abroad should be responsible for their employees' job transitions.[383] An academic stated that it is especially difficult for older workers to relocate and retrain for new jobs.[384]

Foreign Investment

Participants shared several different perspectives regarding the impact of foreign investment in their communities. A business owner said that some foreign companies have no real investment in communities, as they establish assembly plants in the United States—which can close at any time—

[377] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 37–39, Teresa Cassady, USW District 1) and 11 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[378] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 29–32 (Kevin Key, USW District 9).
[379] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 33–35 (Jaladah Aslam).
[380] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 53 (John Bozek, Invest Puerto Rico).
[381] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 69–70 (Ruth Mazara, Moore Community House).
[382] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 64–65 (Beatriz Ricartti, Alliance for Better Communities).
[383] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 87–88 (Victor Storino).
[384] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 61–62 (David Mitchell, Missouri State University).

rather than an entire supply chain. He gave an example of a Chinese railcar company that won a local government contract in Chicago by offering lower prices than other companies that were going to use a U.S. supply chain, including inputs that his firm produces. The Chinese company reportedly promised to invest in the community and create jobs, but its assembly plant employs a very small number of people, and it sources inputs (such as the brake assemblies and shell) from China.[385]

Other participants described foreign investments that have benefited their communities. For example, a union representative stated that foreign firms have invested in small specialty steel mills in Youngstown, Ohio, because of the availability of trained steelworkers in the area. This union representative also reported that a foreign firm purchased the former Lordstown Motors plant, which has brought in many jobs.[386] Another participant said that in the geographic area that he covers, there are many foreign companies that employ thousands of local workers in good-paying export-oriented jobs. He indicated that many of these companies procure most of their inputs domestically. He added that with the current supply chain disruptions in the country, it would be beneficial to have more foreign companies invest in U.S. manufacturing to build the supply chain and increase U.S. competitiveness.[387] An NGO representative stated that South Texas has benefited from trade and foreign investment. This representative indicated that these investments have generated a large value of high-technology exports and have led to an increase in agricultural cold storage facilities in the state.[388]

Trade-related and Other Government Policies

Many participants referenced trade policies, domestic laws, and free trade agreements (including NAFTA and the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR), Miscellaneous Tariff Bills (MTBs), and Title VII of the Tariff Act of 1930 antidumping/countervailing duty (AD/CVD) laws) impacting certain U.S sectors. For example, a union representative stated that unfair trade has devastated the paper industry in the Western United States, with unfair trade being responsible for about two-thirds of job losses in the industry and automation being responsible for the remaining third of job losses.[389] An academic stated that the CAFTA-DR has negatively impacted agricultural incomes and jobs in Puerto Rico as lower-priced agricultural goods from Central America have entered the market. He also reported that the agreement has hurt the electronics sector as companies have relocated from Puerto Rico to Central America, while Puerto Rican exports to CAFTA-DR markets have not increased.[390]

[385] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 41–42 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[386] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 45–46 (William Padisak, Mahoning/Trumbull AFL CIO).
[387] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 43–45 (Mousa Kassis, Youngstown State University).
[388] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 47 (Sergio Contreras, Rio Grande Valley Partnership).
[389] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 16 (Greg Pallesen, Association of Western Pulp & Paper Workers Union).
[390] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 62–64 (Juan Lara, University of Puerto Rico).

In contrast, an NGO representative stated that NAFTA has benefitted communities in South Texas, with a substantial drop in the unemployment rate from the period prior to NAFTA to 2019.[391]

A number of speakers discussed benefits and limitations of AD/CVD laws, MTBs, and other trade policy instruments. For instance, a participant spoke of the importance of enforcing AD/CVD laws and stated that the Economic Policy Institute found that new steelmaking jobs were created due to the section 232 steel tariffs. He also indicated that section 232 tariffs on aluminum imports have allowed the last primary aluminum smelter in the United States to restore jobs in South Carolina that had been lost to subsidized aluminum exports from China.[392] A union representative said there was a lack of real-time trade enforcement of AD/CVD laws.[393] A union representative stated that although President Barack Obama placed tariffs on tires from China, the tariffs expired only three years later.[394] Manufacturing workers and a government representative said that workers had been laid off at a television assembly plant because of the lapse of MTB legislation.[395] A business owner stated that tariffs should be applied in a way that protects the entire supply chain.[396]

An academic said that while he believes in free trade, the United States should not reduce its tariffs and quotas while other countries maintain tariffs and subsidize their companies.[397] A union representative suggested limiting companies' imports relative to their efforts to create U.S. jobs, such that companies could only import more than a certain amount if they build and operate manufacturing facilities in the United States.[398] He also favored tariffs that would be put in place when imports exceed a specified amount.[399] Another union representative stated that having extra cash from tax cuts allowed a U.S. manufacturer to close its U.S. mills and move its manufacturing equipment to lower-cost foreign areas. He suggested that, rather than general corporate tax cuts, tax credits or tax cuts could be used as an incentive for companies to reinvest in the United States.[400]

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[391] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 47 (Sergio Contreras, Rio Grande Valley Partnership).
[392] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 59 (Derick G. Holt, Wiley Rein).
[393] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 21–22 (Rick Pietrick, USW Local 979).
[394] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 38 (Teresa Cassady, USW District 1).
[395] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 18–19 (James Small, Element Electronics), 19–20 (Ryan Crumpton, Element Electronics), and 20–21 (Ty Davenport, Fairfield County, South Carolina). For more information on the lapse of MTB and its negative effects on employment at Element Electronics, see the "written submission" section of chapter 3 (hearing and written submissions) and Baer, Element Electronics, written submission to the USITC, April 8, 2022.
[396] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 27 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[397] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 86 (David Mitchell, Missouri State University).
[398] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 48–49 (Kevin Key, USW District 9).
[399] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 29–30 (Kevin Key, USW District 9).
[400] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 81–82 (Greg Pallesen, Association of Western Pulp & Paper Workers Union).

Several participants discussed investment, particularly in infrastructure. For example, one participant advocated policies—including infrastructure improvements—that boost exporters' competitiveness. He noted that wages at export-oriented manufacturing facilities are higher than wages at other facilities in the same industry. He added that having a closer supply chain would increase competitiveness.[401] An NGO representative stated that increased investment is needed at ports of entry and in transportation.[402] Another NGO representative spoke of the importance of accountability in government investment, giving the example of a local port in her community that used U.S. Department of Housing and Urban Development (HUD) funds to build a hotel that employs mostly low-wage service workers rather than using the funds to promote higher-wage jobs.[403]

Two participants, an NGO representative and a business owner, discussed policies regarding medical products. The NGO representative favored more federal government encouragement and support of U.S. production of pharmaceuticals and medical devices as well as workforce training and infrastructure improvements. He said that most of the active ingredients and other chemicals that go into pharmaceutical pills are produced in India and China, but the pandemic has highlighted the need to protect the U.S. supply chain for medical devices and pharmaceutical products. He noted that a company from India is opening a factory in Caguas, Puerto Rico, to produce active pharmaceutical ingredients.[404] The business owner stated that the U.S. government and American medical system should get out of the cycle of incentivizing and purchasing the lowest-priced medical products. He stated that the Defense Production Act was used during the pandemic to help support domestic mask manufacturing, but that hospitals and other large purchasers are going back to buying the cheapest possible product. In addition, he would like to see any import tariffs on production inputs also be applied to protect the entire supply chain, and he also favors federal government review of the overvalued U.S. dollar, which hinders U.S. production in favor of imports.[405]

Participants also discussed state-level policies. For example, a union representative stated that although he favors California's environmental policies on carbon emissions, these policies, as well as federal tax policies, have incentivized pulp and paper mills in California to offshore their jobs and environmental responsibilities.[406] An academic, also referencing California state policies, noted that each state has different economic policies and addresses trade and competitiveness as well as transportation and infrastructure investment differently.[407]

[401] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 28–29 (Mousa Kassis, Youngstown State University).
[402] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 47–48 (Sergio Contreras, Rio Grande Valley Partnership).
[403] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 69–70 (Ruth Mazara, Moore Community House).
[404] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 50–53 (John Bozek, Invest Puerto Rico).
[405] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 54–55 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[406] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 81–82 (Greg Pallesen, Association of Western Pulp & Paper Workers Union).
[407] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 56–58 (Thomas O'Brien, University of California, Long Beach).

The Role of Manufacturing Jobs and Overall Worker Training

Several participants discussed the role of manufacturing in their communities. For example, an NGO representative described the importance of manufacturing, particularly pharmaceutical and medical devices, to the Puerto Rican economy, stating that about half of the economy and a large number of jobs are related to manufacturing.[408] In another example, manufacturing workers and a government representative stated that Element Electronics in Alabama has provided good-paying jobs, advancement opportunities, and skill development for people in its community, which has an overwhelmingly African-American population.[409]

Participants discussed the importance of providing awareness and encouragement toward jobs that do not require college education such as construction worker, plumber, or electrician; the need to invest in technical and vocational schools; and the importance of educating students in basic life skills.[410] For example, a union representative stressed the need to educate residents of underserved Cleveland neighborhoods about "dignified" blue-collar union jobs at the steel mill that offer benefits and require minimal training.[411] Another union representative and a business owner spoke about the financial burden of obtaining an education, including college debt, and the need for students to be able to work while going to school, and an academic spoke of students at his campus experiencing homelessness and food insecurity.[412] An academic described how four-year institutions can make learning more accessible, including embedding industry recognized certifications in traditional college degree programs; offering credit for prior learning; and offering formal pathways for nontraditional, noncredit learning. He added that it would be helpful to have real-time data on labor market demand for skills (for example, using data from online job boards).[413]

The aforementioned business owner indicated that companies that are unprofitable due to "trade predation" may not be able to pay for worker training.[414] An academic added that providing training in

[408] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 51 (John Bozek, Invest Puerto Rico).
[409] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 18–19 (James Small, Element Electronics), 19–20 (Ryan Crumpton, Element Electronics), 50 (Ty Davenport, Fairfield County, South Carolina).
[410] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 75–76 (Kevin Key, USW District 9, 95–96 (Beatriz Ricartti, Alliance for Better Communities), 74–75, 85 (David Mitchell, Missouri State University).
[411] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 70–71 (Rick Pietrick, USW Local 979).
[412] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 79–80 (William Padisak, Mahoning/Trumbull AFL CIO), 56–58 (Thomas O'Brien, University of California, Long Beach), 68 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[413] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 71–73 (Thomas O'Brien, University of California, Long Beach).
[414] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 67 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).

high schools and trade schools would allow firms to spend more time and money on investment and expanding production rather than on employee training.[415]

Roundtable participants also described training programs in their communities. An NGO representative described the Women in Construction Program, a free training program for women in Mississippi, which provides women access to careers in high-wage, high-demand skilled trade and advanced manufacturing jobs and provides industries with a qualified workforce.[416] An academic noted that California State University Long Beach has a four-year global logistics academy—a partnership with the Port of Long Beach and the local school district—which serves a population that includes large numbers of students who are disadvantaged socioeconomically, have disabilities, or are English language learners. He stated that, as a result of the program, student grades have improved, enrollment has increased in Advanced Placement courses enrolling high school students in college-level curricula, and chronic absences have decreased.[417] Another participant mentioned a new training center in Youngstown, Ohio—funded by the federal government and private industry—that features a large manufacturing floor and is free for companies and for students to train for different manufacturing skills, such as powder printing, additive manufacturing, industrial maintenance, and machining. He also discussed the Ohio Export Internship Program—a partnership between the state of Ohio, academia, and industry—which trains students on the exporting process and matches them with companies for internships.[418] A business owner reported that he hires unskilled workers and provides training from outside providers, such as the Technology Manufacturing Association, paid community college training, and specialized training by machinery vendors and equipment providers.[419]

Two union representatives described training available to union members, including apprenticeships at steel mills and USW certificate programs for trades including electricians, pipefitters, and welders.[420] Another union representative spoke of a program (building trades day) for children that was developed to address the difficulty in finding apprentices in the building trades. He reported that this program provides students from area schools an opportunity to do hands-on work (such as applying cement), see how wiring works, view heavy equipment demonstrations, and learn about career possibilities and the importance of acquiring skills, such as basic math, that are needed to get through an apprenticeship training program.[421]

[415] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 85 (David Mitchell, Missouri State University).
[416] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 68–69 (Ruth Mazara, Moore Community House).
[417] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 80 (Thomas O'Brien, University of California, Long Beach).
[418] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 76–78 (Mousa Kassis, Youngstown State University).
[419] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 66–68 (Zach Mottl, Atlas Tool Works and Coalition for a Prosperous America).
[420] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 70–71 (Rick Pietrick, USW Local 979), 75–76 (Kevin Key, USW District 9).
[421] USITC, Local Impacts on Underserved Communities Roundtable Transcript, April 1, 2022, 79–80 (William Padisak, Mahoning/Trumbull AFL CIO).

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Chapter 3
Hearing and Written Submissions

Introduction

Although not specifically requested by USTR, the Commission held a public hearing and received written submissions from the public in addition to the roundtables and symposium summarized in the previous two chapters of this report. The hearing was intended to supplement the roundtables and to provide an opportunity for organizations and officials, many with a national reach, to contribute to the conversation on the distributional effects of trade and trade policy. This chapter—divided into two sections—summarizes input provided at the hearing and through these written statements. The first section contains a summary of information presented at the hearing, as well as in prehearing and posthearing briefs, and is organized by panel and theme. The second section contains a summary of all other written submissions filed in connection with this investigation and is organized by theme.

Hearing

On April 19, 2022, the Commission held a public hearing in connection with this investigation. The hearing was held virtually and included testimony from 13 individuals, including a member of Congress and two county commissioners in the first panel (see appendix C for calendar of hearing witnesses). Other hearing witnesses were divided into two panels. The second panel included representatives of three national-level labor unions, an industry association, and a services trade consultancy. The third panel included representatives of a manufacturing trade association, a public advocacy association, a policy think tank, a county government association, and a trade attorney.

Before the hearing, the Commission conducted an extensive outreach effort to a large and diverse group of individuals and organizations to encourage participation in the event, including outreach to more than 150 national-level organizations. Outreach was also done in conjunction with the Commission's outreach efforts for the roundtables and the academic symposium. Information about the hearing appeared in the *Federal Register* and on the Commission's investigation-specific website, found at Distributional Effects 332 Investigation.

This section includes panel-specific summaries of the testimony provided at the hearing—including both prepared statements and responses to Commissioner questions—and related pre- and posthearing submissions. As with roundtables, the summaries of the hearing catalogue the views of the hearing witnesses and do not attempt to assess, analyze, or draw conclusions. Many witnesses spoke specifically about the effects of trade and trade policy on underrepresented and underserved communities, but others spoke more generally about the impact of trade and trade policy on workers.

Reflecting a unique mix of witnesses, each panel focused on different issues affecting underserved and underrepresented communities.[422] This section is not intended to cover every topic that was discussed at the hearing nor assess the relative importance of these issues. Rather, this section highlights some issues that were the subject of witness discussions. The information in each of these summaries is organized by theme.

Panel 1

Three government officials testified at the hearing: the Honorable Frank J. Mrvan, U.S. Representative, 1st District, Indiana; the Honorable Melissa McKinlay, County Commissioner, Palm Beach County, Florida; and the Honorable Martha Schrader, County Commissioner, Clackamas County, Oregon, and National Association of Counties (NACo).[423] Representative Mrvan's testimony focused on the effects of trade policies on manufacturing workers; Commissioner McKinlay's testimony focused on the negative effects of trade on agricultural communities in Palm Beach County; and Commissioner Schrader's testimony focused on the benefits of foreign investment and exports to communities in the Portland region as well as counties throughout the United States.

Representative Mrvan discussed the effects of trade policies on workers in the manufacturing sector and the need for strong trade policies and enforcement.[424] For example, he expressed concern that unfair trade threatens the livelihoods of manufacturing workers in Northwest Indiana and cited the closure of a tin mill that led to job losses in his district due to limitations of our trade policies. He also expressed his support for the steel industry. He stated that "far too many workers feel left behind," which has contributed to division in the country.

Commissioner McKinlay stated that unfairly priced produce imports from Mexico have negatively affected farmers and agricultural workers in the Everglades Agricultural Area of Palm Beach County, which includes three cities with predominantly minority communities and poverty rates greater than 30 percent.[425] More than one-third of the land in Palm Beach County is used for agriculture, including sugarcane, sweet corn, bell peppers, rice, lettuce, radishes, and leafy greens. McKinlay stated that Florida has lost market share to produce from Mexico, particularly since 2000. McKinlay indicated that the effects of trade on Palm Beach County include a loss of farmland—particularly farms of 500–999 acres—and declines in the market value of produce and in cash income per farm. She added that farmers have been forced to sell to developers who build expensive homes that most residents cannot afford and that losing more farms would be catastrophic for Florida's rural communities. In a written submission, McKinlay stated that, although county export data are generally not available, one grower of sweet corn, green beans, cabbage, and sugarcane is farming 40 percent fewer acres than before the North American Free Trade Agreement (NAFTA). McKinlay added that in 2000, Florida produced more

[422] Throughout this chapter, staff uses the naming conventions chosen by the speaker or author to describe workers. Examples of speaker or author choice descriptors include, but are not limited to, "Black", "African American", "African-American", "Hispanic", "Latino", "Latina", "Latinx."
[423] Schrader is the Vice Chair for NACo's Community, Economic and Workforce Development Policy Steering Committee and Vice Chair for NACo's International Economic Development Task Force.
[424] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 6–9 (testimony of Frank J. Mrvan, U.S. Representative, 1st District, IN).
[425] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 9–15 (testimony of Melissa McKinlay, County Commissioner, Palm Beach County, FL).

tomatoes than it imported from Mexico, but currently tomato imports from Mexico are more than triple Florida's production.[426]

Commissioner Schrader described how foreign investment and trade have benefitted counties in general and Clackamas County, Oregon, and the Greater Portland, Oregon, region specifically.[427] Schrader stated that counties with more foreign investment have had higher rates of job and gross domestic product (GDP) growth and that counties with more export-oriented economies have higher growth rates and pay higher wages. Schrader described the benefits of foreign direct investment (FDI) in the Greater Portland region, where more than 60,000 workers are employed by foreign-owned companies, and in Clackamas County, where companies from multiple countries have established a total of more than 40 facilities in sectors such as metals and manufacturing, high-tech, agriculture, and food processing. She went on to say that counties have used different strategies to expand economic productivity through trade and business and described Clackamas County's program to expand trade and foreign investment that includes holding various training and other opportunities for businesses, the community, and local officials. In particular, Schrader described a sister county agreement with a county in China to support collaboration in trade and other areas and international trade forums where companies share information on exporting products and services.

Panel 2

The second panel consisted of five witnesses: Elena Lopez, Legislative Specialist, Communications Workers of America (CWA); William E. Spriggs, Chief Economist, American Federation of Labor and Congress of Industrial Organizations (AFL-CIO); Josh Nassar, Legislative Director, United Auto Workers (UAW); Ed Brzytwa, Vice President of International Trade, Consumer Technology Association (CTA); and Linda Schmid, International Development Adviser, Trade in Services International (TiSI). The testimonies touched on many topics, including trade-related effects, public sector and private sector assistance to workers affected by trade, unions, and U.S. exports.[428]

Effects of Trade and Trade Policies

Witnesses discussed effects of trade and trade policies on U.S. workers and the U.S. economy. Lopez contended that trade policy, and U.S. trade agreements specifically, has encouraged companies to offshore jobs, which caused reduced U.S. wages and benefits, and worsened working conditions for U.S. workers.[429] She expressed concern that trade policy has supported companies that offshore jobs and thus harmed U.S. workers. In particular, she asserted that investor-state dispute settlement (ISDS) creates legal protections for companies that offshore jobs, that trade agreements undermine Buy American laws, and that loopholes within rules of origin regulations allow companies to produce goods and services elsewhere.[430] Lopez expressed support for trade policies that ensure a level playing field for

[426] USITC, posthearing brief, May 2, 2022, 1, (Melissa McKinlay, County Commissioner, Palm Beach County, FL).
[427] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 16–25 (testimony of Martha Schrader, County Commissioner, Clackamas County, OR).
[428] For more information on Panel 1, see pages 26–160 of the USITC Distributional Effects: Hearing Transcript found at USITC's website, Distributional Effects 332 Investigation.
[429] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 27 (testimony of Elena Lopez, CWA).
[430] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 27 (testimony of Elena Lopez, CWA).

U.S. workers. She also said that a commitment to workers' rights should be required for U.S. trading partners.[431]

Employment

Several witnesses discussed the effects of trade on employment conditions. Spriggs described two periods of globalization, one beginning in 1945 and the other beginning in 1980. The post-World War II phase included policies, rules, and institutions intended to mitigate inequality and economic deprivation. However, he said that, beginning in 1980, new rules favored growth through private investment and created incentives that led to offshoring.[432] Spriggs suggested that governments shifted from a focus on full employment to price stability and encouraged austerity over public investment, creating an environment where policy choices are ignored as the cause of economic inequality. He contended that those changes, as well as trade rules that lower American labor standards, have been the root cause of inequality in the United States. Spriggs asserted that such policies have had disproportionate effects on Black workers, young workers, female workers, and local public investment.[433]

Job Displacement

Several witnesses discussed the relationship between trade and job displacement. Spriggs cited opposing shifts in the number of manufacturing and food service jobs, with manufacturing jobs decreasing and food service jobs increasing by roughly the same magnitude from early 2000 to 2020. He said that, because Europe was slower to reduce trade barriers with China, it did not suffer the same number of job losses.[434] Spriggs also indicated that job displacement led to declining marriage rates; falling manufacturing job stability; a rising share of unwed mothers; increased despair, as evidenced by higher drug overdoses particularly among White workers; worsening health, especially mental health; and in certain regions, lower property values and thus government revenues. He stated job losses had a particularly large effect on Black workers, many of whom lost their jobs in jurisdictions with weak unemployment assistance.[435]

Nassar stated that U.S. labor laws are weak and not sufficient to protect workers from threats such as job displacement. He suggested the need for models that analyze the likely impact of a trade agreement to look at wages and labor conditions as well as the effects of unfair trade practices.[436] Spriggs also recommended conducting research that broadens the understanding of trade effects on American workers.[437]

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[431] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 32 (testimony of Elena Lopez, CWA).
[432] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 33–34 (testimony of William E. Spriggs, AFL-CIO).
[433] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 35 (testimony of William E. Spriggs, AFL-CIO).
[434] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 36–37 (testimony of William E. Spriggs, AFL-CIO).
[435] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 37–38 (testimony of William E. Spriggs, AFL-CIO).
[436] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 39–43 (testimony of Josh Nassar, UAW).
[437] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 38–9 (testimony of William E. Spriggs, AFL-CIO).

Lopez stated that U.S. call center workers have suffered various problems, including stress due to fear of job displacement because of offshoring.[438] Lopez went on to describe problems workers face when losing a job, including lower wages, fewer benefits throughout a career, and harm to psychological well-being, health, and family relationships.[439] She also stated that job displacement is particularly difficult for people of color.[440]

Nassar stated that, although some predicted that NAFTA would benefit U.S. auto workers, it has ultimately been detrimental, leading to effects such as lower wages. He stated that NAFTA caused job losses and that incomes have not increased to the same extent as productivity. He said that many auto supply companies scaled back their U.S. operations and expanded their operations in Mexico and suggested that this was due to relatively lower wages and worse labor conditions in Mexico compared to the United States.[441] Similarly, Spriggs suggested that U.S. workers lost jobs under NAFTA because they could not compete with low Mexican salaries. In addition, he stated that Mexico did not raise minimum wage standards and did not allow Mexican workers to organize. Thus, Mexican workers did not attain the same rights held by U.S. and Canadian workers.[442]

Two witnesses described trade effects for specific communities. Lopez described how workers at a plant in Salem, Virginia, lost jobs that were paying $36 an hour. Some were able to obtain new jobs, but at much lower salaries, such as $15 an hour.[443] Spriggs said trade caused job losses in Baltimore's steel industry and that those jobs never returned.[444]

Lopez also discussed obstacles to relocation following job displacement. She noted that when workers lose their jobs, they face difficulties in relocating if they have no savings. In addition, relocation may mean leaving a community where the worker's family resides.[445] Spriggs echoed this and stated that moving away from family may not only entail personal loss but the loss of assistance, for example when a family member is also a babysitter.[446] Nassar noted that relocation can be difficult for families with children in high school and disruptive to their education.[447] Schmid stated that the high cost of housing has become an extreme barrier for relocating; because it is very expensive to move, low-income workers may not have the financial resources to relocate.[448]

Brzytwa stated that, although relocation is difficult, especially for workers in the manufacturing sector, labor mobility and relocation may be less necessary in the future because of advancements in technology. Accordingly, he said it is important to keep the costs of technology low.[449] Both Lopez and

[438] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 28 (testimony of Elena Lopez, CWA).
[439] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 29-30 (testimony of Elena Lopez, CWA).
[440] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 29 (testimony of Elena Lopez, CWA).
[441] USITC, USITC Distributional Effects: Hearing Transcript, April 19, 2022, 40 (testimony of Josh Nassar, UAW).
[442] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 70 (testimony of William E. Spriggs, AFL-CIO).
[443] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 63 (testimony of Elena Lopez, CWA).
[444] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 64 (testimony of William E. Spriggs, AFL-CIO).
[445] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 80 (testimony of Elena Lopez, CWA).
[446] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 80 (testimony of William E. Spriggs, AFL-CIO).
[447] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 84 (testimony of Josh Nassar, UAW).
[448] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 83 (testimony of Linda Schmid, TiSI).
[449] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 84, 87 (testimony of Ed Brzytwa, CTA).

Nassar noted that remote work is much more relevant to the services industry than the manufacturing industry.[450]

Tariffs

Several witnesses discussed the role of tariffs. One witness suggested that tariff changes may be an ineffective policy tool in certain instances, while others argued that tariff increases have had a negative impact on U.S. businesses, workers, or both including those in underrepresented communities. Ed Brzytwa criticized tariffs, particularly tariffs on technology goods, as harmful to the U.S. economy, businesses, and workers. He stated tariffs increase the price of goods and thus reduce profits, contribute to inflation, and trigger retaliation. He further stated that tariffs undermine the objective of achieving a worker-centric trade policy that fosters an inclusive trade environment and expands the digital economy. He said tariffs are a form of regressive taxation as lower-income households generally spend more on traded goods as a proportion of their income.[451]

Linda Schmid said that U.S. trade policies have affected housing prices by increasing tariffs, which resulted in raised costs on key inputs such as lumber, steel, and aluminum. She also stated that, because underrepresented communities spend a larger share of their income on essential goods and services, they are disproportionately affected when trade policies increase costs of goods and services.[452]

Trade in Services and Foreign Direct Investment

Schmid discussed factors related to trade in services and foreign direct investment (FDI). She stated that the United States is a large player in international trade of commercial services and noted that much services trade is digital. In addition, Schmid stated that U.S. imports of services dropped significantly because of the COVID-19 pandemic and that this harmed the employment situation of low-wage workers more than higher-wage workers.[453] She also noted that FDI contributes to capital formation for business growth and job creation and that FDI lowers services prices, which is particularly beneficial for underrepresented communities.[454]

Unions

The three union representatives discussed their views on the efficacy and status of unions in the United States and abroad, including the support that unions provide to U.S. workers of color. Spriggs advocated better enforcement of labor standards and recognition of the right of U.S. workers to unionize. He endorsed emulation of the union benefit strategies pursued by the International Association of Machinists and Aerospace Workers.[455]

Nassar stated that, under collective bargaining contracts, workers being subject to the same conditions and worker rights protections fosters equal treatment and fairness. He also noted that data support the

[450] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 85–86 (testimony of Elena Lopez, CWA); USITC, hearing transcript, April 19, 2022, 86 (Josh Nassar, UAW).
[451] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 47–48 (testimony of Ed Brzytwa, CTA).
[452] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 56–57 (testimony of Linda Schmid, TiSI).
[453] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 52–55 (testimony of Linda Schmid, TiSI).
[454] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 53–54 (testimony of Linda Schmid, TiSI).
[455] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 116 (testimony of William E. Spriggs, AFL-CIO).

view that minorities are especially hurt when a strong labor movement is lacking.[456] Spriggs expanded on this, stating that the rate of union membership among Black workers is higher than among White workers. He also stated that the manufacturing job losses for Black workers in the 1970s were especially detrimental because it meant the loss of union jobs with all the protections that union membership entailed.[457] Lopez also noted that unions are helpful in addressing racial disparities caused by job displacement.[458]

The union witnesses were critical of the corporate treatment of unions and workers seeking to unionize in U.S. trade partner countries. Lopez stated that some U.S. companies have threatened to offshore production to intimidate workers seeking to unionize or obtain higher wages. Lopez suggested that this can undermine international workers' efforts to form unions or secure better wages and working conditions and thus contributes to a race to the bottom.[459] Spriggs said that after NAFTA, Mexican labor laws prevented the establishment of unions, which contributed to low wages in Mexico and made it difficult for U.S. workers to compete.[460]

Public Sector and Private Sector Support and Investment

Witnesses discussed programs and other forms of support for workers affected by trade and trade agreements. The three union witnesses advocated for more funding for government programs to assist workers whose jobs have been displaced.

Trade Adjustment Assistance

Several witnesses commented on the U.S. Trade Adjustment Assistance (TAA) program. Nassar advocated for strengthening the TAA program.[461] Lopez stated that TAA is a great program that has helped people who have lost their jobs because of trade. She noted, however, the need for greater clarity on who qualifies for TAA benefits[462] Brzytwa, although not disputing the benefits of TAA, stated that the program did not assist those who lost their jobs because of section 232 and 301 tariffs.[463] Spriggs stated that, although TAA is an essential program, it has not adequately compensated workers for their losses; it needs more funding and should cover workers for longer periods of time.[464]

Infrastructure and Other Resources

Several witnesses discussed resources—such as infrastructure, insurance, and training, among others—that affect workers' opportunities and adaptability. Spriggs stated that poor transportation deters adjusting to trade shocks, and that better transportation networks are vital.[465] Brzytwa recommended

[456] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 153–54 (testimony of Josh Nassar, UAW).
[457] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 154–5 (testimony of William E. Spriggs, AFL-CIO).
[458] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 154 (testimony of Elena Lopez, CWA).
[459] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 30–31 (testimony of Elena Lopez, CWA).
[460] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 68 (testimony of William E. Spriggs, AFL-CIO).
[461] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 79 (testimony of Josh Nassar, UAW).
[462] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 117 (testimony of Elena Lopez, CWA).
[463] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 117–8 (testimony of Ed Brzytwa, CTA).
[464] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 115 (testimony of William E. Spriggs, AFL-CIO).
[465] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 60 (testimony of William E. Spriggs, AFL-CIO).

more internet access to increase workers' ability to work from anywhere and access the digital economy.[466]

Spriggs recommended improving health insurance for low-wage workers and noted that it is expensive for displaced workers to move to states that have not expanded Medicaid benefits. Spriggs also advocated for expansion of unemployment insurance to workers who must move when their displaced spouses find new jobs in other locations.[467] Schmid highlighted that women account for a large percentage of workers in low-income services jobs and advocated for more childcare assistance for women.[468]

Spriggs discussed the importance of unemployment insurance for workers whose jobs have been displaced.[469] He also stated that the United States lacks a national employment service, which makes it difficult for workers to research job opportunities, especially those outside their home communities.[470] He also recommended summer jobs programs and apprenticeship programs to assist young people entering the job market.[471]

Spriggs noted that the aerospace industry, as an example, has developed job training standards, which makes it easier for workers to switch companies when necessary. He stated that this effort has been successful because of respect for the management-labor agreement and substantial funding.[472] Spriggs believes that the United States now lags its competitors in affordability and accessibility of a college education and should address this.[473] Brzytwa advocated for enhanced employer-provided computer training and education programs so that employees can become more digitally fluent.[474]

Promotion of U.S. Exports

Although much of the panel discussion focused on imports and their effects on U.S. workers, witnesses also discussed the impact of U.S. exports. Brzytwa cited a U.S. government initiative called the National Export Initiative, which aimed to help companies, particularly small and medium-sized enterprises (SMEs), access new markets. He advocated for more government promotion of U.S. exports by SMEs to "reflect the interest of underserved, underrepresented communities, minority communities across the country, and in particular, entities that are owned by minorities."[475] In contrast, Spriggs suggested that the effects of exports are negligible because they are so diffuse. He added that, although U.S. firms have benefited from access to markets, it has mostly been with partners that share the same labor standards

[466] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 84–85 (testimony of Ed Brzytwa, CTA).
[467] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 81 (testimony of William E. Spriggs, AFL-CIO).
[468] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 61 (testimony of Linda Schmid, TiSI).
[469] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 38 (testimony of William E. Spriggs, AFL-CIO).
[470] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 82 (testimony of William E. Spriggs, AFL-CIO).
[471] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 115–16 (testimony of William E. Spriggs, AFL-CIO).
[472] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 116 (testimony of William E. Spriggs, AFL-CIO).
[473] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 119–20 (testimony of William E. Spriggs, AFL-CIO).
[474] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 144 (testimony of Ed Brzytwa, CTA).
[475] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 147–48 (testimony of Ed Brzytwa, CTA)

and the same rights to organize.[476] Spriggs also stated that a lack of access to capital is a big obstacle for minority-owned firms that wish to export.[477]

Panel 3

The five panelists on the third panel were Scott N. Paul, President, Alliance for American Manufacturing (AAM); Edward Gresser, Vice President for Trade and Global Markets, Progressive Policy Institute (PPI); Melinda St. Louis, Director, Public Citizen Global Trade Watch (PC-GTW); Teryn Zmuda, Chief Economist and Chief Research Officer, National Association of Counties (NACo); and Derick G. Holt, trade attorney.[478] The discussion and testimonies of these witnesses touched on many topics affecting U.S. workers and the U.S. economy, including the effects of trade and trade policy, labor market factors, workforce labor shocks, and the importance of manufacturing jobs.[479]

Effects of Trade and Trade Policies

Trade Agreements

Several witnesses addressed the effect of current and future trade agreements. St. Louis discussed whether U.S. trade agreements—including free trade agreements, the General Agreement on Tariffs and Trade (GATT), and WTO agreements—are structured to help workers. She spoke about the organizations and individuals who participate in the trade advisory process and said that the process is closed to many and workers did not have seats at the table.[480]

Paul said that some changes in USMCA regarding workers' and environmental issues illustrate the potential benefits of including such topics in future trade agreements.[481] Paul suggested that trade agreements should promote companies' access to trade enforcement tools, particularly for SMEs.[482] He further stated that trade enforcement actions are extremely important in addressing distributional effects, especially for industries subject to import competition from unfair trade practices with high levels of women and workers of color, particularly the steel industry.[483] Paul continued by suggesting that setting expectations about community effects during trade negotiations would help, as would provisions such as import surge prevention mechanisms.[484] Furthermore, he emphasized the importance of considering trade policy effects on import-sensitive industries, keeping in mind economic and

[476] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 76–77 (testimony of William E. Spriggs, AFL-CIO).
[477] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 147 (testimony of William E. Spriggs, AFL-CIO).
[478] Holt stated that his testimony represented his own views.
[479] For more information on Panel 2, see pages 161–279 of the Distributional Effects: Hearing Transcript found at USITC's website, Distributional Effects 332 Investigation.
[480] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 207 and 226 (testimony of Melinda St. Louis, PC-GTW). She also cited intellectual property rules for pharmaceuticals as an example, saying that they were not formulated for the consumers of life-saving medicines but instead were focused on benefits for the pharmaceutical industry.
[481] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 229 (testimony of Scott N. Paul, AAM).
[482] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 229 (testimony of Scott N. Paul, AAM).
[483] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 202–03, 257 (testimony of Scott N. Paul, AAM).
[484] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 254–55 (testimony of Scott N. Paul, AAM).

national security implications.[485] He called USMCA automotive rules of origin a positive step toward addressing effects on employment and the workforce.[486]

St. Louis agreed about progress under USMCA, mentioning some of its innovative tools, including the rapid response mechanism for labor enforcement. She added that, following the filing of rapid response petitions, real progress was recorded in Mexico.[487] Holt suggested that trade agreements could be enhanced by addressing both industry overcapacity (in China and other countries) and the impact of state-owned entities that compete with U.S. businesses.[488]

Tariffs

Witnesses also addressed tariffs, citing mixed effects. Paul mentioned that section 301 and other tariffs provide leverage over China without causing broadly negative impacts domestically. He also suggested that the United States (1) work with other countries or the WTO on issues related to China and (2) increase U.S. productivity and competitiveness by upgrading America's infrastructure.[489] He suggested that important steps include ongoing congressional consideration of funding to start up new U.S. advanced semiconductor production sites and the administration's efforts to expand domestic supply chains for key materials.[490]

Gresser contended that tariffs raise prices for low-income individuals and families rather than protecting employment.[491] As an example, he indicated that multiple U.S. trade agreements do not include tariff cuts on low-priced clothes and shoes, negatively affecting low-income communities.[492] In addition, he stated that the U.S. tariff system is a "regressive element of the U.S. tax system," which particularly affects low-income families (e.g., single parent, African American, or Hispanic families).[493] He cited four reasons for this: (1) tariffs mainly affect home and consumer products used by the families; (2) poorer families spend a large share of their income on such goods; (3) products used by the general population have higher tariffs than luxury goods; and (4) tariffs do not appear to protect jobs or production.[494]

Foreign Direct Investment (FDI)

Two witnesses addressed the effect of FDI on employment. Gresser indicated that U.S. Bureau of Economic Analysis (BEA) data indicate that FDI in the United States is predominantly concentrated in manufacturing, a sector employing a higher share of U.S. workers than other sectors.[495] Paul said that the effect of FDI varies by investment but added that FDI can be an important U.S. job generator under

[485] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 255 (testimony of Scott N. Paul, AAM).
[486] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 255–56 (testimony of Scott N. Paul, AAM).
[487] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 232–33 (testimony of Melinda St. Louis, PC-GTW).
[488] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 230–31 (testimony of Derick G. Holt, trade attorney).
[489] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 219–21 (testimony of Scott N. Paul, AAM).
[490] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 221 (testimony of Scott N. Paul, AAM).
[491] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 266 (testimony of Edward Gresser, PPI).
[492] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 252–53 (testimony of Edward Gresser, PPI).
[493] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 168 (testimony of Edward Gresser, PPI).
[494] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 168–72 (testimony of Edward Gresser, PPI).
[495] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 271 (testimony of Edward Gresser, PPI).

the right circumstances (e.g., clean energy FDI).[496] He also mentioned examples where FDI in the United States might not be welcome, such as FDI intended to circumvent trade remedies.[497]

Recommendations for Policy

Trade Policy and Analysis

Witnesses discussed or made suggestions regarding policies that address trade effects. Gresser said it would be best (but perhaps difficult) to balance policies benefiting vulnerable communities with policies focused on enhancing overall U.S. growth and exports.[498] He also suggested that trade policy might be able to help some industries (e.g., high-end manufacturing industries) but not others (e.g., the textiles and apparel industry).[499]

Paul stated that the TAA program does not help vulnerable communities because the outcomes are more focused on job placements in a specific time frame rather than upskilling job seekers to place them in higher-wage jobs.[500] Gresser also mentioned concerns with TAA, indicating that it is a good but limited program that only covers workers who can prove that their job loss is trade-related.[501]

Witnesses also made recommendations regarding the analysis of trade and trade policy effects. Gresser stated that analyses of trade policy should focus less on policy details such as tariffs and more on worldwide structural changes such as the rise of both container-based shipping and the internet, among other such structural changes, and the future opportunities and challenges they present.[502] Paul emphasized the need to address the impact of trade policy on the most vulnerable populations and offered two options on how that could be done. He suggested that policy makers could factor distributional effects into trade policy by conducting distributional analyses addressing many factors, including education level (to understand needed adjustments or economic mobility) and race and gender.[503] Paul also suggested that economists and modelers should be mindful of the limitations of economic models and forecasting when analyzing the effects of trade agreements and put more attention on how the most vulnerable are going to be impacted.

Public Services Support

Several witnesses discussed planning and public services, as well as data on the changing need for the latter. St. Louis stated that wage and wealth gaps must be considered from both a gender and racial perspective, adding that data on health outcomes are important because individuals who lose

[496] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 270–71 (testimony of Scott N. Paul, AAM).
[497] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 270–71 (testimony of Scott N. Paul, AAM).
[498] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 172–73 (testimony of Edward Gresser, PPI).
[499] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 201 (testimony of Edward Gresser, PPI).
[500] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 203 (testimony of Scott N. Paul, AAM).
[501] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 275 (testimony of Edward Gresser, PPI).
[502] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 241 (testimony of Edward Gresser, PPI).
[503] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 256–57 (testimony of Scott N. Paul, AAM).

manufacturing jobs also lose health insurance.[504] She said that developing social services is necessary to promote resiliency from trade shocks.[505]

Zmuda said that economic mobility might be affected by local support systems (e.g., childcare or healthcare), transportation, affordable housing, and local-level efforts to make such support systems available.[506] She highlighted the importance of economic planning to address the needs of workers who are transitioning into new positions, emphasizing mental and behavioral health.[507]

Paul stated that it is important to consider divorces and deaths of despair.[508] For example, he noted that deaths of despair have grown over the past 10 years, putting pressure on public services. He also indicated that economists have linked such deaths to the loss of manufacturing jobs, some due to shifts in production or import competition.[509] Holt proposed possible solutions to make U.S. policy more beneficial to all U.S. communities, including (1) promoting and funding the startup or expansion of manufacturing operations in or by underserved communities and (2) encouraging environmentally sustainable manufacturing in such communities.[510]

Labor Market Effect

Wages and Productivity

Several witnesses addressed labor market factors such as wages and productivity. Gresser stated that the U.S. government could help spur U.S. competitiveness and productivity, citing a long period of underinvestment in infrastructure such as seaports and airports.[511] At the same time, he characterized the United States as competitive, saying that it is not only the second largest exporter in the world but also has strong industries underpinning those exports.[512] Gresser stated that "productivity is at the core of competitiveness," that wages in the United States, China, and Mexico are a proxy for these countries' marginal productivity of labor, and that low wages in a country have the potential to draw manufacturing from other countries in many cases.[513] He added that increased productivity and innovation might help the United States compete with lower-wage countries.[514]

St. Louis contended that U.S. wage stagnation was partly a result of job loss, threats of offshoring, and competition for the few remaining jobs that are unionized or available to workers with less education.[515]

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[504] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 251–52 (testimony of Melinda St. Louis, PC-GTW).
[505] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 259 (testimony of Melinda St. Louis, PC-GTW).
[506] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 277 (testimony of Teryn Zmuda, NACo).
[507] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 238–39 (testimony of Teryn Zmuda, NACo).
[508] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 250 (testimony of Scott N. Paul, AAM).
[509] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 249 (testimony of Scott N. Paul, AAM).
[510] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 192 (testimony of Derick G. Holt, trade attorney).
[511] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 199 (testimony of Edward Gresser, PPI).
[512] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 200 (testimony of Edward Gresser, PPI).
[513] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 199–201 (testimony of Edward Gresser, PPI).
[514] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 197 (testimony of Edward Gresser, PPI).
[515] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 194 (testimony of Melinda St. Louis, PC-GTW).

