Services and Digital Trade Are Critical to U.S. Competitiveness and Middle-Class Job Creation

Introduction

Services and digital trade are fundamental to the health of the American economy. U.S. services and digital firms support every economic sector and are a major source of good, high-quality U.S. jobs. They are world-class innovators and competitors, providing the advanced products and technologies used in advanced manufacturing, climate change remediation, more productive and sustainable agriculture, expanded educational opportunities and greater economic inclusion.

U.S. services and digital industries need cross-border trade and investment to maintain their ability to innovate and compete and thereby continue to grow. Domestic demand alone will not generate sufficient revenue to support the R&D and the high levels of capital investment needed to maintain a globally competitive edge. It is even more important for the U.S. to pursue a robust services and digital U.S. trade agenda now given the rising tide of foreign services restrictions and digital protectionism that threatens American services firms.

This White Paper discusses how a strong U.S. services and digital trade and investment agenda promotes the interests of the American middle class by creating better jobs, promoting U.S. competitiveness, and supporting important goals such as combatting climate change and addressing inequality. The paper also details some of the international trade and investment issues that are undermining the competitiveness of CSI members and their ability to create new U.S. jobs and drive the economic recovery.

U.S. Services and Digital Sectors Create Good U.S. Jobs

Services facilitate and are integrated into all sectors of the economy. Services are both digitally enabled themselves (for example, online shopping) and overall enablers of the digital economy in combination with software, digital technologies, and data flows (e.g., in “smart” products that contain embedded sensors or chips allowing for ongoing data transfers). Digital services are increasingly integrated into the production and sale of finished manufactured goods.

Millions of jobs are involved. According to the most recent Department of Commerce assessment, the digital economy alone directly supports 8.8 million jobs, accounting for 5.7% of total jobs.¹ More broadly, estimates of direct and indirect jobs associated with digital services are higher: one recent study finds that 19.1 million U.S. jobs are supported by the internet.

¹ Jessica R. Nicholson, “New Digital Economy Estimates,” U.S. Department of Commerce, Bureau of Economic Analysis, August 2020. This paper notes that BEA is “actively working to develop methodology for estimating the components of the digital economy for which estimates are missing.”
sector. Overall, more than 109 million workers were employed in services-producing sectors of the economy in 2019, 83% of total private sector employment.  

A. Services and Digital Trade Sectors Create High-Income U.S