Exports

Witnesses addressed the effect exports had on job creation, payrolls, and hiring, emphasizing the need for a diverse workforce. Gresser stated that U.S. Census and BEA data show a significant premium in wages and employment levels for exporting companies.[516] In response to a question regarding whether exports create jobs, Paul said that jobs may be generated by exports in certain sectors.[517] Gresser stated that although economic theory suggests that the domestic job mix could change because of exports, export expansion is not likely a net job creator.[518] He added that exporting companies—citing Hispanic- or Asian-owned exporting companies—provide high pay and employment opportunities. However, he mentioned that more advocacy and market access for exports are needed, including financing and support for SMEs.[519]

Holt suggested that workforce diversity be considered when looking at export services jobs, particularly in industries where Black and Latinx workers are underrepresented.[520] Holt said that relatively few Black and Latinx workers are employed in jobs that involve exporting goods or services.[521] He also stated that small businesses and manufacturing firms started by racial minorities had difficulty obtaining loans and capital, particularly in the timeframe needed to start up manufacturing operations.[522]

Workforce Trade Shocks

Three witnesses addressed workforce shocks and resiliency. Zmuda discussed why some cities and counties have been more have been more resilient to trade and workforce shocks than others. She stated that (1) building out infrastructure (including improved broadband internet access) helps attract FDI and talent and (2) labor force development (e.g., through counties' emphasis on community college programs) contributes to capacity building.[523] She also said that counties were using several mechanisms to address the disproportionate effects of trade policy, such as Wisconsin's Madison Regional Economic Partnership (MREP) in which eight counties are supporting the agriculture, food and beverage, and manufacturing sectors to create new opportunities.[524]

Paul indicated that some states—including Indiana, Wisconsin, and Arkansas—have taken steps to address workforce shocks in the manufacturing sector. He indicated that Indiana built up expertise in medical devices, developing a related training and innovation support base.[525] He also mentioned that education levels and age play a large role in enhancing resiliency because younger, more educated

[516] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 203–04 (testimony of Edward Gresser, PPI).
[517] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 269–70 (testimony of Scott N. Paul, AAM).
[518] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 267 (testimony of Edward Gresser, PPI).
[519] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 200 (testimony of Edward Gresser, PPI).
[520] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 268–69 (testimony of Derick G. Holt, trade attorney).
[521] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 188–90; 268–69 (testimony of Derick G. Holt, trade attorney).
[522] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 190–91 (Derick G. Holt, trade attorney).
[523] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 208 (testimony of Teryn Zmuda, NACo).
[524] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 183–84 (testimony of Teryn Zmuda, NACo).
[525] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 210–11 (testimony of Scott N. Paul, AAM).

workers are more mobile and can relocate when jobs move elsewhere. However, he noted that this effect was not specific to trade policy.[526]

Holt suggested that communities survive trade shocks because of both resiliency and, to the extent possible, avoiding the trade shocks in the first place and argued that it is important to prevent offshoring or closure of manufacturing plants resulting from import competition.[527]

Job Displacement

Witnesses addressed job losses in underserved communities. Zmuda said that county officials were keenly aware of the disproportionate effects of trade policy within their communities.[528] She spoke about counties that lost manufacturing operations but have been able to rebuild their economies, citing the MREP as an example.

St. Louis said that cities with large numbers of underserved and underrepresented individuals have been the most affected by job offshoring related to trade competition, citing Baltimore, Chicago, and El Paso as examples.[529] Paul also mentioned Baltimore, stating that steel imports had a particularly large effect on that city's manufacturing industry.[530] Gresser stated he would add Cleveland and Pittsburgh, saying that they had also experienced economic downturns but have since recovered.[531]

Zmuda stated that vulnerable communities should be equipped with economic development plans and tools that will promote resilient reactions to trade shocks.[532] She added that communication with the local community and its officials can help alleviate some trade effects, particularly by recognizing the immediate effects of trade shocks (such as plant closures) on employees.[533]

Effects by Race, Ethnicity, and Other Personal Characteristics

Witnesses addressed race, ethnicity, and other personal characteristics, all concurring that displaced Black and Latino workers were less likely to find new jobs paying equivalent wages following the loss of manufacturing facilities and jobs. Holt suggested that the Commission collect data on underserved communities.[534]

St. Louis referred to her organization's research on jobs lost because of NAFTA, which found that African Americans and Latinos were disproportionately represented in most of the 10 manufacturing sectors affected by job loss. She further noted that African American and Hispanic workers who lose

[526] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 211 (testimony of Scott N. Paul, AAM).
[527] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 259–60 (testimony of Derick Holt, trade attorney).
[528] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 183–84 (testimony of Teryn Zmuda, NACo).
[529] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 213 (testimony of Melinda St. Louis, PC-GTW).
[530] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 163–64 (testimony of Scott N. Paul, AAM).
[531] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 214 (testimony of Edward Gresser, PPI).
[532] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 257 (testimony of Teryn Zmuda, NACo).
[533] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 237–8 (testimony of Teryn Zmuda, NACo).
[534] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 216 (testimony of Derick G. Holt, trade attorney).

manufacturing jobs have found it harder to obtain new jobs at the same wage rate, perpetuating wealth inequality with White workers.[535]

Paul stated that unionized manufacturing jobs provided a path to economic mobility for Black workers—particularly those without four-year college degrees—during the 1950s and 1960s, enabling them to amass wealth and buy homes.[536] He said that import competition reduced the number of manufacturing jobs, which had a larger effect on Black workers than White workers because many Black workers had less savings, couldn't find new jobs as readily, and couldn't easily relocate.[537]

Like other panelists who participated in the hearing, Holt said that the benefits and wages associated with manufacturing jobs helped many workers—especially Black and Latinx Americans—improve their economic standing.[538] He also stated that U.S. manufacturing jobs have declined significantly because U.S. companies are offshoring operations and because of unfairly traded imports.[539] He said that not only did Black and Latinx workers lose manufacturing jobs, but ended up taking low-wage jobs in the services sector, often without good benefits, because of their inability to find "quality" jobs in that sector.[540]

Effects by Education and Age

Several of the witnesses commented that workers without a college degree are disproportionately affected by trade shocks and discussed how to increase these workers' resiliency. Gresser noted that unemployment rates generally vary by degree of education, with less educated workers generally having a higher rate of unemployment.[541]

St. Louis agreed that education level plays a role, adding that most of the U.S. population does not have a college degree and that many of those without a college degree have been adversely affected by trade policies.[542] She said that job loss has had community-wide effects, causing many workers to relocate. She added that it is important to think of the creation of new higher-paying jobs for those who are unable to relocate.[543]

Paul mentioned age- and education-related mobility restrictions and suggested multiple options to address such restrictions, including flexible work and academic schedules, childcare, transportation benefits, and apprenticeships.[544] He also said it is important for policy makers to understand the reentry

[535] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 175–7 (testimony of Melinda St. Louis, PC-GTW).
[536] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 263–64 (testimony of Scott N. Paul, AAM).
[537] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 162–63 (testimony of Scott N. Paul, AAM).
[538] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 186 (testimony of Derick G. Holt, trade attorney).
[539] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 186 (testimony of Derick G. Holt, trade attorney).
[540] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 187–88 (testimony of Derick G. Holt, trade attorney).
[541] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 275 (testimony of Edward Gresser, PPI).
[542] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 244–45 (testimony of Melinda St. Louis, PC-GTW).
[543] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 176 (testimony of Melinda St. Louis, PC-GTW).
[544] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 212, 273–74 (testimony of Scott N. Paul, AAM).

barriers that workers face after job loss, including flexible scheduling and daycare.[545] He added that many workers live close to family support networks and, therefore, are unlikely to take advantage of job opportunities that may be offered in other locations.[546]

Manufacturing Employment

Paul spoke about the manufacturing sector, stating that manufacturing is more "trade-exposed" than agriculture and other sectors and that manufacturing facilities are hard to start up—especially for SMEs—because of high capital costs.[547] He placed the substantial loss of manufacturing jobs into perspective, providing several reasons why this sector is important.[548] Specifically, he indicated that manufacturing supply chains are important to communities because they are longer than supply chains in other sectors, involve more workers, and generate more indirect spending from the related wages and benefits.[549] He also stated that manufacturing accounts for the majority—90 percent—of all patents filed in the United States and is needed to support defense operations.[550]

Witnesses also addressed current trends in hiring in the manufacturing sector and the likely reasons for such trends. Gresser attributed a recent increase in manufacturing hiring to the strength of the U.S. economy and high U.S. consumer demand, adding that these factors have led to increases in imports and domestic hiring.[551] Paul reported that consumer spending has shifted away from services and toward goods over the last two years, attributing this shift to the pandemic.[552] He attributed recent increases in manufacturing sector employment to the recovery of jobs that were lost at the beginning of the pandemic.[553]

St. Louis added that investment in training and educational opportunities is important to build the skills employers need.[554] In response to a question regarding the large number of unfilled manufacturing jobs, Gresser noted that manufacturing wages have declined as compared to wages in other industries during the past five years, which may have encouraged workers to take higher-paying nonmanufacturing jobs.[555]

Written Submissions

Overall, the Commission received fifteen written submissions as part of this investigation (appendix D). These included submissions from one member of Congress (New York's 26th congressional district), a trade attorney, think tanks (such as the Roosevelt Institute and Trade in Services International), advocacy groups (such as National Foreign Trade Council Foundation's Global Innovation Forum), and

[545] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 274–75 (testimony of Scott N. Paul, AAM).
[546] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 212 (testimony of Scott N. Paul, AAM).
[547] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 260–2 (testimony of Scott N. Paul, AAM).
[548] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 243, 260–62 (testimony of Scott N. Paul, AAM).
[549] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 243, 261 (testimony of Scott N. Paul, AAM).
[550] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 260–62 (testimony of Scott N. Paul, AAM).
[551] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 242–43 (testimony of Edward Gresser, PPI).
[552] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 243 (testimony of Scott N. Paul, AAM).
[553] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 243–44 (testimony of Scott N. Paul, AAM).
[554] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 246 (testimony of Melinda St. Louis, PC-GTW).
[555] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 248 (testimony of Edward Gresser, PPI).

business organizations (such as the U.S. Chamber of Commerce), among others. These submissions covered several themes, including benefits and challenges associated with trade, the effect of tariffs on consumers and on industries, the role of trade policy in job losses and gains, and distributional effects of trade across workers and the industries and establishments in which they are employed.

Benefits and Challenges Associated with Trade

Some submissions highlighted the benefits of trade. David French of the National Retail Federation (NRF) noted that trade benefits U.S. workers across races, genders, and education levels by providing access to cheaper and more varied goods.[556] Jamaica Gayle of the Global Innovation Forum (GIF) stated that trade supports one in five American jobs, with exports creating jobs by generating new business for U.S. manufacturers and services providers.[557] Gayle also noted that imports increase the buying power of the average American household by $18,000.[558]

Various submissions also discussed the challenges associated with trade. French noted that trade and trade policy have positive effects on some workers and negative effects on others.[559] Todd Tucker of the Roosevelt Institute stated that, where tariff reductions lead to concentrated losses for displaced workers and dispersed gains for consumers, those who win should compensate those who lose.[560] Tucker affirmed the lack of adequate compensation for those who are negatively affected by trade and cited increasing evidence that the U.S. trade approach has contributed to bargaining dynamics drawn on class lines. These interclass bargaining dynamics increase the likelihood that the political system will not deliver adequate social safety nets or compensation.[561]

Some submissions provided next steps to address challenges associated with trade. Erik Churchill of UPS recommended that the United States promote universal access to digital technologies so that all traders can engage globally in the internet-enabled economy. To accomplish this, Churchill recommended the United States leverage private sector and stakeholder engagement to upskill traders in underserved communities—through STEM education and other forms of capacity building—so they can access digital tools that would facilitate access to the global economy.[562] French suggested that policy makers must be prepared to provide training assistance to unemployed workers transitioning to new jobs when trade liberalization puts U.S. workers at economic risk.[563] In addition, French suggested that policy makers investigate the distributional effects of trade and trade policy on U.S. workers as well as effects on workers as consumers.[564] French stated that policy makers need to know where the gains from trade will

[556] French, NRF, written submission to the USITC, May 17, 2022, 1.
[557] Gayle, GIF, written submission to the USITC, May 17, 2022, 1–2.
[558] Gayle, GIF, written submission to the USITC, May 17, 2022, 2.
[559] French, NRF, written submission to the USITC, May 17, 2022, 4.
[560] Tucker, RI, written submission to the USITC, March 18, 2022, 1.
[561] Tucker, RI, written submission to the USITC, March 18, 2022, 1.
[562] Churchill, UPS, written submission to the USITC, March 17, 2022, 5.
[563] French, NRF, written submission to the USITC, May 17, 2022, 5.
[564] French, NRF, written submission to the USITC, May 17, 2022, 3,5.

occur in order to ensure that workers benefit from those gains.[565] Derick Holt suggested that the USITC collect data on actual and potential negative effects on employment in underserved communities.[566]

The Effect of Tariffs on Consumers and on Industries Using Tariffed Inputs

Several submissions discussed the disproportionate impacts of tariffs on U.S. workers as consumers. Bryan Riley of the National Taxpayers Union Foundation (NTUF) stated that tariffs are a regressive tax on American workers who buy imported goods and that the elimination of tariffs would be a progressive tax cut that benefits low-income families.[567] Beth Hughes of the American Apparel & Footwear Association (AAFA), John Murphy of the U.S. Chamber of Commerce, Linda Schmid of Trade in Services International (TiSI), and Riley all discussed the disproportionate effect of tariffs on underserved and underprivileged groups. Hughes noted that U.S. tariff policy is both discriminatory and regressive because it taxes low priced home necessities. She as well as Murphy and Schmid stated that tariffs have a particularly large impact on underserved communities who spend a disproportionate share of their income on essential goods and services. Hughes noted that African Americans, Hispanics, and persons with children (particularly single parents) are most affected, while Murphy highlighted impacts on lower income individuals and women.[568] Hughes and Riley stated that tariffs have a discriminatory effect on female workers, because tariff rates are much higher on women's clothing than on men's clothing.[569]

Some submissions also discussed how tariffs on softwood lumber and steel affected the industries that use these inputs. Regarding softwood lumber, Murphy stated that tariff increases in 2017 and 2018 led to higher construction costs and slowed the sector's hiring and expansion in 2018 and beyond.[570] Riley noted that U.S. steel tariffs have benefited the steel industry and " . . . a relatively small number of White, male union workers . . . ," but have negatively impacted U.S. workers in industries that use steel as a production input, explaining that steel tariffs increase the cost of any product that uses steel as an input and that a large portion of the steel tariff burden is being redistributed to steel-using construction and manufacturing firms.[571] Murphy stated that steel and aluminum tariffs imposed under the Trump administration created new costs of approximately $1 billion for some U.S. auto manufacturers, slowing investment and hiring in the automotive industry.[572] Drawing a distinction between producing and consuming sectors, French expressed the view that, although section 232 tariffs on aluminum and steel

[565] French, NRF, written submission to the USITC, May 17, 2022, 5.
[566] Holt, Trade Attorney, written submission to the USITC, May 17, 2022, Schmid, TiSI, written submission to the USITC, March 5, 2022, 4, Murphy, U.S. Chamber of Commerce, written submission to the USITC, January 26, 2022, 7.
[567] Riley, NTUF, written submission to the USITC, May 2, 2022, 1–3.
[568] Hughes, AAFA, written submission to the USITC, May 17, 2022, 2, Murphy, U.S. Chamber of Commerce, written submission to the USITC, January 26, 2022, 7.
[569] Hughes, AAFA, written submission to the USITC, May 17, 2022, 2; Riley, NTUF, written submission, May 2, 2022, 9.
[570] Murphy, U.S. Chamber of Commerce, written submission to the USITC, January 26, 2022, 3.
[571] Riley, NTUF, written submission to the USITC, May 2, 2022, 4–5; Murphy, U.S. Chamber of Commerce, written submission, January 26, 2022, 5.
[572] Murphy, U.S. Chamber of Commerce, written submission to the USITC, January 26, 2022, 2.

benefit U.S. workers employed in the industries that manufacture these products, they harm a larger number of workers in aluminum- and steel-consuming industries.[573]

The Role of Trade Policy in Job Losses and Gains

Many submissions discussed the role of trade policy in job losses and gains and made recommendations on trade policy that supports U.S. jobs.

Congressman Brian Higgins (D-NY) noted that after the United States signed trade agreements with low-wage countries, Western New York lost thousands of jobs at machine shops, foundries, and manufacturing facilities. Higgins asserted that these low-wage countries had no intention of raising environmental and labor standards and that the United States had no way to hold the countries accountable to these standards.[574] Holt stated that the availability of manufacturing jobs for Latinx and Black workers was impacted by increased imports and industrial flight.[575]

In contrast, French noted that global sourcing lowers the costs of goods used as inputs to U.S. production and finished imports and asserted that these lowered costs increase domestic retail sales and create retail jobs in the United States.[576]

Schmid recommended maintaining consistency between the United States' open trade stance and domestic policies that influence wages and working conditions.[577] Holt suggested that the United States develop policies that benefit underserved communities, such as those that support environmentally sustainable manufacturing in these communities. Holt suggested that the United States should tie the level of investment or support in manufacturing to hiring workers from underrepresented communities.[578] Cautioning that international trade can have a large impact on U.S. workers in industries that are traditionally not seen as trade sensitive, Murphy suggested examining a wide selection of sectors instead of focusing only on sectors that are believed to have extreme trade sensitivities.[579]

Specific Instances of Distributional Effects across Industries

Some submissions discussed specific industries that have benefitted from international trade, including the biopharmaceutical, automotive, and dairy industries.

Douglas Petersen and Neil Pratt of Pharmaceutical Research and Manufacturers of America (PhRMA) noted that the biopharmaceutical industry leads all manufacturing industries as the largest driver of new foreign direct investment (FDI) in domestic manufacturing. They said that biopharmaceutical FDI has accounted for more than 20 percent of all manufacturing FDI during the past 5 years and has outpaced

[573] French, NRF, written submission to the USITC, May 17, 2022, 5–6.
[574] Higgins, U.S. Congress, House of Representatives, written submission to the USITC, December 7, 2022, 1.
[575] Holt, Trade Attorney, written submission to the USITC, May 17, 2022, 1.
[576] French, NRF, written submission to the USITC, May 17, 2022, 3.
[577] Schmid, TiSI, written submission to the USITC, March 5, 2022, 5.
[578] Holt, Trade Attorney, written submission to the USITC, May 17, 2022, 1.
[579] Murphy, U.S. Chamber of Commerce, written submission to the USITC, January 26, 2022, 3.

FDI in computers and electronic products—the next highest industry—by almost threefold.[580] Though total manufacturing employment fell by more than 5 percent from 2015 to 2020, biopharmaceutical manufacturing employment—where women comprise nearly 60 percent of the workforce—increased by more than 28 percent during the period.[581]

Jennifer Safavian of Autos Drive America noted that from 2004 to 2019, employment in the international auto manufacturing industry rose by more than 22 percent in five southern states. She states that minority workers benefited immensely from this growth, as minority employment in the five-state region within this sector grew by 96 percent during the period.[582]

William Loux and Shawna Morris of the National Milk Producers Federation and the U.S. Dairy Export Council indicated that, because of exporting, the dairy industry boasts the highest wages in the food and beverage sector. They note in addition to employing a higher percentage of women than the national manufacturing average, the dairy industry has jobs mostly in rural or suburban areas.[583]

Other submissions detail specific manufacturers that have been harmed by trade, including California Manufacturing and Engineering, Co. LLC., (MEC), and Element Electronics.

David White noted that MEC uses imported lifts and parts from China in the manufacture of their mobile elevating work platforms and stated that the Section 301 tariffs on these components harm MEC's ability to compete in the marketplace. White noted that tariffs have translated into a loss of jobs in the local Kerman, California, community, where the majority of households are supported by a single income.[584]

In his submission, David Baer discussed how imports have impacted employment in rural, mostly minority Fairfield, South Carolina, where Element Electronics is the primary employer. Like White, Baer noted that Chinese imports are critical inputs to the production of the final good—LCD televisions—that Element manufactures. When the tariffs on the LCD panel inputs, which Element largely sources from China, were suspended under the miscellaneous tariff bill, Element was able to hire "several hundred" additional workers and had plans for expansion. With the reinstatement of the tariff, however, Baer noted that the company has had to lay off hundreds of employees and import finished LCD televisions from Mexico, where producers do not have to pay the tariff. Under USMCA, Element can import the finished LCD televisions duty free.[585]

[580] Petersen and Pratt, PhRMA, written submission to the USITC, May 17, 2022, 4.
[581] Petersen and Pratt, PhRMA, written submission to the USITC, May 17, 2022, 3.
[582] Safavian, ADA, written submission to the USITC, May 17, 2022, 3, 6.
[583] Loux and Morris, NMPF and USDEC, written submission to the USITC, May 17, 2022, 1–2.
[584] White, MEC, written submission to the USITC, May 10, 2022, 2–3.
[585] Baer, Element Electronics, written submission to the USITC, April 8, 2022, 1–2.

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Chapter 4
Literature Review Chapter

Economic researchers have long theorized that movement toward free trade can improve the overall productivity of an economy and increase a nation's wealth. However, researchers have also long acknowledged that transformations in trade and trade policy can be highly disruptive to economies as workers and industries adjust to new trade regimes, growing competition from foreign producers, and new export opportunities. A large body of academic research has also found that both the costs and benefits of trade and trade policies are not equally shared across all workers, industries, and geographic regions. Researchers widely recognize that international trade and trade policy can lead to distributional effects where some groups in an economy accrue an outsized share of benefits or, conversely, bear a heavier share of the costs. Distributional effects research aims to document how trade-induced economic outcomes differ across communities of workers.

Per the request letter, this chapter provides a critical and detailed assessment of academic and policy research that examines the distributional impact of trade and trade policy on workers in underrepresented groups and communities. This chapter focuses primarily on outcomes for U.S. workers; however, some studies examining foreign countries are included to highlight certain gaps in the literature focused on the United States. While the chapter includes a few descriptive studies, it is focused on empirical studies that make use of reliable data or discuss data limitations. The studies selected for inclusion provide necessary context and background information for their research question and describe procedural and analytical steps in enough detail to understand how a conclusion was reached (see appendix E for a list of studies examined).

A discussion on research methodologies commonly used in the literature opens this chapter. The summary of methodologies describes differences in approaches available to researchers as well as strengths and limitations of each approach. This chapter then turns to an assessment of the distributional effects of trade literature. Studies included in the literature review are organized on the basis of the economic outcomes of interest in each study, including employment, wages, and other labor market effects such as consumption or health outcomes. Within each of these economic outcome-based groupings, studies are further grouped according to the main worker characteristics or communities studied. These worker characteristic groupings divide research into studies that primarily focus on the distributional effects of trade across education and skill levels, gender, or race and ethnicity.[586] The reviews of the studies include discussions on the primary research questions of interest, data and methodologies used, primary findings, and strengths and potential limitations of each analysis. The chapter concludes with a discussion of gaps in analysis and available data.

Literature reviewed in this chapter documents significant differences in economic outcomes for workers across occupations, industries, and geographic regions. The research also finds that trade-related economic outcomes can often differ for workers across demographic characteristics, including

[586] Throughout this chapter, staff uses the naming conventions chosen by the speaker or author to describe workers. Examples of speaker or author choice descriptors include, but are not limited to, "Black," "African American," "African-American," "Hispanic," "Latino," "Latina," and "Latinx."

educational attainment, race, and gender. In particular, the literature reviewed by the Commission consistently finds that increased import competition from countries with low wages places negative pressures on employment and earnings for workers who are employed in industries and occupations that directly compete with imported goods. These negative labor market effects are most pronounced among workers with lower levels of educational attainment and Black and Latino workers.

While there remains much to research on the labor market effects of increased import competition, distributional effects on U.S. workers arising from other aspects of international trade remain even more understudied. A smaller body of studies examines distributional outcomes from positive labor market effects such as U.S. export expansion abroad, with labor markets benefits concentrated among female and college-educated workers. Research on the distributional effects of trade is predominantly focused on the impacts of tariff changes on workers employed in manufacturing industries. Research on the distributional effects of services trade remains scarce as a small number of studies facing significant data availability challenges have attempted to quantify these effects.

Across demographic characteristics, research on the distributional effects of trade on workers across skill and educational attainment is perhaps the most mature.[587] A growing body of literature has studied the distributional effects of trade for male and female workers, and several studies have explored impacts for workers across racial and ethnic categories. However, existing studies on the distributional effects of trade for workers across race and ethnicity have generally focused on highly aggregated classifications for workers such as White, Nonwhite, Hispanic, or Black in their analyses. Distributional effects of trade on workers across other racial and ethnic identities remains scant. Additionally, outcomes for other underserved and underrepresented communities such as LGBTQ+ are also understudied.

Methodologies

Existing research on distributional effects of trade generally employ three broad types of methodologies—descriptive analysis, reduced-form econometric models, and structural models. Descriptive methods identify trends and other relationships between explanatory and outcome variables.[588] While advantageous for their simplicity and ease of communicating findings, descriptive methods can also lead to misleading interpretations of relationships between explanatory variables and economic outcomes if other variables, not considered in the analysis, also influence the economic outcomes being studied. Alternatively, model-based methodologies use statistical or mathematical methods to isolate and quantify relationships between explanatory variables and economic outcomes while taking into account—or controlling for—other variables that may also be influencing outcomes. Within model-based methodologies, structural economic models consist of a system of mathematical equations based on economic theory that represent a simplified (model) version of an economy and can be used to isolate how different variables influence economic outcomes.[589] Researchers also use

[587] The literature typically uses skill and educational attainment as proxies in order to estimate the impact of trade on workers across different income groups.
[588] Throughout this chapter, the term "explanatory" refers to variables that are used to explain the differences in or predict impact on "outcome" variables.
[589] Other economic models, such as computable general equilibrium (CGE) models, are also discussed in chapter 5 (academic symposium).

reduced-form econometric models, which combine historical data and statistical methods to identify how shocks—specific changes to international trade or trade policy—affect economic outcomes. These models allow researchers to separate the effects of trade shocks from effects of other confounding variables.[590] For example, when looking at effects of trade on wage, researchers try to separate the effect of improvements in workers' performance (e.g., from enhanced education or on-the-job training) from trade shocks that could also cause changes in earnings. These models are able to separate the effects of trade shocks from other variables, but they also face limitations as further discussed below. [591] The advantages and limitations of each of these methodologies, as outlined in this section, apply to a varying extent to the papers described throughout the literature review. However, to avoid repetition, these general advantages and limitations are only mentioned in this section.

Descriptive Analysis

Descriptive methodologies are used to study historical relationships between different variables of interest. Researchers use data to show or describe how changes in one variable correspond to another. For example, researchers have commonly used descriptive methodologies to show a correlation between growth in U.S. imports from China and declines in U.S. manufacturing employment over time. Descriptive methods have several advantages that make them a commonly used tool within the literature on distributional effects of trade. Descriptive methods generally have fewer data requirements given that they generally rely on aggregate data rather than microdata. In addition, calculations use descriptive methods and do not use statistical methods to determine the causal relationship between variables. Because descriptive statistics use less-technical methods, they are often less laborious and easier to communicate to broader audiences than economic modeling. In terms of disadvantages, while descriptive methods may identify variables other than the targeted trade shock, their inability to cleanly identify or quantify causal relationships between variables significantly limits descriptive methods. Relationships or the extent of relationships highlighted by descriptive methods can be spurious, meaning other factors are influencing or driving the observed relationships. When a spurious relationship exists, descriptive analyses can give a distorted view of the causes of economic outcomes and can lead researchers to draw incorrect conclusions about relationships being studied. As such, descriptive methodologies are most often used to identify and communicate observable economic trends and can provide motivation for developing more complex model-based analyses intended to address potentially confounding variables and spurious relationships.

[590] A confounding variable is a variable that is not explicitly accounted for in the analysis but one that influences both the explanatory variable and the outcome variable, potentially creating spurious links.
[591] Computable general equilibrium (CGE) models can also be used to analyze distributional effects, but as of the date of publication, we are unaware of any such products that investigate the distributional effects of trade on U.S. workers using a CGE model. For more on distributional effects of trade on non-U.S. workers using CGE models, see chapter 5 (academic symposium).

Model-based Analyses

Structural Economic Models for Understanding Mechanisms and Effects of Trade and Trade Policy

Economic researchers can use structural economic models to study the distributional effects of trade. To do so, researchers use economic theory to describe the features of a simplified model version of an economy. These features can represent a wide array of economic concepts, or structures, such as how workers choose employment in a labor market or how households decide which goods to buy. By constructing this simplified representation of an economy, researchers impose assumptions about how the economy operates within their model. Once a structural model is envisioned, researchers construct a system of mathematical equations to represent these economic features. Researchers use available data to solve for key parameters within their model. These parameters, along with other features of the structural model, can be used to determine the extent to which an economic shock, such as a change in international trade policy, can influence economic outcomes of different agents within the model.

In many structural economic models, certain parameters cannot be solved for within the model because of the mathematical complexity of the system of equations associated with the model. In cases where parameter estimation challenges exist, researchers use statistical modeling—referred to as econometrics—to estimate parameters of the structural model that cannot be solved for outright. Structural and structural econometric models have several advantages that have made them widely used in the distributional effects of trade literature. First, structural models incorporate economic theory, meaning models are constructed to reflect features of an economy that are well documented and debated within broader economic research. Another key advantage of structural models is their ability to isolate the effects of certain features in an economy on outcomes of interest even as other model features may influence the same outcomes. As such, researchers can modify parameters of a structural model to simulate the response of an economy to different hypothetical scenarios and see how economic outcomes vary across these simulations.[592] However, structural economic models still face several limitations. Most notably, these models rely on simplifying assumptions about how economies operate. As such, structural models can fail to account for all the complex interactions and features of a real economy. Additionally, by relying on simplifying assumptions to represent specific structures within an economy, structural models are often limited in the number of economic outcomes that a single structural model can properly identify. Often, structural models will abstract from, or not consider, other structures and mechanisms that influence outcomes. For example, structural economic models that rely on the simplifying assumption that workers can move seamlessly between jobs abstract from features of an economy such as labor frictions and unemployment in order to ensure the structural model is tractable or can be solved mathematically. To minimize the limitation of using assumptions,

[592] For example, Lee uses a structural economic model to simulate the effect of a reduction in global trade costs on wages for workers across different education levels Lee, "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers," July 2020, 1–22. Gurevich et al. simulate the impact of nearly 30 years of U.S. trade policy on aggregate and group-specific wages of male and female workers in manufacturing and services sectors. Gurevich, Riker, and Tsigas, "Trade Policy and Gender," July 2021.

researchers often communicate assumptions so other researchers can test them using common economic methods.

Reduced-form Econometric Models for Identifying Relationships between Trade and Trade Policy and Worker Outcomes

In addition to structural economic models, economists often use reduced-form econometric models to study distributional effects of trade. Reduced-form models require significantly fewer assumptions about the underlying structure of an economy compared to structural models. In contrast with structural models that begin with a theory-driven assumption of how an economy operates, reduced-form models begin with a hypothesized relationship between economic variables that is based on economic theory and an outcome of interest.[593] This hypothesized relationship is then expressed as a model where the economic outcome being studied is represented as a mathematical function of other, explanatory variables. Economists use historical data and econometric methods to quantify the relationship between the outcome of interest and the individual variables specified in the model. By using econometrics and historical data, these relationships can be tested for statistical significance, where researchers determine whether a relationship exists between a variable of interest and the studied economic outcome.[594]

Reduced-form econometric models that study the distributional effects of trade aim to isolate the effects of different trade shocks on labor market outcomes for U.S. workers, industries, or regions.[595] In addition to identifying the trade shock of interest, researchers determine the labor market outcomes they are interested in measuring. Econometric studies have assessed effects of trade shocks on a variety of different outcomes such as regional manufacturing employment and individual worker wages as well as changes to health and family structure.[596] Once trade shocks and outcomes of interest have been identified, researchers look for data inputs to be used in an econometric model. At a minimum, researchers require data on the economic outcomes of interest and an appropriate quantitative measure of exposure to the trade shock being studied. These exposure measures represent the extent to which each region, industry, or worker has directly faced a given trade shock.

[593] Economic theory, other economic research, or even intuition can inform this hypothesized relationship.
[594] Empirical studies using reduced-form models can help test relationships and assumptions, and even challenge established theoretical norms embedded within structural models. For example, traditional models predicted that increasing the minimum wage would lead to increased unemployment. However, in an econometric study, Card and Krueger showed that this relationship may be weak, leading to a robust debate among researchers and improvements to how structural modeling studies approach the topic of the impact of the minimum wage on employment. Hull, Kolesar, and Walters, "Labor by Design: Contributions of David Card, Joshua Angrist, and Guido Imbens," July 2022, 603-645. Card and Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," September 1994, 772-793.
[595] For example, econometric models have been developed to quantify effects of policy changes such as the ratification of NAFTA or macroeconomic shocks such as growth in foreign demand for U.S. goods. Hakobyan and McLaren, "NAFTA and the Gender Wage Gap," April 1, 2017; Agarwal, "U.S. Exports, Local Labor Markets, and Wage Inequality," 2021.
[596] Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40; Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95; Autor, Dorn, and Hanson, "When Work Disappears," September 1, 2019, 161–78.

One commonly used reduced-form econometric model for measuring exposure to trade policy shocks was developed in the 2013 paper by Autor et al. and several subsequent studies.[597] The authors' model allows for differences in the impact of trade across workers, industries, and regions of the United States.[598] To quantify the impacts of increased import competition from China, the authors develop a measure of regional import exposure using data on industry-level imports and shares of industry employment in each region. Finally, the authors calculate values of imports per worker in each region.[599] To assess the effects of changes in regional import exposure on labor market outcomes, the authors estimate how the labor market outcomes of interest are related to regional changes in import exposure between 1990 and 2007. Since its publication, the methodology proposed in Autor et al. has become a benchmark in economic literature. An array of research papers has employed similar frameworks for constructing measures of exposure to trade shocks and has expanded analyses to measure effects of different shocks on labor market outcomes across geographic regions, industries, or individual workers.[600]

Reduced-form econometric models are powerful tools for demonstrating empirical relationships between economic variables and outcomes, but they face several limitations. In particular, reduced-form models are tailored to specific research questions they are designed to examine and findings from these models are often limited in their ability to be generalized beyond the specific research application, leading to a narrow interpretation of findings from models. For example, findings from a reduced-form econometric model studying the effects of increased imports from a particular source country over a certain period are normally not generalizable to different trade events. Unlike structural models, reduced-form models are generally not well suited to answer questions about causes of the economic relationships they identify. For example, a reduced-form model may show that increased imports from another country are associated with unemployment in an import-competing domestic industry, but a structural model would be required to explain the mechanism causing this change. Additionally, without an underlying structural model, reduced-form models may not capture other, general equilibrium economic effects not explicitly featured in the reduced-form framework.[601]

[597] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68. Acemoglu, "Import Competition and the Great US Employment Sag of the 2000s," 2016, 59. Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40.

[598] The authors define regions as local labor markets—"subeconomies subject to differential trade shocks"—and call those local labor markets "Commuting Zones (CZs)." Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2122.

[599] The authors note variation in import exposure across different regions arises primarily from regions exhibiting different levels of specialization in import-intensive manufacturing before the growth in imports from China. Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2128.

[600] In a recent paper, Borusyak and coauthors explore the validity of approaches using estimation approach of Autor and coauthors (the shift-share approach) and conclude that some of the earlier studies could have benefitted from including additional controls. However, Borusyak et al. find that the overall findings of research using this approach are largely correct. Borusyak, Hull, and Jaravel, "Quasi-Experimental Shift-Share Research Designs," January 2022, 181–213.

[601] For example, a reduced-form economic framework might omit variables that influence the outcome of interest and incorrectly ascribe a causal linkage to a variable that is included in the model. Certain structural models, such as partial equilibrium models, are also not designed to capture general equilibrium effects.

Findings from Literature on the Distributional Effects of Trade

The remainder of this chapter summarizes academic literature focusing on the distributional effects of trade on U.S. workers, industries, and regions. Each study summary features descriptions of the primary research question, data and methodologies used, as well as primary findings. Research summaries conclude with a discussion of the study's primary strengths and potential limitations.[602]

This section is organized along three subsections. The first subsection summarizes studies that focus on trade impacts on employment, including trade-induced worker transitions into and out of the labor force as well as shifts across industries or occupations. The second subsection covers literature focusing on wage and income effects of trade. These studies explore how trade can impact worker earnings along several dimensions, including wage impacts from worker job loss or transitions to new jobs. The final subsection describes distributional effects research that focuses on other non-employment and non-wage outcomes. This subsection summarizes the growing body of studies that consider trade impacts on other measures of economic well-being, such as household consumption or health outcomes.

Studies described within each subsection are organized by the three worker characteristics most commonly studied in the distributional effects of trade literature—education and skill levels, gender, and race and ethnicity. Several studies include findings related to multiple worker characteristics. In instances when a study focuses on more than one worker characteristic, it will appear during the first discussion of worker characteristics where the study has relevant findings. Shorter discussions of the relevant findings from already introduced studies are included in the discussions of other worker characteristics as well. Other worker characteristics and underserved communities lack the research to feature their own standalone discussion in this literature review. However, findings on impacts on these subgroups are included in the primary summaries of studies whenever possible.

Literature on Distributional Employment Impacts of Trade Shocks

A large body of literature has documented the impact of trade and trade policy shocks on levels of employment across geographic regions, industries, and worker types. Employment outcomes found in the literature vary substantially depending on the specific aspect of trade, as well as the characteristics of the workers, industries, or geographic regions being studied. However, the literature on the employment effects of import competition has commonly documented a negative relationship between the growth in U.S. imports from low-wage economies and domestic employment in import-competing industries. Research broadly finds workers within import-competing industries experienced significantly higher rates of job churn and unemployment, transitions to different industries or occupations, and

[602] Many authors of the studies reviewed in this chapter also participated in the academic symposium held in connection with this report. A description of the academic symposium is in chapter 5, and a symposium agenda listing participating authors is found in appendix F.

labor force exit.[603] Similarly, geographic regions with high concentrations of employment in import-competing manufacturing industries have been found to experience significant manufacturing employment loss with limited corresponding employment growth in other industries.[604] Some studies have found that growth in goods trade, including U.S. exports, has led to net gains in employment nationwide, though the literature is mixed on the local employment effect of increased exports.[605] A smaller number of studies has focused on how trade policy changes have influenced employment outcomes, finding policies that led to increases in imports from low-wage countries also led to job churn in import-competing industries and regions.[606] Some research has explored the employment effects of other changes in trade and some trade shocks such as offshoring of services activity or changes in U.S. tariff policy.[607]

Research into the distributional effects of trade has also found evidence that worker demographic characteristics significantly influence employment outcomes in response to the rise in imports from low-wage countries. Manufacturing workers with lower levels of educational attainment were especially susceptible to experiencing negative employment outcomes in response to increased import competition.[608] Similarly, the geographic regions most exposed to increased import competition had higher concentrations of workers with low levels of educational attainment.[609] A smaller number of studies, discussed in subsequent sections, highlights differential effects on workers across other characteristics, including gender and race.

Employment Effects across Different Education and Skill Levels

Existing research finds evidence that trade shocks have led to different employment outcomes for workers across skill levels. The literature is most clear regarding the impact of increased offshoring and import competition from low-wage economies leading to negative employment outcomes for manufacturing production workers commonly defined as low-skill. However, other dimensions,

[603] Autor et al., "Trade Adjustment," November 1, 2014, 1799–1860; Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95.
[604] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68; Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40.
[605] Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40; Feenstra, Xu, and Ma, "U.S. Exports and Employment," 2019, 1–13; Agarwal, "U.S. Exports, Local Labor Markets, and Wage Inequality," 2021; Liang, "Job Creation and Job Destruction," 2021, 2909–49.
[606] Pierce and Schott, "The Surprisingly Swift Decline of US Manufacturing Employment," July 2016, 1632–62; Hakobyan and McLaren, "Looking for Local Labor Market Effects of NAFTA," October 2016, 728–41; Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020. This chapter follows the literature as to whether a link between a trade shock and preceding U.S. policy action is drawn. The China Shock, for example, is typically not considered a U.S. trade policy change in the literature.
[607] Crinò, "Service Offshoring and White-Collar Employment," April 2010, 595–632; Schreiber, "Estimating the Distributional Effects of Trade," May 2021.
[608] Economic literature in general and sources referenced in this footnote use the terms "education" and "skill" interchangeably. For more on this topic see Box 5.1. Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95; Autor et al., "Trade Adjustment," November 1, 2014, 1799–1860; Hakobyan and McLaren, "Looking for Local Labor Market Effects of NAFTA," October 2016, 728–41; Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020; Gurevich, Riker, and Tsigas, "Trade Policy and Gender," July 2021.
[609] Eriksson et al., "Trade Shocks and the Shifting Landscape of U.S. Manufacturing," March 2021, 1–19; Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40.

including effects of exports or services trade, remain relatively underresearched, with only a small number of studies. Among these few studies, researchers find employment in high-skill services occupations is more likely to grow relative to low-skill occupations in response to offshoring of U.S. services activity to other countries.[610]

Box 4.1 The Varying Definitions of Worker Skill Level in the Literature

A substantial segment of the literature focusing on the distributional effects of trade has described economic outcomes for workers across different skill levels. In these analyses, individual workers or entire occupations are categorized as being "low-skilled" or "high-skilled" (literature also uses "skilled" and "unskilled"). Many studies have written about the different impacts of trade on workers with different skill levels, but no single definition of worker skill exists. In addition to the lack of consensus around definitions of skilled and unskilled workers, a growing discussion has increasingly challenged the appropriateness of the term "skill" for classifying workers.[a] The discussion in this literature review is intended to summarize findings from an array of academic studies that share findings related to the distributional impacts of trade on workers across different skill levels. To do so, this discussion describes results from studies based on researchers' chosen definition of worker skill without endorsing the use of the term in this discourse.

In general, researchers define skilled workers as individuals that perform work that requires advanced training to accomplish. Researchers have considered several different dimensions for categorizing workers by skill. Within the distributional effects of trade literature, researchers often use workers' educational attainment to distinguish between lower and higher skilled workers. In such studies, researchers often assign a threshold level of education where workers with lower levels of educational attainment are categorized as low skill and more highly educated workers are categorized as high skill.

Data on educational attainment are often easily accessible within commonly used datasets, but their use as a method for categorizing workers into skill groupings faces several limitations. Traditional measures of educational attainment, such as high school or college completion, may not capture advanced training and certifications that workers may hold or need to perform their jobs. Another limitation of the education-based approach to defining skill is that a worker's educational attainment may not reflect the specific skill requirements of their job.

As an alternative, researchers often use occupation-based definitions of skill. In these analyses, individual occupations are classified as high- or low-skill and workers are then assigned skill levels according to the occupations they hold. Researchers commonly distinguish between skilled and unskilled occupations on the basis of tasks performed. Occupations characterized by a greater proportion of routine tasks are categorized as lower skill relative to occupations involving non-routine cognitive tasks.[b] Along the same lines, some researchers use production and non-production (management) activities as proxies for unskilled and skilled occupations, respectively.[c] In contrast to the above methods, at least one study within this literature also considers occupational tenure to be a proxy for worker skill, with more experienced workers being classified as skilled.[d]

[a] Pethokoukis, "The Debate Over 'Low-Skill' Versus 'Low-Wage' Workers," January 13, 2022.
[b] Routine tasks are defined as tasks that can be done by a computer or other technology, instead of a worker. Nonroutine tasks are those where computers complement workers in carrying out their activities. Autor, Levy, and Murnane, "The Skill Content of Recent Technological Change," November 2003, 1280.

[610] Crinò, "Service Offshoring and White-Collar Employment," April 2010, 595–632.

[c] For example, Pierce and Schott (2016) define the skill intensity of industry employment as the ratio of non-production workers to total employment. Pierce and Schott, "The Surprisingly Swift Decline of US Manufacturing Employment," July 2016, 1642.
[d] Agarwal, "U.S. Exports, Local Labor Markets, and Wage Inequality," 2021, 3.

The 2013 paper by Autor et al. had a large impact on how the literature identifies exposure to trade shocks.[611] The authors proposed a methodology for identifying exposure to increased imports from China at the local labor market level. To do so, the authors constructed regional measures of the value of Chinese imports per worker based on the size of regions' employment in industries that more directly experienced growing import competition from China over the 1990–2007 period. Employment changes in particular labor markets over the observation period were then compared to each labor market's calculated exposure to Chinese imports. In so doing, the authors found import-exposed regions experienced significant declines in the manufacturing share of employment along with corresponding increases in unemployment and workers exiting the labor force entirely. The authors also found significant evidence that adverse employment outcomes were more pronounced for non–college-educated workers.[612] A key strength of the approach presented in Autor et al. is the ability to distinguish the effects of increased import competition from other macroeconomic events occurring over the same period. By exploiting differences in exposure to imports across geographic regions and including methods to control for effects from other macroeconomic events, the authors plausibly showed the effect of increased imports from China on employment outcomes in trade-exposed regions.

Several papers emerged in subsequent years examining how industries adjust in response to trade shocks using similar methodologies. Even though each of these papers focuses on somewhat different questions, the overall findings from this body of literature are clear: in response to increased imports from lower-wage economies such as China and Mexico, employment in the U.S. manufacturing industry shrank and jobs moved to other sectors, particularly services industries. However, the authors' choice—made to stay consistent with Autor et al.—to end the period of observation in 2007 made it impossible to establish whether these effects persisted in later years.[613] A 2021 follow-on paper by Autor and co-authors extended the period of analysis through 2019.[614] In so doing, the authors found the negative employment effects associated with the China shock[615] remained highly persistent and could still be observed through 2019, more than a decade beyond the peak of import growth from China.[616] Regions with below median rates of college-educated workers experienced larger manufacturing employment declines and did not experience significant changes in out-migration, leading to substantial declines in personal income per capita within regions more exposed to import competition.[617] This 2021 follow-on paper notably expands the period of analysis considered by Autor et al., but it shares the same primary limitation as their previous China shock research related to the inability to generalize findings to other trade related events.

Following a methodology similar to that of Autor et al., Eriksson et al. developed a reduced-form econometric framework to further identify characteristics of the geographic regions most affected by

[611] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68.
[612] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2144–45.
[613] See, for example, Liang, "Job Creation and Job Destruction," 2021, 2909–49.
[614] Autor, Dorn, and Hanson, "On the Persistence of the China Shock," October 2021, 1–57.
[615] "China shock" is the significant rise in U.S. imports from China during the 1990s and 2000s.
[616] Autor, Dorn, and Hanson, "On the Persistence of the China Shock," October 2021, 16.
[617] Autor, Dorn, and Hanson, "On the Persistence of the China Shock," October 2021, 28–30.

the China shock.[618] The authors theorized that the transition of manufacturing production from the United States to rising merchandise imports from China was consistent with the product life cycle, where production of goods moves to lower wage areas as its production processes become increasingly standardized. As such, the authors hypothesized that industries with highly standardized production were most likely to face increased import competition from China. The authors found, consistent with this hypothesis, geographic regions in the United States with high concentrations of employment in industries characterized as being in late stages of the product life cycle were most exposed to increased imports from China. These regions with concentration in late-stage production experienced significant manufacturing employment declines and were also characterized by relatively low wages and educational attainment and slightly elevated unemployment before the shock.[619] The study by Eriksson et al. adopted the well-established Autor et al. methodology to generate further insights into the characteristics of geographic regions most exposed to import competition from China. Their analysis expands upon Autor et al. by finding evidence that regional specialization in production of goods that were in the late stage of the product life cycle represented a key determinant of exposure to imports from China.

Bloom and co-authors also examine the impact of increasing import competition from China on domestic employment, using the observed changes in imports to calculate import penetration rates of each industry. The authors combined firm-level data with an econometric model to establish that, on the aggregate, the U.S. economy saw a modest increase in jobs during the 1990–2015 period.[620] Much of the observed employment gains were driven by the reallocation of jobs from manufacturing into services. Consistent with Eriksson et al., the observed decline in manufacturing employment was driven by plant closings and large job losses in regions with relatively low educational attainment such as the South and the Midwest. Conversely, regions with relatively highly educated workforces, especially along the East and the West Coasts of the United States, experienced increases in employment.[621] The authors also found that the observed employment displacement was largely driven by U.S. multinational firms that offshored manufacturing jobs, thus creating services jobs in the United States.[622] The main strength of Bloom et al. is the use of firm- and plant-level data in its analysis, allowing the authors to observe how individual firms, industries, and regions responded to the China shock. The authors observed how firms reallocated employment geographically and from manufacturing into services in response to increased import competition—a dimension of employment outcomes that is difficult to observe from commonly used industry- and region-level data.

Liang used a reduced-form econometric model to study the employment impacts of import competition and growth in U.S. exports during the 1990–2007 period. The author found that despite an overall decrease in manufacturing industry employment, U.S. firms exporting to countries in the Latin America and East Asia have created slightly more jobs than the estimated job losses attributed to import

[618] Eriksson et al., "Trade Shocks and the Shifting Landscape of U.S. Manufacturing," March 2021, 1–19.
[619] Eriksson et al., "Trade Shocks and the Shifting Landscape of U.S. Manufacturing," March 2021, 17.
[620] This finding contrasts earlier findings from Acemoglu et al. that estimate increased import competition from China resulted in a net loss of between 2.0 and 2.4 million jobs between 1999 and 2011. Acemoglu, "Import Competition and the Great US Employment Sag of the 2000s," 2016.
[621] Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40.
[622] Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 2, 19.

competition from China in the Autor et al. 2013 study.[623] Furthermore, the author showed that employment growth was not constant across manufacturing industries. In response to U.S. export growth, industries that initially employed larger shares of non-college-educated and Nonwhite workers experienced larger employment gains compared to other industries, based on the types of products demanded. One of only a few studies that consider positive employment impacts from growth in U.S. exports, this work represents a notable contribution to the distributional effects of trade literature.[624] A limitation of the study is in its interpretation of the employment growth across industries with different worker characteristics. The model identifies demographic characteristics of workers initially employed in industries that experienced large export-induced employment growth. However, the model does not capture the demographic characteristics of newly hired workers following export expansion. As such, it is unclear from this analysis whether workers hired in response to export expansion were also disproportionately non–college-educated and Nonwhite.

Agarwal also explored how U.S. export growth impacted employment outcomes between 1990 and 2007, finding that export expansion led to slightly larger job creation compared to job losses from Chinese import competition.[625] Similar to Liang, the author developed a reduced-form econometric model. However, the author adopted a different methodological approach to control for other potential confounding economic factors that may influence U.S. exports and employment outcomes.[626] Consistent with Liang, Agarwal finds that export expansion led to positive and significant employment growth. Two groups of workers experience gains: non-college-educated workers with previous manufacturing employment experience and college-educated workers.[627]

The papers discussed above rely on methodologies like Autor et al., 2013, to identify import-competing industries, but Pierce and Schott took a somewhat different reduced-form econometric approach to identify which industries were more susceptible to being affected by increased imports from China.[628] The authors hypothesized that the sharp decline in U.S. manufacturing employment was linked to the fact that the United States had granted China most-favored-nation status under permanent normal trade relations (PNTR). The authors find that a large (18 percent) decline in U.S. manufacturing employment from March 2001 to March 2007 resulting from PNTR was "surprisingly swift," and that the decline was more pronounced for production workers in relatively low-skilled jobs. They find that this is due, in large part, to U.S. manufacturers' shift from labor- to capital-intensive production technology in

[623] Liang, "Job Creation and Job Destruction," 2021, 2909–49.
[624] Earlier research produced by Feenstra et al. also find positive employment effects from U.S. export expansion. However, the study focuses on the net employment effect of export expansion and contains little analysis on distributional outcomes. Feenstra, Xu, and Ma, "U.S. Exports and Employment," 2019, 1–13.
[625] Agarwal, "U.S. Exports, Local Labor Markets, and Wage Inequality," 2021.
[626] Specifically, Agarwal adopts an instrumental variable (IV) strategy (described by Feenstra et al.) to control for other potential confounding variables. Conversely, Liang develops a unique IV approach that the author describes as a "weighted average of the variations" of instruments used by Feenstra and Agarwal. Agarwal, "U.S. Exports, Local Labor Markets, and Wage Inequality," 2021, 3; Feenstra, Xu, and Ma, "U.S. Exports and Employment," 2019, 1–13; Liang, "Job Creation and Job Destruction," 2021, 2920–21.
[627] These findings are also consistent with papers that use individual- rather than industry-level data, such as Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95.
[628] Pierce and Schott, "The Surprisingly Swift Decline of US Manufacturing Employment," July 2016, 1632–62.

response to increases in Chinese imports.[629] Pierce and Schott represent a notable contribution to the literature by using the PNTR policy change as a measure of exposure to the China shock. In doing so, the authors provide evidence that the change in U.S. policy had a role in the growth in Chinese imports studied elsewhere in the China shock literature. Additionally, the authors used plant-level data to observe how individual plants responded to increased exposure to import competition from China, which represents a significant extension to similar literature that relies exclusively on industry- and region-level data. However, a limitation of the Pierce and Schott study is its relatively short period of analysis. Similar China shock research with longer periods of analysis has found growth in import competition from China, and corresponding negative employment effects have persisted well beyond 2007, the end period in Pierce and Schott.[630]

Benguria also studied the employment effects of a trade policy change—increased Mexican import competition following the ratification of North American Free Trade Agreement (NAFTA) through 2000.[631] The author found U.S. tariff liberalization led to a significant decline in manufacturing employment in regions more exposed to NAFTA tariff reductions.[632] Negative employment effects were concentrated among workers without a college education, but employment effects for college-educated workers were statistically insignificant.[633] Growth in employment in lower-paying nonmanufacturing industries, unemployment, and labor force nonparticipation accompanied employment losses due to U.S. tariff liberalization. Using Mexico's NAFTA tariff liberalization schedule, the author also found that Mexico's tariff reductions led to positive, albeit imprecisely measured and statistically insignificant local labor market outcomes in the United States.[634] This study represents an extension to previous research by Hakobyan and McLaren, who studied the wage effects of NAFTA-induced import competition (discussed in the subsection describing distributional effects of trade on wages).[635] Both papers follow similar methodologies, but Benguria employs industry-level data from Census' County Business Patterns. The use of Census' County Business Patterns data represents a significant increase in the number of industries used to generate measures of exposure to Mexican import competition from NAFTA.[636] Additionally, Benguria significantly expands upon the worker characteristics studied, showing employment outcomes for workers across gender, age, and race, in addition to educational attainment. Benguria demonstrates that most NAFTA-related Mexican tariff liberalization occurred by 2000, although Benguria's focus on the 1994–2000 period potentially misses delayed NAFTA-induced labor

[629] This finding is consistent with results from Bernard, Jensen, and Schott who find increased imports from "low-wage" countries through 1997 led to shifts in production toward more capital intensive plants. Bernard, Jensen, and Schott, "Survival of the Best Fit," January 2006, 219–37.
[630] Bloom et al., "The Impact of Chinese Trade on U.S. Employment," July 2019, 1–40; Autor, Dorn, and Hanson, "On the Persistence of the China Shock," October 2021, 1–57.
[631] Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020.
[632] Consistent with Bloom et al. and Eriksson et al., Benguria finds that the NAFTA-induced declines in manufacturing employment were especially pronounced in geographic regions with lower levels of educational attainment. Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020, 9.
[633] Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020, 4.
[634] Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020, 6.
[635] Hakobyan and McLaren, "Looking for Local Labor Market Effects of NAFTA," October 2016, 728–41.
[636] By using Census' County Business Patterns data, Benguria exploits variation in NAFTA exposure across 417 industries, compared to the 89 different industries used in Hakobyan and McLaren. Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020, 3.

market impacts that may have occurred after the period of observation.[637] As such, some labor market adjustments in response to tariff liberalization may be slower to materialize and would therefore be unobserved in the analysis.

Unlike most of the literature focusing on impacts on U.S. manufacturing and goods trade, Crinò examined the impact of services offshoring on U.S. labor market outcomes between 1997 and 2006.[638] Using an econometric model, the author estimated the impact of the growth in offshoring of services on U.S. employment in different sectors and occupations and across workers' skill levels. Employment in high-skilled occupations grew in response to increased services offshoring, but employment in low-skilled occupations did not. Furthermore, total employment in occupations that were easier to offshore—those consisting of more tradable tasks—contracted in response to industry offshoring. Crinò's methodology relies on some generalizations about the "offshorability" of sectors and the "tradability" of occupations and uses sector averages to proxy for skill requirements in each occupation. As such, these results potentially mask the considerable heterogeneity of workers within each sector and occupation. Additionally, the task-based measure of occupation tradability may be correlated with other confounding variables, such as the ability to automate an occupation.[639]

Gender

The impact of trade on the employment and labor force participation of men and women in the United States is a relatively unexplored subject, emerging only in recent years.[640] This literature links trade exposure to the gender composition of the labor force in different industries, showing that men are more likely to work in import-competing firms that tend to contract with growing trade. The literature shows inconclusive effects of trade liberalization on labor force participation of men and women. As with the literature on employment effects by education and skill level, the literature on gender impacts tends to focus on manufacturing industries. However, it is important to note that the share of women workers is higher in services sectors, compared to the higher share of men workers in manufacturing.[641] Therefore, the results presented here should not be generalized to all women workers.

Sauré and Zoabi developed a structural model to explore the relationship between the increasing export intensity of some industries and the changes in labor force participation of men and women employed in those industries.[642] The model predicted that labor force participation of women declined in response to increased trade, although the gender wage gap declined, too. This finding, and others within the

[637] Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020, 57.
[638] Crinò, "Service Offshoring and White-Collar Employment," April 2010, 595–632.
[639] For example, in an effort to disentangle the effects of trade and skill-biased technological change on employment outcomes for 16 European economies, Goos, Manning, and Salomons (2014) find their proxies for automatability and offshorability of occupations were highly correlated, with a correlation coefficient of 0.46. Goos, Manning, and Salomons, "Explaining Job Polarization," August 2014, 2512.
[640] The larger literature on the impact of trade on wages of men and women and on the gender wage gap is discussed in a subsequent section of this chapter.
[641] Women represent nearly 70 percent of the workforce in sectors with low exposure to trade—public administration, education, health, and social work. Korinek, Moïsé, and Tange, "Trade and Gender: A Framework of Analysis," March 2021. Ngai and Petrongolo show more detailed sector-gender disaggregation for the United States. Ngai and Petrongolo, "Gender Gaps and the Rise of the Service Economy," October 1, 2017, 1–44.
[642] Sauré and Zoabi, "International Trade, the Gender Wage Gap and Female Labor Force Participation," November 1, 2014, 17–33.

paper, depends on several strong assumptions about "production ability"—the ability to complete certain tasks—of male and female workers and household decisions about childcare. First, men in the model can choose to work in either capital- or labor-intensive sectors, but women are bound to work in the capital-intensive sectors because of assumed complementarity between female labor and capital intensity of production (i.e., women are assumed to work only at relatively capital-intensive firms). Drawing on the international trade theory, which suggests that trade liberalization leads to growth in sectors with a relative abundance of factors and contraction in sectors with a relative scarcity, Sauré and Zoabi claim that, in the United States, the growing sectors were capital-intensive (and by assumption female-labor-intensive). Thus, in the model, increased imports and exports caused the capital-intensive sectors in the United States to expand and the labor-intensive sectors to contract, displacing many men from their jobs in the labor-intensive sector, switching employment to the capital-intensive sector. Furthermore, even though wages in the expanding sector grew, causing the reduction in the gender wage gap for women who remained in the labor force, many women became displaced from the labor force and shifted into childcare duties. The authors tested their theory on U.S.-Mexico trade following the implementation of NAFTA and found support when examining labor force participation in various states of the United States. However, in a significant departure from theory, the authors did not examine industry-level labor force participation. The authors further acknowledge that more disaggregated analysis is required to confirm findings.[643]

Using a reduced-form econometric model Benguria, discussed in a preceding section, also provided estimates on the impact of NAFTA tariff liberalization on male and female workers but found different results as they were not limited by the strong restrictive assumptions of Sauré and Zoabi.[644] Unlike Sauré and Zoabi, Benguria examined industry-level labor force participation level and found that U.S. tariff liberalization under NAFTA led to significant U.S. manufacturing employment declines for female workers but that manufacturing employment did not significantly decline for male workers.[645] The model showed evidence that the observed manufacturing employment declines for female workers corresponded to employment growth in non-manufacturing industries, as well as an uptick in unemployment and exit from the labor force. On net, Benguria found that female employment declined because of U.S. tariff liberalization under NAFTA. For male workers, Benguria found a twofold impact on employment: that U.S. tariff liberalization led to increased unemployment and increased entry of male workers into the labor force. Taken together, the two led to no significant changes in male employment in response to the NAFTA tariff liberalization. Although Benguria showed that the majority of NAFTA-related Mexican tariff liberalization occurred by 2000, suggesting that the study results are robust, the study's focus on 1994–2000 remains a limiting factor. Benguria concluded that further analysis using longitudinal data—data that follows employment changes through multiple periods of time—could help further explain these findings.[646]

[643] Sauré and Zoabi, "International Trade, the Gender Wage Gap and Female Labor Force Participation," November 1, 2014, 31.
[644] Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020.
[645] Assuming that a manufacturing sector is female-labor and capital-intensive and further assuming that women left the labor force after separating from their manufacturing jobs could make this result consistent with the result from Sauré and Zoabi.
[646] Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020, 5.

Besedeš et al. highlight the importance of considering gender and level of education together when examining the impact of trade on workers.[647] The authors employed a reduced-form econometric model similar to Pierce and Schott, 2016, to show that the gap in labor force participation between men and women declined after the United States granted China permanent normal trade relations (PNTR) status. A change in the composition of the U.S. labor force, where less educated men left the labor force as more educated women joined, primarily drove this decline. The effect was most pronounced in metropolitan statistical areas of the United States that were more exposed to import competition from China.[648] The authors further suggested that both men and women were more likely to work part time because they were unable to find full-time work, though the authors did note that this effect was estimated imprecisely because of data limitations. Results in Besedeš et al. contrast with Sauré and Zoabi due to the strong limiting assumptions of the latter study. If similarly strong assumptions were restricting the analysis in Besedeš et al., the results would be similar. For example, assuming that less-educated men leave the shrinking sectors (as is the case in Sauré and Zoabi) but abstracting from the assumption of childcare (not captured in the model of Besedeš et al.), higher-educated women would join the expanding sectors that typically pay higher wages. However, because Sauré and Zoabi distinguish workers only by gender without accounting for education, their theory is not fully transferable. At the same time, the results from Besedeš et al. highlight the importance of considering this intersection.

Race and Ethnicity

The literature on the impact of trade on workers of different races and ethnicities primarily relies on descriptive and reduced-form econometric methods. This literature is focused predominantly on measuring the impact on Black and Hispanic workers, but not other racial minority groups. Polaski and co-authors, in a discussion paper focused on Black workers, show that some sectors within manufacturing and some regions of the United States that are relatively more exposed to trade also have high proportions of minority populations, highlighting the heterogeneity of workers across sectors in manufacturing.[649] Considering these descriptive data observations, the authors suggest that Black workers are more likely than White counterparts to be displaced from work through plant closings and permanent layoffs.[650] However, this study does not make claims about causal effects of trade on these workers and suggests that further model-based analysis using more disaggregated data on sectors and industries could shed light on heterogeneous outcomes of racial and ethnic minority workers.

Similar to Polaski et al., in descriptive reports published in 2018 and 2021, Public Citizen Global Trade Watch suggests links between the U.S. trade policy and employment outcomes of minority workers. Their 2018 report is focused on the impact of NAFTA on workers in the United States and in Mexico. The report states that, because NAFTA provided advantages to large multinational corporations but did not

[647] Besedeš, Lee, and Yang, "Trade Liberalization and Gender Gaps," 2021, 574–88.
[648] The metropolitan statistical areas are similar to commuting zones and are defined to examine the impact of trade on local labor markets.
[649] Polaski et al., "How U.S. Trade Policy Failed Workers," September 16, 2020, 10.
[650] An industry report also suggests that the concentration of Black workers in low-growth regions (measured by population changes and defined as regions with negative net migration in 2010–2017) makes it difficult for the workers to obtain high-paying jobs in the private sector. McKinsey & Company, *Race in the Workplace*, February 2021.

address workers' rights, Latino workers in the United States were disproportionately represented in industries that were hit hardest by job losses after NAFTA was enacted and Mexican workers were also negatively affected by the agreement.[651] The descriptive approach does not consider other factors that may make Latino workers different from the general U.S. population (e.g., level of education or health) and would contribute to disproportionate job displacement. Without accounting for these other factors in a model-based setting, verifying whether the impact of NAFTA on Latino workers differs from the impact on other workers is difficult. A similar approach was taken in the 2021 report that discusses negative impacts of NAFTA and the expansion of the World Trade Organization (WTO) on Black and Latino workers in the United States.[652] The report presents summary data showing a substantial decline in employment and wages in the U.S. manufacturing industry during the past 30 years and points out that the decline was more pronounced in manufacturing sectors with significant Black and Latino employment. The report does not use modeling to explicitly connect trade policy, decline of manufacturing, and race of workers, but it presents insights about possible sectors and regions of the United States affected by trade policy that could be useful for future model-based research.

Several studies seek to establish model-based links between trade or trade policy and employment of Black and Latino workers.[653] Benguria examined NAFTA's role in disparate impacts on minority workers, in addition to looking at other characteristics of workers.[654] The author found that, even when controlling for education, the decline in total employment and increase in unemployment due to NAFTA was indeed larger among Nonwhite workers. Spriggs and co-authors examined how the China shock impacted Black employment and earnings in different commuting zones (CZs).[655] The authors found that overall and local (CZ) import exposure reduced Black employment across all sectors and in exposed local industries. This study has several shortcomings. First, it departs from the existing empirical literature by not determining import penetration ratios at the level of CZs, but rather at the state level. Furthermore, the study only considers a subset of 34 states and the District of Columbia. Because this is a key element in establishing the link between imports and workers' outcomes, this omission led to notable ambiguity in attribution of results. In other words, omitting the variation in import penetration across CZs means that the disproportionate employment changes across industries cannot be attributed to increased imports from China. Second, the authors used aggregated industry data (measured at the 2-digit North American Industry Classification System level), potentially obscuring heterogeneity in outcomes on a more disaggregated level.[656] Finally, the authors used data for a selection of states that have enough

[651] Public Citizen et al., *Fracaso: NAFTA's Disproportionate Damage*, December 2018.
[652] Public Citizen et al., *Trade Discrimination*, January 2021.
[653] For a summary of existing research related to Black workers in goods-producing industries, see Western et al., "The Impact of Trade on Black Workers," June 2021.
[654] This study is discussed in detail a preceding section of this chapter. Benguria, "The Impact of NAFTA on U.S. Local Labor Market Employment," 2020.
[655] Spriggs, Browne, and Cole-Smith, "China Import Penetration and U.S. Labor-Market Adjustment," May 2021.
[656] For example, Ngai and Petrongolo warn against aggregating up sectors and industries, showing substantial heterogeneity in gender mix of employment across sectors. Polaski et al. recommend looking at more disaggregated sectors when examining the impact of trade on workers of different races. Ngai and Petrongolo, "Gender Gaps and the Rise of the Service Economy," October 1, 2017, 1–44.; Polaski et al., "How U.S. Trade Policy Failed Workers," September 16, 2020.

information about Black employment and earnings. As a result, the findings might not be easily generalizable to workers in other states.[657]

Schreiber used a structural model to simulate the effects of a hypothetical tariff change on U.S. employment of different workers in the short run.[658] Using the medical equipment manufacturing industry as an illustrative example, the author found that a hypothetical decrease in tariffs on imports of medical equipment would result in an overall decrease in employment. The largest decline is estimated for Black college-educated female workers and Black high-school-educated male workers. This result also highlights the importance of considering the intersection of race and education.[659] It is notable, however, that the model is designed to examine the outcomes in the short run and does not account for unemployment or job searching; it is possible that the outcomes are different in the long run, when the labor markets have time to adjust. Finally, this model relies on worker data for a narrowly defined industry, which may limit the ability to use this model for other industries if similar data are not available.

In a reduced-form econometric study looking at U.S. exports, Liang found a positive impact on employment in exporting manufacturing industries that was larger in industries that hired more Nonwhite (defined as Hispanic or Black) workers.[660] As discussed in a preceding section, the author showed that employment growth was not constant across firms in different manufacturing sectors and firms exporting to different destinations. At the same time, Liang only considered the share of workers defined as Nonwhite (but only Hispanic or Black) in an industry, without further disaggregating workers by race, and likely grouping other minority groups with White workers.

Batistich and Bond examined how trade impacted workers before NAFTA and the China shock, looking at the increased trade with Japan in the 1970s and 1980s.[661] The authors highlight that, during that period, low-skilled Black workers were displaced from manufacturing jobs and those losses were offset by increased manufacturing employment of higher-skilled White workers and attribute these changes to trade. Batistich and Bond mention that education (skill) level and race of workers are highly correlated during the period they examine: the majority of Black manufacturing workers attended segregated schools in the South and did not graduate high school, thereby remaining low-skilled, but the majority of White workers had at least a high school degree, qualifying them to be classified as high-skilled in the analysis. The authors attempt to account for the correlation and disentangle the impact of education from impact of race but find only limited evidence for negative effects of race once education levels are taken into account. In addition, in this reduced-form model, the authors do not account for a possibility of changing demand for skilled workers in manufacturing, again potentially conflating skills with race.

[657] Notably, Gould suggests that the trends in racial gaps in manufacturing employment "preceded the era of Chinese trade by decades." Gould, "Torn Apart?," September 28, 2021, 770–85. As such, correlation between trade and other socio-economic changes that can impact outcomes for Black workers is likely and these correlations need to be carefully identified in a model-based study.
[658] Schreiber, "Estimating the Distributional Effects of Trade," May 2021.
[659] Besedeš et al. discussed above show similar findings for the intersection of gender and education.
[660] Liang, "Job Creation and Job Destruction," 2021, 2909–49.
[661] Batistich and Bond, "Stalled Racial Progress and Japanese Trade in the 1970s and 1980s," February 2019.

Literature on Distributional Wage and Income Impacts of Trade Shocks

In addition to research focusing on trade-induced employment outcomes, a substantial body of research has documented the effects of various trade policy shocks on compensation, including wages and income across different groups of workers. Researchers have found that, in addition to periods of employment and unemployment, trade-induced worker transitions between occupations and industries have significant impacts on workers' short- and long-term earnings. Wage and income outcomes vary significantly depending on workers' exposure to trade shocks, whether workers change occupations or industries in response to a shock, as well as worker characteristics such as educational level, gender, or race. Several studies found that import competition-induced transitions between industries and occupations led to significant earnings declines for workers. These adverse wage effects were especially pronounced for non–college-educated workers or those previously employed in routine manufacturing jobs.[662] Conversely, college-educated workers and non-production manufacturing workers such as managers experienced lower or no wage or income loss following trade-induced employment transitions.[663] Changes in the shares of women and racial minorities employed in a given industry and occupation have also been found in response to import competition and other trade shocks, as described earlier in this chapter.

Other research studies that quantify trade-induced changes in average wages or income across industries and regions have yielded mixed results. Some studies found that average wages fell in the industries that experienced trade-induced employment loss.[664] However, other studies noted that the use of industry- and region-level data to estimate trade-induced wage outcomes presents an empirical challenge and advised caution when interpreting results of a trade shock on average industry or region wages. Wages and incomes of workers that changed employment in response to a trade shock are difficult to observe when using data aggregated at the industry or region level.[665] Similarly, trade shocks have been found to lead to firms changing the employment composition of their workforce by hiring or firing workers. These trade-induced employment changes can influence average wages in an industry or region.[666] For example, Autor et al. note that in response to increased import competition "the most productive workers retain their jobs in manufacturing, thus biasing the estimates against finding a reduction in manufacturing wages."[667]

[662] Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95; Lee, "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers," July 2020, 1–22; Autor et al., "Trade Adjustment," November 1, 2014, 1799–1860.
[663] Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95.
[664] Lee, "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers," July 2020, 1–22.
[665] Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95.
[666] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2147.
[667] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68.

Education and Skill Level

Several studies have developed econometric approaches to measuring wage effects of trade shocks on U.S. workers across different education and skill levels. To do so, authors have drawn on data sources that contain employment and wage information at the individual worker level. Ebenstein et al. used data from the Current Population Survey to measure the effects of exposure to import competition and offshoring risk on wage outcomes between 1984 and 2002.[668] To do so, the authors constructed occupation-level measures of exposure to offshoring, import competition, and export activity.[669] Results from a regression on worker wages against measures of exposure to offshoring and international trade showed worker wages were adversely affected by import competition and exposure to offshoring. The authors also found evidence that import competition and offshoring led to a reallocation of workers away from higher-paid manufacturing sectors, largely into lower paying services occupations.[670] The authors found that the negative and significant effects of offshoring and import competition were concentrated on workers with a high school education or less.[671] Conversely, wages in routine occupations associated with export activity were found to be positively associated with growth in U.S. exports.

A key advantage of the approach used in Ebenstein et al. stems from their use of occupation data to observe worker wage outcomes. By observing outcomes for individual workers at the occupation level, the authors could observe how worker transitions across jobs and industries affect wages. For example, the authors were able to observe positive effects of exports on worker wages from occupation-level data, unlike more recent industry-level research from Liang, who found no significant impact of exports on wages during 1991–2007.[672] Ebenstein et al. face two notable limitations. First, the period of analysis studied ends in 2002, likely before the peak of U.S. employment offshoring and import growth.[673] The authors also note an additional limitation related to their occupation-level measures of offshorability. Their methodology cannot fully separate the effects of trade-related shocks with other changes in the U.S. labor market. For example, skill-biased technological change is likely to be correlated with the routine task-based measure of occupational offshorability used in the analysis. To address possible identification concerns, the authors added a series of control variables to capture technological change within industry and occupations during the period analyzed. Nevertheless, the authors advised that

[668] Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581–95.
[669] To construct measures of occupation exposure to offshoring the authors construct indices to measure the routineness of an occupation in a similar manner as Autor et al. (2003), arguing routine task intensive occupations can more easily be relocated overseas.
[670] They estimate occupation switching due to trade during the period of analysis led to real wage losses of 12 to 17 percentage points.
[671] Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 590.
[672] Liang, "Job Creation and Job Destruction," 2021, 2910.
[673] For example, Autor et al. show that changes in employment and imports growth continued for years after 2002. Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68; Autor, Dorn, and Hanson, "On the Persistence of the China Shock," October 2021, 1–57.

results be interpreted with appropriate caution "in the absence of a fully compelling instrument for the tradability of certain occupations."[674]

In a 2014 extension of their China Syndrome paper, Autor and co-authors conducted a study on the wage impacts of increased import competition from China on individual worker wages. To do so, the authors used matched employer-employee data on U.S. workers from the Social Security Administration to identify how the rise in U.S. imports from China in 1992–2007 impacted workers' earnings.[675] The use of this unique dataset was the primary innovation of this study. It allowed the authors to observe each individual worker over time, identifying workers who switched industries and occupations or left the labor force in response to the shock. As a result, the authors were able to separately identify four different mechanisms of adjustment of earnings to the trade shock. First, import-exposed manufacturing workers that retained their original employment following the shock saw a decrease in earnings. Additionally, a significant number of workers originally employed in exposed industries experienced loss of earnings through job loss, the second margin of adjustment. As a result of increased job loss, uptake of government transfers (e.g., unemployment payments) increased, the third margin of adjustment. Finally, workers who changed employment in response to import competition experienced changes to earnings, the fourth margin of earnings adjustment. The authors found low-wage workers who were displaced from import-competing firms were more likely to continue transitioning from job to job in the same industry, thus remaining susceptible to risks from subsequent trade shocks. Conversely, high-wage workers were more capable of moving across employers and industries following import exposure, minimizing the effect of trade-induced job churn on their cumulative earnings.

Hakobyan and McLaren studied the effects of increased import exposure from Mexico following the ratification of NAFTA.[676] The authors combined industry- and region-level measures of import exposure and worker-level wage outcomes during the 1990–2000 period. The authors found worker wages in NAFTA import-competing industries were slower to grow compared to unexposed industries. These adverse wage effects were larger in magnitude for less educated workers, while wage effects for college-educated workers were found to be statistically insignificant. Additionally, the authors found evidence of a "Youngstown effect," where blue-collar workers in unexposed industries, such as a waiter in a diner, experienced negative wage impacts in vulnerable regions. The authors concluded that the existence of the Youngstown effect implies trade-exposed workers can move between industries within a geographic region but experience difficulties or are unlikely to move between regions.[677] Hakobyan and McLaren represent one of the first studies to empirically estimate distributional outcomes from NAFTA. However, the authors note limitations of their analysis. To begin, the authors describe their industry and geographic measures of exposure to NAFTA as "coarse," leading their model to "likely underestimate the effects of trade on wages in both industry and geographic dimensions."[678] Similarly, the use of Census data to measure wage outcomes constrains the analysis to measuring NAFTA's wage

[674] Other research studies, such as Goos et al. have used routine task intensity measures to serve as proxies for occupational susceptibility to automation. Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 583; Goos, Manning, and Salomons, "Explaining Job Polarization," August 2014, 2509–26.
[675] Autor et al., "Trade Adjustment," November 1, 2014, 1799–1860.
[676] Hakobyan and McLaren, "Looking for Local Labor Market Effects of NAFTA," October 2016, 728–41.
[677] Hakobyan and McLaren, "Looking for Local Labor Market Effects of NAFTA," October 2016, 731.
[678] Hakobyan and McLaren, "Looking for Local Labor Market Effects of NAFTA," October 2016, 732.

impacts between 1990 and 2000, omitting any delayed NAFTA related effects that occurred in the 2000s.

Several studies have developed structural models to explain different mechanisms behind trade-induced wage outcomes for workers across skill levels. Parro proposed a structural econometric model that assumes capital and high-skill labor act as complements, leading to "skill-biased trade."[679] The author defined skill-biased trade as the process where a reduction in trade costs increases trade in capital goods that increase the productivity of non-production workers, a commonly used proxy for high-skill workers, relative to production workers. This trade-induced increase in relative productivity in turn raises the relative wages paid to non-production workers. From simulations of a reduction in global trade costs during the 1990–2007 period, the author found that both production and non-production worker wages in the United States increased following the reduction in trade costs. However, non-production worker wages grew more quickly in response to the trade cost decline, leading to an increase in the wage premium—the gap between non-production and production worker wages. The mechanism and main findings from Parro are consistent with findings from a structural economic model developed by Burstein and Vogel who also documented how a reduction in trade costs causes a shift toward skill-intensive production within and between U.S. industries.[680] A significant innovation of the structural model proposed by Parro is its ability to separately quantify the effects of changes in trade costs and technological change on economic outcomes, including prices, trade flows, and the skilled wage premium.[681] Parro finds that the lower trade costs explain about 31 percent of the change in skilled wage premium in developed countries. This ability to disentangle trade and technology effects is especially valuable given the much broader debate within academic literature and popular discourse on the relative roles of trade and technology on negative employment outcomes for blue-collar workers.[682] However, the model relies on a key assumption that traded capital goods are skill-biased and boost the relative productivity of skilled workers. As such, this model would be an inappropriate tool for conducting simulations and analyses of trade when this capital-skill complementarity assumption is violated.

Analyzing a different mechanism in a structural model of trade, Lee similarly found that a decrease in trade costs led to an increase in the skilled wage premium.[683] The model features workers with six different education levels and employment in five different occupations across four industries. The model assumes workers have different skill sets, a key model structure that determines workers' comparative advantage across industry and occupation—the industry and occupation where workers are most productive. A reduction in trade costs results in changes in the relative demand for workers within occupations and industries.[684] Model simulations, based on thirty-two countries, including the United States, showed that the U.S. skilled wage premium increased following a reduction in trade costs

[679] Parro, "Capital-Skill Complementarity and the Skill Premium," April 2013, 72–117.
[680] Burstein and Vogel, "International Trade, Technology, and the Skill Premium," August 24, 2017, 1356–1410.
[681] Parro, "Capital-Skill Complementarity and the Skill Premium," April 2013, 77.
[682] Goos, Manning, and Salomons, "Explaining Job Polarization," August 2014, 2509–26; Autor, Dorn, and Hanson, "Untangling Trade and Technology," May 1, 2015, 621–46; Kessler, "Are Jobs Lost Due to 'Bad Trade Policy' or Automation?," October 17, 2019; Kurtzleben, "Do Robots or Trade Threaten American Workers More?," October 24, 2019.
[683] Lee, "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers," July 2020, 1–22.
[684] Demand for U.S. workers in manufacturing occupations and industries is reduced following the simulated reduction in trade costs as demand for imported goods increases.

as labor demand and welfare increased for college-educated workers and declined for high-school-educated workers.[685] Findings from a number of reduced-form econometric studies empirically support Lee's inclusion of worker-specific comparative advantage and job switching in a structural model of international trade.[686] Although the study measured wage outcomes as workers transitioned between industries and occupations in response to trade shocks, it did not capture transition costs associated with job switching. A large body of reduced-form econometric analyses discussed in this literature finds evidence that trade-exposed workers may lose income by entering unemployment, a mechanism that is not explicitly modeled in Lee's analysis.[687] As such, the model proposed by Lee represents an appropriate tool for understanding how trade shocks can influence wage differentials between workers with different educational attainment but does not capture several major worker income effects known to arise from trade shocks.

Similar to Lee, Cravino and Sotelo studied the impacts of worker transitions from manufacturing to services using a structural economic model.[688] The model assumes that manufactured goods are low-skilled labor intensive and complementary—i.e., they add value—to services. International trade reduces the price of manufactured goods, in turn leading to growth in the services share of employment. Additionally, the model assumes that the demand for services is more responsive to increases in income. Because international trade increases income, services' income responsiveness leads to growth in services' share of total demand. As such, the model captures the effects of trade-induced shifts in employment and demand on the skilled wage premium. The authors found that trade-induced reductions in manufacturing employment explain more than half the observed decline in manufacturing employment between 1995 and 2007, globally, but led to relatively small effects on the skilled-wage premium for U.S. workers.[689] However, the authors do not explore other mechanisms that would capture the unexplained part of the decline in manufacturing employment.

Liu and Trefler also developed a structural model to study the impacts of services trade-induced occupation switching on skilled wage premiums using data from 1996 to 2007.[690] To do so, the authors combined features of a commonly used model of international trade proposed by Grossman and Rossi-Hansberg with features from a Ricardian-Roy structural labor model.[691] Consistent with findings from Ebenstein et al., reduced-form econometric estimates from their structural model indicate that manufacturing workers were both "switching up" and "switching down" into services jobs in response to increased services import competition from India and China.[692] The authors found that highly educated white-collar U.S. workers were more likely to move into higher paying occupations following increased services import competition, but less educated workers disproportionately moved into lower paying

[685] Lee, "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers," July 2020, 2.
[686] Reduced-form analyses from Ebenstein et al., Liang, and Autor et al. (2014).
[687] See, for example, Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68, and Eriksson et al., "Trade Shocks and the Shifting Landscape of U.S. Manufacturing," March 2021, 1–19.
[688] Cravino and Sotelo, "Trade-Induced Structural Change and the Skill Premium," July 2019, 289–326.
[689] Cravino and Sotelo, "Trade-Induced Structural Change and the Skill Premium," July 2019, 320.
[690] Liu and Trefler, "A Sorted Tale of Globalization," January 17, 2019, 105–22.
[691] Liu and Trefler, "A Sorted Tale of Globalization," January 17, 2019, 105–22. Grossman and Rossi-Hansberg, "Trading Tasks: A Simple Theory of Offshoring," December 2008, 1978–97.
[692] Switching up (down) means switching to an occupation that pays more (less) than the current occupation. Liu and Trefler, "A Sorted Tale of Globalization," January 17, 2019, 105.

occupations in response to the shock.[693] In addition to the ability of their model to capture effects of workers switching across occupations in response to a trade shock, Liu and Trefler's study represents one of the few academic studies quantifying distributional impacts of services trade. However, the analysis also relies on occupation-level measures of exposure to services trade that are identical to the measures used in Ebenstein et al. Therefore, the empirical estimates of the effects of offshorability on wage outcomes in Liu and Trefler are also likely capturing impacts from other economic processes—particularly automation and skill-biased technological change.

Gender

The empirical literature examining the impacts of trade and trade policy on workers by gender explores wage impacts in more depth than impacts on employment and labor force participation. Much of this literature examines the relative changes in wages between male and female workers—often referred to as the gender wage gap—resulting from changes in trade patterns and policy. Overall, the literature suggests that, in the United States, the gender wage gap declined in the presence of import competition. However, this result is generally not due to increases in wages of women, but rather declines in wages of men who switch out of import-competing sectors.[694] This finding is generally robust. However, some deviations from this result are notable. For example, Sauré and Zoabi show that displacement of women from the workforce is not uniform across levels of earnings.[695] Thus, in industries with particular compositions of male and female workers, the gender wage gap can widen. However, this result depends on an important model assumption: although women in the model can choose hours worked, men are assumed to supply labor inelastically, meaning relative productivity and, therefore, wages of men increase as women choose to work less.[696]

One of the first papers to investigate the connection between trade, labor force participation of women, and the gender wage gap in the United States is by Hakobyan and McLaren discussed above.[697] In this paper, the authors focused on U.S. workers' wage growth following the reduction of tariffs on U.S. goods imports under NAFTA. The authors found heterogeneous effects across U.S. workers by gender, as well as by education, location, and industry of employment.[698] Overall, tariff reductions from NAFTA slowed the rate of wage growth of blue-collar workers and the impact was larger for women than for men. The largest impact was estimated for married women in blue-collar jobs. The authors offered one possible explanation for part of the decline, suggesting that some married higher wage-earning women left the labor force as wages declined. However, the authors concluded that further examination of this topic is warranted.

[693] Liu and Trefler, "A Sorted Tale of Globalization," January 17, 2019, 112.
[694] This pattern of switching also contributes to a decline in female employment discussed earlier in this chapter. For a comprehensive review of international literature on impacts of trade on wages and employment of women, see Papyrakis, Covarrubias, and Verschoor, "Gender and Trade Aspects of Labour Markets," January 2012, 81–98.
[695] Sauré and Zoabi, "International Trade, the Gender Wage Gap and Female Labor Force Participation," November 1, 2014, 17–33.
[696] This study is described in more detail in a preceding section of this chapter.
[697] Hakobyan and McLaren, "NAFTA and the Gender Wage Gap," April 1, 2017.
[698] Once again, this result highlights the importance of looking at the impact across multiple dimensions at the same time.

Brussevich estimated the impact of trade shocks in the manufacturing sector on the wages of men and women in a structural econometric model.[699] The author showed that the declining gender wage gap in the United States can, in part, be explained by the differences in labor adjustment costs. Although adjustment costs for men are generally lower, women have a comparative advantage in moving into services sectors, thereby making it less costly for women to move out of manufacturing. This result is complementary to Hakobyan and McLaren, but it is unclear whether the two effects fully explain the difference identified in the earlier paper. Brussevich suggests that exploring gender composition in different occupations and inclusion of non-employment choice may shed some light on the remaining differences but stops short of fully exploring either of those topics.

Changes in the composition of the labor force are also highlighted as a possible explanation for the declining gender wage gap in Besedeš et al.[700] In response to import competition, regions with greater exposure saw an increase in the number of higher-educated, and therefore higher-paid, women in the labor force. At the same time, lower-educated, lower-paid men exited the labor force. The two changes combined led to a reduction in the gender wage gap within a given region. The authors suggested that this result may be due to increasing import competition in sectors with a relatively higher share of male workers, such as manufacturing, inducing more women to enter the labor market to offset the loss in family income as men left the labor force. The authors warn against interpreting the reduction in the gender wage gap as strictly welfare-improving for all women, noting that negative trade shocks can force women into the labor force to replace lost family income from large adverse effects on men. However, the authors are unable to investigate this further because of data limitations.

Ghosh and co-authors examined a different aspect of the relationship between import competition and the gender wage gap in a reduced-form econometric modeling framework.[701] Looking at workers who received trade adjustment assistance following a trade-induced layoff from the manufacturing industry, the authors showed that women who lost their jobs because of import competition earned considerably less before the job loss than men of comparable education, race, and work experience. Because women with lower wages were laid off, average wages of female workers remaining in manufacturing workforce increased, thereby causing a decline in the gender wage gap. Furthermore, the authors showed that following a trade-induced layoff, women were less likely than comparable men to be re-employed, though when they were re-employed, the gender wage gap disappeared. The authors attributed this to a sharp decline in the re-employment wage of men rather than an increase in the re-employment wage of women. However, there are several limitations due to the nature of the trade adjustment assistance program and the data from this program that are available to researchers. The results highlighted in this study are limited to a small sample of workers who were laid off from jobs because of trade and qualified for the trade adjustment assistance.[702] Thus, the authors suggested an extended reexamination

[699] Brussevich, "Does Trade Liberalization Narrow the Gender Wage Gap?," 2018, 305–33.
[700] Besedeš, Lee, and Yang, "Trade Liberalization and Gender Gaps," 2021, 574–88.
[701] Ghosh et al., "Negative Trade Shocks and Gender Inequality," 2022, 564–91.
[702] Trade Adjustment Assistance program is administered by the U.S. Department of Labor and requires that a group of workers establish that they were displaced from their jobs specifically because of trade and petition the department to determine eligibility. For details about the program, see CRS, *Trade Adjustment Assistance for Workers*, August 14, 2018. Research suggests that due to [as a result of] its qualification requirements, the program only benefits a fraction of workers affected by trade shocks, while [whereas] most workers rely on other types of government transfer payments, such as Social Security and disability benefits. Muro and Parilla, "Maladjusted: It's Time to Reimagine Economic 'adjustment' Programs," *Brookings* (blog), January 10, 2017.

of this topic using a larger group of workers in a panel setting, using the Longitudinal Employment Household Dynamics database. The authors also pointed out that some of their results suggest differences in experiences and outcomes across workers of different races and proposed a deeper analysis of the relationship between trade and race. Finally, the authors pointed out that import competition is only one of many channels through which trade affects workers, suggesting that linking workers' data to U.S. firm-level data would be useful in answering a series of questions regarding the distributional impacts of trade beyond import competition.

Using an econometric model, Gurevich and Riker looked at export-intensive manufacturing industries.[703] The authors showed that, on average, earnings in export-intensive manufacturing industries were larger than in industries that did not export. Furthermore, the earnings premiums were larger for women than for men employed in exporting industries. This study did not attempt to explain the existence of the female wage premium in export-intensive manufacturing industries, and the authors suggested that further examination using linked employer-employee data in the spirit of the 2014 Autor et al. study might shed additional light on the question.

To understand comprehensive historic linkages between trade and gender, Gurevich et al. examined the question using a structural econometric model.[704] Looking at all U.S. free trade agreements implemented by 2013, the authors simulated the impact of nearly 30 years of U.S. trade policy on aggregate and group-specific wages of male and female workers in manufacturing and services sectors. The authors found that the U.S. free trade agreements increased workers' wages, albeit by less than 1 percent and that women benefited slightly more than men in sectors that were directly affected by the changes in trade policy. However, the authors also showed that this positive average result masks considerable heterogeneity across time and across workers with different levels of education and employed in different sectors. For example, trade liberalization policies increased the wages of male workers with below-average levels of education by more than the wages of male workers with above-average levels of education. However, this effect was delayed for less educated men: the wages first went up for men with above-average levels of education and followed for men with below-average levels of education after several years. For workers in management occupations, lower-educated women saw a consistent and comparatively large increase in wages and lower-educated men saw smaller gains. However, these differences were not pronounced for more highly educated workers of either gender in non-production occupations.

In another study, Fortune-Taylor and Hallren highlighted the heterogeneous effects of the U.S.-Mexico-Canada Free Trade Agreement (USMCA).[705] The authors examined how an announced increase in the average minimum wages of Mexican automotive production workers affected the wages of automotive production workers in the United States.[706] The authors showed that wages of U.S. automotive industry workers increased significantly in the period after the announcement, but before the rules entered into force. In other words, U.S. wages in the auto sector increased in anticipation of the increase in Mexican wages. Furthermore, the authors showed that, even though wages increased on average, the wages of

[703] Gurevich and Riker, "Exporting and Gender Earnings Differentials," November 2018.
[704] Gurevich, Riker, and Tsigas, "Trade Policy and Gender," July 2021.
[705] Fortune-Taylor and Hallren, "Worker-Level Responses to the USMCA," December 2021.
[706] The provision prescribes that only products containing certain percent of value of automotive components produced in factories that pay relatively high minimum wage can be imported into the United States duty-free under USMCA. See generally, USMCA, chap. 4, art. 7.

production workers as a whole remained unchanged and the wages of female production workers decreased relative to other autoworkers.[707]

In another study on short-run impacts of trade policy changes, Schreiber showed that tariff liberalization can lead to considerable wage changes when the number of producing firms is fixed and firms have made their hiring and production decisions.[708] Using a hypothetical tariff reduction in the medical equipment manufacturing industry to illustrate, the author showed that high-school-educated women suffer the largest percentage declines in wage, once again highlighting the importance of considering multiple worker characteristics. The author mentioned some limitations of this approach, including that this model requires data on labor shares (by group) in narrowly defined industries, something that may not be easily available to researchers. In addition, it does not allow for changes in worker characteristics (e.g., acquiring more education), something that workers are likely to consider if wage differences between groups are large.

Race and Ethnicity

The literature on the impact of trade on workers of different races and ethnicities primarily relies on descriptive and reduced-form econometric methods. This literature is also predominantly focused on measuring the impact on Black and Hispanic workers, but not other racial minority groups. Many of the descriptive studies discussed in the previous section on the effects of trade on employment of Black and Latino workers also address the question of wage impacts. This literature suggests that trade had a large and disproportionate effect on wages of minority workers.[709] However, as also discussed in the previous section, these studies have limitations common to other descriptive literature.

Ferry and Mayoral's descriptive study on the impact of trade and trade policy on Black and Latino workers in the United States focused on the quality of jobs that are typically held by different "types" (e.g., races or ethnicities) of workers.[710] The authors suggested that minority workers tend to hold jobs of lower quality and that trade policy, including ratification of NAFTA and accession of China into the WTO, led to a decline in "good quality" manufacturing jobs available to workers, exacerbating the difficulties of Black and Latino workers. The job quality is measured by comparing monthly wages of workers of each type employed in different industries to the average industry wage during the same period.[711] The index does not consider other factors that can affect workers' wages (e.g., occupation of workers within manufacturing industries or workers' level of skill and education). Thus, it is possible to conflate the impact of trade on race with other factors, although these other factors could also be tied to race. The descriptive nature of the study did not allow for disentangling the impact of import competition on workers on account of their race from other potential explanations.

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[707] The authors also examine the impact on wages of Black workers but find no significant differences along the race dimension.
[708] Schreiber, "Estimating the Distributional Effects of Trade," May 2021.
[709] See, for example, Public Citizen's 2018 report that suggests that wage stagnation was the highest for Latino workers or Scott's 2013 briefing paper that suggests that exposure to Chinese imports had negative impact on wages of U.S. workers. Public Citizen et al., *Fracaso: NAFTA's Disproportionate Damage*, December 2018.; Scott, *Taking Away the Manufacturing Advantage*, September 30, 2013.
[710] Ferry and Mayoral, *Quantifying Job Quality*, May 2021.
[711] Construction of the Job Quality Index is described in detail in Alpert et al., *The U.S. Private Sector Job Quality Index*, November 2019.

Agesa and Hamilton, in one of the first model-based studies examining labor market outcomes of Black workers in the United States, looked at the impact of import competition on wage discrimination in U.S. manufacturing industries using a reduced-form econometric model.[712] The authors found that Black workers employed in industries that did not compete with imports had a larger wage disadvantage compared to White workers than Black workers employed in import-competing industries.[713] The study is limited by the authors' choice of the data sample. Agesa and Hamilton only considered non-Hispanic Black and White men of working ages employed in the U.S. manufacturing sector and did not observe the union status of those men. The authors further pointed out that firms that did not compete with imports were more likely to be unionized; therefore, not including union status in the analysis could lead to underestimation of the impact of import competition on wage discrimination.

In a 2011 study, Agesa et al. extended the previous work and addressed the question of how unionization, education, and racial wages interact with trade using a reduced-form econometric model.[714] As in a previous study, the authors focused on White and Black male workers who were employed full time in the manufacturing industry and worked in production occupations during 1997–2001. The authors found that imports shrink the Black-White wage gap in industries where a small number of companies dominate the market. In these concentrated industries, the authors found that imports reduce the wages of non-union White workers of low and medium skill levels rather than raising the wages of their Black counterparts. Nevertheless, the authors also found that imports did not impact the earnings discrimination due to race for non-union workers at almost all skill levels.

Subsequently, in 2012 Agesa and Agesa expanded the time period of study to 1995–2002 and, using methodology similar to the previous papers, found only limited evidence that imports decreased the racial wage gap.[715] However, when considering an additional worker characteristic—union membership—the authors showed that foreign competition had a large negative impact on the wages of non-unionized White workers, thereby decreasing the racial wage gap by bringing the wages of those workers closer to their non-unionized Black counterparts.[716] This result highlights the importance of considering union membership status and the type of employment industry when investigating the impact of trade shocks on the racial wage gap. As with the previous papers of these authors, the analysis is focused on the manufacturing sector, thereby covering only a small portion of the U.S. workforce. In addition, the authors suggest that even if their results were generalizable to the entire labor force, unionization alone would not reduce the overall racial wage gap.

Essaji et al. used a reduced-form econometric model to examine the change in the racial wage gap in response to increased import competition in manufacturing.[717] The authors found that import

[712] Agesa and Hamilton, "Competition and Wage Discrimination," March 2004, 156–70.
[713] This finding is in line with a longstanding literature on wage discrimination showing that greater market competition reduces wage gaps. This theory originated in 1957 with Gary Becker, who first posed that competition among domestic firms reduces employers' ability to engage in discrimination. Becker, *The Economics of Discrimination*, 1957.
[714] Agesa, Agesa, and Lopes, "Can Imports Mitigate Racial Earnings Inequality?," 2011, 156–70.
[715] Agesa and Agesa, "Imports, Unionization and Racial Wage Discrimination in the US," January 2012, 339–50.
[716] In a more recent study, Dicandia shows that the routine-biased technological change that impacted Black and White workers differently partially explained the growth of the racial wage gap since 2000. Dicandia, "Technological Change and Racial Disparities," 2021.
[717] Essaji, Sweeney, and Kotsopoulos, "Equality through Exposure to Imports?," December 1, 2010, 313–23.

competition reduced wage discrimination, especially among workers from the South where the racial wage gap was the largest. The authors' findings persist, even with the inclusion of workers' union status, across "skill" classifications (where skilled workers have greater than a high school diploma) and across gender. This result complements the findings from the 2012 Agesa and Agesa study, showing that even if union membership status does not guarantee a reduction in the racial wage gap, it is an important factor that should be considered by researchers. A limitation of the Essaji et al. analysis is its timespan. The study considered the years 1983–1993, a period during which the racial wage gap was at its lowest and which preceded two major trade shocks—passage of NAFTA and China's accession to the WTO.[718]

Intersection of Race and Gender

Two studies considered an intersection of gender and race when looking at wage discrimination and trade. Kim and Tebaldi focused on a sample of adults who were employed in 2006 and examined whether employment in importing, exporting, or non-traded industry had an effect on the workers' wages.[719] The authors estimated a reduced-form econometric model and found results that are consistent with the gender and race literature: workers employed in exporting industries received higher wages—on average men were paid more than women—and workers employed in import-competing industries received lower wages than their counterparts in other sectors of the economy. This study is notable for distinguishing not only between White and Black workers, but also for separately considering Asian and Hispanic workers. Although authors did not find a significant difference in wages between White and African American or Asian workers, they did find that Hispanic workers received lower wages. This impact was similar for men and women of Hispanic descent. Kim and Tebaldi noted that they did not have access to matched employer-employee data that would be most appropriate for this study; therefore, they constructed the final dataset by combining several different data sources. This procedure required making some assumptions about the industries and forced authors to aggregate the data.

In a study described in the preceding section on gender, Schreiber also considered the implications of tariff rate changes on the racial wage gap.[720] The author showed that, although wages declined for all workers in response to a decline in tariffs, the highest wage drops were estimated for Black college-educated women and Black high-school-educated men.

Literature on Other Labor Market Effects of Trade

Effects of International Trade on Health Outcomes

As a continuation of research on the impacts of economic shocks on health-related outcomes, a small number of studies exploring the effects of growth in import competition on various measures of worker health have emerged in recent years. Using individual level data from the U.S. Centers for Disease

[718] In a more recent paper, Dicandia shows that the racial wage gap in the United States began increasing in the 1990s and has continued to increase since. Dicandia, "Technological Change and Racial Disparities," 2021.
[719] Kim and Tebaldi, "Does International Trade Impact Wage Discrimination," 2011, 2709–24.
[720] Schreiber, "Estimating the Distributional Effects of Trade," May 2021.

Control and Prevention and a similar methodology to their 2016 reduced-form econometric analysis, Pierce and Schott investigated the relationship between the U.S. granting China PNTR and deaths of despair—deaths originating from maladies associated with desperation such as suicide, alcoholism, or drug overdoses.[721] The authors found that geographic regions more directly exposed to increased import competition from the China PNTR policy experienced a statistically significant uptick in fatal drug overdoses. The authors also found that the increase in deaths of despair was especially pronounced among White workers and was robust to the inclusion of other variables, such as increased availability of opioids in trade-exposed areas, that could plausibly explain the increase in drug overdoses.[722]

Adda and Fawaz extended the China shock literature to explore the health impacts of increased import penetration from China.[723] The authors used a reduced-form econometric model to measure the relationship between individual health outcomes using data from the Behavioral Risk Factor Surveillance System and commuting zone level measures of import exposure in the spirit of Autor et al. 2013 .[724] In so doing, the authors found that geographic regions most exposed to increased import competition experienced significantly decreased healthcare utilization,[725] increased hospitalization for a large set of conditions, and increased mortality. The authors also found the observed adverse health outcomes were concentrated in commuting zones with employment concentrated in routine task-intensive manufacturing occupations.[726]

Dean and Kimmel explored a research question similar to Pierce and Schott's, testing the relationship between opioid overdoses and trade-related job loss during the 1999–2015 period.[727] To do so, they employed a reduced-form econometric model to measure the effects of trade-related job losses on opioid-related deaths, finding the loss of 1,000 trade-related jobs was associated with a 2.7 percent increase in opioid-related deaths at the county level.[728] Although these findings are consistent with results from Pierce and Schott, Dean and Kimmel noted that their methodology had major data limitations.[729]

[721] Pierce and Schott, "Trade Liberalization and Mortality," March 1, 2020, 47–63.
[722] Pierce and Schott, "Trade Liberalization and Mortality," March 1, 2020, 58.
[723] Adda and Fawaz, "The Health Toll of Import Competition," August 2020, 1501–40.
[724] Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68.
[725] "Healthcare utilization" refers to the "quantification or description of the use of services by persons for the purpose of preventing and curing health problems, promoting maintenance of health and well-being, or obtaining information about one's health status and prognosis." Carrasquillo, "Health Care Utilization," Encycl. Behav. Med., 2013.
[726] The authors constructed occupation-level measures of routine task intensity following Autor and Dorn (2013). Adda and Fawaz, "The Health Toll of Import Competition," August 2020, 1502.
[727] Dean and Kimmel, "Free Trade and Opioid Overdose Death in the United States," May 2019, 1–11.
[728] The authors measured trade related job loss as jobs that were certified as eligible for the U.S. Department of Labor's Trade Adjustment Assistance program, and they argued TAA certifications represent a conservative estimate of overall jobs lost because of trade. Dean and Kimmel, "Free Trade and Opioid Overdose Death in the United States," May 2019, 3.
[729] The authors specifically mentioned major data limitations: unavailability of individual-level data on trade-related job loss and limitations of the TAA data that do not track potentially eligible displaced workers who did not apply for assistance. Additional data limitations concerned opioid use and overdose tracking and availability of only a limited subset of all opioid prescription data.

Impact of Trade on U.S. Consumers

A few studies examine the impact of trade on consumers of different gender or income level. The main reason for the scarcity in research is that data on consumption by men and women are not readily available or easy to create.[730] Several studies using available data from the Consumer Expenditure Survey in descriptive and model-based settings showed that low-income households were more impacted by import tariffs because they spend a higher share of their earnings on imported goods.[731] Reynolds, focusing on the U.S. Section 301 tariffs against China, showed that these new protective actions disproportionately impacted low-income households, households with children, and female-headed households.[732] Gailes et al., in a case study on apparel imports, showed that women's apparel was subject to higher tariffs than men's and women spent twice as much as men on paying tariffs on clothes.[733]

All studies that rely on the Consumer Expenditure Survey data are subject to the same limitation: the dataset was not designed to distinguish between imported and domestic goods purchased by consumers; therefore, researchers have to rely on assumptions about import shares in consumption.[734] In a recent study, Borusyak and Jaravel were able to add to the Consumer Expenditure Survey data a detailed proprietary dataset that tracks the country of origin of each good purchased by a sample of American consumers.[735] The authors used a structural model that considers multiple ways tariffs affect the U.S. economy. When accounting for changes in wages and consumer prices that accompany changes in tariffs, the authors showed that reductions in tariffs did not have large impacts across households of different incomes, but did contribute to within-income group inequality, when education was taken into account.

Gaps in Literature and Data

Although a robust literature on the distributional effects of trade on U.S. worker outcomes has emerged, several gaps in the literature remain. To begin, the literature has explored a relatively narrow set of demographics and community characteristics that are potentially affected by trade-related shocks. As demonstrated in this literature review, the majority of studies focused on the distributional effects of trade across geographic regions, industries, and workers of different education and skill levels. A smaller number of studies has explored distributional effects for other communities, including Black or female workers. However, studies of trade impacts on other underserved communities such as other racial and ethnic minorities, older workers, LGBTQ+ workers, and workers with disabilities remain sparse. As the impacts of trade on underserved communities is understudied, research on the labor market outcomes of underserved communities can point to potential avenues for trade impact research. For example,

[730] Peltola and MacFeely, "Towards a Conceptual Framework," April 8, 2019.
[731] See, for example, Fajgelbaum and Khandelwal, "Measuring the Unequal Gains from Trade," August 2016, 1113–80. Furman, Russ, and Shambaugh, "US Tariffs Are an Arbitrary and Regressive Tax," *VOX EU* (blog), January 12, 2017. Gresser, "Trade Policy, Equity, and the Working Poor," April 2022.
[732] Reynolds, "Cost of Trade Wars," June 2021.
[733] Gailes et al., "Gender and Income Inequality in United States Tariff Burden," August 2018.
[734] Furman, Russ, and Shambaugh, "US Tariffs Are an Arbitrary and Regressive Tax," *VOX EU* (blog), January 12, 2017.
[735] Borusyak and Jaravel, "The Distributional Effects of Trade," Working Paper Series, June 2021, 1–45.

Finnigan showed that gay and lesbian workers hold different occupations than straight workers, thereby presenting a possibility that those workers may be impacted by trade and trade policy differently.[736] A more fulsome discussion of potential research of trade impacts on underserved communities is discussed in the Academic Symposium chapter, panel G.

Distributional effects of services trade also remains a significantly understudied research area. A lack of available data on the production and trade of services has largely prevented researchers from conducting analyses on the impacts of services trade similar to that performed for merchandise trade. As such, the distributional impacts of the growth in U.S. services exports and imports remains relatively unclear.

In addition to the data limitations associated with the production and trade of services, only a small number of studies in this literature have focused on trade impacts on long-term wealth outcomes—a significant indicator of workers' overall economic well-being. This is likely due in part to limited data on individual wealth, as well as difficulties in accessing data sources that track individuals' cumulative income through time. Data sources that contain longitudinal worker-level data sufficient for long-term income and wealth analyses commonly have prohibitive restrictions in place to ensure individuals' anonymity.

Much of the research analyzing the impacts of trade and trade policy in the United States implicitly assumes that the effects of trade on workers are present at the level of the industry of employment (i.e., these studies assume that import competition affects all firms in an industry in a similar way). This assumption is required when the data do not have enough information to identify specific employers of each worker. Furthermore, the literature rarely examines individual workers' outcomes over time, relying on employment and wages at an industry level, as this would require the use of datasets that report information on the same individuals over multiple years.[737] However, some linked data that include disaggregated individual-level data on occupation, education, employer, and demographic information and longitudinal data are available to researchers who focus on impacts of trade and trade policy on workers outside the United States. The three studies below illustrate some potential extensions to the literature if linked, and longitudinal data for U.S. workers were available to the researchers.[738]

In a 2009 paper using Colombian data, Ederington and co-authors investigated whether increased import competition reduced gender discrimination in employment.[739] The authors highlighted that one of the advantages of using a dataset that links workers to their plants of employment is the ability to examine whether the plants that discriminated against female workers before trade liberalization closed down or reduced their discriminating behavior following increased exposure to import competition. The authors found that discriminating firms reduced discrimination by changing their hiring practices to employ more women. Furthermore, using plant-level data, the authors demonstrated that women were

[736] Finnigan, "Rainbow-Collar Jobs?," 2020, 1–17.
[737] One notable exception is the Autor et al. 2014 paper (described in a preceding section of this chapter), which takes advantage of restricted U.S. data that match workers to their employers and follow the same individuals over an extended period of time. Autor et al., "Trade Adjustment," November 1, 2014, 1799–1860.
[738] For more on existing longitudinal U.S. data with employer-employee linkages, see the following section (overcoming data gaps).
[739] Ederington, Minier, and Troske, "Where the Girls Are," 2009.

not only concentrated in exporting industries—a result commonly shown in studies that don't link workers to their employers—but in exporting plants within those industries as well, highlighting diversity within industries.

Another study from 2012 using plant-level data from Mexico showed that wages of production workers in exporting firms did not change in response to export trade shocks—even though managers saw large changes in their wages—again highlighting the importance of accounting for heterogeneity among firms within the industry when examining differential impact of trade on different types of workers.[740] The authors of this study did note that they were able to examine only the short-run impact because their dataset's dimension was limited (1993–2001), further suggesting that panel data spanning a longer period may show that wages of production workers also increased, albeit at a slower rate than wages of top managers.

Linked employer-employee data also allow researchers to investigate another dimension of within-industry heterogeneity and impact of trade on workers. In a 2020 study using linked data from Japan, Greaney and Tanaka examined how a company's ownership structure, in addition to its exporting activity, impacts the gender wage gap.[741] The authors showed that Japanese-owned multinational enterprises tend to have a lower gender wage gap than Japanese domestic-only firms; however, the smallest gender wage gap was found in foreign-owned multinational enterprises operating in Japan.

Overcoming Data Gaps: Opportunities for Distributional Effects Analysis

A recurrent topic throughout the roundtables, symposium, hearing, and literature review associated with this investigation has been data gaps and the impact that these gaps have on researchers' ability to estimate the distributional effects of trade for different groups of workers. This section incorporates material from the literature as well as public events associated with this investigation. It includes an overview of input on data limitations gathered during the investigation's public events, proposed avenues for mitigating these limitations, and a discussion of potential analysis that could be undertaken if these limitations were overcome. This information on data limitations is followed by a discussion of restricted-use data: what it is, how it is used in distributional effects analysis, and a where key household-level U.S. restricted data can be obtained.

Data Limitations

Overview of Input from Public Events

During the roundtables, participants discussed the lack of demographic data related to gender identity, sexual orientation, and disability status.[742] In addition, participants discussed the need for analysis using

[740] Frías, Kaplan, and Verhoogen, "Exports and Within-Plant Wage Distributions," 2012, 435–40.
[741] Greaney and Tanaka, "Foreign Ownership, Exporting and Gender Wage Gaps," .
[742] USITC, Distributional Effects: Roundtable Transcript, March 14, 2022, 11 (Sharita Gruberg, Center for American Progress) 28, 47 (Mary Borrowman, International Center for Research on Women); USITC, Distributional Effects: Roundtable Transcript, March 22, 2022, 38, 76–77 (Bonnielin Swenor, Johns Hopkins).

disaggregated employment data by race or ethnicity and gender to assess effects on subgroups within communities of color, like Black women or Black workers in manufacturing or trade.[743] During the symposium, discussion focused on the need for longitudinal data that tracks information on the jobs, industry, and earnings of individual workers over time, and the need for more data that tracks employment in services trade.[744] Symposium panelists also discussed the need for access to data covering small demographic subgroups and access to linked employer-employee data.[745] During the hearing, a panelist noted that there was not much data about which interventions have been most effective in reducing the negative effects of trade policies on certain racial and ethnic groups.[746]

Avenues for Mitigating Data Limitations

Analysis of the distributional effects literature and the input from participants at investigation events indicates a few mutually reinforcing avenues may be possible for mitigating the data limitations affecting distributional effects research.

Increased oversampling of small demographic groups may permit intersectional analysis or analysis of smaller racial and ethnic subgroups.
Participants noted that underserved and underrepresented communities sometimes comprise small shares in the survey population, making it difficult to obtain meaningful results when conducting analysis.[747] Increasing the oversampling of small groups, potentially through targeted outreach, could result in sufficient increased variation and observations for researchers to reach meaningful conclusions for smaller communities, and potentially allow for the study of demographic intersectionalities (e.g., between subgroups defined by ethnicity and gender) or of different groups within a larger racial subgroup (e.g., different groups of Asian Americans as defined by national origin).[748]

Broadening the scope of survey questions to include more measures of demographic diversity will allow researchers to quantify trade impacts on groups previously not studied.
As the literature review chapter notes, while research on education and trade is well developed, there is much less literature on the impact of trade on workers broken out by gender, race, and ethnicity (much of which is focused on White men relative to Nonwhite men).[749] The literature is even more sparse on other demographic groupings, such as sexual orientation and disability. A number of respondents at the roundtables noted that there is insufficient data to estimate the impact of trade on LGBTQ+ persons and

[743] USITC, Distributional Effects: Roundtable Transcript, March 1, 2022, 27–28 (Todd Tucker, Roosevelt Institute); USITC, Distributional Effects: Roundtable Transcript, March 10, 2022, 67 (Michelle Burris, Century Foundation).
[744] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 81 (Kyle Handley, University of California, San Diego), 190, 194 (Masha Brussevich, IMF), 190–91 (John McLaren, University of Virginia).
[745] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 80–81 (Eunhee Lee, University of Maryland), 135 (William Spriggs, AFL-CIO/Howard University), 192 (David Fortunato, University of California, San Diego).
[746] USITC, Distributional Effects: Hearing Transcript, April 19, 2022, 192–93, 205 (Derick Holt).
[747] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 135 (Felipe Benguria, University of Kentucky); USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 461 (Andrew Houtenville, University of New Hampshire).
[748] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 455–57 (Sonya Porter, Center for Economic Studies, U.S. Census).
[749] The literature on the impact of trade and trade policy on workers of different race is discussed in chapter 5.

persons with disabilities. Additional survey questions on these worker characteristics may permit the analysis of trade and trade policy effects on these groups.[750]

Increasing the granularity of reporting of industry and geographic variables could allow detailed analysis of how trade is affecting specific industries and location types (e.g., rural, urban, less internet-connected) within the United States.

Symposium participants noted that more detailed data on firm and industry dynamics allows researchers to track the impact of trade shocks while controlling for non-trade trends (e.g., technological advancement) that may result in the misattribution of changes in worker outcomes to trade shocks.[751] Further, industry- and individual-level data sources vary in the geographic coverage and level of granularity. Certain datasets provide greater geographic disaggregation in their restricted-use version than in their public release, and the Longitudinal Employer-Household Dynamics offers establishment-level data under restricted access compared to firm-level data in the public version.[752]

Both industry and geographic data are crucial to the evaluation of community level effects. For example, the impact of a trade shock may spill over into local non-tradable sectors that offer goods, services, or employment opportunities to workers in trade-exposed sectors, or there may be other non-economic features of a particular locality that mitigate the effect of a trade shock on worker earnings. Without these detailed data linking the trade-exposed firm to the surrounding community, the impact of trade on workers may be mis-estimated.[753]

Increasing linkages between existing datasets and facilitating access to restricted datasets will allow researchers to track trade impacts on workers with greater precision.

Prominent studies of trade impacts on U.S. workers have used linked survey and administrative datasets (such as data linked from the Annual Survey of Manufacturers to worker-level U.S. Social Security Administration data) to perform research to create detailed demographic data coupled with workers' earning information over multiple years.[754] Facilitating access to restricted-use or administrative data would further enable the analysis of the distributional effects of trade on U.S. workers.[755] Providing easier access to these datasets would enable the study of trade impacts on indicators such as wage gaps and long-term effects on wealth and other household socioeconomic outcomes due to the large panels

[750] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 443–52; USITC, Distributional Effects: Roundtable Transcript, March 14, 2022; USITC, Distributional Effects: Roundtable Transcript, March 22, 2022.

[751] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 286–89 (Teresa Fort, Dartmouth College).

[752] See tables 3.9, 3.10, and 3.11 for examples of U.S. government datasets with varying levels of geographic coverage between the public and restricted versions.

[753] Tello-Trillo's presentation explores analysis that accounts for both spillovers of trade shocks into non-tradable sectors and attempts to control for location-specific effects. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 292–313 (Cristina Tello-Trillo, U.S. Census).

[754] Linkages refers to including consistent identifiers across disparate datasets to link firms, individuals, or households together and over time. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 314–403; Autor et al., "Trade Adjustment: Worker-Level Evidence," 2014, 1799–1860.

[755] For examples of such work, see USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 263–300. Autor et al., "Trade Adjustment: Worker-Level Evidence," 2014, 1799–1860.

of detailed individual information over decades.[756] The following section discusses restricted-use datasets with features suited to facilitate robust analysis of the distributional effects of trade on U.S. workers.

U.S. Restricted-Use Data

Established methods for modeling the distributional impact of trade and trade policy on workers rely on extensive use of detailed data about workers and their employment. Many researchers rely on publicly available cross-sectional data such as the Current Population Survey (CPS) to estimate the effects on different groups of U.S. workers, or on publicly available longitudinal data such as the Survey of Income and Program Participation to estimate effects on individual workers over a span of years. However, more in-depth analyses require the use of more granular restricted-access administrative data with a long enough time horizon to capture medium- and long-term effects of trade shocks.

What are Restricted-use Data?

In contrast to publicly available data, which are provided freely to any data user seeking access, restricted-use data are only available to select researchers who are granted conditional access by the data provider. Data are typically classified by providers as "restricted-use" if they contain sensitive information or allow for individuals or firms to be identified through inference.[757] These data, which are collected by federal and state government agencies, include information on workers' socio-demographic characteristics, income, and employment, and link workers and their employers over several years. In order to gain access to restricted-use data for analysis, researchers must be able to provide assurance that any results presented will not reveal information about individual respondents. Barriers to accessing this type of data may discourage some researchers from employing it in their analysis. Among the U.S. government agencies that allow access to restricted data, procedures, costs, and time to gain access may vary by dataset. The quality of a research proposal is also a factor in gaining access to the data.[758]

Some of the most common restricted-use data employed in analyses of the distributional effects of trade are longitudinal employer-employee matched datasets, which link key data about the firm with data about the workers the firm employs. Unlike stand-alone industry and firm-level datasets, which typically lack information on worker characteristics, or household or worker-level datasets, which have detailed information on worker characteristics but may not provide information on the firm or industry

[756] For examples of work using such data from other countries, see Ederington, Minier, and Troske, "Where the Girls Are," 2009; Frías, Kaplan, and Verhoogen, "Exports and Within-Plant Wage Distributions," 2012, 435–40; Greaney and Tanaka, "Foreign Ownership, Exporting and Gender Wage Gaps," September, 2021.
[757] ICPSR, "Data Sharing for Demographic Research: Restricted-use Data," accessed June 24, 2022. Use of data can be restricted for proprietary reasons as well. At the federal level, for instance, the Privacy Act of 1974 places restrictions on federal agencies from releasing information pertaining to individuals. Privacy Act of 1974, 5 U.S.C. § 552a. We limit our discussion here to restricted-use data from public data providers.
[758] For researchers to access the Longitudinal Employer Household Dynamics data (LEHD), each state must provide approval for use of its data. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 312–13 (Cristina Tello-Trillo, U.S. Census), 313 (Teresa Fort, Dartmouth College).

sector in which the workers are employed in, employer-employee matched data covers the firm and worker level information necessary to analyze questions on the distributional impact of trade.

How are Restricted Data Used to Answer Distributional Effects Questions?

Employer-employee matched data allow researchers to track the effect of industry and firm-level shocks on subgroups of individuals.[759] As discussed during the symposium, workers experience trade shocks when changes in the volume of imported or exported goods affect demand for labor at the firms they work for where the workers are employed. Using trade data to identify which imported goods are competing with those produced by domestic firms or which goods exported by domestic firms are competing in foreign markets, researchers can calculate the level of exposure of an industry sector or firm to trade shocks.[760] With this information, researchers can use employer-employee matched data to estimate the impacts on labor demand from trade shocks based on a firm's trade exposure. Further, researchers that exploit rich firm- and worker-level variables in employer-employee matched data and use econometric models that allow for the identification of person- and firm-level statistical effects can also work to identify the mechanisms by which these impacts are distributed across different subgroups.[761]

Further, researchers who are able to access such employer-employee linked data can expand the analysis on the persistence of trade shocks and how workers adjust to job losses from trade shocks. For example, these data enable analysis of the duration of unemployment and changes in employment sectors and earnings upon reemployment in response to trade shocks, as well as analysis of the impact on workers not directly affected by changes in trade or trade policy.[762] In addition, the longer time horizon available in restricted-use longitudinal data could allow for analysis of demographic-specific wage impacts that may occur in response to a trade shock. Identifying wage impacts as workers transition between employers, sectors, or out of (or into) unemployment or the labor market requires a sufficient number of data points to pinpoint changes in earnings.

Where Can Key Household-level U.S. Restricted Data Be Sourced?

A major advantage of using restricted-use data is in its sample coverage; publicly available datasets such as the CPS may not have sufficient observations to create many finely sliced intersections across different demographic groups. For example, analysis focusing on multiple intersecting groups (such as

[759] Although analyses of import shocks were most common among the papers presented at the symposium, note that Donaldson also examines the impact of trade on the income of workers based on the export exposure of the industry in which they work or own businesses in. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 282–84 (David Donaldson, Massachusetts Institute of Technology).
[760] This mapping of products on to the industrial sectors to which firms belong requires some type of concordance between product and industry classification systems (e.g., the Harmonized Tariff Schedule classification of products to the North American Industry Classification System).
[761] Abowd and Kramarz, "The Analysis of Labor Markets Using Matched Employer-Employee Data," May 1998. If worker-level effects predominate in results, this suggests that beyond any characteristics of the firm where they work at, there are other unobserved factors common to a particular subgroup that are mitigating or augmenting the impacts of trade shocks.
[762] Linked employer-employee data, their use, and access restrictions are also discussed in sections "Session E" and "Session F" of chapter 5 (Academic Symposium) of this report.

the effect of trade shocks on Nonwhite women who do not hold college degrees and who are employed in a given industry at a disaggregated level) may produce statistically imprecise results, or outcomes may be impossible to determine.

This report has identified two non-public or restricted-use sources of data that would allow for expanded and detailed analysis of the distributional impact of trade and trade policy on U.S. workers by skill, wage and salary level, race/ethnicity, age, and income level. These data sources are maintained by the U.S. Federal Government, through the Social Security Administration (SSA) and the U.S. Census Bureau (Census). These two data sources are the most detailed, comprehensive, and up-to-date longitudinal datasets collected and used by the U.S. government for statistical monitoring and program administration. Together, they cover millions of individual histories going back several decades. Access to these data would likely allow for answering most of the questions regarding the impact of trade and trade policy on U.S. workers in various socio-demographic groups, employment sectors, and regions.

1. The SSA produces individual work history files and files that link workers with their employers.[763] The SSA data files are not public; however, researchers at the Treasury Department and the Congressional Budget Office have access to the data through Memoranda of Agreement (MOA). The release to other users has been discontinued following the implementation of the Tax Reform Act of 1976.[764] There is a 2–2.5-year delay in data availability and the data do not contain information about unemployment spells that are shorter than one year.

2. The Longitudinal Employer-Household Dynamics (LEHD) database maintained by the U.S. Census Bureau provides several datasets that are useful for research on workforce dynamics. The data are supplied to Census by participating partner states through the Local Employment Dynamics Partnership, and partnership can vary based on an individual state's determination of their participation.[765] As of August 24, 2022, LEHD partnered with fifty states, the District of Columbia, the U.S. Virgin Islands, and Puerto Rico.[766] Access to worker-level data is restricted and application for use is required for each proposed project. Census maintains Memoranda of Understanding (MOUs) with fourteen states, and data provided by those states can be accessed once Census approves a project. For the remaining thirty-nine states and territories, Census forwards the application to the states for approval and researchers only gain access to data with respect to the approving states. If approval is granted, researchers must conduct all analysis at a Federal Statistical Research Data Center. Data are generally available going back to 2000 but vary by state and territory.[767]

[763] Olsen and Hudson, "Social Security Administration's Master Earnings File: Background Information," 2009.
[764] Buckler, "Commentary: Continuous Work History Sample," April 1988, 12, 56.
[765] U.S. Census Bureau, "Longitudinal Employer-Household Dynamics, About Us," accessed August 22, 2022.
[766] U.S. Census Bureau, "Longitudinal Employer-Household Dynamics, State Partners," accessed August 22, 2022.
[767] U.S. Census Bureau, "Longitudinal Employer-Household Dynamics, LEHD Data," accessed August 22, 2022; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022, 316–21, 330 (Keith Bailey, Census).

Table 4.1: Description of individual data files in SSA and LEHD data

Data file	Source	Available information	Access	Special considerations
Continuous Work History Sample	Social Security Administration	Annual earnings, demographic information, and receipt of SSA benefits starting in 1937	Non-public	Does not have individuals' occupation or level of education
Employer-Employee	Social Security Administration	Annual earnings and demographic information of individuals; location and industry type of employer	Non-public	Does not have individuals' occupation or level of education
Longitudinal Employee-Employer Data	Social Security Administration	Worker and firm-level data following workers and firms starting in 1957	Non-public	Does not have individuals' occupation or level of education
Longitudinal Employer-Household Dynamics	U.S. Census	Worker and firm-level data, including workers earnings, demographic information, occupation, and industry of employer; hires and separations from employment, characteristics of each job; detailed firm characteristics, including state, county, industry, size, and age	Restricted, project proposal required	Approved project proposals receive a subset of states. The majority of states approve proposals on a case-by-case basis, and default to denial after 30 days.

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Chapter 5
Academic Symposium

Overview

As requested by the U.S. Trade Representative, the Commission held an academic symposium focused on academic or similar research on the distributional effects of trade and trade policy on underrepresented and underserved communities (appendix F). The symposium was held virtually on April 5 and 6, 2022. Panelists were asked to focus on research on distributional trade effects by education, skill level, race, ethnicity, and gender, and the symposium served as a forum in which they could discuss the methodologies and data gaps involved in researching these effects, as well as relevant research underway on these effects globally (table 5.1).[768] This chapter provides (1) the development and organization of the symposium, (2) an overview of the main themes discussed by symposium panelists, (3) a synthesis of the data gaps highlighted throughout symposium sessions, (4) keynote speaker's discussion on the distributional effects of trade, and (5) summaries of the eight sessions organized by theme. To supplement material presented during the symposium, information on the types of data and specific government datasets best suited to conduct analyses of distributional effects of trade on U.S. workers is included in the tables and discussion of sessions E and F, alongside summaries of panelists' presentations.

Table 5.1 Symposium sessions

Sessions	Date	Moderator, Affiliation
Session A. Distributional effects of trade and trade policy on U.S. workers by education and skill level	April 5, 2022	Katheryn Russ, University of California, Davis
Session B. Distributional effects of trade and trade policy on race and ethnicity	April 5, 2022	Edinaldo Tebaldi, Bryant University
Session C. Distributional effects of trade and trade policy on gender	April 5, 2022	Felipe Benguria, University of Kentucky
Session D. Short presentations and panel discussion on existing methodologies and their limitations, and new cutting-edge labor modeling work	April 5, 2022	William M. Powers, Office of Economics, USITC
Session E. Research value-added of access to restricted-use data for distributional effects analysis	April 6, 2022	Jennifer Poole, American University
Session F. Government datasets for analyzing distributional effects of trade among different subgroups	April 6, 2022	Stephanie Fortune-Taylor, Office of Economics, USITC
Session G. Moderated discussion on the global research agenda on distributional effects of trade	April 6, 2022	William M. Powers, Office of Economics, USITC
Session H. Moderated discussion on future directions: What can the trade literature learn from other disciplines? What should we consider?	April 6, 2022	Sandra A. Rivera, Office of Economics, USITC

Source: Distributional Effects Academic Symposium agenda. The full program is included in appendix F.

[768] Throughout this chapter, staff uses the naming conventions chosen by the speaker or author to describe workers. Examples of speaker or author choice descriptors include, but are not limited to, "Black," "African American," "African-American," "Hispanic," "Latino," "Latina," and "Latinx."

Main Themes

Four major themes that further pinpoint nineteen subthemes covered across the symposium sessions are presented in table 5.2 below, followed by narrative summaries of the main findings from the eight sessions of the event. For more information on specific findings and references, relevant sessions are noted.

Table 5.2 Four major themes represented across academic symposium sessions

Theme	Symposium sessions discussing theme
Distributional effects of trade on underserved communities	**A,B,C,D,E,G,H**
Distributional effects by education and skill	A,B,C
Distributional effects by gender	C,E,G
Distributional effects by race and ethnicity	B
Distributional effects by industry or occupation	A,B,E,G
Distributional effects on consumers by income and region	D
Evaluation of methods and gaps in the literature	**A,B,C,D,E,G,H**
Utility and challenges of selected new and existing methodologies	A,D,G
Computable general equilibrium modeling methods	D
Reduced-form econometric methods	A,B,C,D,E,G
Other analytical approaches	A,B,C,D,H
Disaggregating analyses to smaller demographic groups and intersectional groups	B,C,H
Data availability and data gaps, including restricted data	**A,B,C,D,E,F,G,H**
Issues with data availability and access	A,B,C,D,E,F,G,H
Data gaps: lack of collection of demographic data identifying underserved communities	E,F
Feasibility and value of linking government datasets	E,F
Value of using longitudinal data	E
Data suppression in government data products	F
Restricted data	E,F
Looking beyond trade	**B,E,G,H**
Importance of institutions	B,H
Importance of considering trade shocks alongside macroeconomic and other factors	E,G,H
Importance of studying other measures of economic well-being	E,H

Note: Each session looks at the distributional effects of trade and trade policy on a topic.

Trade-induced Losses Are Generally Greater for Low-skill, Nonwhite, or Female Workers

Primarily drawing from historical periods of increased import competition, panelists indicated that trade-induced losses in wages and employment were generally greater among workers who are low-skilled, Nonwhite, or female. Panelists in session A documented that because of increased import competition, low-skilled or less-educated workers, particularly in manufacturing, experienced lower wages, lower graduation rates, more lost earnings, and less overall welfare than their more skilled or educated counterparts. Several panelists in session B mentioned that Nonwhite workers, especially Black manufacturing workers, experienced large drops in employment as a result of increased import

competition, while another panelist found little evidence that changes in the difference in wages by race were related to changes in an industry's import or export intensity. Discussions in session C noted that female workers experienced greater job losses compared to male workers but highlighted conflicting conclusions regarding wages and labor force participation by gender.

Significant Distributional Effects on Workers in the Intersection of Demographic Groups

The effect of trade and trade policy on demographic subgroups defined by education and race or gender featured prominently in the discussion. Though employment losses due to import competition were concentrated among White and Black manufacturing workers without high school diplomas, one panelist in session B noted that White workers were more likely to find reemployment and Black workers typically left the labor force altogether. Panelists also discussed employment declines following trade integration. As presented in session C, employment declines were concentrated among female workers with lower levels of educational attainment compared to male workers with lower levels of education. Further, employment declines were particularly pronounced for female workers and individuals without college degrees in geographic regions with relatively low levels of educational attainment overall, as noted in session B. Regarding future research, during sessions C and H, panelists stressed the need for additional analysis on the effects of trade or trade policy on workers in the intersection of demographic groups.

Worker Industry Reallocations a Key Mechanism of Trade-induced Labor Market Effects

Panelists in sessions A, B, C, D, E, and G pointed to the effect on workers transitioning from manufacturing to nonmanufacturing jobs as a major driver of economic outcomes for workers exposed to trade shocks. Workers who left the manufacturing industry as a result of increased import competition experienced larger wage reductions, one panelist noted in session A, adding that workers with lower levels of education moved to low-skill manual jobs while workers with advanced degrees moved to managerial and professional positions in the services industry. One panelist in session B noted that increased imports from China led Black workers from import-exposed manufacturing jobs to more competitive nonexposed sectors. Another panelist in session C shared research indicating that among workers exiting the manufacturing sector, women are more likely to reallocate into high-wage service sector jobs while men tend to take low-wage service jobs. Panelists in sessions C, D, E, and G prominently referenced the implications of labor mobility restrictions; a structural econometric model presented in session D indicated strong distributional effects along income and educational attainment groups when worker mobility is limited across sectors.

Outstanding Areas for Modeling, Research, and Data Gaps

High-priority areas for new modeling and research, and the importance of addressing data gaps, were active topics of discussion. To better disentangle distributional effects due to trade, panelists in sessions D, G, and H highlighted the need for models to incorporate more disaggregated demographic data, other related macroeconomic policies, and transition costs. Because long-term distributional effects may differ from short-term impacts, panelists in sessions A and C noted the need for studies on those

effects. Furthermore, panelists in sessions G and H emphasized the need for more research exploring other measurements of economic outcomes such as job security, involuntary part-time work, wealth, poverty, and health.

In terms of data gaps, panelists in sessions A, C, D, G, and H noted the need for detailed data or linked datasets that include disaggregated individual-level data on occupation, education, employer, and demographic information. In addition, panelists in sessions A, C, and D expressed the need for access to data following the same individual over long periods of time. While panelists in sessions A, E, G, F, and H discussed novel datasets or methodologies to rectify these challenges, they also noted other ways to reduce the data gaps, which include increasing the access to and linkages between existing datasets and broadening the scope of surveys to include more detailed demographic information.

Academic Symposium Development

The U.S. Trade Representative requested that the Commission hold a symposium focusing on academic or similar research on the distributional effects on underrepresented and underserved communities of trade and trade policy. Specifically, the request letter said that the symposium should encompass "results of existing analysis, evaluation of methodologies, the use of public and restricted data in current analysis, identifying gaps in data and/or in the economic literature, and proposed analysis that could be done with restricted data." In response, to identify potential panelists the Commission conducted an extensive review of research during the past 30 years that explored any aspect of distributional effects of trade or trade policy on workers, including studies on foreign countries. The Commission evaluated the relevance of these articles to U.S. trade and trade policy (1) by their context, such as studies using U.S. data or other high-income nations' data, and (2) by their ability to highlight research methods or U.S. data limitations on our target research area. Many of the articles reviewed to identify symposium panelists are discussed within the Literature Review chapter, and research by fifteen symposium panelists is included in chapter 4, Literature Review.

In addition to this targeted effort, the Commission conducted broad outreach to U.S. government agencies and researchers in related fields.[769] This outreach resulted in numerous submissions of unpublished work and work in progress that complemented and expanded the published literature reviewed in chapter 4. Information regarding the academic symposium—dates and objectives, submission deadlines, participant instructions, and contact information—was posted on the USITC investigation website and in a Federal Register notice.[770]

The symposium comprised eight sessions that focused on objectives outlined in the request letter. Sessions were moderated by academic researchers or USITC staff (table 5.1) and attendees included

[769] To respond to the issue of restricted data availability and limitations, the Commission contacted relevant government agencies, such as the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, and the U.S. Department of Labor. To attract a variety of subject matter experts, the Commission contacted researchers in economics and public policy from many professional networks—especially minority-serving associations—requesting recommendations for experts and symposium promotion. Some of the organizations contacted included the World Trade Organization, the World Bank, National Disability Institute, Washington Center for Equitable Growth, Burton Blatt Institute, and the American Society on Aging. A full list of organizations contacted are included in appendix table D.1.

[770] *Distributional Effects of Trade and Trade Policy on U.S. Workers*, 87 Fed. Reg. 2899, (January 19, 2022).

university researchers; representatives of consultancies; and staff from USITC, USTR, and other U.S. government agencies. Between 85 and 112 individuals attended each session.

Keynote Speaker: Professor David Autor on the Distributional Effects of Trade

Due to its groundbreaking methodology and early documentation of the distributional effects of import competition, research by Professors David H. Autor, David Dorn, and Gordon H. Hanson underpinned the discussion of distributional effects of trade on U.S. workers throughout the symposium with several presenters employing their methodology in the research presented at the symposium. Autor, Dorn, and Hanson exhibited a novel method of capturing the local labor market effects of the "China shock"—the significant rise in U.S. imports from China during the 1990s and 2000s.[771] As the keynote speaker, Autor presented an overview of these findings and the results of subsequent papers on the impact of trade on U.S. workers.[772]

Overall, Autor presented findings that increased imports from China resulted in increased unemployment as well as lower labor force participation and wages for local labor markets more exposed to Chinese imports. Autor asserted that most of the initial increased imports from China led to extremely localized and persistent declines in employment in those places that were affected.[773] When considering education level and gender, Autor stated that "manufacturing job losses are largest among non-college-educated workers," and were "slightly larger among women than men." At the intersection of gender and education, Autor stated that the effect on total job losses was most pronounced among men without college degrees.[774]

Autor, Dorn, and Hanson's approach and results have been used in many research papers to study the implications of increased trade exposure on underrepresented or underserved communities. Among the twenty research presentations, nine cited Autor, Dorn, and Hanson in their presentations or related papers. One panelist noted, however, that researchers conducting similar trade exposure analyses face challenges in studying some demographic groups due to data gaps discussed in greater detail below.[775]

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[771] Borusyak and Jaravel, *The Distributional Effects of Trade: Theory and Evidence from the United States*, June 2021, 1–45. For more details regarding work by Autor and coauthors, see chapter 4.
[772] See Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68 and subsequent work, Autor et al., "Trade Adjustment: Worker-Level Evidence," 2014, 1799–1860; Autor, Dorn, and Hanson, "Untangling Trade and Technology," May 1, 2015, 621–46; Autor, Dorn, and Hanson, "When Work Disappears," September 1, 2019, 161–78; Autor, Dorn, and Hanson, "On the Persistence of the China Shock," NBER working papers, October 2021.
[773] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 19–20 (David H. Autor, Massachusetts Institute of Technology).
[774] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 20–21 (David H. Autor, Massachusetts Institute of Technology); USITC, Distributional Effects: Academic Symposium Presentation, April 5, 2022 (David H. Autor, Massachusetts Institute of Technology). Note: Research Autor presented did not address race differentials.
[775] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 134 (Felipe Benguria, University of Kentucky).

Identified Gaps in Data

Across symposium sessions, panelists identified limitations related to data in researching distributional effects of U.S. trade and trade policy, namely challenges related to data availability and data access among other concerns.[776] They are summarized in the bulleted list below.

Lack of data

- Historical detailed data by industry and race[777]
- Longer worker-level panel data[778]
- Matched employer-employee data or granular worker-level data[779]
- Historical time periods[780]
- Industry data with occupational detail[781]
- Inclusion of lesbian, gay, bisexual, transgender, and queer (LGBTQ+) individuals[782]
- Historical wealth administrative data[783]
- Additional disaggregation by ancestry or national origin[784]

Limited access to data

- Restricted-use datasets[785]
- Administrative data of people with disabilities[786]
- Long-term worker-level panel data[787]

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[776] When relevant, symposium session summaries to follow include detailed discussions on the panel-related data limitations.
[777] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 136 (Timothy Bond, Purdue University).
[778] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 80 (Ann Harrison, University of California, Berkley), 189 (Masha Brussevich, IMF).
[779] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 81 (Eunhee Lee, University of Maryland), 220, 251 (Rafael Dix-Carneiro, Duke University), 192 (David Fortunato, University of California, San Diego).
[780] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 89 (Timothy Bond, Purdue University), 137 (William Spriggs, AFL-CIO/Howard University).
[781] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 135 (William Spriggs, AFL-CIO/Howard University), 136 (Timothy Bond, Purdue University).
[782] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 453–54, 468–69 (Mike Martell, Bard College).
[783] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 487 (William Darity, Duke University), 486–87 (Ana Hernández Kent, Institute of Economic Equity, Federal Reserve Bank of St. Louis).
[784] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 482–83 (William Darity, Duke University).
[785] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 77, 81 (Kyle Handley, University of California, San Diego); USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 467 (Sonya Porter, Center for Economic Studies, Census).
[786] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 444–46 (Andrew Houtenville, Institute on Disability, University of New Hampshire).
[787] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 189–90 (Masha Brussevich, IMF), 192 (David Fortunato, University of California, San Diego), 220–21 (Rafael Dix-Carneiro, Duke University).

Other data concerns

- Consistency across datasets[788]
- Ability to link datasets[789]
- Classification challenges[790]

Several panelists highlighted the challenges in conducting their research due to the lack of granular, comprehensive data by industry; occupation; employee-employer pairs; and demographic groups such as disability, ancestry, and sexual orientation.[791] Available historical datasets do not include sufficient coverage across demographics, time periods, or geographic regions, which hindered researchers from observing the impacts by groups of interest.[792] Several panelists noted that publicly available long-term worker-level panel data are necessary to capture changes to the same worker over time.[793] Panelists also discussed the challenges due to the limited access to restricted-use or administrative data, citing similar distributional effects trade research completed using Brazilian, Danish, and Swedish data due to readily available data.[794]

In part owing to availability or access issues, panelists also discussed solutions such as linking novel datasets and creating proxies for demographic groups using data from the U.S. Census Bureau (Census).[795]One panelist, however, expressed caution at the potential for introducing bias when linking

[788] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 77 (Kyle Handley, University of California, San Diego), 82 (Shubhi Agarwal, University of Florida).
[789] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 192 (David Fortunato, University of California, San Diego); USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 467–68 (Sonya Porter, Center for Economic Studies, Census).
[790] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 65, 78 (Kyle Handley, University of California, San Diego).
[791] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 89, 136–37 (Timothy Bond, Purdue University), 135, 137 (William Spriggs, AFL-CIO/Howard University); USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 453 (Mike Martell, Bard College), 461 (Andrew Houtenville, University of Vermont), 483 (William Darity, Duke University).
[792] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 137 (William Spriggs, AFL-CIO/Howard University); USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 487 (William Darity, Duke University), 486–87 (Ana Hernández Kent, Institute of Economic Equity, Federal Reserve Bank of St. Louis).
[793] Long-term worker-level panel data includes datasets that contain information on the same worker over multiple years. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 80 (Ann Harrison, University of California, Berkley), 189–90 (Masha Brussevich, IMF).
[794] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 192 (David Fortunato, University of California, San Diego), 220–21 (Rafael Dix-Carneiro, Duke University). Administrative data refers to detailed data collected by U.S. government agencies in the course of their operations, commonly, U.S. Social Security data or U.S. Internal Revenue Service data. Restricted-use data contain sensitive information or allow for individuals or firms to be identified through inference, thus access to data users is limited by data providers.
[795] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 467 (Sonya Porter, Center for Economic Studies, Census).

datasets.[796] Other data limitations included inconsistency across datasets and classification issues over time.[797]

The section that follows provides summaries of the symposium sessions. Each summary identifies the panelists and the papers they presented during the session, followed by an overview of the discussion organized by theme.

Session A: Distributional Effects of Trade and Trade Policy by Education and Skill Level

The opening session of the USITC virtual academic symposium focused on the distributional effects of international trade and trade policy on U.S. workers across different education and skill levels.[798] The session was moderated by Katheryn Russ from the University of California, Davis, and included five paper presentations and a moderated discussion (table 5.3).

Table 5.3: Symposium presentations, Distributional effects of trade on U.S. workers by education and skill level

Panelist	Affiliation	Presentation title
Katheryn Russ	University of California, Davis	"Trade Shocks and the Shifting Landscape of U.S. Manufacturing"
Shubhi Agarwal	University of Florida	"U.S. Exports, Local Labor Markets, and Wage Inequality"
Ann Harrison	University of California, Berkley	"Estimating the Impact of Trade and Offshoring"
Eunhee Lee	University of Maryland	"Global Value Chains and Inequality with Endogenous Labor Supply"
Kyle Handley	University of California, San Diego	"The Impact of Chinese Trade on U.S. Employment: The Good, the Bad, the Debatable"

Note: Copies of presentation slides can be found on the USITC's website. USITC: Distributional Effects: Academic Symposium Presentations, April 5, 2022.

Findings from Research on Trade Effects by Level of Education or Experience

Panelists in Session A presented information to the effect that trade-induced economic losses, especially from increased import competition, have been concentrated among workers with low levels of education. For example, Russ presented evidence that geographic regions which experienced the largest

[796] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 468 (Sonya Porter, Center for Economic Studies, Census).
[797] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 77 (Kyle Handley, University of California, San Diego), 82 (Shubhi Agarwal, University of Florida).
[798] Academic researchers working on the distributional effects of international trade have adopted several different definitions of worker skill levels. In the context of the research presented in this symposium, workers can be defined as skilled by having advanced educational attainment or significant experience within an occupation or industry. Occupations can also be classified as skilled or unskilled. Traditionally skilled occupations often have high concentrations of non-routine cognitive tasks rather than routine cognitive and manual tasks. Similarly, researchers commonly categorize production occupations as low skill while management occupations are commonly categorized as high skill. For more information, see box 4.1.

levels of trade-related job loss in response to the China shock were characterized by low high school graduation rates and "less innovative capacity and generally lower wages, somewhat higher unemployment rates."[799] Kyle Handley presented research using firm-level data to measure the regional employment effects from the China shock. He showed negative manufacturing employment effects from the China shock were most pronounced in regions with relatively low shares of workers with college education. Conversely, he found that the China shock led to significant employment and wage growth in high human capital regions driven in large part by the creation of new nonmanufacturing jobs in services sectors.[800]

Ann Harrison and Eunhee Lee both presented findings on the distributional impacts of international trade across workers in different occupations. Harrison presented evidence that as workers in occupations most exposed to globalization left manufacturing, the losses during the transition were larger for less educated workers.[801] Lee presented model results indicating a reduction in trade costs increased income inequality by raising welfare for workers with advanced degrees while reducing welfare of high school dropouts.[802]

Shubhi Agarwal presented findings that U.S. exports increased employment for workers with a college education or prior relevant experience in manufacturing.[803] Moreover, she found that increased exports resulted in significant wage growth for manufacturing workers, especially workers with a college education or relevant prior experience, and concluded that exports have contributed "to wage inequality by paying higher wages to these high-skilled workers."[804]

Several panelists noted potential public policy implications of mitigating adverse employment outcomes for lower skilled workers. Harrison emphasized the importance of educational attainment and public policies focusing on workers in lower-skilled services jobs.[805] Expanding upon Harrison's comment, Handley mentioned the Trade Adjustment Assistance (TAA) program and suggested that the creation of additional programs at a local or regional level could help displaced workers "find new jobs and get the new skills they would need."[806]

[799] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 31–32 (Katheryn Russ, University of California, Davis).
[800] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 68–69 (Kyle Handley, University of California, San Diego).
[801] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 51–52 (Ann Harrison, University of California, Berkeley).
[802] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 57 (Eunhee Lee, University of Maryland).
[803] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 40–42 (Shubhi Agarwal, University of Florida).
[804] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 42 (Shubhi Agarwal, University of Florida).
[805] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 74 (Ann Harrison, University of California, Berkeley).
[806] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 76 (Kyle Handley, University of California, San Diego).

Impact of Transitions from Manufacturing to Nonmanufacturing Industries and Occupations

Several panelists identified worker transitions from manufacturing to nonmanufacturing sectors and occupations as a major driver of economic outcomes for workers exposed to import competition or employment offshoring. They said that these worker transitions between industries and occupations were motivated by reduced demand for manufacturing workers in response to increased import competition and employment offshoring. The presentation by Harrison directly addressed this dynamic, showing workers that left the manufacturing sector in response to increased import competition and offshoring experienced significant wage reductions after taking new jobs in less exposed service sectors.[807] Harrison found wage reductions to be larger for workers who were forced to switch occupations than those who left manufacturing.[808] The research presented by Lee aligned with Harrison's observations by featuring an economic model where workers across education levels transition from manufacturing into services industries following a reduction in trade costs, and her findings were aligned with Harrison's results. Further, Lee found that after a global reduction in trade costs, workers with lower levels of education generally moved into "low skill manual jobs," while workers with advanced degrees became managers and professionals in the service industry.[809]

Handley's presentation also noted employment shifts from manufacturing to nonmanufacturing industries following trade shocks, indicating import-exposure induced growth in nonmanufacturing employment more than offset declines in manufacturing employment. Handley noted that a "non-trivial component" of the decline in manufacturing employment following increased import competition from China through the early 2000s came from manufacturing establishments that switched industry codes between the 1992 and 2002 economic censuses.[810] He also stated that many of these firms transitioned from manufacturing industries to professional and technical services, management, and wholesale sectors between censuses. As such, the recorded decline in manufacturing employment over this 1992–2012 period overstates the number of jobs lost, as some manufacturing workers remained employed in their original jobs but were reclassified as nonmanufacturing workers in the 2002 economic census, predating much of the China Shock.[811]

During the moderated discussion, panelists addressed the importance of trade-exposed workers transitioning from manufacturing into services employment for their future employment and earnings. Lee stated the importance of crafting policies that help enable workers to move "across industries and especially across occupations" in response to manufacturing job loss from growing import

[807] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 51 (Ann Harrison, University of California, Berkeley).
[808] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 47 (Ann Harrison, University of California, Berkeley).
[809] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 58 (Eunhee Lee, University of Maryland).
[810] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 70 (Kyle Handley, University of California, San Diego).
[811] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 67 (Kyle Handley, University of California, San Diego).

competition.[812] Harrison described the rise of the "factory-free economy," and said that much of the transition of U.S. employment from manufacturing to service industries involved workers moving into lower paying occupations.[813]

Assessing Different Methodological Frameworks

Panelists highlighted how their chosen methodologies enabled them to isolate the specific outcomes presented in their research. For example, during the moderated discussion, Russ noted that by analyzing industry-level data within a product-cycle framework, her research team was better able to identify the characteristics of manufacturing industries and regions especially exposed to growing import competition from China.[814] Handley's use of firm-level administrative data from Census' Longitudinal Business Database (LBD) enabled him to find evidence of how jobs within individual firms or plants adjusted to increased imports from China.[815] While most presentations during the session focused on economic outcomes from increased import competition, Agarwal's presentation focused on measures of U.S. regional exposure to export expansion. Specifically, her presentation identified that employment at the commuting-zone level increased as a result of growth of U.S. exports abroad.[816]

Other panelists noted the benefits and drawbacks of measuring economic effects of trade at the occupation level. Harrison highlighted the inability of cross-industry regressions to capture what happens to the wages of workers who leave manufacturing, a key motivation for her research using occupation-level measures of worker exposure to globalization.[817] [818] Lee, whose presentation emphasized the importance of capturing occupation-level labor reallocation, noted the challenges in using her methodology to identify distributional effects of trade at the regional level since her model focuses on outcomes for individual workers.[819]

Panelists did not have information on the potential distributional effects of services trade, which the moderator described as "a big unanswered question."[820]

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[812] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 71 (Eunhee Lee, University of Maryland).
[813] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 73 (Ann Harrison, University of California, Berkeley).
[814] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 71 (Katheryn Russ, University of California, Davis).
[815] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 66 (Kyle Handley, University of California, San Diego).
[816] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 40–41 (Shubhi Agarwal, University of Florida).
[817] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 47 (Ann Harrison, University of California, Berkeley).
[818] The term "cross-industry regression" refers to a regression in which the authors used the linked industry-level data on trade and offshoring with individual-level worker data and applied industry fixed effect. Ebenstein et al., "Estimating the Impact of Trade and Offshoring on American Workers Using the Current Population Surveys," October 2014, 581, 588.
[819] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 72 (Eunhee Lee, University of Maryland).
[820] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 79–80 (Katheryn Russ, University of California, Davis).

Data Availability and New Lines of Research

The moderated discussion concluded with a question on future directions for this research and prompted responses focusing on identifying data that could be used to answer new research questions.[821] Harrison emphasized the importance of measuring worker-specific income effects. She noted the time horizon for monitoring workers using Current Population Survey (CPS) data is limited, and "a richer subset of the CPS data which allowed us to look at the same worker over time more than just two periods" could enable much deeper analyses.[822] Lee noted the importance of having access to employer-employee matched data to observe labor mobility.[823] She stated the Census' Longitudinal Employer-Household Dynamics (LEHD) is a good employer-employee matched dataset for this type of analysis.[824] However, Lee indicated LEHD data do not contain information on workers' occupations and suggested that augmenting employer-employee data with this information would significantly enhance future analysis.[825] Handley described recent efforts to create public-use versions of useful datasets that have access restrictions, referencing a presentation on the Census' Business Dynamics Statistics dataset by Fariha Kamal scheduled for the second day of the USITC symposium.[826]

Session B: Distributional Effects of Trade and Trade Policy by Race and Ethnicity

The second session of the USITC academic symposium focused on the distributional effects of trade on U.S. workers by race and ethnicity. The session was moderated by Edinaldo Tebaldi from Bryant University and featured four research paper presentations followed by a moderated discussion (table 5.4).

[821] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 80 (Katheryn Russ, University of California, Davis).
[822] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 80 (Ann Harrison, University of California, Berkeley).
[823] Employer-employee matched datasets are datasets that link key data about the firm (e.g., industry, sales, market entry and exit, number of establishments) with key data about the workers the firm employs (e.g., demographics, occupation, tenure at the firm).
[824] More information about LEHD can be found in table 5.10 of this report.
[825] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 84 (Eunhee Lee, University of Maryland).
[826] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 81 (Kyle Handley, University of California, San Diego).

Table 5.4: Symposium presentations, Distributional effects of trade on U.S. workers by race and ethnicity

Panelist	Affiliation	Presentation Title
Timothy Bond	Purdue University	"Stalled Racial Progress and Japanese Trade in the 1970s and 1980s"
Felipe Benguria	University of Kentucky	"The Impact of NAFTA on US Local Labor Market Employment"
William Spriggs	Howard University	"China Import Penetration and U.S. Labor-Market Adjustments of Black Workers"
Edinaldo Tebaldi	Bryant University	"International Trade and Wage Differentials: What do the Data Tell Us?"

Note: Copies of presentation slides can be found on the USITC's website. USITC: Distributional Effects: Academic Symposium Presentations, April 5, 2022.

The Effect of Increased Import Competition on Black and Other Minority Workers

Many of the presentations featured in this session quantified impacts of growing import competition on employment or wage outcomes across racial and ethnic groups. Presentations from Timothy Bond, William Spriggs, and Felipe Benguria approached this research question using methodologies in the spirit of Autor, Dorn, and Hanson (2013) and Acemoglu et al. (2016), while Tebaldi uses a different approach.[827] Each presentation focused on import competition originating from different trade partners.

Noting the observed historic decline in Black manufacturing employment in the 1970s and 1980s, Bond explored employment effects of growing imports from Japan between 1970 and 1990 (also called the Japan trade shock) on White and Black worker employment.[828] He presented statistically significant evidence that increased import competition from Japan led to a large drop in Black manufacturing employment. He said that these declines in Black manufacturing employment corresponded to increases in unemployment and declines in labor force participation, suggesting many trade-exposed Black workers did not find re-employment in nonmanufacturing sectors.[829] Regarding the impact on White workers, Bond said, "But you don't actually find evidence that there were any negative effects on white workers, and what appears to be the driving force here was that there was an increase in demand for skill in manufacturing in sectors that were most hit by the Japanese trade shock."[830]

Spriggs presented research on the labor market effects of increased import competition from China. Spriggs and co-authors used data from Census' Quarterly Workforce Indicators to observe outcomes for Black workers compared to the broader population and found that increased imports from China in the 1990s and early 2000s led to Black workers moving from import-exposed manufacturing jobs to

[827]Autor, Dorn, and Hanson, "The China Syndrome," October 1, 2013, 2121–68; Acemoglu, "Import Competition and the Great US Employment Sag of the 2000s," 2016, 59.
[828] Batistich and Bond, "Stalled Racial Progress and Japanese Trade in the 1970s and 1980s," May 21, 2019. Bond used an import exposure measure in the spirit of Autor, Dorn, and Hanson (2013) and Acemoglu et al. (2016) that has also been featured in dozens of studies within the distributional effects of trade literature.
[829] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 86 (Timothy Bond, Purdue University).
[830] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 86 (Timothy Bond, Purdue University).

nonexposed sectors.[831] Spriggs concluded by stating that the increase in imports from China "ignites a zero-sum game" in which Black workers increasingly competed for employment and were pushed out of the labor market.[832]

Benguria focused on employment impacts of NAFTA. He found that increased import competition from Mexico following implementation of NAFTA led to similar declines in manufacturing employment for White and Nonwhite workers.[833] However, Benguria found that Nonwhite workers experienced much larger declines in total employment and larger increases in unemployment than White workers in similarly import-exposed areas. He also found that employment declines were concentrated among women and individuals without college degrees, particularly in geographic regions with relatively low levels of educational attainment.[834]

Edinaldo Tebaldi began his presentation with descriptive analysis for 2016–21 to explore how industry import and export intensities influence wage levels and racial wage gaps. In general, these statistics showed little or weak correlation between the trade intensity of a sector and racial wage gaps between Black, Hispanic, and other people of color (POC) workers compared to their White counterparts.[835] Using a reduced-form econometric approach, he found that export-intensive industries offer relatively high average wages across all workers, consistent with the broader literature. Conversely, import-intensive sectors tend to pay relatively low wages. However, when controlling for "other factors," such as education and experience level, his analysis found little evidence that import or export intensity is associated with differences in the racial wage gap across industries. As such, Tebaldi suggested that these other factors may be bigger drivers of racial wage gaps within industries.[836]

During the moderated discussion, panelists reiterated that increased import competition has led to negative employment outcomes for Black and minority workers. Speaking broadly about the responsiveness of Black workers to employment shocks, Spriggs stated "frictions in the labor market are real," and "in the case of Black workers, those frictions include that they will be the last hired" as effects of negative labor market shocks unwind.[837] Bond echoed Spriggs comments, noting that "it's not surprising that you would see Black workers being more harmed by trade shocks because you see it throughout every shock, recessions, and things like that."[838] Bond added that the analyses presented in

[831] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 110 (William Spriggs, Howard University).
[832] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 115–16 (William Spriggs, Howard University).
[833] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 106 (Felipe Benguria, University of Kentucky).
[834] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 107 (Felipe Benguria, University of Kentucky).
[835] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 119 (Edinaldo Tebaldi, Bryant University). Tebaldi calculated import and export intensity as the total value of imports and exports in an industry divided by total employment.
[836] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 113 (Edinaldo Tebaldi, Bryant University).
[837] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 127 (William Spriggs, Howard University).
[838] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 128 (Timothy Bond, Purdue University).

the session had limited ability to measure the consumer benefits of increased imports for Black and minority workers. However, Bond stated he would be surprised if those consumer benefits outweighed the negative employment outcomes observed in their analyses.[839]

The Effect of Education and Institutions on Distributional Effects across Racial and Ethnic Groups

Several presentations showed that differences in educational attainment across racial and ethnic groups can influence outcomes from import competition shocks. Benguria shared evidence that lack of education is a key driver of negative employment outcomes following import competition shocks. While his results did not consider the intersection between educational attainment and race or ethnicity, he found that the impacts of North American Free Trade Agreement (NAFTA)-induced import competition on non-college educated workers were twice as large as the effect on the overall population.[840] Further, he found that college educated workers did not experience significant employment declines. [841] Relevant to these findings shared by Benguria, Bond shared descriptive statistics indicating that Black workers have significantly lower rates of college education as compared to White workers.[842] However, Bond reported that, while adverse employment effects from the Japan shock were concentrated among both White and Black high school dropouts working in manufacturing, displaced White workers were much more likely to find reemployment and displaced Black workers generally left the labor force altogether.[843]

Panelists also discussed the potential roles of institutional factors in driving different outcomes across racial and ethnic groups. In his presentation, Bond provided findings he described as "striking" regarding the influence of educational institutions on post-Japan shock employment outcomes for Black workers. He found that most of the observed negative employment effects for Black workers were concentrated among southern-born Black workers who were likely educated in segregated schools. Further, Bond found evidence of worse employment outcomes for Black workers in cities with higher rates of segregation.[844] Spriggs also highlighted the importance of discrimination in driving outcomes, stating "we should take the totality of information we have on the experience of Black workers to understand that discrimination is a real thing and Black workers in particular will face that as a friction."[845]

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[839] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 128–29, (Timothy Bond, Purdue University).
[840] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 107 (Felipe Benguria, University of Kentucky).
[841] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 107 (Felipe Benguria, University of Kentucky).
[842] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 87 (Timothy Bond, Purdue University).
[843] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 94–97 (Timothy Bond, Purdue University).
[844] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 96–97 (Timothy Bond, Purdue University).
[845] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 131 (William Spriggs, Howard University).

Data Limitations

Throughout the session, panelists described data-related issues that imposed limitations on the analyses being performed. For example, insufficient Census data was mentioned. Bond could only use 1970 and 1990 as the starting and end points in his analysis instead of all years between 1975 and 1985 if Census data were available for those years.[846] Both Bond and Spriggs described the need to limit their analyses to a subset of local labor markets that had large enough Black populations to generate valid statistical estimates.[847]

Panelists also discussed how data limitations inhibit new avenues for research on distributional effects for workers across racial and ethnic groups. In response to a question about the importance of occupation on worker outcomes, Benguria noted that "minorities are disadvantaged because of the nature of the data," due to their limited representation in many data sources.[848] He stated that data sources that report small samples of workers are often insufficient for performing distributional effects analyses that focus on outcomes for minority groups, including analyses that focus on minority worker outcomes across occupations.[849] Benguria suggested that access to restricted, non-public data sources could help assuage the representation issues common to publicly available datasets.[850] Bond stated the lack of historical data on employment by industry, occupation, and race has inhibited his research. He noted the lack of demographic employment data from the 1960s to the 1980s is especially restrictive given the substantial transformation in Black employment in manufacturing over the time period.[851] Spriggs echoed Bond's sentiment, noting the lack of demographic data from earlier time periods prevents analyses of how higher tariff levels influenced outcomes for Black workers.[852] However, he stated the data are compelling enough to indicate trade shocks did not likely lead to a narrowing of racial wage gaps.[853]

[846] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 89 (Timothy Bond, Purdue University).
[847] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 91, 111 (Timothy Bond, Purdue University and William Spriggs, Howard University).
[848] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 134 (Felipe Benguria, University of Kentucky).
[849] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 134 (Felipe Benguria, University of Kentucky).
[850] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 135 (Felipe Benguria, University of Kentucky).
[851] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 136–37 (Timothy Bond, Purdue University).
[852] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 137 (William Spriggs, Howard University).
[853] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 135 (William Spriggs, Howard University).

Session C: Distributional Effects of Trade and Trade Policy on Gender

The session on the distributional effects of international trade and trade policy on U.S. workers by gender was moderated by Felipe Benguria from the University of Kentucky and included six paper presentations (table 5.5).

Table 5.5: Symposium presentations, Distributional effects of trade on U.S. workers by gender

Panelist	Affiliation	Presentation title
Ross Hallren and Stephanie Fortune-Taylor	Amazon and USITC	"Worker-level Responses to the High-Value Labor Content Rules Requirement"
Masha Brussevich	International Monetary Fund	"Does Trade Liberalization Narrow the Gender Wage Gap? The Role of Sectoral Mobility"
Philip Sauré	Johannes Gutenberg Universität	"International Trade, the Gender Wage Gap and Female Labor Force Participation and Growth"
John McLaren	University of Virginia	"NAFTA and the Gender Wage Gap"
Tibor Besedeš	Georgia Institute of Technology	"Trade Liberalization and Gender Gaps in Local Labor Market Outcomes: Dimensions of Adjustment in the United States"
David Fortunato	University of California, San Diego	"Representation and the Trade Roots of the Gender Pay Gap"

Note: Copies of presentation slides can be found on the USITC's website. USITC: Distributional Effects: Academic Symposium Presentations, April 5, 2022.

Effects of Trade on U.S. Employment by Gender

The presentations in this session emphasized the heterogeneous effect of import competition on U.S. employment by gender. John McLaren presented his work exploring the negative effects of NAFTA on blue-collar workers.[854] In his presentation, McLaren showed that U.S. job loss related to NAFTA was greater for women than for men, greater for married women than for married men, and greater for workers without a high school degree than for those with a high school degree.[855] He estimated that, among high school dropouts, the effect of NAFTA on female employment was about three times higher than on male employment.[856] McLaren and his co-authors found the same results when they controlled for occupations dominated by female workers. He also showed that married women workers without a high school degree are about five times more likely to exit the labor market than married men following a trade shock.[857]

[854] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 164 (John McLaren, University of Virginia).
[855] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 167–68 (John McLaren, University of Virginia).
[856] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 167 (John McLaren, University of Virginia).
[857] USITC, Distributional Effects: Academic Symposium Presentations, April 5, 2022, 401 (John McLaren, University of Virginia).

Similarly, Philip Sauré shared findings that increased exposure to imports negatively affects female participation in the workforce, especially among those with low education levels. The findings from his presentation were consistent with McLaren's results indicating that female workers with lower education experienced higher job loss from trade integration.[858] Sauré presented findings that show a 1 percent increase in the share of U.S.-Mexico trade in local GDP led to a decrease in female labor force participation of 1.5 percent during the period 1990–2007.[859]

Tibor Besedeš presented findings showing that permanent normal trade relations (PNTR) for China had significant effects on labor force participation.[860] In U.S. metropolitan statistical areas (MSAs) more exposed to PNTR, they found a decrease in male labor force participation rates and an increase in female labor force participation rates.[861] Besedeš explained that the decrease in the gap between female and male labor force participation was driven by female workers with some amount of college education replacing male workers with no college in the labor force.[862]

Effects of Trade on U.S. Wages by Gender

Multiple panelists found that the effects of trade on the wages of female and male workers in the United States are significantly different. Some presentations found that certain trade shocks are associated with wage growth, but female workers experienced these benefits to a lesser extent than male workers. Hallren and Fortune-Taylor noted that despite a 6.6 percent increase in the wages of all U.S. auto manufacturing production workers following the announcement of the High Wage Labor Value Content Rule (HWLV), wage growth among female production workers was slower than that among their male counterparts.[863]

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[858] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 163 (Philip Sauré, Johannes Gutenberg Universität).

[859] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 162 (Philip Sauré, Johannes Gutenberg Universität). Trade share is defined as the sum of U.S. imports from Mexico plus U.S. exports to Mexico divided by U.S. GDP. Sauré and Zoabi, "International Trade, the Gender Wage Gap and Female Labor Force Participation," Special Issue: Imbalances in Economic Development, November 1, 2014, 17–33. For more discussion on this paper, please check chapter 4 – Literature Review.

[860] Unlike the China shock specified by Autor, et al. 2013 and 2014, which measures the impacts on U.S. industries competing with Chinese imports, the PNTR shock used here by Besedeš is a dummy indicator of China's trade status. Besedeš, Lee, and Yang, "Trade Liberalization and Gender Gaps in Local Labor Market Outcomes," March 2021, 575.

[861] Besedeš and his co-authors follow Pierce and Schott (2020) to define the exposure of an MSA to trade liberalization. Besedeš, Lee, and Yang, "Trade Liberalization and Gender Gaps in Local Labor Market Outcomes," March 2021, 574–88.

[862] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 176 (Tibor Besedeš, Georgia Institute of Technology).

[863] After the announcement of HWLV, wage of production workers increased though female wages grew about 21.6 percent slower [**more slowly**] on average than that of their male counterparts. Whereas the shape of the wage distribution of male workers remained the same but experienced a rightward shift, the distribution of female production workers changed. Post-announcement, there were fewer female workers in the lower and higher wage deciles; instead, the mass of the wage distribution was centered around an annual salary commensurate with a $16 per hour price floor set by the HWLV rules of origin. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 147 (Ross Hallren, Amazon).

Some presentations showed that trade helped diminish wage inequality between women and men. Both Brussevich and Besedeš find that the gender wage gap is smaller in U.S. locations more exposed to import competition as wages of female workers increase.[864] Further, other presentations in this session pointed out that the effects of trade on the gender wage gap may vary by sector. Brussevich indicated that import competition affects relative wages between sectors, namely, manufacturing wages decrease whereas services wages increase.[865] Besedeš confirmed that under PNTR, the gender wage gap in the manufacturing sector has been rising while the gender wage gap in the service sector has been declining.[866] David Fortunato presented evidence that trade policy has differential effects on workers' wages by gender. He and his co-authors found that countries with higher gender tariff gap have higher gender wage gaps.[867] Specifically, Fortunato presents the regression results showing that the gender tariff gap contributed about 10 percent of the gender wage gap.[868]

Import Competition and Reallocation of Workers across Sectors by Gender

One participant presented evidence that import competition leads to an intersectoral reallocation of workers by gender. According to Brussevich, as female workers exit the manufacturing sector, they tend to reallocate into the service sector and take high-wage jobs in industries such as finance and professional business services. When men exit the manufacturing industry, they tend to take low-wage service jobs in wholesale and retailing services.[869] Brussevich indicated that female workers face significantly higher costs in switching to manufacturing jobs relative to men, whereas male workers face higher costs in switching to service jobs. She stated that the "probability of exiting the labor force or becoming unemployed has been decreasing faster for women than for men originating in the manufacturing industries."[870] Additionally, Brussevich noted in her presentation that the difference in mobility costs between male and female workers explains about 7 percent of the differences in welfare gain by gender in the long run.[871]

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[864] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 156 (Masha Brussevich, IMF), 176 (Tibor Besedeš, Georgia Institute of Technology).
[865] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 152 (Masha Brussevich, IMF).
[866] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 174, 175 (Tibor Besedeš, Georgia Institute of Technology).
[867] Fortunato mentions that it is impossible to verify the impact of women's representation if the regression uses the U.S. data only; hence he uses the global datasets. Gender-specific tariffs are calculated by multiplying the industry averaged applied tariff with the proportion of workers by gender in that industry and then summing these values across industries. The gender tariff gap is the difference between men's tariff and women's tariff divided by men's tariff. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 185–87 (David Fortunato, University of California, San Diego).
[868] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 187 (David Fortunato, University of California, San Diego).
[869] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 151 (Masha Brussevich, IMF).
[870] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 151 (Masha Brussevich, IMF).
[871] Mobility costs are the costs for workers to move from one job to another job, from one sector to another sector. Brussevich "Does Trade Liberalization Narrow the Gender Wage Gap?" October 1, 2018, 2. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 156 (Masha Brussevich, IMF).

Data Limitations and Questions for Future Research

Session panelists highlighted potential research questions and data requirements on the topic of the distributional effects of trade by gender. Fortune-Taylor proposed further exploration of the intersectionality between gender, race, and ethnicity with regards to worker outcomes.[872] Brussevich noted the need for more research on the effects of trade shocks on workers in the service sector.[873] McLaren pointed out that the effects of trade and trade policy on Black workers and low-income workers can take longer than one year to occur and specified the need to study the liquidity constraints of low-income workers.[874] He noted that, after a trade shock, wealthy workers have sufficient assets to endure a decrease in their income for several years while poor workers must find additional jobs to cover basic expenses. As such, short-run responses to a trade shock may not reflect the full impact on worker earnings over the long run.[875] Regarding data limitations, Brussevich, McLaren, and Fortunato raised the need for panel data on individual workers, which would track information about their jobs, sectors, industry, and characteristics over their whole careers.[876] Sauré indicated that to study discrimination against women in firms, matched employer-employee data are needed.[877]

Session D: Existing Methodologies and Their Limitations, and New Labor Modeling Developments

This session included presentations and panel discussions on existing methodologies and their limitations, and new labor modeling developments. In addition to looking at the effects of trade on workers, panelists also discussed the distributional effects on consumers. The session was moderated by William Powers, USITC, and included five panelists (table 5.6).

Panelists discussed approaches to measuring the distributional effects of trade on workers using two common types of economic models: computable general equilibrium (CGE) models and econometric models. CGE models are multicountry, multisector general equilibrium models that incorporate economic linkages between countries and industries. These models use data from national statistical accounts that capture a snapshot of economic conditions in each country at a specific point in time. They are typically used in forward-looking counterfactual analysis of proposed or potential changes and compare the current global situation to one in which policy instruments are changed, or "shocked," to

[872] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 189 (Stephanie Fortune-Taylor, USITC).
[873] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 190 (Masha Brussevich, IMF).
[874] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 191 (John McLaren, University of Virginia).
[875] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 191 (John McLaren, University of Virginia).
[876] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 190 (Masha Brussevich, IMF; John McLaren, University of Virginia) 192 (David Fortunato, University of California, San Diego).
[877] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 193 (Philip Sauré, Johannes Gutenberg Universität).

proposed values. In contrast, econometric models rely on historical data, often collected over multiple years, and are typically used in backward-looking economic analysis of historical changes. As discussed further in chapter 4, econometric models include reduced-form models, such as the series of papers by David Autor and coauthors starting in 2013, which allow researchers to separate the effects of trade shocks from effects of other confounding variables and quantify how these shocks affect economic outcomes. Econometric models also include structural models, which incorporate a system of mathematical equations that represent a simplified version of an economy and can more clearly examine how different variables influence economic outcomes.

Table 5.6: Symposium presentations, Methodologies for researching distributional effects of trade on U.S. workers

Panelist	Affiliation	Presentation title
Maryla Maliszewska	The World Bank	"Ex-Ante Evaluation of Trade Reforms on Poverty, Income Distribution and Employment"
Hans Lofgren	The World Bank	"A Proximity-based Approach to Labor Mobility in CGE Models"
Rafael Dix-Carneiro	Duke University	"The Globalization, Trade Imbalances and Labor Market Adjustment"
Kirill Borusyak	University College London	"The Impact of Trade on U.S. Workers: Distributional and Other Effects"
Michael E. Waugh	Federal Reserve Bank of Minneapolis	"The Consumption and Welfare Effects of a Tariff Shock: Evidence from U.S.-China Trade War"

Note: Copies of presentation slides can be found on the USITC's website. USITC: Distributional Effects: Academic Symposium Presentations, April 5, 2022.

Measuring the Distributional Effects of Trade Using CGE Models

In the first part of the session, Maryla Maliszewska and Hans Lofgren, both from the World Bank, presented their work on measuring the distributional effect of trade using CGE models. In her presentation, Maliszewska introduced the Global Income Distribution Dynamics (GIDD) framework, which connects a CGE model with a microsimulation model to look at the distributional effect of trade.[878] In this framework, workers are split by different types, such as skilled and unskilled, rural and urban, female and male, and by geographical location. She indicated that her team has been using this framework to look at the distributional effects of the African Continental Free Trade Area (AfCFTA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the U.S.-China trade "war," and climate change. When applying this approach to examine the impact of trade policy changes at the sub-national level, Maliszewska stated that though "overall trade

[878] The microsimulation model implements a set of changes according to information from household surveys. Population and education projections were performed during the first stage of the microsimulation model, and the second stage of the microsimulation adjusts individual factor returns by skill and sector in accordance with the results of the CGE model. Maliszewska, Osorio-Rodarte, and Gupta, "Ex-Ante Evaluation of Sub-National Labor Market Impacts of Trade Reforms," November 23, 2020. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 203 (Maryla Maliszewska, the World Bank).

benefits the country, as a whole, there will be some regions that will be much better off than others, and those tend to be already well-developed regions."[879]

Lofgren discussed how to incorporate costs to labor mobility into a CGE model. He noted that the treatment of labor mobility in a standard CGE framework tends to exaggerate the ease of moving between jobs. Specifically, standard CGE models assume workers who lose jobs in one sector will immediately find jobs in other sectors, which he argued is not realistic.[880] Moreover, because these models assume economy-wide wage setting, they find that the impact of shocks tends to be weak and dissipated across the whole economy.[881] Lofgren noted that, in a real-world scenario, shocks are felt in a specific sector in a specific region for certain labor categories, particularly in the short run. He addressed these standard assumptions by assuming that workers will have divergent capabilities when working in different sectors. Lofgren developed a "proximity parameter" measuring the "degree of similarity between sectors in terms of capabilities" based on industry trade data.[882] Under this framework, workers who lose their jobs and have to transition to a new sector are less efficient and may receive a lower wage than workers who already work in that sector or they may become unemployed. Lofgren stated that this approach "removes the short-term ability for workers to move to other sectors without wage losses."[883] He also discussed the challenges of applying this approach to an analysis of U.S. trade policy, indicating that an improved measure of worker similarity could be estimated using survey data, which include information such as movement of workers and their respective wages.[884]

Measuring the Distributional Effects of Trade Using Econometric Models

In the second part of the session, Rafael Dix-Carneiro and Kirill Borusyak presented their work on measuring the distributional effects of trade using econometric models. Dix-Carneiro discussed his recent work on incorporating labor-mobility frictions into a structural econometric model. He stated that the model is designed to analyze how the labor market adjusts in response to globalization shocks and to "think about the role of trade imbalances in the adjustment process."[885] Dix-Carneiro noted that his team used micro-data on wages to estimate the mobility costs that workers face when switching sectors and incorporated these mobility costs into the model. He added that when applying the model

[879] In this context, "well developed" means "industrialized and wealthier." USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 207 (Maryla Maliszewska, World Bank). Maliszewska, Osorio-Rodarte, and Gupta, "Ex-Ante Evaluation of Sub-National Labor Market Impacts of Trade Reforms," November 23, 2020.
[880] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 210–11 (Hans Lofgren, World Bank).
[881] An economy-wide wage setting refers to setting a single wage for all similarly educated workers nationwide in a CGE model, regardless of which industry the worker is in.
[882] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 211 (Hans Lofgren, World Bank). The proximity parameter is computed on the basis of how close the two sectors are in terms of the capabilities needed for competitive production. Lofgren and Cicowiez, "A Proximity-Based Approach to Labor Mobility in CGE Models," 2017.
[883] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 212 (Hans Lofgren, World Bank).
[884] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 213 (Hans Lofgren, World Bank).
[885] Dix-Carneiro defined globalization shocks as shocks that have led to "substantial disruptions in the labor market," such as the rise of China, and other trade liberalization episodes. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 215–16 (Rafael Dix-Carneiro, Duke University).

to the China shock, the model predicts that China accounted for a quarter of the decline in U.S. manufacturing jobs between 2000 and 2014.[886] The model by Dix-Carneiro predicts virtually no aggregate net unemployment effect in the United States with the China shock, as many of the workers that lost jobs in the manufacturing sector quickly found jobs in the services sector.[887] At the end of his presentation, Dix-Carneiro also discussed an extension he is working on which allows the model to include different types of workers by education level to better account for the inequality/distributional effect of trade.[888]

Borusyak discussed two papers; the first looked at the distributional effects of trade shocks on both cost of living and wages using a structural econometric model, and the second used a reduced-form econometric model similar to the one used in a seminal 2013 paper by Autor et al. to look at the distributional effect of trade.[889] In his first paper, he divided workers by income groups and education attainment in the structural econometric model, and found that tariff reductions did not generate large impacts across households of different incomes but did contribute to within-income group inequality.[890] Borusyak called this "horizontal distributional effects," which implies that trade shocks create winners and losers within income groups rather than across different income groups.[891] In his second paper, Borusyak explores the validity of the reduced-form econometric model framework introduced in the seminal 2013 paper by Autor et al., which has been used extensively in the literature. He finds that these specifications can be improved by the addition of relatively simple control variables, such as controlling for lagged local share of manufacturing employment interacted with period indicators. He notes that earlier conclusions in Autor et al. (2013) on the negative effects of increasing exposure to Chinese imports on U.S. manufacturing employment were largely correct, though the negative effects become smaller with the addition of the control variables.[892] Borusyak also indicated, during the panel discussion, that no empirical work is perfect, and his second paper was trying to "contribute some tools to improve the estimates."[893]

During the panel discussion, Dix-Carneiro indicated that it was unclear how well some of these structural models mentioned above do in projecting counterfactuals. He noted that the big value in estimating and

[886] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 219 (Rafael Dix-Carneiro, Duke University).
[887] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 219 (Rafael Dix-Carneiro, Duke University).
[888] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 220 (Rafael Dix-Carneiro, Duke University).
[889] This regression design is a popular tool for *ex post* evaluation of observed trade shocks on local labor markets. For a discussion on the distinction between structural econometric and reduced-form econometric models, please see chapter 4.
[890] Tariff reductions modeled in the paper included a 10 percent reduction in trade costs for all trading partners globally. Borusyak and Jaravel, *The Distributional Effects of Trade: Theory and Evidence from the United States*, June 2021, 4.
[891] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 226–227 (Kirill Borusyak, University College London); Borusyak and Jaravel, *The Distributional Effects of Trade: Theory and Evidence from the United States*, June 2021, 1–45.
[892] Borusyak, Hull, and Jaravel, "Quasi-Experimental Shift-Share Research Designs," March 18, 2018, 42.
[893] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 247 (Kirill Borusyak, University College London).

simulating a structural model is in "understanding the mechanisms and getting a good picture of the magnitudes that are involved in these counterfactuals."[894]

Measuring the Distributional Effects of Trade on Consumers

Borusyak discussed his first paper, which also looks at the spending pattern of consumers on imports. By adding a detailed proprietary dataset to the Consumer Expenditure Survey Data, according to Borusyak, the paper shows that consumers at different income levels have similar spending shares on imports, whether measured by total imports or imports from specific trading partners.[895] In the final part of the session, Michael Waugh presented his paper, which he described as presenting a "high-quality measure of expenditures by households" using monthly U.S. auto sales data by county and which analyzed the correlation between that measure and policy actions in the U.S.-China trade "war."[896] Waugh said that his results showed that geographically, U.S. counties that "had higher exposures to Chinese retaliation," saw a more dramatic decline in expenditure on automobiles.[897] Waugh added that from a policy perspective, these large changes in consumption suggest that workers, particularly the low-income population, are more vulnerable to trade shocks.[898]

During the panel discussion, Waugh indicated that the income and consumption effects could be different across different demographic groups; demographic groups that are relatively poor, in terms of wealth, will find it difficult to overcome even a small income shock. To address this issue, he suggested that one policy option is to use a "progressive tax scheme."[899] Waugh notes that when a country is opening up to trade, it should support the opening up with a more generous safety net that naturally provides insurance to these low-income households.[900]

[894] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 240 (Rafael Dix-Carneiro, Duke University).
[895] Borusyak and Jaravel, *The Distributional Effects of Trade: Theory and Evidence from the United States*, June 2021.
[896] The policy actions refer mainly to the Chinese retaliatory tariffs. Waugh, "The Consumption and Welfare Effects of a Tariff Shock: Evidence from the US-China Trade War," December 2019. USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 231 (Michael E. Waugh, Federal Reserve Bank of Minneapolis).
[897] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 231 (Michael E. Waugh, Federal Reserve Bank of Minneapolis).
[898] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 250 (Michael E. Waugh, Federal Reserve Bank of Minneapolis).
[899] A tax system is considered progressive when it applies higher tax rates to people with higher levels of income. Kagan, "Progressive Tax," October 25, 2021; USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 250 (Michael E. Waugh, Federal Reserve Bank of Minneapolis); Lyon and Waugh, "Redistributing the Gains from Trade Through Progressive Taxation," November 2018, 185–202; email exchange with Michael Waugh, June 27, 2022.
[900] USITC, Distributional Effects: Academic Symposium Transcript, April 5, 2022, 250 (Michael E. Waugh, Federal Reserve Bank of Minneapolis).

Session E: Value of Restricted-use Data for Distributional Effects Analysis

This session convened five researchers to present work highlighting the use of restricted-use datasets to answer questions on the distributional effects of trade on worker outcomes (table 5.8).[901] Jennifer Poole of American University moderated the discussion, which covered issues relating to the data quality and preparation required to execute distributional effects research successfully. Overall, the work presented in the session highlighted the aspects of restricted-use data that are most crucial to doing distributional effects analysis: variables capturing key worker demographic and firm level characteristics, the ability to link data across different collection units and data types if key variables are missing in one dataset, and longitudinal data collection that allows tracking of worker and firm-level outcomes over time. These aspects of restricted-use data are valuable as they expand possibilities for analysis. In these presentations, restricted-use data allowed researchers to explore impacts of trade on workers at lower-level geographies than are available in the public data, account for firm heterogeneity within an industry—mapping trade impacts on to workers with greater precision than if they were only using the industry in which the worker is employed—and track worker outcomes over time in the years following a trade shock. The presentation summaries that follow describe the findings of the research as it pertains to the distributional impact of trade on subgroups defined by gender, age, and income level, and provide examples of which aspects of the analysis or of possible further analysis are enabled by restricted-use data.[902]

Table 5.7: Symposium presentations, Distributional effects of trade research using restricted-use data

Panelist	Affiliation	Presentation title
Jennifer Poole	American University	"Foreign Influence: The International Transmission of Gender Equality"
Wolfgang Keller	University of Colorado	"Globalization, Gender, and the Family"
David Donaldson	Massachusetts Institute of Technology	"Imports, Exports, and Earnings Inequality: Measures of Exposure and Estimates of Incidence"
Teresa Fort	Dartmouth College	"Data Sources from the U.S. Census Bureau"
Cristina Tello-Trillo	U.S. Census Bureau	"Trade Liberalization and Labor-Market Outcomes: Evidence from US Matched Employer-Employee Data"

Note: Copies of presentation slides can be found on the USITC's website. USITC, Distributional Effects: Academic Symposium Presentations, April 6, 2022.

[901] These panelists were selected because their work demonstrates the type of analysis that is possible given access to restricted-use data.

[902] Note that other works presented at the symposium also employed restricted-use datasets for their analysis (see Kyle Handley's work on day 1, which uses the LBD), as do other seminal works in this literature, such as Autor, Dorn, Hanson, and Song (2014), which employed restricted-use data from the Social Security Administration to evaluate worker level effects. For more information on the Social Security Administration data, see section at the end of chapter 4.

Rich Datasets and the Analysis of Distributional Trade Effects

With the right data, researchers can decompose what changes to the industry and firm structure are driving job loss in manufacturing, which is a crucial piece to understanding the distributional impact of trade shocks on workers.[903] Using the restricted-use Longitudinal Business Database (LBD) that follows U.S. firm dynamics at the establishment level, Teresa Fort found that U.S. companies' closure of their manufacturing plants, rather than the companies shuttering entirely, was the predominant driver of manufacturing job loss in the United States from 1977 to 2012.[904] Separately, her research suggests that companies traditionally in the manufacturing sector have opened many nonmanufacturing establishments and contributed to job growth in the wholesale and retail sectors. She also noted that while most U.S. regions saw job loss in the manufacturing sector, some regions saw small manufacturing employment gains because of new firms opening in the 1977 to 2012 period.[905] The decomposition of these sector-specific effects was made possible by detailed firm- and establishment-level data with geographical breakouts that are only be available in restricted-use datasets.[906]

Access to restricted-use data resources that include worker-level demographic, economic, geographic variables, and firm- and industry-level data allow researchers to hone in on drivers of the distributional effects of trade. In her analysis, using both the LBD and the Longitudinal Household Employer Dynamics (LEHD) data, Cristina Tello-Trillo showed that in isolating the drivers of U.S. job loss following the China shock, the location of the worker matters much more than the industry in which the worker is employed. Because these data link the trade impacts felt by firms to the workers employed by these firms and their characteristics, Tello-Trillo was able to evaluate location-specific effects on different worker subgroups. For instance, in addition to a decline in worker earnings in the manufacturing sector, she found a spillover of earning declines into nonmanufacturing sectors in response to the trade shock.

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[903] As framed in Autor et al. 2014, the immediate impact of a trade shock, such as increase in productivity growth abroad causing product demand to fall in the domestic trade-exposed industry, is a reduction that industry's demand for labor. Practically, a reduction in an industry's demand for labor means that affected workers could lose their jobs or see their wages to fall, depending on the response of the firm that employs them. As such, understanding firm activity in a trade-exposed industry (via firm-level data) is important in appropriately attributing workers' labor market outcomes to trade shocks.

[904] Note that the Longitudinal Business Database is not an employer-employee matched dataset, but researchers have linked it with other data sources to create such a dataset, as Tello-Trillo has done linking the LBD to the Longitudinal Employer Household Data in the work she presented in this session. Fort's symposium presentation was based on work with co-authors including Xiang Ding, Justin Pierce, Stephen Redding, and Peter Schott. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 289–90 (Teresa Fort, Dartmouth College); USITC, Distributional Effects: Academic Symposium Presentation, April 6, 2022 (Teresa Fort, Dartmouth College).

[905] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 285–92 (Teresa Fort, Dartmouth College).

[906] Fort's research highlights the importance of establishment-level data (that is, data at the sub-firm level that represent sites of manufacturing and non-manufacturing activity). In distributional effects of trade research, these data contribute to greater precision of location-specific estimates of trade impacts. In the absence of household-level data to link to, establishment-level data can also help researchers infer, in a broad sense, the sector of the worker being affected—e.g., if a worker is employed at a company's manufacturing plant the worker is classified as being employed in the manufacturing sector. Ding et al., "Structural Change Within Versus Across Firms," June 2022, 8.

Breaking out the differential effects of this shock by gender, Tello-Trillo found that the earnings decline in nonmanufacturing jobs associated with location-specific effects impacts female workers less than male workers. She indicated that this is due to women migrating to higher paying jobs in growing sectors like health and education, a movement which can be tracked longitudinally through the LEHD.[907]

Linking Data across Different Collection Units and Data Types

Access to detailed linked individual- and firm-level restricted-use data allows for deeper analysis of worker outcomes by allowing for estimation of the trade exposure of individuals based on the trade exposure of the firms where they are employed or that they own. With this approximated trade exposure of individuals in combination with individual earnings data, David Donaldson examined the impact of trade on income inequality in Ecuador. This analysis was made possible by access and the ability to link data of different types, namely, restricted-use Social Security data that links workers to firms, value-added tax administrative data that allows for tracking of inter-firm transactions over time, and a national ownership registry of firms. Using these data in a structural model, he determined which income group is most exposed to export shocks (the middle class), which income group is most exposed to import shocks (the poorest), the dominant channel of trade income (the import channel), and to which income group these gains from trade accrue (the wealthiest). Overall, he found that in the Ecuadorian formal economy, trade may exacerbate income inequality as the wealthy accrue most of the gains from trade.[908]

Further, the ability to link firms engaged in trade to the demographic and earnings data of their workers allows for research into how trade may be helping or harming workers at a more granular level than is typically possible under more common analytical frameworks which observe the transference of the trade shock to the firm via the trade exposure of the overall industry. Tello-Trillo's presentation examined the differences in worker outcomes in response to the China shock among trading and non-trading firms. Tello-Trillo used the restricted-use Longitudinal Firm Trade Transactions Database (LFTTD), which records firm trade transactions over time, to determine the trading status of firms, and linked this data to the LBD (from which she obtained data on firm size and industry type) and to the LEHD (which she used to get a measure of worker-level earnings).[909] Looking at firms that only import, Tello-Trillo found that earnings of workers at those firms fared better than workers at firms that did not trade at all. She attributed this result to the possibility that import-only firms had access to cheaper inputs due to the China shock.[910]

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[907] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 292–300 (Cristina Tello-Trillo, Census). Tello-Trillo's presentation was based on work with co-authors Justin Pierce and Peter Schott. USITC, Distributional Effects: Academic Symposium Presentation, April 6, 2022, (Cristina Tello-Trillo, Census).
[908] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 276–85 (David Donaldson, Massachusetts Institute of Technology). Donaldson's presentation was based on a paper with co-authors Drs. Rodrigo Adaõ, Paul Carrillo, Arnaud Costinot, and Dina Pomeranz. Adão et al., *International Trade and Earnings Inequality*, December 2020. USITC, Distributional Effects: Academic Symposium Presentation, April 6, 2022 (David Donaldson, Massachusetts Institute of Technology).
[909] USITC, email message from Cristina Tello-Trillo, July 22, 2022.
[910] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 293–300 (Cristina Tello-Trillo, Census).

In terms of possibilities for further analysis, incorporating additional types of data into these larger linked datasets would allow for different types of analysis that could analyze the impacts of trade shocks beyond workforce outcomes. In his comments, Wolfgang Keller mentioned that incorporating time use diary data on non-market activities would allow researchers to move towards a welfare analysis, provided that a value is assigned to those non-market activities.[911] This type of analysis would aid in understanding the larger social costs and benefits of policy and help address questions on how trade impacts marriage and divorce rates and the intrahousehold allocation of resources.[912]

Employing Longitudinal Data to Track Workers and Firms

All the analyses presented during this session relied on restricted-use datasets which allow researchers to track individual firms and workers over time. This feature of the data is crucial to understanding the persistence of trade shocks on worker outcomes, and the various ways in which workers may adjust. Keller's presentation relied on employer-employee matched data and additional administrative data in Denmark to look at the differential female labor response in returning to work following a "gender-neutral" trade shock that negatively impacted Danish industry through increased import competition.[913] Keller found that while there was no difference in job loss and earnings outcomes by gender from these trade shocks, the shocks still served to widen the gender wage gap through the differences in women's and men's post-shock labor force participation resulting from family planning. Administrative data show that, following a trade shock, women and men in import-competition impacted sectors react differently. Women employed in those sectors have more newborn children and take more hours of parental leave than men employed in those sectors. Additionally, Keller finds that the likelihood that a woman has children following a trade shock-related job loss is associated with her age, as women around 39 years old were more likely to have a child than women in their early 30s or women in their mid-40s.[914] This type of analysis was possible due to the data's longitudinal nature, which allowed researchers to

[911] Time use diary data, which is collected by having surveyed individuals record the amount of time they spend doing various activities including paid work, childcare, volunteering, and socializing, is gathered by Census in the American Time Use Survey (ATUS) sponsored by the Bureau of Labor Statistics. Microdata files are publicly available at DOL, BLS, "American Time Use Survey," accessed September 9, 2022.

[912] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 274–75, 307 (Wolfgang Keller, University of Colorado).

[913] It may be the case that with some trade shocks, women experience stronger effects than their male colleagues because they are more likely to be employed in an industry, firm, or occupation that is disproportionately hard hit, or if women face different treatment than men at the trade-exposed firm at which they work. In this study, the authors evaluated whether women lost jobs at higher rates or lost earnings of a greater magnitude than men at the trade-exposed firms following the China shock and at firms within the textile industry following the removals of quotas in the Multifiber Agreement. They found no difference in these labor market outcomes between genders for either shock, i.e., the trade shocks were "gender-neutral." Keller and Utar, "Globalization, Gender, and the Family," March 2022, 2, 12–13, 20.

[914] Keller explains these differential rates of childbirth by women following a trade shock-related job loss by connecting these ages to what he and his co-author presume to be a typical woman's fertility timeline. He intimates that women in their early 30s tend to have some fertile years left, women around 39 years old are closest to the end of their fertile period, and women in their mid-40s are typically unable to have children. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 272–73 (Wolfgang Keller, University of Colorado).

investigate the longer-term impacts of these trade shocks on workers' family and labor outcomes and unpack the mechanisms by which trade might contribute to the gender wage gap indirectly.[915]

Longitudinal data are also useful in tracking adjustments of firm responses to trade shocks as they impact workers. In her presentation, Jennifer Poole looked at the indirect influence of foreign investment on the gender wage gap using restricted-use longitudinal employer-employee matched data from Brazil. These data allowed her to track workers across firms over time; linking those data to additional data on firm-level foreign direct investment (FDI) allowed her to estimate the impact on the gender wage gap of employing workers at domestic Brazilian firms who had previously been employed at multinational firms. Rather than looking at worker-level responses to a trade shock, this research focused on how labor mobility may be a channel through which certain cultural mores might be spread (e.g., gender equality best practices) as employees move between firms. She found that employing these workers with multinational firm experience at domestic firms had a positive significant impact on reducing the gender wage gap at the domestic firms, though the effect is economically small.[916]

Session F. Government Datasets for Analyzing the Distributional Effects of Trade among Different Subgroups

In this session, representatives of data-providing federal agencies described the content, scope, and accessibility of various government data products that could be used to answer questions relating to the distributional effects of trade on U.S. workers.[917] While there is some overlap with U.S. datasets mentioned in the previous session, panelists in this session highlighted the datasets themselves rather than the analysis performed with them, speaking to the public and restricted-use components of each dataset when available.[918] This session—which was moderated by Stephanie Fortune-Taylor, USITC—included a discussion on the limitations and opportunities presented by these data products, which encompassed the challenges of using public data that has been aggregated or otherwise adjusted to protect confidentiality of respondents, and the possibilities for linking different government data products. The session included nine panelists (table 5.8). In addition to the summaries of the discussion and presentations as are presented for other sessions in this chapter, the material below also provides

[915] Importantly, because of Denmark's social safety net programs, there was no income loss observed for men or women due to import competition. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 269–75 (Wolfgang Keller, University of Colorado); USITC, Distributional Effects: Academic Symposium Presentation, April 6, 2022 (Wolfgang Keller, University of Colorado). Keller's presentation was based on a paper with co-author Hale Utar. Keller and Utar, "Globalization, Gender, and the Family," March 2022.
[916] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 267–68 (Jennifer Poole, American University). Poole's presentation is based on a paper with co-author C. Austin Davis. Davis and Poole, "Foreign Influence: The International Transmission of Gender Equality," June 2021. USITC, Distributional Effects: Academic Symposium Presentation, April 6, 2022 (Jennifer Poole, American University).
[917] These data products were selected to be profiled at the symposium because of either (1) their use in the current literature, (2) their potential to address distributional effects of trade research questions, or (3) their formal submission for presentation at the symposium in response to the investigation's initiating *Federal Register* notice.
[918] Work with the LBD, LEHD, and LFTTD datasets were presented by Fort and Tello-Trillo in the restricted data session.

tabular summaries of the datasets themselves, including the features relevant to their use in distributional effects analysis.

Table 5.8: Symposium presentations, Government datasets for researching distributional effects of trade on U.S. workers

Panelist	Affiliation	Dataset
Keith Bailey	U.S. Census Bureau	Longitudinal Employer Household Dynamics (LEHD)
Fariha Kamal	U.S. Census Bureau	Business Dynamics Statistics-Goods Traders (BDS-Goods Traders)
Patrick Carey	Bureau of Labor Statistics	Current Population Survey (CPS)
Adam Safir	Bureau of Labor Statistics	Consumer Expenditure Survey (CE)
Adam Smith	U.S. Census Bureau	Survey of Income Program Participation (SIPP)
Daniel Carroll	Department of Labor, Employment and Training Administration	National Agricultural Workers Survey (NAWS)
Robert Hoekstra	Department of Labor, Employment and Training Administration	Trade Adjustment Assistance Data (TAA)
Cristina Tello-Trillo	U.S. Census Bureau	Longitudinal Business Database (LBD) and Longitudinal Firm Trade Transaction Database (LFTTD)
Aneta Erdie	U.S. Census Bureau	Annual Business Survey (ABS)

Note: Copies of presentation slides can be found on the USITC's website. USITC, Distributional Effects: Academic Symposium Presentations, April 6, 2022.

Data products presented during the session fall into three general categories. The first category includes several sources that provide information at the individual and household level, including the Current Population Survey, the Consumer Expenditure Survey, the Survey of Income and Program Participation, the National Agricultural Workers Survey, and the Trade Adjustment Assistance (TAA) data on individual program participants reported in state-level aggregates. The second category of datasets presented during the session includes resources that provide information at the firm or industry level, namely the Business Dynamics Goods-Traders data,[919] the Longitudinal Business Database, the Longitudinal Firm Trade Transactions Database, the Annual Business Survey, and the TAA petition data submitted by firms. Finally, panelists also discussed a third category of data sources that contain information at both the firm/industry and individual household level: the Longitudinal Employer Household Database links these data together from different datasets. Information on these datasets is organized into tables 5.9, 5.10, and 5.11, which present information on the individual and household-level datasets, the employer-employee matched datasets, and the firm- and industry-level datasets discussed, respectively.

In their presentations, panelists were asked to provide information on the population coverage, frequency, and structure of their data product, as well as information on the survey variables available in the public and restricted-use versions of the dataset. Tables 5.9, 5.10, and 5.11 were prepared in the period following the symposium to highlight these data product features and the specific survey variables of interest for conducting distributional effects of trade analyses.[920] These variables include

[919] The Business Dynamics Goods Traders (BDS Goods-Traders) data and the Longitudinal Employer Household Database (LEHD) are both data products derived from various other surveys. They were programmed as a separate group of hybrid data products during the symposium for this reason.

[920] The contents of the data table cells reflect the most recent iteration of the dataset – different variables and features of the data may vary over the date range for which the data are available. Note that for this reason and because the tables were specifically designed to speak to the features of the dataset most useful to researchers conducting distributional effects of trade analysis, these tables should not be considered an exhaustive representation of the contents or date range of the dataset.

those that provide information on labor market outcomes (wage, income, labor force participation status, etc.) and those that identify underrepresented and underserved communities (i.e., gender, race, ethnicity, indigeneity, religion, sexual orientation, disability, geography, or other variables that can identify the ruralness and poverty level of a worker's community).[921] In their documentation of dataset frequency and structure, these tables also specify whether the data are cross-sectional or longitudinal, and whether the data are administrative, survey, or statistics. Cross-sectional data are data that are typically collected at regular intervals over the same population with no effort made to collect data from the same respondents in succession. Longitudinal data differs in that collection is structured around receiving successive responses from same respondents over time. For the purposes of these tables, "Administrative" data are data collected by the U.S. government agencies during their operations, such as transaction or programmatic data. "Survey" data are data gathered from a smaller sample through a purposeful data collection effort and are typically collected and weighted in such a way that data users can extrapolate the characteristics of the entire population. "Statistics" data here refer to data collected and reported for the entire population of interest.

A description and the goal of each of the datasets covered in this session follows below, with data reported in the order in which it was presented during the symposium.

Current Population Survey (CPS) – The CPS is the source of the national unemployment rate, and collects a wide range of information about employment, unemployment, and people not in the labor force, as well as extensive demographic data.[922]

Consumer Expenditure Surveys (CE) – The CE is the only Federal household survey to collect and report information on the complete range of consumers' expenditures and incomes. Data from the CE are used to revise the relative importance of goods and services in the market basket used to calculate the Consumer Price Index.[923]

Survey of Income and Program Participation (SIPP) – SIPP provides household data on income, employment, household composition, and government program participation. Government policymakers use SIPP in their approximation on the distribution of income and the success of government assistance programs.[924]

National Agricultural Workers Survey (NAWS) – NAWS collects data on the characteristics of crop workers using a statistical methodology designed to address the difficulties of surveying a mobile and seasonal population. Various federal agencies that oversee farm worker programs rely on NAWS for information on occupational injury and health surveillance, particularly among migrant workers.[925]

[921] These demographic identifiers are ascribed to underserved communities in Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, as noted in the investigation request letter.
[922] Census and BLS, "Current Population Survey Design and Methodology," October 2019.
[923] DOL, BLS, "Consumer Expenditure Survey," accessed July 21, 2022.
[924] Census, "About This Survey," January 26, 2022.
[925] DOL, ETA, *Justification for the National Agricultural Workers Survey*, accessed July 26, 2022.

Trade Adjustment Assistance (TAA) Participant Data – The TAA Participant data are data collected by the TAA program on program participation as well as the benefits and services provided to TAA participants.[926]

Longitudinal Employer Household Dynamics (LEHD) – The LEHD combines federal, state, and Census data on employers and employees, filling a critical need of state and local authorities for detailed local economic information to make informed decisions. Participating states share Unemployment Insurance earnings data and the Quarterly Census of Employment and Wages (QCEW) data with Census. The LEHD program combines these administrative data, additional administrative data and data from censuses and surveys to create statistics on employment, earnings, and job flows at detailed levels of geography and industry and for different demographic groups.[927]

Business Dynamics Statistics-Goods Traders (BDS-Goods Traders) – BDS-Goods Traders is an experimental data product derived from the restricted-use LBD and LFTTD datasets. BDS-Goods Traders provides annual measures of business dynamics for four types of goods-trading firms: exporter only, importer only, exporter and importer, and non-trader.[928]

Trade Adjustment Assistance (TAA) Petition Data – TAA Petition data includes data on the petitions for TAA program benefits that were certified, denied, or terminated by the U.S. Department of Labor (DOL). TAA Petition data also contain reported statistics on the number of workers that were determined to be eligible and ineligible for TAA, the location of the affected workers, and the country that the petition claims the lost jobs went to.[929]

Longitudinal Business Database (LBD) – The LBD provides consistent measures of economic activity at the establishment and the firm level over a long period of time—this level of granularity and consistency make it unique among U.S. longitudinal business databases. The LBD contains information about business formation and growth, the nature of competition, and labor market dynamics, among other topics.

Longitudinal Firm Trade Transactions Database (LFTTD) – LFTTD data link all individual trade transactions recorded by Customs, i.e., export and import transactions, to the U.S. exporter and importers who make them respectively.[930]

Annual Business Survey (ABS) – The ABS provides information on selected economic and demographic characteristics for businesses and business owners by sex, ethnicity, race, and veteran status, and measures research and development, innovation and technology, as well as other business characteristics. ABS is designed to assess business assistance needs and the programs that promote the activities of disadvantaged groups, among other topics.[931]

[926] DOL, ETA, "Participants Data," accessed July 21, 2022.
[927] Census, "Longitudinal Employer-Household Dynamics," accessed July 21, 2022. For more information on the LEHD restricted-use data, see the section at the end of chapter 4.
[928] Census, "Business Dynamics Statistics of U.S. Goods Traders (BDS-Goods Traders)," accessed July 21, 2022.
[929] DOL, ETA, "Petitions and Determinations Data," accessed July 21, 2022; DOL, ETA, *Detailed Petition Data for Determined Petitions – TAA*, June 30, 2022.
[930] Census, "Longitudinal Firm Trade Transactions Database (LFTTD)," accessed July 21, 2022.
[931] Census, "Annual Business Survey (ABS) Program," accessed July 21, 2022.

Varying Data Suppression in and Availability of Government Data Products

Many different datasets provide information on occupation, industry, and job transitions of U.S. workers; however, each dataset's level of granularity varies due to the data suppression constraints and the variables collected in each survey. There are limitations on the level of detail in public data products because of the statutory obligations of U.S. data providers to prevent the identification of individuals and firms based on their reported characteristics, and to keep all survey responses confidential.[932] As a result of these obligations, the public may not be granted access to detailed information by industry, geography, or other subgroup characteristics if those identifiers characterize a sufficiently small portion of the total population such that firms or individuals can be identified. One session panelist indicated that in order to compile a data product suitable for public use while observing agency requirements on data confidentiality, data providers will employ suppression techniques and aggregate data from the raw sources initially collected from agency staff when preparing a public data product.[933]

In restricted versions of public data products, some of these suppression measures are lifted.[934] One panelist mentioned that data by geography are sometimes available at a more disaggregated level in the restricted-use microdata than in public products.[935] In the specific case of the LEHD, Bailey mentioned that no additional worker demographic characteristics are available in the restricted data as compared to public data.[936]

As seen in tables 5.9, 5.10, and 5.11, information collected in government datasets pertaining to worker demographics and labor force outcomes vary across data products. If data sources are not easily linked (as discussed in the next section), researchers may have trouble exploring the distributional effects of trade for certain subgroups of workers or firms if all variables of interest are not collected in the same dataset. However, with some prior planning, there is a possibility to request that new measures of interest be added to the collection process for certain data products. With the ABS, for example, there is

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[932] Federal agencies are prohibited under the Privacy Act of 1974, 5 U.S.C. § 552a (b) from disclosing information about an individual without their written consent. Further, under the Trade Secrets Act, 18 U.S.C. § 1905, the U.S. government is prohibited from disclosing the confidential statistical data of any person, firm, partnership, corporation, or association. Under 13 U.S.C. § 9 (Title 13), any information collected in surveys administered by Census that would permit the identification of a household or any of its members is not reported to anyone outside of Census. Census employees swear an oath of non-disclosure upon hiring and face a $250,000 fine, up to 5 years imprisonment, or both should they fail to uphold this obligation. For more information on Title 13, see the Policy and Program References appendix. BLS is bound by similar restrictions under 44 U.S.C. § 3572(b), which states that information acquired by BLS for exclusively statistical purposes under a pledge of confidentiality must be used by Bureau of Labor Statistics (BLS) employees and agents for statistical purposes only.

[933] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 342 (Patrick Carey, BLS).

[934] For datasets like the LBD and LFTTD, which are only available through restricted-use access, efforts are still made to obscure the identity of the respondent (e.g., no firm names are given, only longitudinal firm and establishment identifiers). USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 383 (Cristina Tello-Trillo, Census); USITC, Distributional Effects: Academic Symposium Presentation (Cristina Tello-Trillo, Census).

[935] This is the case with the CE restricted-use microdata. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 354–55 (Adam Safir, Census).

[936] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 339 (Keith Bailey, Census).

a process for external researchers to request or sponsor module content to get new measures into the survey instrument.[937]

Possibilities for Linking Government Datasets

Linking government datasets is possible for several of the data products discussed in this session. This practice is helpful for retrospective distributional effects of trade analysis to map measures of exposure to trade shocks on to particular worker subgroups.[938] Linking is made possible when datasets have an identifier that allows researchers to track firms or individuals across datasets and over time. Such linking facilitates research into the distributional effects of trade using the econometric approaches discussed during the symposium.[939] Data-linking requires representatives from data providers to facilitate the process and may need to be carried out by staff in Federal Restricted Data Centers. Who does the linking will vary depending upon where the linking is occurring and if there are restrictions on data access.[940] With the LEHD for example, researchers can link data to outside datasets when working in Restricted Data Centers.[941] With other datasets like the restricted-use CE microdata, the process of linking datasets may need to be done by data providers. For federal agency employees, such linking may require establishing an interagency agreement for data use with Census.[942]

[937] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 398–99 (Aneta Erdie, Census).
[938]As discussed in presentations above, trade shocks are typically conceived of in the literature as being transmitted via the firm or establishment that employs the workers. Linking establishment- and individual-level data allows researchers to control for establishment-specific factors like location, industry, and size that may serve to mitigate the employment and wage impacts workers experience following trade shocks. Examples include capturing the impact of trade shocks on workers employed in given industries (CPS) and analyzing how they spend their time in the post shock period (ATUS). The aforementioned can be captured with publicly available microdata. Linked data can also be used to map the impact of trade shocks on workers employed in given establishments via employer-employee linked data (such as the LEHD). The power of linked data is that they increase the amount of available variables for analysis without causing additional respondent burden while still increasing information available to researchers. For more on LEHD and the possible analysis that can be accomplished with employer-employee linked data, see Overcoming data gaps: opportunities for distributional effects analysis in chapter 4.
[939] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 396 (Cristina Tello-Trillo, Census). For more discussion on the benefits of linking government datasets, see preceding write-up on Session E.
[940] If data are restricted, researchers may also collaborate with researchers directly at data-providing agencies to gain to access microdata. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 397–98 (Aneta Erdie, Census).
[941] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 339 (Keith Bailey, Census).
[942] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 381–2 (Adam Safir, BLS).

Table 5.9: Individual/household level data products

Dataset name	Collection agency	Date range	Industry/ product classification	Lowest level of geographic aggregation	Population coverage/ sample size	Occupation/ job classific-ation	Demographics identifying underserved communities	Data frequency	Longitudinal / cross sectional	Labor force measures	Survey/ statistics/ administrative data	Public/ restricted
Current Population Survey (CPS)	Data are collected for BLS by Census	1976 – 2022	Census Industry Classification codes, which are derived from NAICS 3- to 6-digit codes	Select Metropolitan Statistical Areas and large counties	Representative of populations at the state level; samples about 60,000 civilian households	Standard Occupations Classification (SOC)	Gender, Race, Ethnicity, Age, Disability,	Monthly	Longitudinal over one year	Earnings, household income, labor force participation	Survey	Public
Consumer Expenditure Survey (CE)	Census	1980 – 2021	None. Indicates whether respondents are in private industry, government, or self-employed	Select Metropolitan Statistical Areas	Nationally representative; samples around 6,900 civilian households	Survey-specific job categories	Gender, Race, Ethnicity, Age, Disability, Poverty level of surrounding area	Annual; quarterly estimates and monthly spending data available in microdata	Longitudinal over one year	Income, consumer expenditures	Survey	Public; microdata without disclosure protection are restricted
Survey of Income and Program Participation (SIPP)	Census	1983 – 2020	Census Industry Classification codes, which are derived from NAICS 3- to 6-digit codes	State	Nationally representative, oversamples lower income households; samples about 50,000 civilian households	Census occupation codes	Gender, Race, Ethnicity, Age, Disability	Annual	Longitudinal for up to 4 years	Earnings, hours worked, pay changes, labor force participation	Survey	Public
National Agricultural Workers Survey (NAWS)	DOL, ETA	FY 1989 – FY 2018	NAICS 4-digit (sample restricted to NAICS 111 or NAICS 1151)	Region in public data, county in restricted data	Nationally representative; samples between 1,500-3,600 workers each year in the continental US	Crop workers	Gender, Race, Ethnicity, Age, Indigeneity	Annual with gaps	Cross-sectional	Wage, income	Survey	Public; microdata are restricted

Dataset name	Collection agency	Date range	Industry/ product classification	Lowest level of geographic aggregation	Population coverage/ sample size	Occupation/ job classific-ation	Demographics identifying underserved communities	Data frequency	Longitudinal / cross sectional	Labor force measures	Survey/ statistics/ administrative data	Public/ restricted
Trade Adjustment Assistance (TAA) Participant Data	Gathered by states and submitted to DOL	FY 2010 – FY 2021	None available in public data	State	Individuals who received funds from TAA (around 21,000 participants in FY 2021)	None available	None available in public dataset	Annual and quarterly data releases	Longitudinal	Share of TAA participants changing industry sector and achieving wage replacement	Administrative	Public; no restricted access to microdata is currently available

Note: Contents of the table above were verified from symposium presentations, as well as from symposium transcripts and sources noted in the following text. USITC: Distributional Effects: Academic Symposium Presentation Slides, April 6, 2022. **CPS:** Downloads of the basic monthly CPS data are available from the U.S. Census Bureau website back to 1994. On the IPUMS-CPS website, basic monthly CPS data can be downloaded back to 1976, though precursors to the current CPS questions on unemployment were collected as far back as 1940. The CPS is a monthly survey where sampled households are in the survey for four consecutive months, out for eight months, and in again for another four months before leaving the sample permanently. Occupation and industry information on respondents either for their current job, or the last job they held in is collected the 4th month of the first four months they are in sample, and the 4th month of the second four months they are in sample. While sub-state geographic data are available, the CPS is designed to provide reliable annual state-level estimates. Note that in public CPS data, certain demographic information has been top-coded or (starting in 2011) altered in the public dataset to protect respondent identity. Census, "Monthly Current Population Survey Public Use Microdata Files," 1, accessed August 24, 2022; Census, "Differences between the Current Population Survey (CPS) and the Annual Social and Economic Supplement (ASEC) to the CPS," accessed August 24, 2022; Census, "Basic Monthly CPS," accessed August 24, 2022; Census and BLS, "Current Population Survey Design and Methodology," Technical Paper 77, October 2019, 7–9, 29; Census, "Current Population Survey (CPS)," accessed July 21, 2022; IPUMS-CPS, "Current Population Survey Data for Social, Economic and Health Research," accessed August 24, 2022; Census, "Attachment 9 Industry Classification: Industry Classification Codes for Detailed Industry (4 Digit)," January 2020; USITC: Distributional Effects, Academic Symposium Transcript, April 6, 2022 340–45 (Patrick Carey, BLS). **CE:** CE data is compiled into annual estimates from data collected in 4 quarterly interviews over a 1-year period and a diary survey recording all purchases over a 2-week period. CE surveys are distributed based on address, so if respondents move during interview cycle, survey does not follow those respondents and is sent to new residents at that address. There are 15 different job categories in the CE that respondents can select. DOL, BLS, "Consumer Expenditure Survey," accessed July 21, 2022; DOL, BLS, "Consumer Expenditure Surveys Public Use Microdata Getting Started Guide," accessed August 24, 2022; DOL, BLS, "Consumer Expenditure Surveys (CE) Public Use Microdata Data Files," accessed August 24, 2022; DOL, BLS, "Sample Design: Handbook of Methods," accessed August 24, 2022; DOL, BLS, "Dictionary for Interview and Diary Surveys," accessed August 24, 2022; USITC: Distributional Effects, Academic Symposium Transcript, April 6, 2022 345–55 (Adam Safir, BLS). **SIPP:** SIPP data are compiled into an annual estimate from data collected by following respondent throughout the year via a month-to-month event history calendar. Census, "Survey of Income and Program Participation (SIPP)," accessed July 21, 2022; Census, "SIPP Content," accessed August 24, 2022; Smith and Irving, "2020 Survey of Income and Program Participation Users' Guide," October 2021, 14, 73; Smith and Irving, "2020 Survey of Income and Program Participation Users' Guide," October 2021; Census, "Survey of Income and Program Participation Datasets," accessed August 24, 2022; Census, "About This Survey," January 26, 2022; Census, "Attachment 9 Industry Classification: Industry Classification Codes for Detailed Industry (4 Digit)," January 2020 ; USITC: Distributional Effects, Academic Symposium Transcript, April 6, 2022 355–8 (Adam Smith, Census). **NAWS:** There are 6 geographic regions in the NAWS public data. NAWS survey is carried out over the course of 3 cycles lasting 4 months each. NAWS has been conducted every 2–3 years since 2007. Before 2007, the survey was conducted every 7 years. NAWS collects wage information for respondents in terms of agricultural and non-agricultural wages, and income in terms of personal income; personal income from agricultural employment; household income. Workers in the NAWS data can be grouped by crop and task for further occupational disaggregation. DOL, ETA, "Methodology," accessed August 24, 2022; DOL, ETA, "Questionnaire Content & How to Obtain Copies of the Questionnaire," accessed August 24, 2022; DOL, ETA, "Public Data," accessed August 24, 2022; DOL, ETA, "National Agricultural Workers Survey," accessed July 21, 2022; DOL, ETA, Justification for the National Agricultural Workers Survey, 1,13, accessed July 26, 2022; USITC: Distributional Effects, Academic Symposium Transcript, April 6, 2022, 364–70 (Daniel Carroll, DOL). **TAA Participant Data:** TAA Participant Data prior to 2009 may be available upon FOIA request. TAA Participant Data does not disclose industry or participant demographics in state-level aggregate data. However, the TAA Annual Report includes national statistics from TAA data on the shares of industry of reemployment and the gender, race, ethnicity, and age of TAA participants aggregated nationally. TAA Participant Data tracks employment of participants for three quarters prior to receiving TAA benefits and for 4 quarters after. Quarterly data are available from the 2nd quarter in 2014 on the TAA website. DOL, ETA, "Participants Data," accessed July 21, 2022; DOL, ETA, "TAA Data Overview," accessed August 24, 2022; DOL, ETA, Trade Adjustment Assistance for Workers Program: FY 2021 Annual Report, 2021; USITC: Distributional Effects, Academic Symposium Transcript, April 6, 2022, 359–64 (Robert Hoekstra, DOL).

Table 5.10: Employer-employee matched data products

Dataset name	Collection agency	Date Range	Industry/ Product classific-ation	Lowest level of geographic aggregation	Population coverage	Occupa-tion	Demographics identifying underserved communities	Data Frequency	Longitudinal /Cross-sectional	Labor force measures	Survey/ Statistics/ Administrative Data	Public/ Restricted
Longitudinal Employer Household Dynamics (LEHD)	Data are collected by Census from state labor market information bureaus	1990 – 2022	NAICS 4-digit	Metropolitan Statistical Area available for J2J, QWI; census tract level data available for LODES; state level data available for PSEO	Data provided by 46 states and Puerto Rico	None available	Gender, Race, Ethnicity, Age (group)	Quarters (QWI, J2J) Annual (PSEO, LODES)	Longitudinal	Employment levels, information on hires and separations, firm-level job gains and losses, average monthly earnings (QWI); Hires, separations, and average earnings (J2J); Employment levels and quartile of earnings (PSEO); Location of home and work locations of individuals (LODES)	Statistics (Public Use); Survey and Administrative (Restricted-use)	Public; Establishment level QWI data are restricted

Note: Contents of the table above were verified from symposium presentations, as well as from symposium transcripts and sources noted in the following text. USITC: Distributional Effects: Academic Symposium Presentation Slides, April 6, 2022. The LEHD contains several different several different public data products whose specifications are mentioned in the table above. They include Quarterly Workforce Indicators (QWI), Job-to-Job Flows (J2J), LEHD Origin-Destination Employment Statistics (LODES), and Post-Secondary Employment Outcomes (PSEO). QWI data can be accessed from the LEHD website back to 1990, while other data products are available back to 2000. Some states may have non-QWI LEHD data that predate 2000. Coverage of PSEO data depends on number of participating higher education institutions. LEHD estimates are not derived from a probability-based sample, so no recurring sample size applies. Census, "LEHD Public Use Data Schema (V4.9.1)," accessed August 25, 2022; Census, "Longitudinal Employer-Household Dynamics," accessed July 21, 2022; Census, "LED Extraction Tool - Quarterly Workforce Indicators," accessed August 25, 2022; Census, *LED New Data from the States and the U.S. Census Bureau - Local Employment Dynamics*, accessed July 26, 2022; Census, "LEHD Data," accessed August 25, 2022; Foote et al., "Post-Secondary Employment Outcomes (PSEO)," September 22, 2021; Census, "LEHD Origin-Destination Employment Statistics (LODES) Dataset Structure Format Version 7.5," October 20, 2021; Census, "Quarterly Workforce Indicators 101," accessed August 25, 2022; Census, "Job-to-Job (J2J) Flows 101," accessed August 25, 2022; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022, 316–21, 330 (Keith Bailey, Census). For more information on the LEHD restricted-use data, see the Overcoming data gaps: opportunities for distributional effects analysis in chapter 4.

Table 5.11: Firm/industry-level data products

Dataset name	Collection agency	Date Range	Industry/ Product classification	Lowest level of geographic aggregation	Population coverage/ sample size	Data Frequency	Longitudinal/ Cross sectional	Survey/ Statistics/ Administrative Data?	Trade Data?	Public/ Restricted?
Business Dynamics Statistics-Goods Traders (BDS-Goods Traders)	Census	1992–2019	NAICS 4-digit	Regional by Census division	Whole U.S. economy documented in the Business Register	Annual	Longitudinal	Statistics	No	Public
Trade Adjustment Assistance (TAA) Petition Data	DOL	1974–2021	NAICS 6-digit	Street address	Firms that employed worker groups for whom TAA petitions were submitted	Monthly	Cross-sectional	Administrative	No	Public
Longitudinal Business Database (LBD)	Census	1976–2019	NAICS 6-digit	Metropolitan Statistical Area	Whole U.S. economy documented in the Business Register	Annual	Longitudinal	Survey and Administrative	No	Restricted
Longitudinal Firm Trade Transactions Database (LFTTD)	Census	1992–2019	HTS Code 10-digit	State or port of entry/departure	All trading firms that exceed set export and import threshold levels out of the whole U.S. economy documented in the Business Register	Collected daily	Longitudinal	Administrative	Yes	Restricted
Annual Business Survey (ABS)	Census	2018–2020	NAICS 2- and 3-digit; NAICS 6-digit in select years	Metropolitan Statistical Area	Whole U.S. economy; women and minority-owned businesses are oversampled; samples around 300,000 employer businesses and around 800,000 employer businesses in select years	Annual	Cross-sectional	Survey and Administrative	No	Public; microdata are restricted

Note: Contents of the table above were verified from symposium presentations, as well as from symposium transcripts and sources noted in the following text. USITC: Distributional Effects: Academic Symposium Presentation Slides, April 6, 2022. Note that the datasets derived from the U.S. Business Register (BDS-Goods Traders, LBD, and LFFTD) will all have a two-year reporting lag. Kamal and Ouyang, "Identifying U.S. Merchandise Traders: Integrating Customs Transactions with Business Administrative Data," September 2020, 5. **BDS-Goods Traders:** No trade transactions are included in the current iteration of the BDS-Goods Traders dataset. Trade data from LFTTD was used to determine trading status of firms, which is reported in BDS-Goods traders data product. Census, "Business Dynamics Statistics of U.S. Goods Traders (BDS-Goods Traders)," accessed July 21, 2022; Census, "BDS-Goods Traders Definitions," accessed August 24, 2022; Census, "BDS-Goods Traders Division Dataset - 2019," accessed August 24, 2022; Handley, Kamal, and Ouyang, "A Long View of Employment Growth and Firm Dynamics in the United States: Importers vs. Exporters vs. Non-Traders," December 2021; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022 321–29 (Fariha Kamal, Census). **TAA Petition Data:** DOL, ETA, "Petitions and Determinations Data," accessed July 21, 2022; DOL, ETA, "Dictionary for OTAA Petition Data," July 6, 2021; DOL, ETA, "Detailed Petition Data for Determined Petitions - TAA," June 30, 2022; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022, 359–64 (Robert Hoekstra, DOL). **LBD:** Other data products derived from the LBD such as the Business Dynamics Statistics and the Synthetic Longitudinal Business Database are publicly available. Chow et al., "Redesigning the Longitudinal Business Database," May 2021, 1–2, 10–11, 33–38, 71–73; Census, "Longitudinal Business Database," accessed July 21, 2022; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022, 382–6 (Cristina Tello-Trillo, Census). **LFTTD:** Kamal and Ouyang, "Identifying U.S.

Merchandise Traders: Integrating Customs Transactions with Business Administrative Data," September 2020; Census, "Longitudinal Firm Trade Transactions Database (LFTTD)," accessed July 21, 2022; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022, 386–88 (Cristina Tello-Trillo, Census). **ABS:** The ABS replaces Survey of Business Owners, conducted every 5 years from 1992 –2012.The ABS collects an expanded sample at higher level of NAICS granularity in the years that the Economic Census is collected (years ending in "2" and "7". Restricted ABS microdata was available for 2018 at the time of the symposium, with 2019 data forthcoming. Though it does not include trade data, ABS does have an experimental data product feature with U.S. exporting firms by demographic group and with information on value and destination of exports. Census, "Annual Business Survey (ABS) Program," accessed July 21, 2022; Census, "ABS Tables," accessed August 24, 2022; Census, "About the Annual Business Survey (ABS)," accessed August 24, 2022; Census, "ABS - U.S. Exporting Firms by Demographics 2020 Tables," accessed August 24, 2022; USITC: Distributional Effects: Academic Symposium Transcript, April 6, 2022, 389–94 (Aneta Erdie, Census); USITC: Distributional Effects: Academic Symposium Presentation Slides, April 6, 2022.

Session G: Discussion on the Global Research Agenda on Distributional Effects of Trade

This session featured representatives from foreign and international organizations involved in international trade policy and research and was moderated by William Powers, USITC (table 5.12). The panelists' research encompassed a variety of distributional effects analyses, some of which have been incorporated into policy decisions at the governmental level. The panelists briefly described research initiatives related to the distributional effects of trade and then participated in a moderated discussion. The discussion focused on the differential economic outcomes resulting from international trade and other macroeconomic shocks. The panelists agreed that the impacts from other shocks are often mistakenly attributed to trade. As such, they recommended using new and existing analytical frameworks and accommodating multiple macroeconomic considerations to disentangle the trade impacts from impacts resulting from other factors. Additionally, panelists discussed current distributional effects analyses for trade policy research and assessment in Canada and New Zealand. They also addressed research and data gaps, including macroeconomic/labor market trend analysis and assessment of adjustment costs.

Table 5.12: Symposium presentations, The distributional effects of trade research agendas of foreign countries and multilateral institutions

Panelist	Affiliation
Robert Koopman	World Trade Organization
Maryla Maliszewska	World Bank
Jane Korinek	Trade and Agriculture Directorate, OECD
Phil Mellor	Ministry of Foreign Affairs and Trade (New Zealand)
Shenjie Chen	Global Affairs Canada

Note: Copies of presentation slides can be found on the USITC's website. USITC, Distributional Effects: Academic Symposium Presentations, April 6, 2022.

Disentangling Sources of Distributional Effects

Robert Koopman began his presentation with a summary of research conducted at the World Trade Organization (WTO) on the labor impacts of international trade. Based on this research, he indicated that trade has generally been found to have "weak positive impacts on national employment, particularly in advanced economies."[943] Given the seemingly small impact of trade on national employment, Koopman suggested that the Commission could benefit from working with macroeconomic researchers to better incorporate effects from macroeconomic policies that tend to drive overall employment outcomes.[944] Koopman also stated that "trade does contribute to the decline in manufacturing employment," but WTO research has generally found that "other factors, such as technologies, have bigger effects" on manufacturing employment.[945] Ultimately, Koopman said that the distributional impacts of international trade should be put in context with impacts from macroeconomic

[943] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 405 (Robert Koopman, WTO).
[944] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 405–06 (Robert Koopman, WTO).
[945] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 406 (Robert Koopman, WTO).

policies. He noted that while the frictions and adjustment costs from international trade are likely bigger than once thought, trade is not the only force that imposes adjustment costs on workers.[946]

Koopman, Maryla Maliszewska, and Shenjie Chen concurred that new and existing analytical frameworks and models are needed to disentangle trade policy impacts from other factors and to evaluate the impact of current and future trade policy reforms amidst other shocks.[947] Maliszewska also emphasized the need to address transition periods in models, particularly for workers likely to move, start unemployment, or enter other transition cycles.[948] Similarly, Koopman underscored the need to analyze impacts of various events happening simultaneously, stating "the wrong diagnosis as to what's causing the need for adjustment or the various forces that are causing the need for adjustment all working at the same time, means that the wrong medicine might be applied."[949]

Speaking of policy, Koopman, Maliszewska, Chen, Jane Korinek, and Phil Mellor highlighted the need to enact domestic policies that are complementary to trade policy to fully alleviate adverse distributional effects of trade across groups. They presented examples of flexible complementary domestic policies (e.g., trade facilitation policies targeted at small- and medium-sized enterprises (SMEs) and policies addressing gender wage gaps) that are needed to both share gains from trade within countries and to minimize adjustment costs for workers and firms impacted by trade shocks.[950] Mellor concurred, saying that issues like the gender pay gap cannot be addressed solely through trade policy.[951]

Panelists also suggested ways to modify existing frameworks and approaches for addressing distributional effects of trade. For example, it was noted that transition costs and data accounting for other macroeconomic trends could be added to analyses of distributional effects. Koopman said that another approach might be to rely on multiple models rather than one model—adding that whereas building an analytical framework with transitional effects is valuable, multiple analytical frameworks and models can also be used to build a composite picture from the multiple models' findings.[952] Panelists also noted that future directions for research should include studying the importance of complementary policies to minimize adjustment costs for workers and firms in responses to trade shocks.[953]

[946] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 406–07 (Robert Koopman, WTO).
[947] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 406–07, 433 (Robert Koopman, WTO); 431–2 (Maryla Maliszewska, World Bank); 428 (Shenjie Chen, Global Affairs Canada).
[948] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 432 (Maryla Maliszewska, World Bank).
[949] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 407 (Robert Koopman, WTO).
[950] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 407, 431 (Robert Koopman, WTO); 410, 412 (Maryla Maliszewska, World Bank); 437 (Shenjie Chen, Global Affairs Canada); 437–38 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand)); 417 (Jane Korinek, OECD); USITC, Distributional Effects: Academic Symposium Presentations, April 6, 2022 (Jane Korinek, OECD).
[951] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 438–39 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand)).
[952] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 433 (Robert Koopman, WTO).
[953] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 407, 431 (Robert Koopman, WTO); 410, 412 (Maryla Maliszewska, World Bank); 437–38 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand); 417 (Jane Korinek, OECD).

Operationalization of Distributional Effects Analyses

Chen, Mellor, and Korinek noted that countries such as Canada and New Zealand are already assessing the distributional effects of trade policies using ex ante and ex post approaches to data collection and analysis.[954] Ex-post analyses are used to examine historical events, while policymakers often request ex-ante analysis of proposed or upcoming policies.

Chen stated that Canadian trade researchers have used longitudinal data (1984 to 2004) to analyze the impact of Canadian tariffs on Canadian workers under the United States-Canada Free Trade Agreement.[955] The analysis consisted of an ex post impact assessment of the long-run effects on the labor market (using employer-employee matched data) and an ex ante labor market impact assessment.[956] More specifically, Chen stated that Canada used a general equilibrium model to analyze the impact of trade shocks on labor markets and then calculated labor demand using the labor market model, considering efficiency gains from trade.[957] Mellor stated that New Zealand has been integrating well-being into trade policy and building out its analytical framework and data and is conducting ex ante and ex post analyses of the effects of free trade agreements (FTAs).[958] He indicated that, as part of their analyses of trade effects on well-being, researchers developed a framework for thinking about "inclusive effects" of trade, which include distributional effects and other outcomes (e.g., environmental effects.)[959] Mellor added that New Zealand has a two-part dataset consisting of a longitudinal business database and an integrated data infrastructure with good coverage of the economy.[960]

Korinek summarized several ongoing research initiatives on distributional trade effects at the Organisation for Economic Co-operation and Development (OECD). She described policy recommendations developed during an OECD-led pilot study of New Zealand's economy intended to make New Zealand trade policy more inclusive and supportive of women.[961] One recommendation cited was to focus on increasing the number of women, especially women entrepreneurs, who were participating in trade activities such as trade missions.[962] As part of the study, the OECD is working to "translate the impacts of trade that we find on women in New Zealand into policy recommendations for

[954] Chen and Mellor stated that, to date, efforts by Canada and New Zealand to address the distributional effects of trade have included free trade agreements (FTAs) containing chapters addressing gender and SMEs, as well as provisions related to community economies, portending a future direction for U.S. FTAs. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 418, 437 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand)); 423–24, 436 (Shenjie Chen, Global Affairs Canada); 417, 439–40 (Jane Korinek, OECD).
[955] The agreement is also called the Canada-U.S. Free Trade Agreement.
[956] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 424–5 (Shenjie Chen, Global Affairs Canada).
[957] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 427–8 (Shenjie Chen, Global Affairs Canada).
[958] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 418–21 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand)).
[959] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 419 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand)).
[960] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 420 (Phil Mellor, Ministry of Foreign Affairs and Trade (New Zealand)).
[961] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 417 (Jane Korinek, OECD).
[962] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 440 (Jane Korinek, OECD).

New Zealand to make its trade policy more inclusive and more supportive of women."[963] Korinek also described OECD research that explored the impact of trade on employment in European countries' service sectors, finding evidence that trade led to a shift of female workers from involuntary part-time work into full-time jobs.[964]

Challenges Posed by Research and Data Gaps

The panelists agreed that research gaps and data gaps should be addressed to enable distributional effects analysis. For example, regarding research gaps, as mentioned earlier in this Session G summary, Koopman recommended that macroeconomic policies should be considered because macroeconomic policies "tend to drive overall employment levels."[965] Korinek stated that more research is needed on the impacts of trade for female workers and that the OECD has designed a framework for this work.[966] She also identified two other research gaps: (1) the impact of trade on job security and (2) the impact of trade on involuntary part-time work (such as the work done in the European services sector mentioned above).[967]

Panelists also stated that detailed data on employment, labor, and wages are needed to bridge research gaps. Maliszewska and Chen specified a need for data on variables such as labor transitions, gender, and age, among others.[968] Transition costs and data accounting for other macroeconomic trends were also identified as being important but were said to be missing in current analyses.[969] As such, the panelists all concurred that deeper datasets are needed to do further research on distributional effects.

Session H: Discussion on Insights from Other Academic Disciplines

The final session of the USITC academic symposium focused on insights for distributional effects research that could be gleaned from other academic disciplines. The session included a moderated discussion featuring academics with expertise outside of international trade, with a focus on issues including economic mobility and outcomes for specific underresearched and underserved communities. The session was moderated by Sandra Rivera, USITC, and included seven panelists (table 5.13).

[963] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 417 (Jane Korinek, OECD).
[964] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 416 (Jane Korinek, OECD).
[965] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 406 (Robert Koopman, WTO).
[966] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 416 (Jane Korinek, OECD).
[967] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 416 (Jane Korinek, OECD).
[968] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 432 (Maryla Maliszewska, World Bank); 432–33 (Shenjie Chen, Global Affairs Canada).
[969] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 432 (Maryla Maliszewska, World Bank); 432–34 (Shenjie Chen, Global Affairs Canada).

Table 5.13: Symposium discussion participants, Lessons on researching the distributional effects on U.S. workers from non-trade disciplines

Panelist	Affiliation
Ana Hernández Kent	Institute for Economic Equity, Federal Reserve Bank of St. Louis
Andrew Houtenville	Institute on Disability, University of New Hampshire
Dan Giedeman	Grand Valley State University
William "Sandy" Darity	Duke University
Margaret Simms	Urban Institute
Mike Martell	Bard College
Sonya Porter	U.S. Census Bureau; Center for Economic Studies

Panelists emphasized the importance of using more disaggregated data to understand how outcomes may differ across groups of individuals and the need for more research on this subject. These outcomes differ by community and are not driven by trade or trade policy. The authors expressed a need for researchers to account for different dimensions of economic well-being when conducting analysis. Several panelists also underscored the importance of institutions and historical context in driving economic outcomes across these communities and noted that the ability to study these different dimensions of economic well-being for a greater subset of communities is often limited by a lack of data.

Importance of Disaggregated Group Data in Identifying Community-specific Outcomes

There was wide agreement among panelists concerning the importance of using disaggregated data to identify outcomes across subsectors of communities. Sonya Porter noted that a significant amount of demographic data from survey sources is often underused, as researchers tend to focus on aggregate outcomes or outcomes for a small number of broad demographic groups.[970] She stated researchers can do more to explore effects for smaller groups of people, and that individuals across different subgroups and locations can have "very different experiences." Porter concluded by encouraging researchers to do more to "interrogate our statistics," to better understand the potential biases that are introduced when groups are aggregated and defined.[971] Ana Hernández Kent agreed with comments from Porter and highlighted that data, which aggregate outcomes across subgroups, can lead to erroneous conclusions.[972] In a response to a question on how distributional effects have influenced economic research, Dan Giedeman responded by saying analysis on the distributional effects of trade has not informed economics "enough at all . . . speaking broadly from the economics profession, this [distributional effects] often seems like a niche research area . . . ."[973]

Throughout the discussion, panelists provided specific examples of how economic outcomes can differ across different communities traditionally grouped within a single demographic identity. Porter highlighted significant differences in household wealth across different subgroups of Asian Americans,

[970] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 455 (Sonya Porter, Center for Economic Studies, Census).
[971] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 456 (Sonya Porter, Center for Economic Studies, Census).
[972] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 459 (Ana Hernández Kent, Federal Reserve Bank of St. Louis).
[973] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 463 (Dan Giedeman, Grand Valley State University).

while Darity noted wealth disparities within the Black population between descendants of enslaved persons and recent immigrants.[974] Margaret Simms stated the discussion drew parallels with research presented during day one of the symposium, which found differential trade effects on women based on their marital and income status (e.g., single heads of households are likely to experience distinct economic outcomes).[975]

Measures of Economic Well-being Other Than Employment Status or Income

Throughout the discussion, panelists highlighted several dimensions of economic well-being they consider important to measure when studying distributional effects. Wealth accumulation was the most widely discussed measure of economic well-being. Kent described her research focusing on wealth gaps and its importance to families' resilience and economic mobility.[976] Similarly, Simms noted the relative absence of studies focusing on the impacts of trade on wealth accumulation, noting studies often assess trade impacts on income or savings.[977]

Panelists also described significant wealth disparities across communities. William Darity shared findings from his own research indicating that the gap in wealth, on average, between Black and White households is $840,000.[978] Similarly, Kent noted that Black and Hispanic college graduates tend to have less wealth than typical White high school graduates.[979] Giedeman added that wealth disparities across communities likely influence workers' geographic mobility, stating that more mobile workers may experience better economic outcomes.[980]

Panelists noted several other dimensions of economic well-being that are important to study. Speaking specifically of economic outcomes for workers with disabilities, Andrew Houtenville noted the importance of studying "return-to-work transitions," and how disabled workers adjust to job loss.[981] Both Houtenville and Simms agreed about the importance of the "first job" and worker entry into and

[974] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 455 (Sonya Porter, Center for Economic Studies, Census) and 457 (William Darity, Duke University).
[975] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 462, (Margaret Simms, Urban Institute).
[976] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 443 (Ana Hernández Kent, Federal Reserve Bank of St. Louis).
[977] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 462–63 (Margaret Simms, Urban Institute).
[978] Darity also stressed the importance of measuring the Black-White household wealth gap in terms of average (mean) wealth—rather than median wealth—as those white households with wealth above median levels hold almost all (97 percent) of the wealth held by households above and below median levels. Darity, "The True Cost of Closing the Racial Wealth Gap," April 30, 2021. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 448 (William Darity, Duke University).
[979] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 459 (Ana Hernández Kent, Federal Reserve Bank of St. Louis).
[980] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 474 (Dan Giedeman, Grand Valley State University).
[981] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 445 (Andrew Houtenville, University of Vermont).

progression through the labor market.[982] Panelists also provided examples of other dimensions of economic well-being that are important to consider, including inequality, mortality rate, poverty, and the intersectional effects being part of historically underserved communities.[983]

Impact of Institutions and Historical Context on Community Adjustment to Economic Shocks

Panelists widely noted the importance of institutions and historical context in shaping wealth gaps and outcomes across different communities. Kent noted that economic impacts from historical events extend beyond the conclusion of the events.[984] Similarly, Mike Martell summarized the importance of context for understanding distributional trade effects, stating "any distributional effects of trade and related policies depend on the context of the folks we're talking about, and the many, many, mechanisms generating disadvantage that place people in those contexts."[985]

Other panelists spoke in more specific terms, citing institutions and histories that have produced differential economic outcomes across communities. Darity described several historical policies that have led to gaps in Black and White households' family wealth observed today, such as the granting of land to White Americans in the Western territories under the Homestead Act of 1862 and the largely unrealized Special Field Order No. 15 issued in 1865 granting former slaves 40 acres of land.[986] Similarly, Simms identified housing segregation as a key mechanism for creating differential access to new employment opportunities for workers. Adding onto previous comments from Giedeman, Simms noted workers in disadvantaged communities can face significant logistical challenges in getting to new employment opportunities in nearby areas.[987] Giedeman also noted the importance of social connections for enabling workers to transition in response to economic shocks, suggesting these social connections differ substantially across different demographic groups.[988]

Data Availability

Panelists described several data-related challenges that arise in studying economic outcomes for underresearched communities. For example, Houtenville described many challenges with studying outcomes for workers with disabilities. He described the disabled community as "a pretty heterogeneous population," and indicated that small sample size issues for certain disability types and stringent survey definitions that categorize disability only in relation to one's involvement in the labor

[982] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 452 (Margaret Simms, Urban Institute), 464 (Andrew Houtenville, University of Vermont).
[983] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 465–66 (Sonya Porter, Center for Economic Studies, Census and Mike Martell, Bard College).
[984] USITC, Distributional Effects: Academic Symposium Transcript, 480–81 (Ana Hernández Kent, Federal Reserve Bank of St. Louis).
[985] USITC, Distributional Effects: Academic Symposium Transcript, 484 (Mike Martell, Bard College).
[986] USITC, Distributional Effects: Academic Symposium Transcript, 476–77 (William Darity, Duke University); Gates, "The Truth Behind '40 Acres and a Mule,'" accessed July 26, 2022.
[987] USITC, Distributional Effects: Academic Symposium Transcript, 484 (Margaret Simms, Urban Institute).
[988] USITC, Distributional Effects: Academic Symposium Transcript, 482 (Dan Giedeman, Grand Valley State University).

force are significant limitations to studying outcomes for all types of disabled workers.[989] Martell noted a general lack of data collection on individuals' gender identity or sexual orientation, noting "the bulk of economic research . . . has to infer sexual orientation" and there are "real limitations" on these inferences.[990] Martell stated "the data we collect reflects the values that we hold," and praised recent initiatives to collect information on individuals' sexual orientation and gender identity as part of the Census Household Pulse Survey.[991]

Porter described her efforts to integrate demographic data into new datasets. In her research, Porter stated she has relied on linking alternative sources of individual demographic data to other datasets without demographic information. However, Porter noted that not everyone has the access or ability to create these linkages, and that these methods can potentially create their own biases as linkages are less likely to be made for individuals in certain minority groups or with lower socioeconomic status.[992] Kent indicated that researchers have developed methods to infer demographic information rather than forgo analyzing potential distributional effects.[993] Darity noted that highly disaggregated demographic and wealth data has been collected for six metropolitan areas under the National Asset Scorecard for Communities of Color Project and called for these surveys to be extended nationally.[994]

[989] Regarding the stringency of survey definitions of disability, Houtenville noted an example of a survey that restricted its definition of disability to individuals that are not working. USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 445 (Andrew Houtenville, University of Vermont).
[990] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 468 (Mike Martell, Bard College).
[991] USITC, Distributional Effects: Academic Symposium Transcript, April 6, 2022, 454 (Mike Martell, Bard College). For more information on the Household Pulse Survey, see the Policy and Program References appendix.
[992] USITC, Distributional Effects: Academic Symposium Transcript, 467 (Sonya Porter, Center for Economic Studies, Census).
[993] USITC, Distributional Effects: Academic Symposium Transcript, 471–72 (Ana Hernández Kent, Federal Reserve Bank of St. Louis).
[994] USITC, Distributional Effects: Academic Symposium Transcript, 482–83 (William Darity, Duke University). For more information on the NASCC, see the Policy and Program References appendix.

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Appendix A
Request Letter

DOCKET NUMBER
3573
OFFICE OF THE
SECRETARY
INT'L TRADE
COMMISSION

RECEIVED
OCTOBER 14, 2021
OFFICE OF THE
SECRETARY
U.S. INT'L TRADE
COMMISSION

THE UNITED STATES TRADE REPRESENTATIVE
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON

October 14, 2021

The Honorable Jason E. Kearns
Chair
U.S. International Trade Commission
500 E Street, S.W.
Washington, DC 20436

Dear Chair Kearns:

The Office of the United States Trade Representative (USTR) continues our work to develop a trade policy that contributes to our nation's competitiveness, advances strong labor rights and protects our environment.

In advancing these goals, USTR strives to realize the goals of Biden-Harris Administration's equity initiatives and respond to congressional requests for trade policy to have positive and equitable impact on marginalized, underserved, and disadvantaged communities in the United States and abroad.[1]

To inform this future work and advance inclusive growth, economic resiliency, and competitiveness through sound and informed policy, more and new research, data, and analytical tools are needed. Therefore, under authority delegated by the President to the United States Trade Representative and pursuant to Section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), I request that the Commission conduct a two-part investigation on the potential distributional effects of goods and services trade and trade policy on U.S. workers by skill, wage and salary level, gender, race/ethnicity, age, and income level, especially as they affect underrepresented and underserved communities.

For part one of this investigation, I request that the Commission prepare a public report that catalogues information on the distributional effects on under-represented and under-served communities of trade and trade policy. In identifying these effects, and to the extent practicable, the Commission should gather information through:

[1] These Presidential initiatives include Executive Order (EO) 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government;* EO 14020 that established and named USTR as a member of the Gender Policy Council; EO 13988, *Preventing and Combating Discrimination on the Basis of Gender Identity or Sexual Orientation;* EO 140310, *Advancing Equity, Justice, and Opportunity for Asian Americans, Native Hawaiians and Pacific Islanders;* EO 14036 *Promoting Competition in the American Economy*; EO 14045, *White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Hispanics*; and the Presidential Memoranda on *Tribal Consultation and Strengthening the Nation-to-Nation Relationship* and on *Advancing the Human Rights of LGBTQI+ Persons around the World*. In addition, USTR serves on the White House Council on Native American Affairs.

(1) roundtable discussions among representatives of under-represented and under-served communities that have been identified in the Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, as well as think tanks, academics and researchers, unions, State and local governments, non-Federal governmental entities, civil society experts, community-based stakeholders, such as minority-owned businesses, business incubators, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), other minority serving institutions (MSIs), and local and national civil rights organizations;

(2) a symposium focused on academic or similar research on the distributional effects on under-represented and under-served communities of trade and trade policy, including results of existing analysis, evaluation of methodologies, the use of public and restricted data in current analysis, identifying gaps in data and/or in the economic literature, and proposed analysis that could be done with restricted data; and

(3) a critical review of the economic literature on the distributional effects on under-represented and under-served communities of trade and trade policy including, among other things, the data limitations raised in these analyses.

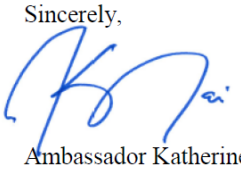
To the degree practicable, the investigation should report on the information provided through roundtables separately from that gathered through the symposium and literature review. It should identify information on effects on U.S. workers by group (as specified in the previous paragraph) identifying their specific U.S. region, and make recommendations on future research.
I request that the report on part one of this investigation be delivered twelve months after receipt of this letter. As we intend to make the Commission's report on part one of this investigation available to the public, it should not include confidential business or national security classified information.

For part two of this investigation, I request that the Commission expand its research and analysis capabilities so that future probable economic effects advice includes estimates of the potential distributional effects of trade and trade policy, including goods and services imports, on U.S. workers. This capacity building should include the further development of models capable of analyzing the potential distributional effects of trade and trade policy, including with respect to goods and services imports, on U.S. workers. The models should also be capable of analyzing the effect of expanded market access for U.S. goods and services products abroad on affected U.S. exporting industries, and to the extent practicable, the "indirect" effect on U.S. exports of intermediate inputs when final goods receive preferential access to the U.S. market. Through this capacity building, the Commission should also identify any data limitations that, if removed, could substantially speed the time to complete the analysis or allow for improved analysis.

I request that the Commission expand its research and analysis capabilities as indicated in the previous paragraph as soon as possible but no later than twelve months after receipt of this letter. During this time, I also request the Commission provide a briefing to USTR to present the results of its capacity building on these issues.

I appreciate the Commission's assistance and cooperation in this matter.

Sincerely,



Ambassador Katherine Tai

Appendix B
Federal Register Notices

Issuance of the final IHA will be published in the **Federal Register**.

Authority: This Notice of Availability is published in accordance with regulations (40 CFR parts 1500–1508) implementing the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*).

William Yancey Brown,

Chief Environmental Officer, Bureau of Ocean Energy Management.

[FR Doc. 2021–26040 Filed 11–29–21; 8:45 am]

BILLING CODE 4310–MR–P

INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO

Notice of Availability of the Final Environmental Assessment and Finding of No Significant Impact for Aquatic Habitat Restoration in the Rio Grande Canalization Project, Sierra and Doña Ana Counties, New Mexico and El Paso County, Texas

AGENCY: United States Section, International Boundary and Water Commission, United States and Mexico (USIBWC).

ACTION: Notice.

SUMMARY: The USIBWC hereby gives notice that the *Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for Aquatic Habitat Restoration in the Rio Grande Canalization Project, Sierra and Doña Ana Counties, New Mexico and El Paso County, Texas* is available.

FOR FURTHER INFORMATION CONTACT: Elizabeth Verdecchia, Natural Resources Specialist, USIBWC, El Paso, Texas 79902. Telephone: (915) 832–4701, Fax: (915) 493–2428, email: *Elizabeth.Verdecchia@ibwc.gov.*

Availability: The electronic version of the Final EA and FONSI is available at the USIBWC web page: *https://www.ibwc.gov/EMD/EIS_EA_Public_Comment.html.*

SUPPLEMENTARY INFORMATION: On June 4, 2009, the USIBWC issued a Record of Decision (ROD) on the long-term management of the Rio Grande Canalization Project (RGCP) in southern New Mexico and western Texas. The ROD committed the USIBWC to the restoration of aquatic and riparian habitat at up to 30 sites over 10 years (through 2019). In May 2019, USIBWC prepared a Draft EA to analyze the potential impact of seven action alternatives and a No Action Alternative to implement aquatic habitat within the RGCP. After extensive public input and subsequent development of preliminary designs, USIBWC re-evaluated alternative sites for aquatic habitat and assessed the feasibility of three additional sites, two of which were added to the EA.

In February 2021, USIBWC prepared an Amended Draft EA, which evaluated the potential impacts on natural, cultural and other resources of ten alternatives, including the No Action Alternative. Restoration actions could include invasive vegetation removal, native vegetation planting, overbank lowering, bank cuts, natural levee breaches, secondary channels, bank destabilization, channel widening, arroyo mouth management, construction of inset floodplains, construction of wetland depressions, and use of supplemental water for on-site irrigation. A Draft Amended FONSI was prepared for five Preferred Alternatives which USIBWC modified from the previous Draft EA based on public input.

The Final five Preferred Alternatives target creation or enhancement of a total of 11.6 acres of aquatic features and 18.8 acres of riparian habitat. They include two simpler sites, Broad Canyon Arroyo, which could be constructed from conceptual designs, and Montoya Intercepting Drain Option A, which would be part of the Sunland Park East Levee construction; two complex sites requiring engineering designs and stakeholder agreements prior construction, Las Cruces Effluent and Mesilla Valley Bosque State Park; and one site to be used as part of compensatory mitigation for future levee construction, Downstream of Courchesne Bridge.

Permits would be required from the United States Army Corps of Engineers for dredge and fill of Waters of the United States, per the Clean Water Act Sections 404 and 401. USIBWC would compensate increased water consumption through a variety of mechanisms, including acquiring water rights, negotiating agreements with the stakeholders, and obtaining appropriate State of New Mexico permits and Department of Justice approvals.

Pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality Final Regulations (40 CFR parts 1500 through 1508), and the USIBWC *Operational Procedures for Implementing Section 102 of NEPA,* published in the **Federal Register** September 2, 1981, potential impacts on natural, cultural, and other resources were evaluated. A Finding of No Significant Impact has been prepared for the Preferred Alternatives based on a review of the facts and analyses contained in the EA. An environmental impact statement will not be prepared unless additional information which may affect this decision is brought to our attention within 30 days from the date of this Notice.

Jennifer Pena,

Chief Legal Counsel, International Boundary and Water Commission, United States Section.

[FR Doc. 2021–25889 Filed 11–29–21; 8:45 am]

BILLING CODE 7010–01–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 332–587]

Distributional Effects of Trade and Trade Policy on U.S. Workers

AGENCY: United States International Trade Commission.

ACTION: Notice of investigation.

SUMMARY: Following receipt on October 14, 2021 of a request from the U.S. Trade Representative (USTR), under section 332(g) of the Tariff Act of 1930, the U.S. International Trade Commission (Commission) instituted Investigation No. 332–587, Distributional Effects of Trade and Trade Policy on U.S. Workers, for the purpose of conducting a two-part investigation, with the Commission in part one to provide a public report that catalogues information on the distributional effects on under-represented and under-served communities of trade and trade policy, and with the Commission in part two to expand its research and analysis capabilities so that future probable economic effects advice includes estimates of the potential distributional effects of trade and trade policy, including goods and services imports, on U.S. workers. In preparing its public report, the USTR asked the Commission to gather information through roundtable discussions among representatives of under-represented and under-served communities, and through a symposium focused on academic or similar research on the distributional effects on under-represented and under-served communities of trade and trade policy. The Commission will also hold a public hearing following the roundtables and symposium. The Commission will issue a second notice, to be published in the **Federal Register** by January 31, 2022 that sets out the format and dates for the roundtables, symposium, and hearing,

and how members of the public may participate in them.

DATES:

TBD: Roundtable discussions (notification by separate FRN by January 31, 2022).

TBD: Symposium (notification by separate FRN by January 31, 2022).

TBD: Public Hearing (notification by separate FRN by January 31, 2022).

October 14, 2022: Transmittal of Commission report to USTR.

ADDRESSES: All Commission offices are in the U.S. International Trade Commission Building, 500 E Street SW, Washington, DC. Due to the COVID 19 pandemic, the Commission's building is currently closed to the public. Once the building reopens, persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000.

FOR FURTHER INFORMATION CONTACT: Co-Project Leader Jennifer Powell (202–205–3450 or *jennifer.powell@usitc.gov*), Co-Project Leader Stephanie Fortune-Taylor (202–205–2749 or *stephanie.fortune-taylor@usitc.gov*), or Deputy Project Leader Sarah Scott (202–708–1397 or *sarah.scott@usitc.gov*) for information specific to this investigation. For information on the legal aspects of this investigation, contact William Gearhart of the Commission's Office of the General Counsel (202–205–3091 or *william.gearhart@usitc.gov*). The media should contact Margaret O'Laughlin, Office of External Relations (202–205–1819 or *margaret.olaughlin@usitc.gov*). Hearing-impaired individuals may obtain information on this matter by contacting the Commission's TDD terminal at 202–205–1810. General information concerning the Commission may also be obtained by accessing its website (*https://www.usitc.gov*). Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000.

The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov*. General information concerning the Commission may be obtained by accessing its internet address (*https://www.usitc.gov*).

SUPPLEMENTARY INFORMATION:

Background: As requested in the letter received from the U.S. Trade Representative (USTR) on October 14, 2021, the Commission will conduct the investigation in two parts concurrently.

More specifically, the USTR asked the Commission in part one of the investigation to catalogue in a public report information on the distributional effects on under-represented and under-served communities of trade and trade policy. Information for part one will be gathered through (1) roundtable discussions among representatives of under-represented and under-served communities that have been identified in the Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (E.O. 13985, January 20, 2021), as well as think tanks, academics and researchers, unions, State and local governments, non-Federal governmental entities, civil society experts, community-based stakeholders, such as minority-owned businesses, business incubators, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), other minority serving institutions (MSIs), and local and national civil rights organizations; (2) a symposium focused on academic or similar research on the distributional effects on under-represented and under-served communities of trade and trade policy, including results of existing analysis, evaluation of methodologies, the use of public and restricted data in current analysis, identifying gaps in data and/or in the economic literature, and proposed analysis that could be done with restricted data; and (3) a critical review of the economic literature on the distributional effects on under-represented and under-served communities of trade and trade policy including, among other things, the data limitations raised in these analyses. Information regarding the date and format of the roundtables and symposium will be specified in a future notice.

The Commission will publish a notice in the **Federal Register** by January 31, 2022 of the time, place, and procedures to be followed in holding a public hearing, roundtable discussions, and a symposium. As requested by the USTR, the Commission will deliver the report requested on part one of the investigation on October 14, 2022. Since the USTR has indicated that she intends to make this report available to the public in its entirety, the Commission will not include confidential business or national security classified information in its report.

In part two of the investigation, internally the Commission will further develop models that can analyze the potential distributional effects of trade and trade policy, including with respect to goods and services imports, on U.S. workers. The Commission will also seek to identify any data limitations that, if removed, could substantially speed the time to complete the analysis or allow for improved analysis. The USTR asked that the Commission brief USTR staff on its efforts in this regard. The Commission will not prepare or publish a report in connection with part two.

By order of the Commission.

Issued: November 24, 2021.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2021–26060 Filed 11–29–21; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

[OMB Number 1122–0001]

Agency Information Collection Activities; Proposed eCollection Requested; Extension of a Currently Approved Collection

AGENCY: Office on Violence Against Women, Department of Justice.

ACTION: 60-Day notice.

SUMMARY: The Department of Justice, Office on Violence Against Women (OVW) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted for 60 days until January 31, 2022.

FOR FURTHER INFORMATION CONTACT: Written comments and/or suggestion regarding the items contained in this notice, especially the estimated public burden and associated response time, should be directed to Cathy Poston, Office on Violence Against Women, at 202–514–5430 or *Catherine.poston@usdoj.gov*.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

apportionment of funds to States and Indian tribes.

Title of Collection: Abandoned Mine Land Problem Area Description Form.

OMB Control Number: 1029–0087.

Form Number: None.

Type of Review: Extension of a currently approved collection.

Respondents/Affected Public: State and Tribal governments.

Total Estimated Number of Annual Respondents: 27.

Total Estimated Number of Annual Responses: 1,710.

Estimated Completion Time per Response: Varies from 1.5 hours to 8 hours, depending on activity.

Total Estimated Number of Annual Burden Hours: 4,580.

Respondent's Obligation: Required to obtain or retain a benefit.

Frequency of Collection: One time.

Total Estimated Annual Nonhour Burden Cost: $0.

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

The authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

Mark J. Gehlhar,

Information Collection Clearance Officer, Division of Regulatory Support.

[FR Doc. 2022–00959 Filed 1–18–22; 8:45 am]

BILLING CODE 4310–05–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 332–587]

Distributional Effects of Trade and Trade Policy on U.S. Workers

AGENCY: United States International Trade Commission.

ACTION: Notice of scheduling of roundtables, a symposium, and a hearing in connection with the investigation.

SUMMARY: The Commission has established a schedule and procedure, set forth below, for conducting roundtables, an academic symposium, and a hearing in connection with this investigation. The Commission will hold seven roundtable discussions between March 1 and April 1, 2022, an academic symposium on April 5–6, 2022, and a hearing on April 19, 2022. The roundtables, academic symposium, and hearing will focus on the potential distributional effects of goods and services trade and trade policy on U.S. workers by skill, wage and salary level, gender, race/ethnicity, age, and income level, especially as they affect underrepresented and underserved communities. The roundtables and hearing will afford an opportunity for interested persons to present information and views relating to the investigation, and the academic symposium will afford an opportunity for researchers and data experts to present work relevant to the investigation. The Commission instituted the investigation under section 332(g) of the Tariff Act of 1930 following receipt, on October 14, 2021, of a request from the U.S. Trade Representative.

DATES:

Commission events:

March 1: Roundtable on Race and Ethnicity I (virtual)
March 8: Impacts on Underserved Communities (in-person/virtual hybrid; from Fresno, CA)
March 10: Roundtable on Race and Ethnicity II (virtual)
March 14: Roundtable on Gender and Orientation (virtual)
March 22: Roundtable on Disability, Age, and Education (virtual)
March 30: Impacts on Underserved Communities (in-person/virtual hybrid; from Detroit, MI)
April 1: Roundtable on Local Economic Impacts on Underserved Communities (virtual)
April 5–6 Academic Symposium (virtual)
April 19: Hearing (virtual)

Filing deadlines relating to the roundtables:

February 15: Deadline for filing requests to appear at Roundtable on Race and Ethnicity I
February 22: Deadline for filing requests to appear at Roundtable on Impacts on Underserved Communities—Fresno, CA
February 24: Deadline for filing requests to appear at Roundtable on Race and Ethnicity II
February 28: Deadline for filing requests to appear at Roundtable on Gender and Orientation
March 8: Deadline for filing requests to appear at Roundtable on Disability, Age, and Education
March 16: Deadline for filing requests to appear at Roundtable on Impacts on Underserved Communities—Detroit, MI
March 18: Deadline for filing requests to appear at Roundtable on Local Economic Impacts on Underserved Communities

Filing deadlines relating to the academic symposium:

February 11: Deadline for submitting requests to appear and a copy of abstract and CV
March 1: Deadline for submitting papers

Filing deadlines relating to the hearing:

April 1: Deadline for filing requests to appear
April 5: Deadline for filing prehearing briefs and statements
April 12: Deadline for filing electronic copies of oral hearing statements
May 6: Deadline for filing posthearing briefs and statements
May 17: Deadline for filing all other written submissions

ADDRESSES: All Commission offices are in the U.S. International Trade Commission Building, 500 E Street SW, Washington, DC. Due to the COVID 19 pandemic, the Commission's building is currently closed to the public. Once the building reopens, persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000.

FOR FURTHER INFORMATION CONTACT: Co-Project Leader Jennifer Powell (202–205–3450 or *jennifer.powell@usitc.gov*), Co-Project Leader Stephanie Fortune-Taylor (202–205–2749 or *stephanie.fortune-taylor@usitc.gov*) or Deputy Project Leader Sarah Scott (202–708–1397 or *sarah.scott@usitc.gov*) for information specific to this investigation. For information on the legal aspects of this investigation, contact William Gearhart of the Commission's Office of the General Counsel (202–205–3091 or *william.gearhart@usitc.gov*). The media should contact Jennifer Andberg, Office of External Relations (202–205–3404 or *jennifer.andberg@usitc.gov*).

The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov*. General information concerning the Commission may be obtained by accessing its internet address (*https://www.usitc.gov*). Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202–205–1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on November 23, 2021, and published notice of its investigation in the **Federal Register** on November 30, 2021 (86 FR 67970). As requested by the USTR, the Commission will, in its report, catalogue information on the distributional effects of trade and trade policy on workers in underrepresented and underserved

communities. The Commission will gather information through multiple means, including:

(1) Roundtable discussions among representatives of underrepresented and underserved communities that have been identified in the Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (E.O. 13985, January 20, 2021), as well as think tanks, academics and researchers, unions, State and local governments, non-Federal governmental entities, civil society experts, community-based stakeholders, such as minority-owned businesses, business incubators, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), other minority serving institutions (MSIs), and local and national civil rights organizations; underrepresented and underserved communities as listed in the Executive Order include Black, Latino, Indigenous and Native American persons, Asian Americans and Pacific Islanders, and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons in specific age, skill, or income groups; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality;

(2) an academic symposium focused on academic or similar research on the distributional effects of trade and trade policy on underrepresented and underserved communities, including results of existing analysis, evaluation of methodologies, the use of public and restricted data in current analysis, identifying gaps in data and/or in the economic literature, and proposed analysis that could be done with restricted data; and

(3) a hearing open to any individual wishing to present views in accordance with the investigation.

As the roundtables, symposium and hearing presentations are open to the public, persons participating should not include confidential business information (CBI) in any written submissions or presentations intended for use in the roundtables and symposium and in their oral presentations at the hearing.

Roundtables: The Commission will hold multiple roundtables for the purpose of seeking information and views from representatives of underrepresented and underserved communities on the distributional effects of trade and trade policy on U.S. workers by skill, wage and salary level, gender, race/ethnicity, age, and income level. Each roundtable will have a theme (designated as specified in the **DATES** section of this notice); however, any person is welcome to present views in accordance with the investigation at these events, regardless of roundtable theme.

- The virtual roundtables will be open to the public and will be held via an online videoconferencing platform, beginning at 1 p.m. Eastern Time on the dates specified in the **DATES** section of this notice.
- In-person roundtables will be held in Fresno, California and Detroit, Michigan beginning at 1 p.m. local time on the dates specified in the **DATES** section of this notice. These in-person roundtables will be conducted in a hybrid format, thus allowing in-person and virtual participation by registrants and virtual attendance by the public. In-person roundtables may transition to an entirely virtual format depending on public health developments, and updates regarding the format of these roundtables will be posted on the investigation website.

All of the roundtables will be recorded and transcribed. Those wishing to attend or participate in a roundtable should register by 5:15 p.m. EST on the day specified in the **DATES** section above by emailing *DE@usitc.gov* or calling (202) 536–9960. Attendees and participants will receive further information upon registration. In addition, details about individual roundtables will be posted at the investigation website. Interested parties should check the investigation website periodically for updates.

Symposium: The Commission will hold the public academic symposium via an online videoconferencing platform, beginning at 9:00 a.m. EST on April 5–6, 2022. Persons interested either in presenting work (published or ongoing) or serving on a panel discussion at the symposium should submit an abstract and curriculum vitae (CV) by emailing *DE@usitc.gov*. The abstract should be a document of approximately one page in length that includes the presenter's name, affiliation, email contact information, and job title. The abstract should also provide a summary of the presenter's original academic work(s) related to distributional effects, as described in the Background section.

Requests to present work or serve on a panel at the academic symposium should be emailed or submitted by 5:15 p.m. on February 11, 2022. Following the February 11th submission of abstracts and CVs, potential participants should submit papers and presentations by 5:15 on March 1 by emailing *DE@usitc.gov*.

Hearing: A public hearing in connection with this investigation will be held via an online videoconferencing platform, beginning at 9:30 a.m. Eastern Time on April 19, 2022. Public testimony at this hearing should focus on the distributional effects described above. Information about how to participate in or view the hearing will be posted on the Commission's website at (*https://usitc.gov/research_and_analysis/what_we_are_working_on.htm*). Once on that web page, scroll down to the entry for Investigation No. 332–587, *Distributional Effects of Trade and Trade Policy on U.S. Workers,* and click on the link to ''Hearing Instructions.'' Interested parties should check the Commission's website periodically for updates. Information about the hearing will also be posted on the investigation specific website (*https://www.usitc.gov/research_and_analysis/ongoing/distributional_effects_332*).

Requests to appear at the hearing should be filed with the Secretary to the Commission no later than 5:15 p.m., April 1, 2022, in accordance with the requirements in the ''Written Submissions'' section below. All prehearing briefs and statements should be filed not later than 5:15 p.m., April 5, 2022. To facilitate the hearing, including the preparation of an accurate written public transcript of the hearing, oral testimony to be presented at the hearing must be submitted to the Commission electronically no later than noon, April 12, 2022. All posthearing briefs and statements should be filed not later than 5:15 p.m., May 6, 2022. Posthearing briefs and statements should address matters raised at the hearing. For a description of the different types of written briefs and statements, see the ''Definitions'' section below.

If, as of the close of business on April 1, 2022, no witnesses are scheduled to appear at the hearing, the hearing will be canceled. Any person interested in attending the hearing as an observer or nonparticipant should contact the Office of the Secretary at 202–205–2000 after April 4, 2022, for information concerning whether the hearing will be held.

Written submissions: In lieu of or in addition to participating in the hearing, interested parties are invited to file written submissions concerning this investigation. All written submissions should be addressed to the Secretary, and should be received not later than 5:15 p.m., May 17, 2022. All written submissions must conform to the

provisions of section 201.8 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.8), as temporarily amended by 85 FR 15798 (March 19, 2020). Under that rule waiver, the Office of the Secretary will accept only electronic filings at this time. Filings must be made through the Commission's Electronic Document Information System (EDIS, *https://edis.usitc.gov*). No in-person paper-based filings or paper copies of any electronic filings will be accepted until further notice. Persons with questions regarding electronic filing should contact the Office of the Secretary, Docket Services Division (202–205–1802), or consult the Commission's Handbook on Filing Procedures.

Definitions of types of documents that may be filed; Requirements: In addition to requests to appear at the hearing, this notice provides for the possible filing of four types of documents: Prehearing briefs, oral hearing statements, posthearing briefs, and other written submissions.

(1) *Prehearing briefs* refers to written materials relevant to the investigation and submitted in advance of the hearing, and includes written views on matters that are the subject of the investigation, supporting materials, and any other written materials that you consider will help the Commission in understanding your views. You should file a prehearing brief particularly if you plan to testify at the hearing on behalf of an industry group, company, or other organization, and wish to provide detailed views or information that will support or supplement your testimony.

(2) *Oral hearing statements (testimony)* refers to the actual oral statement that you intend to present at the hearing. Do not include any confidential business information in that statement. If you plan to testify, you must file a copy of your oral statement by the date specified in this notice. This statement will allow Commissioners to understand your position in advance of the hearing and will also assist the court reporter in preparing an accurate transcript of the hearing (*e.g.,* names spelled correctly).

(3) *Posthearing briefs* refers to submissions filed after the hearing by persons who appeared at the hearing. Such briefs: (a) Should be limited to matters that arose during the hearing, (b) should respond to any Commissioner and staff questions addressed to you at the hearing, (c) should clarify, amplify, or correct any statements you made at the hearing, and (d) may, at your option, address or rebut statements made by other participants in the hearing.

(4) *Other written submissions* refer to any other written submissions that interested persons wish to make, regardless of whether they appeared at the hearing, and may include new information or updates of information previously provided.

In accordance with the provisions of section 201.8 of the Commission's Rules of Practice and Procedure (19 CFR 201.8) the document must identify on its cover (1) the investigation number and title and the type of document filed (*i.e.,* prehearing brief, oral statement of (name), posthearing brief, or written submission), (2) the name and signature of the person filing it, (3) the name of the organization that the submission is filed on behalf of, and (4) whether it contains confidential business information (CBI). If it contains CBI, it must comply with the marking and other requirements set out below in this notice relating to CBI. Submitters of written documents (other than oral hearing statements) are encouraged to include a short summary of their position or interest at the beginning of the document, and a table of contents when the document addresses multiple issues.

Confidential business information: Any submissions that contain confidential business information must also conform to the requirements of section 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6). Section 201.6 of the rules requires that the cover of the document and the individual pages be clearly marked as to whether they are the ''confidential'' or ''non-confidential'' version, and that the confidential business information is clearly identified by means of brackets. All written submissions, except for confidential business information, will be made available for inspection by interested parties.

As requested by the USTR, the Commission will not include any confidential business information in the report it sends to the USTR. However, all information, including confidential business information, submitted in this investigation may be disclosed to and used: (i) By the Commission, its employees and Offices, and contract personnel (a) for developing or maintaining the records of this or a related proceeding, or (b) in internal investigations, audits, reviews, and evaluations relating to the programs, personnel, and operations of the Commission including under 5 U.S.C. Appendix 3; or (ii) by U.S. government employees and contract personnel for cybersecurity purposes. The Commission will not otherwise disclose any confidential business information in a way that would reveal the operations of the firm supplying the information.

Summaries of written submissions: Persons wishing to have a summary of their position included in the report should include a summary with their written submission on or before May 17, 2022, and should mark the summary as having been provided for that purpose. The summary should be clearly marked as ''summary for inclusion in the report'' at the top of the page. The summary may not exceed 500 words and should not include any confidential business information. The summary will be published as provided if it meets these requirements and is germane to the subject matter of the investigation. The Commission will list the name of the organization furnishing the summary and will include a link to the Commission's Electronic Document Information System (EDIS) where the written submission can be found.

By order of the Commission.

Issued: January 12, 2022.

William Bishop,

Supervisory Hearings and Information Officer.

[FR Doc. 2022–00912 Filed 1–18–22; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 701–TA–678 and 731–TA–1584 (Preliminary)]

Barium Chloride From India; Institution of Countervailing Duty and Antidumping Duty Investigations and Scheduling of Preliminary Phase Investigations

AGENCY: United States International Trade Commission.

ACTION: Notice.

SUMMARY: The Commission hereby gives notice of the institution of investigations and commencement of preliminary phase countervailing duty and antidumping duty investigation Nos. 701–TA–678 and 731–TA–1584 (Preliminary) pursuant to the Tariff Act of 1930 (''the Act'') to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of barium chloride from India, provided for in subheading 2827.39.45 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair

Appendix C Calendar of Hearing Witnesses

CALENDAR OF PUBLIC HEARING

Those listed below appeared in the United States International Trade Commission's hearing via videoconference:

Subjects: Distributional Effects of Trade and Trade Policy on U.S. Workers

Inv. No.: 332-587

Date and Time: April 19, 2022 - 9:30 a.m.

CONGRESSIONAL APPEARANCE:

The Honorable Frank J. Mrvan, U.S. Representative, 1st District, Indiana

COUNTY GOVERNMENT OFFICIALS:

The Honorable Melissa McKinlay, County Commissioner, Palm Beach County, Florida

The Honorable Martha Schrader, County Commissioner, Clackamas County, Oregon

PANEL 1

ORGANIZATION AND WITNESSES:

Communications Workers of America (CWA)
Washington, DC

Elena Lopez, Legislative Specialist

American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)
Washington, DC

William E. Spriggs, Chief Economist

United Auto Workers (UAW)
Detroit, MI

Josh Nassar, Legislative Director

Consumer Technology Association (CTA)
Arlington, VA

Ed Brzytwa, Vice President of International Trade

Trade in Services International (TiSI)

Washington, DC

Linda Schmid, International Development Adviser

PANEL 2

ORGANIZATION AND WITNESSES:

Alliance for American Manufacturing (AAM)
Washington, DC

Scott N. Paul, President

Progressive Policy Institute (PPI)
Washington, DC

Edward Gresser, Vice President for Trade and Global Markets

Public Citizen Global Trade Watch (PC-GTW)
Washington, DC

Melinda St. Louis, Director

National Association of Counties (NACo)
Washington, DC

Teryn Zmuda, Chief Economist and Chief Research Officer

Wiley Rein LLP
Washington, DC

Derick G. Holt, Partner

-END-

Appendix D
Summary of Written Submissions

Appendix D includes summaries of written submissions prepared by interested parties as well as the names of interested parties who filed written submissions in the investigation but did not file a written summary.

The Commission has not edited the written summaries. A full copy of each written submission is available in the Commission's Electronic Document Information System (EDIS) (https://edis.usitc.gov/). A public hearing was held for the investigation on April 19, 2022, and the transcript of the hearing is available on EDIS and at Distributional Effects Hearing Transcript.

Written Submissions

PhRMA

The U.S. innovative biopharmaceutical industry and its participation in the global trading system contribute significantly to the U.S. economy and its workers.

The Economic Impact of the U.S. Innovative Biopharmaceutical Industry

The industry's varied occupational base and extensive research, manufacturing and distribution infrastructure generate and support high-wage jobs, significant tax revenues and growing economic output for local communities.

Sizeable, Stable and Diverse Employment

In 2020, the U.S. biopharmaceutical industry directly employed more than 903,000 U.S. workers and supported more than 3.5 million additional U.S. jobs. In 2020, 37 percent of U.S. biopharmaceutical industry employees were engaged in manufacturing at over 1,500 plants across the country.

The U.S. biopharmaceutical industry is among the top five employers of U.S. manufacturing jobs, with more Americans directly employed in pharmaceutical manufacturing than in several other manufacturing industries, including iron and steel products, aerospace products and parts, and electric equipment and appliances.

The U.S. biopharmaceutical industry outpaced U.S. manufacturing and overall U.S. private sector employment growth over the 2015–2020 period. Whereas direct employment in biopharmaceutical manufacturing increased 28.4 percent over this period, total manufacturing employment fell 5.1 percent and overall economy-wide employment decreased 0.7 percent over the same period.

The U.S. biopharmaceutical manufacturing industry is the second highest employer of women in the U.S. manufacturing sector and the fifth highest employer of minorities (Black, Asian, Latino). The industry created 55,000 U.S. manufacturing jobs for women and 77,000 U.S. manufacturing jobs for minorities (Black, Asian, Latino) over the past five years, both of which are the second highest among all manufacturing industries.

High Skills, High Wage, and High Productivity

The complexity of innovative biopharmaceutical production requires a significant share of employment in high-skill and advanced degree occupations. Yet, as a critical industry also requiring significant

manufacturing and distribution infrastructure, the industry offers significant employment opportunities for individuals with less than a bachelor's degree.

This unique employment mix benefits all workers, with average annual wages and benefits of more than $145,000—nearly $60,000 more than the average U.S. manufacturing industry job and more than twice the U.S. average across all industries.

Significant Economic Driver

The innovative biopharmaceutical industry is one of the most research-intensive in America, annually investing an estimated $122.2 billion in researching and developing new medicines. In 2020, the U.S. biopharmaceutical industry's direct output exceeded $710 billion and supported output totaled an additional $700 billion. This combined, total output impact constitutes 3.7 percent of total U.S. output.

Since 2015, over 50,000 jobs were created in the U.S. biopharmaceutical industry by new foreign direct investment (FDI). The biopharmaceutical industry attracts more new FDI into the United States than any other industry (over $143 billion over the past five years). In turn, the industry is the largest driver of new FDI in U.S. manufacturing, accounting for more than 20 percent over the past five years.

The biopharmaceutical industry also is a major U.S. exporter. In 2021, U.S. biopharmaceutical goods exports exceeded $80 billion. The biopharmaceutical sector remains the largest exporter of goods among the most R&D-intensive industries.

Trade in Services International

The distributional effects of international trade in services and trade policy are evident from an employment perspective and a consumption perspective. The U.S. is a leader in international trade in services. The intersection of the U.S. economy with services trade takes place digitally online, through investment, and the temporary movement of people. Foreign direct investment (FDI) permeates the services economy and creates jobs. International investment in services expands the scope and lowers the cost of services for workers. The collapse of international travel and its renewal illustrates the effects of services trade on employment in the leisure and hospitality industries.

The USITC should emphasize in its report the serious constraints lower income, and less skilled workers face navigating a churning and evolving job market. The U.S. is experiencing a tight labor market in part due to obstacles that inhibit workers from securing and moving to new jobs and employers from finding qualified workers. Potential workers remain outside of the labor market in underrepresented and underserved communities. Trade policy can help alleviate the high costs workers face. A trade negotiation is not required in some cases to obtain the benefits of trade such as lower drug prices and increased disposable income.

Trade in services is playing a significant role in the economic recovery. The U.S. economy generates a broad scope of innovative services jobs at high wages in information, finance, professional, and business services. Low-wage workers are concentrated in leisure and hospitality and retail trade, which includes warehousing. Looking at services industries from a gender standpoint reveals the distribution of women across sectors. U.S. trade policy as written in the USMCA labor chapter offers an opportunity to improve the working environment for women. Implementation of International Conventions affirmed in trade

agreements can improve conditions for workers. The U.S. trade stance has an important role to play in facilitating a dynamic, evolving U.S. economy that produces jobs for American workers.

Wiley Rein LLP

Traditional U.S. trade policy promised to create more American jobs and increase wages while reducing prices and expanding choices for consumer goods. But Black and Latinx workers and businesses have been systematically and disproportionately affected on both sides of the international trade equation. While industrial flight and increased imports impacted the availability of manufacturing jobs for Black and Latinx workers, they were also unable to pivot to quality service sector jobs.

Black Americans, in particular, were unable to equitably benefit from trade by exporting goods and services despite access to new markets. For example, in 2018, exports comprised a mere 0.65 percent of total receipts from Black-owned businesses, whereas all other companies exported at a rate five times greater than Black-owned businesses. Moreover, Black and Latinx workers are underrepresented in the top U.S. industries that export services, including professional, travel, and financial services. While Black and Latinx workers account for 12.8 percent and 17.4 percent of the workforce, Black and Latinx workers account for only 9.7 percent and 9.1 percent in financial services industry and are underrepresented in virtually all professional occupations except for community and social service occupations, which tend to be professions that are unlikely to be exported and have lower wages. Moreover, in the travel industry, ethnic minorities represent only 6 percent or less of board members or senior executives.

While traditionally viewed as consumers, an inclusive trade policy must also recognize members of underserved communities as both workers and business owners. This is especially true for Black and Latinx communities, where traditional trade policy has led to widening racial wage, wealth, and employment gaps. Our trade policy should acknowledge the role of entrepreneurship to help close the racial wealth gap and increase the level of employment for minority workers, especially in manufacturing.

Recommendations for A More Inclusive Trade Policy

- **Manufacture in Underserved Communities**: The United States should invest in policies that encourage environmentally sustainable manufacturing in underserved communities. For every manufacturing job, seven new jobs in other industries are created, which can provide a path to the middle class for many Americans. The level of investment or support should be tied to hiring workers from underrepresented communities.
- **Support Underserved Communities' Manufacturing Businesses**: The United States should actively support underserved communities to start or expand manufacturing businesses in the United States. The United States should develop loans for minority business owners in the manufacturing sector that are sufficient to acquire property and equipment, as well as to develop prototypes and scale up to full production in the United States. Because Black and Latinx applicants are more likely to be denied for their business loans or not obtain the entire funding requested, any program adopted should specifically include that a purpose for the funding is to lend to Black-and Latinx-owned businesses in manufacturing.

- **USITC Collection of Data on Underrepresented Communities**: In antidumping and countervailing duty cases, the USITC should collect data in its questionnaires on underserved communities, including by race, ethnicity, and gender through its normal evaluation of the actual and potential negative effects on employment.

Written Submissions without Summaries

American Apparel & Footwear Association (AAFA)

No written summary. Please see EDIS for full submission.

Autos Drive America

No written summary. Please see EDIS for full submission.

California Manufacturing and Engineering Co.

No written summary. Please see EDIS for full submission.

Element Electronics

No written summary. Please see EDIS for full submission.

National Foreign Trade Council Foundation's Global Innovation Forum (GIF)

No written summary. Please see EDIS for full submission.

National Milk Producers Federation (NMPF) and the U.S. Dairy Export Council (USDEC)

No written summary. Please see EDIS for full submission.

National Retail Federation

No written summary. Please see EDIS for full submission.

National Taxpayers Union Foundation

No written summary. Please see EDIS for full submission.

Roosevelt Institute

No written summary. Please see EDIS for full submission.

United Parcel Service (UPS)

No written summary. Please see EDIS for full submission.

U.S. Chamber of Commerce

No written summary. Please see EDIS for full submission.

U.S. Congress, House of Representatives

Member: Brian Higgins, Twenty-sixth Congressional District of New York

No written summary. Please see EDIS for full submission.

Appendix E
Literature Review Sources

Table E.1: Sources cited in the literature review chapter

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Acemoglu, Autor, Dorn, Hanson, and Price, 2016	None	Employment	Reduced-form econometric	Rising Chinese import competition caused manufacturing job loss in the United States.
Adda and Fawaz, 2020	Skill, geography	Health	Reduced-form econometric	Imports had a negative effect on the physical and mental health of U.S. workers in commuting zones (CZs) where manufacturing routine-task jobs were most prevalent.
Agarwal, 2021	Skill	Employment, wage	Reduced-form econometric	High-skilled U.S. workers experienced greater employment gains from U.S. export expansion, low-skilled workers were more adversely affected by import competition from China.
Agesa and Agesa, 2012	Race	Wage	Reduced-form econometric	Import competition caused the relatively high wages of nonunion White workers to converge to market rates, reducing discrimination.
Agesa and Hamilton, 2004	Race	Wage	Reduced-form econometric	International competition does not reduce the racial wage gap when the estimation accounts for occupational differences across races.
Agesa, Agesa, and Lopes, 2011	Race, skill	Wage	Reduced-form econometric	Import competition leads to a decline in the wage premium of White workers through reducing the wages of low- and medium-skill nonunionized Whites.
Alpert, Ferry, Hockett, and Khaleghi, 2019	None	Wage	None	The study describes development of the Job Quality Index that can be used to measure the relative "quality" of jobs available to workers of different types (e.g., gender or race).
Autor, Dorn, and Hanson, 2013	Geography, education, age, gender	Employment, wage, migration	Reduced-form econometric	Growth in imports from China led to significant manufacturing employment declines with limited non-manufacturing employment growth in import-exposed local labor markets.
Autor, Dorn, and Hanson, 2015	Education, gender, age	Employment	Reduced-form econometric	The authors disentangle the employment effects of U.S. import growth and automation from 1980–2007, finding import competition led to net employment declines in local labor markets, while automation led to occupational polarization.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Autor, Dorn, and Hanson, 2019	Gender, family structure	Employment	Reduced-form econometric	Trade shocks reduce employment of young adult men, reducing their earnings relative to female workers. This results in changing family structure, such as a rise in the share of mothers who are unwed and the share of children living in poor, single-headed households.
Autor, Dorn, and Hanson, 2021	Geography, age, foreign/native born, education, gender	Employment, income, migration	Reduced-form econometric	Negative local labor market employment effects from the China shock were highly persistent and can be observed through 2019, nearly a decade beyond the peak of the trade shock in 2010.
Autor, Dorn, Hanson, and Song, 2014	Age, income	Employment, wage	Reduced-form econometric	Workers exposed to imports from China exhibited lower cumulative earnings and employment and high receipt of Social Security Disability Insurance over the 1992–2007 period.
Autor, Levy, and Murnane, 2003	None	Education	Reduced-form econometric	Authors find that the increased adoption of computers is associated with reduced demand for routine manual and routine cognitive task intensive labor over the 1970–88 period.
Batistich and Bond, 2019	Race, geography	Employment, wage, labor force participation	Reduced-form econometric	Increased trade with Japan in the 1970s and 1980s decreased Black manufacturing employment, labor force participation, and earnings. These losses were offset by increased White manufacturing employment.
Becker, 1957	Theory of discrimination in the workplace	Wage	Structural	Employers have a “preference” for discrimination and pay lower wages to minority workers. However, this wage gap declines if a lot of employers compete for workers.
Benguria, 2020	Education, race, gender	Employment	Reduced-form econometric	Manufacturing employment losses resulting from NAFTA ratification were concentrated among female, Nonwhite, and less educated workers.
Bernard, Jensen, and Schott, 2006	Skill	Employment	Reduced-form econometric	Increased import competition from low-wage countries led to manufacturing plant death. Surviving plants were more likely to switch into new industries and increase the skill-intensity of their production.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Besedeš, Lee, and Yang, 2021	Gender, education	Employment	Reduced-form econometric	Liberalization with China caused changes in employment as less-educated men left the labor force and more educated women entered the labor force. Both male and female workers were more likely to work part-time jobs as they were unable to find full-time jobs.
Bloom, Handley, Kurman, and Luck 2019	Geography, education	Employment	Reduced-form econometric	The China shock led to significant manufacturing employment loss in regions with lower levels of educational attainment, and non-manufacturing employment growth in areas with a more highly educated workforce.
Borusyak, Hull, and Jaravel, 2022	None	None	Reduced-form econometric	This paper explores the validity of estimation approach in Autor, et al., 2013 and concludes that overall findings using this approach are correct.
Borusyak and Jaravel, 2021	Income, education, consumption inequality	Income	Structural	Trade has a relatively small impact on inequality through the consumption channel but does generate winners and losers at all income levels via changes in wages.
Brussevich, 2018	Gender	Employment, wage	Reduced-form econometric	Import competition increased the wages of female workers and improved their welfare.
Burstein and Vogel, 2017	Skill	Wage	Structural	Reductions in trade costs lead to a reallocation of production towards skill-intensive sectors in the United States, raising the relative wage of skilled workers.
Congressional Research Service, 2018	None	None	None	This paper provides a description of the Trade Adjustment Assistance Program.
Cravino and Sotelo, 2019	Skill	Employment, wage	Structural	A simulated hypothetical reduction in global trade costs led to reductions in U.S. manufacturing employment and small increases in the relative wages of skilled workers.
Crinò, 2010	Skill	Employment	Structural	Employment in high-skilled occupations is more likely to grow relative to low-skill occupations in response to growth in services offshoring.
Dean and Kimmel, 2019	Geography	Health	Reduced-form econometric	Geographic areas with elevated trade-related job loss over the 1999–2015 period experienced higher rates of opioid-related mortality.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Dicandia, 2021	Race, occupation	Employment, wage	Reduced-form econometric	The share of employment of Black workers in routine occupations increased in 1980–2000, which dampened the decline in wage gap between Black and White workers.
Ebenstein, Harrison, McMillan, and Phillips, 2014	Education	Wage	Reduced-form econometric	Low-wage country import competition and employment offshoring led to significant wage losses for workers with lower levels of educational attainment.
Ederington, Minier, and Troske, 2009	Gender	Employment	Reduced-form econometric	Increased foreign competition in industries that lost high tariff protection led to a higher share of female workers in the labor force in those industries.
Eriksson, Russ, Shambaugh, and Xu, 2021	Geography, education	Employment	Reduced-form econometric	China shock-exposed regions that had less educated workforces and were characterized by having large concentrations of industry employment in late stages of the product life cycle suffered the largest unemployment and detachment from the labor force.
Essaji, Sweeney, and Kotsopoulos, 2010	Race, skill, geography	Wage	Reduced-form econometric	Increased imports helped reduce the racial wage gap in industries most exposed to competition. The impact was the highest for unskilled Southern workers.
Fajgelbaum and Khandewal, 2016	Income	Consumption	Structural-econometric	International goods trade exhibits pro-poor bias where lower income households disproportionately benefit from trade as a result of spending larger shares of their income on imported goods.
Feenstra, Xu, and Ma, 2019	None	Employment	Reduced-form econometric	U.S. export expansion created slightly more employment than the estimated manufacturing jobs lost in response to the China shock.
Ferry and Mayoral, 2021	Race	Job quality	None	The quality of minority workers' jobs declined leading up to 2020.
Finnigan, 2020	Sexual orientation, occupation, education	Occupational segregation	Reduced-form econometric	Gay and lesbian workers tend to hold different occupations than straight workers. Occupational segregation is stronger among men than women, and the segregation is greatest among the least educated workers.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Fortune-Taylor and Hallren, 2021	Gender	Wage	Reduced-form econometric	The wages of workers in the U.S. automotive industry increased following the announcement of the USMCA rule related to workers in the automotive industry (HW-LVC rule), but before the rule went into effect. However, the wages of women did not increase as fast as the wages of men.
Frías, Kaplan, and Verhoogen, 2012	Income	Wage	Reduced-form econometric	Exporting firms tend to have higher wage dispersion between low-paid and high-paid workers.
Furman, Russ, and Shambaugh, 2017	Income	Consumption, tariffs	None	Low-income U.S. households pay more in tariffs, as a share of their income, than wealthier households.
Gailes, Gurevich, Shikher, and Tsigas, 2018	Income, gender	Consumption, tariffs	Structural	U.S. tariffs on apparel are a regressive import tax that is higher for women than men.
Ghosh, Larch, Murtazashvili, and Yotov, 2022	Gender	Unemployment, job loss	Reduced-form econometric	There is a large wage gap between male and female workers who were laid off due to trade, but this gap is eliminated upon re-employment due to reduction in male workers' wages.
Goos, Manning, and Salomons, 2014	None	Employment	Reduced-form econometric	The authors create a methodology to disentangle manufacturing job loss from trade and routine-biased technological change (RBTC) and find RBTC was a larger driver of job loss in 16 Western European countries.
Gould, 2021	Race, education, geography	Employment, wage	Reduced-form econometric	The manufacturing decline from 1960–2010 had a negative impact on Black workers.
Greaney and Tanaka, 2020	Gender	Wage	Reduced-form econometric	The gender wage gap in foreign-owned multinational enterprises is the smallest compared with that in domestic-owned firms and Japanese-owned multinational enterprises.
Gresser, 2022	Income, race	Tariffs	None	The U.S. tariff system has a disproportionately high impact on low-income, African-American, and Hispanic families.
Gurevich and Riker, 2018	Gender	Wage	Reduced-form econometric	Exporting manufacturing industries in the United States pay higher wages and have a lower gender wage gap.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Gurevich, Riker, and Tsigas, 2021	Gender, education	Wage	Structural	U.S. trade agreements generally benefit U.S. workers with slightly higher benefits for female workers. As skills are taken into account, the impact of trade on wages by gender is more obvious.
Hakobyan and McLaren, 2016	Geography, education	Wage	Reduced-form econometric	Regions exposed to increased import competition from NAFTA experienced significantly slower wage growth. These adverse wage effects were found to be concentrated among less educated workers while no significant wage effects were found among college-educated workers.
Hakobyan and McLaren, 2017	Gender	Wage	Reduced-form econometric	Following NAFTA ratification and tariff reductions, married women in blue-collar occupations experienced reduced wage growth compared to all other demographic groups.
Kessler, 2017	None	Employment, job loss	None	Discussion article on whether the majority of manufacturing jobs lost were lost due to international trade or technological advances and automation.
Kim and Tebaldi, 2011	Race, gender	Wage	Reduced-form econometric	Exporting leads to overall reduction in the race and gender wage gap but has adverse effects on wages of Hispanic women. Import competition increases the wage gap for Hispanic men.
Korinek, Moïsé, and Tange, 2021	Gender	Participation of women in trade	None	Discussion paper considering interactions between trade and gender for workers, consumers, and business owners.
Kurtzleben, 2019	None	Employment, job loss	None	Discussion article on whether the majority of manufacturing jobs lost were lost due to international trade or technological advances and automation.
Lee, 2020	Skill	Wage	Structural	Reductions in trade costs lead to a reallocation of workers away from import competition exposed industries. Less educated workers transitioning from manufacturing generally enter lower paying service occupations while college-educated workers are more likely to transition into higher paying managerial occupations.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Liang, 2021	Education, gender	Employment	Reduced-form econometric	U.S. export expansion led to job growth, particularly in industries with higher initial shares of older, non-college educated, Nonwhite workers. No differences in employment growth were found across industries with different female employment shares.
Liu and Trefler, 2019	Income groups	Wage	Structural econometric	Workers in occupations more directly exposed to growth in services imports were more likely to transition to new occupations. Among these transitioning workers, workers with higher initial income were more likely to switch up into new, higher paying occupations, while workers with lower initial incomes were more likely to switch down into lower paying occupations.
McKinsey & Company, 2021	Race, geography, occupation	Employment, wage	None	Industry summary report about Black employment and wages showing that Black workers tend to work in jobs with less advancement opportunities, higher risk of displacement due to automation, and lower-paying jobs.
Muro and Parilla, 2017	None	None	None	Discussion paper about the shortcomings of the Trade Adjustment Assistance program.
Ngai and Petrongolo, 2017	Gender	Wage	Reduced-form econometric	The growth of the services sector in the United States led to an increase in both wages and working hours for female workers, contributing to narrowing of the gender wage gap.
Papyrakis, Covarrubias, and Verschoor, 2012	Gender	Employment, wage	None	Survey of literature on links between trade liberalization and gender inequality in employment and wages.
Parro, 2013	Skill	Wage	Structural	The author develops a structural model to observe how a global reduction in trade costs leads to growth in the skilled-wage premium.
Peltola and MacFeely, 2019	Gender	Employment, wage	None	Conceptual framework highlighting what dimensions of trade should be measured as they might impact men and women differently.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Pethokoukis, 2022	Skill	None	None	The author argues that the use of "high" and "low" skill terminology to describe workers is problematic and can be better replaced by categorizing workers as low or high wage.
Pierce and Schott, 2016	Skill	Employment	Reduced-form econometric	The United States granting China PNTR status led to significant manufacturing employment loss. Job loss was concentrated among production workers, leading to an overall increase in average skill intensity of production among firms in PNTR-exposed industries.
Pierce and Schott, 2020	Geography, race, gender	Mortality	Reduced-form econometric	Geographic areas more exposed to negative labor market impacts of China PNTR exhibited relative increases in fatal drug overdoses, specifically among Whites.
Polaski, Anderson, Cavanagh, Gallagher, Perez-Rocha, and Ray, 2020	Race, gender	Employment, wage	None	Discussion paper highlighting how the U.S. trade policy has failed American workers and identifying key priorities for a worker-friendly U.S. trade policy going forward.
Public Citizen Global Trade Watch and Labor Council for Latin American Advancement, 2018	Race	Employment, wage	None	NAFTA has been damaging to U.S. regions with large Latino populations. Latino workers were also disproportionately employed in industries that were hit hardest, causing job loss and wage stagnation among Latino workers.
Public Citizen Global Trade Watch, Rangel, and Wallach, 2021	Race	Employment, wage	None	Trade caused the decline in U.S. manufacturing, disproportionately impacting Black and Latino workers.
Reynolds, 2021	Income groups, gender	Tariffs	Reduced-form econometric	U.S. Section 301 tariffs against China had a disproportionately negative impact on lower-income and female-headed households, as well as households with children.
Sauré and Zoabi, 2014	Gender	Employment, wage	Structural	As trade expands to female-dominated sectors, female labor force participation falls because male workers migrate from male-dominated sectors to female-dominated sectors, displacing women from jobs.

Study author(s), year	Distribution type	Outcome studied	Model type	Results
Scott, 2013	Race	Employment, wage	None	China's accession into WTO led to U.S. manufacturing job loss; minority workers were displaced at a disproportionately high rate.
Schreiber, 2021	Gender, education	Wage	Structural	In the short run, the impacts of medical equipment tariffs on wages and employment of different types of workers vary depending on the demographic characteristics of workers.
Spriggs, Browne, and Cole-Smith, 2021	Race, geography	Employment	Reduced-form econometric	The China shock had a negative impact on Black employment and Black hire rates in import-competing industries.
Western, Zessoules, Browne, Cole-Smith, and Spriggs, 2021	Race	Employment, wage	None, review of literature	None

Appendix F
Symposium Agenda

Symposium Agenda

AGENDA
April 5–6, 2022 (virtual)
DE Academic Symposium
"The Distributional Effects of Trade and Trade Policy on U.S. Workers"

Day 1: April 5, 2022

9:00–9:25

Opening: **Sandra Rivera, Lead, Academic Symposium, Office of Economics, U.S. International Trade Commission**

Welcome: **Chair Jason Kearns, U.S. International Trade Commission**

Keynote: **David Autor, Massachusetts Institute of Technology**

09:25–10:50 **Session A: Distributional effects of trade and trade policy on U.S. workers by education and skill levels**

Objective: To share findings and generate discussion regarding the distributional impacts of trade and trade policy as they pertain to workers across different levels of education or skill. A question-and-answer (Q&A) session and moderator-led discussion will emphasize findings from presentations to determine points of consensus and debate within the literature. Participants will also be encouraged to answer forward-looking questions to determine the relevancy of findings for future U.S. trade and trade policy.

Moderator: Katheryn Russ, University of California, Davis

Katheryn Russ, University of California, Davis, "Trade Shocks and the Shifting Landscape of U.S. Manufacturing" (2019)

Shubhi Agarwal, University of Florida, "U.S. Exports, Local Labor Markets, and Wage Inequality" (2021)

Ann Harrison, University of California, Berkley, "Estimating Impact of Trade and Offshoring" (2014)

Eunhee Lee, University of Maryland, "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers" (2020)

Kyle Handley, **University of California, San Diego**, "The Impact of Chinese Trade on U.S. Employment: The Good, The Bad, and The Debatable" (2019)

Day 1: April 5, 2022 (continued)

10:50–11:00 **10-minute break**

11:00–12:25 Session B: Distributional effects of trade and trade policy on race and ethnicity

Objective: To share findings and generate discussion regarding the distributional impacts of trade and trade policy as they pertain to workers of different races or ethnicities. A Q&A session and moderator-led discussion will emphasize findings from presentations to determine points of consensus and debate within the literature. Participants will also be encouraged to answer forward-looking questions to determine the relevancy of findings for the future of U.S. trade and trade policy.

Moderator: Edinaldo Tebaldi, **Bryant University**

Timothy Bond, **Purdue University**, "Stalled Racial Progress and Japanese Trade in the 1970s and 1980s" (2019)

Felipe Benguria, **University of Kentucky**, "The Impact of NAFTA on U.S. Local Labor Market Employment" (2020)

William Spriggs, **AFL-CIO/Howard University**, "China Import Penetration and U.S. Labor-Market Adjustments" (2021)

Edinaldo Tebaldi, **Bryant University**, "International Trade and Wage Differentials: What Do the Data Tell Us?" (2022)

12:25–13:30 **LUNCH BREAK**

Day 1: April 5, 2022 (continued)

13:30–15:10 Session C: Distributional effects of trade and trade policy on gender
Objective: To share findings and generate discussion regarding the distributional impacts of trade and trade policy as they pertain to male and female workers. A Q&A session and moderator-led discussion will emphasize findings from presentations to determine points of consensus and debate within the literature. Participants will also be encouraged to answer forward-looking questions to determine the relevancy of findings for future U.S. trade and trade policy.

Moderator: Felipe Benguria, **University of Kentucky**

Ross Hallren, Amazon, and **Stephanie Fortune-Taylor, USITC**, "Worker-level Responses to the High-Value Labor Content Rules Requirement" (2022)

Masha Brussevich, **IMF**, "Does Trade Liberalization Narrow the Gender Wage gap? The Role of Sectoral Mobility" (2018)

Philip Sauré, **Johannes Gutenberg Universität**, "International Trade, the Gender Wage Gap and Female Labor Force Participation" (2014)

John McLaren, **University of Virginia**, "NAFTA and the Gender Wage Gap" (2017)

Tibor Besedeš, **Georgia Institute of Technology,** "Trade Liberalization and Gender Gaps in Local Labor Market Outcomes: Dimensions of Adjustment in the United States" (2021)

David Fortunato, **University of California, San Diego**, "Representation and the Trade Roots of the Gender Pay Gap" (2022)

15:10–15:20 **10-minute break**

Day 1: April 5, 2022 (continued)

15:20–16:40 Session D: Short presentations and panel discussion on existing methodologies and their limitations, and new cutting-edge labor modeling work

Objective: Two strands of literature look at the distributional effects of trade and trade policies on different groups of workers regarding methodological approaches. The first strand of literature uses econometrics (backward-looking reduced-form analysis) with detailed microdata to assess the impact of trade changes on worker outcomes (e.g., employment and wages by different worker categories). The second strand uses forward-looking general equilibrium analysis to examine the likely impact of changes in trade policy on different worker groups. This section aims to covers both strands and how each is used regarding distributional effects.

Moderator: William M. Powers, Chief Economist, Director, Office of Economics, USITC

Maryla Maliszewska, World Bank, "Ex-Ante Evaluation of Trade Reforms on Poverty, Income Distribution and Employment" (2020)

Hans Lofgren, World Bank, "A Proximity-based Approach to Labor Mobility in CGE Models" (2017)

Rafael Dix-Carneiro, Duke University, "The Globalization, Trade Imbalances and Labor Market Adjustment" (2021)

Kirill Borusyak, **University College London**, "The Distributional Effects of Trade: Theory and Evidence from the United States" (2021)

Michael E. Waugh, Federal Reserve Bank of Minneapolis, "The Consumption and Welfare Effects of a Tariff Shock: Evidence from U.S.-China Trade War" (2022)

16:40 **End of Day 1**

Day 2: April 6, 2022

9:00–10:20 Session E: Research value-added of access to restricted-use data for distributional effects analysis

Objective: To highlight the ways restricted-use data augment distributional effects analysis. We put presentations of DE of trade papers using international restricted-use data in dialogue with experts in U.S. restricted-use data to discuss existing gaps in the economic literature and data shortcomings.

Moderator: Jennifer Poole, American University

Jennifer Poole, American University, "Foreign Influence: The International Transmission of Gender Equality" (2021)

Wolfgang Keller, **University of Colorado**, "Globalization, Gender, and the Family" (2018)

Dave Donaldson, Massachusetts Institute of Technology, "Imports, Exports, and Earnings Inequality: Measures of Exposure and Estimates of Incidence" (2021)

Teresa Fort, Dartmouth College, "New Perspectives on the Decline of U.S. Manufacturing Employment" (2018)

Cristina Tello-Trillo, U.S. Census in "Trade Liberalization and Labor-Market Outcomes: Evidence from U.S. Matched Employer-Employee Data" (2021)

10:20–10:30 **10-minute break**

Day 2: April 6, 2022 (continued)

10:30–12:55 Session F: Government datasets for analyzing distributional effects of trade among different subgroups

Objective: This session will introduce the audience to commonly used public datasets in academic research of subgroup analysis of U.S. workers. Presenters will share pertinent information on survey coverage and frequency, as well as data access and content with researchers, and, depending on how many surveys are presented, offer a comparison between different surveys, highlighting which surveys are best suited for particular research applications.

Moderator: Stephanie Fortune-Taylor, U.S. International Trade Commission

10:35–11:10 **Group 1: Hybrid Data Products**

Keith Bailey, U.S. Census, Longitudinal Employer Household Dynamics (LEHD)

Fariha Kamal, U.S. Census, Business Dynamics Statistics-Goods Traders (BDS-Goods Traders)

11:10–12:25 **Group 2: Individual and Household Microdata**

Patrick Carey, Bureau of Labor Statistics, Current Population Survey (CPS); Outgoing Rotation Groups; 1-year Longitudinal Panel)

Adam Safir, **Bureau of Labor Statistics**, Overview of the Consumer Expenditure Surveys (CE)

Adam Smith, **U.S. Census**, Survey of Income Program Participation (SIPP)

Daniel Carroll, Department of Labor, National Agricultural Workers Survey (NAWS) (invited)

Robert Hoekstra, **Department of Labor**, Trade Adjustment Assistance Data (TAA)

12:25–12:55 **Group 3: Industry and Firm-level Data**

Cristina Tello-Trillo, **U.S. Census**, Longitudinal Business Database (LBD)

Aneta Erdie, U.S. Census, Annual Business Survey (ABS)

12:55–13:55 **LUNCH BREAK**

Day 2: April 6, 2022 (continued)

13:55–14:55 Session G: Moderated discussion on the global research agenda on distributional effects of trade

Objective: To provide an opportunity for economic researchers at other international and multilateral institutions to discuss how they are thinking about researching effects on underserved communities and how it can inform U.S. research on distributional effects of trade.

Moderator: William M. Powers, Chief Economist/Director, Office of Economics, U.S. International Trade Commission

Robert Koopman, Chief Economist, World Trade Organization

Maryla Maliszewska, Senior Economist, World Bank

Jane Korinek, Economist, Trade and Agriculture Directorate, Organization for Economic Cooperation and Development

Phil Mellor, Lead Economist, New Zealand Ministry of Foreign Affairs and Trade

Shenjie Chen, Director, Economic Research, Office of the Chief Economist, Global Affairs Canada

14:55–15:05 **10-minute break**

Day 2: April 6, 2022 (continued)

15:05–16:15 Session H: Moderated discussion on future directions for distributional effects research: What can the trade literature learn from other disciplines? What else should we consider?

Objective: Taking a broader look: What can other fields or disciplines tell us about how to better craft policy that could generate more equitable outcomes? What insights do you have from your research?

Moderator: Sandra A. Rivera, Associate Director, Office of Economics, USITC

Ana Hernández Kent, Institute of Economic Equity, Federal Reserve Bank of St. Louis
"Examining Racial Wealth Inequality" (2022)

Andrew Houtenville, **Director, Institute on Disability, University of New Hampshire,** "Estimates of Prevalence, Demographic Characteristics, and Social Factors among People with Disabilities in the United States: A Cross-Survey Comparison" (2021)

Dan Giedeman, **Grand Valley State University**, "Macroeconomic Shocks and racial labor market differences" (2021)

William "Sandy" Darity, Duke University, "Disparate Recoveries: Wealth, Race, and the Working Class after the Great Recession" (2021)

Margaret Simms, Urban Institute, "Barriers & Bridges: Action Plan for Overcoming Obstacles and Unlocking Opportunities for African American Men in Pittsburgh" (October 2015)

Mike Martell, Bard College, "The Role of Work Values and Characteristics in the Human Capital Investment of Gays and Lesbians" (2020)

Sonya Porter, Center for Economic Studies, U.S. Census, "Race and Economic Opportunity in the United States: An Intergenerational Perspective" (2020)

16:15 **Closing remarks:** **William M. Powers, Chief Economist/Director, Office of Economics, U.S. International Trade Commission**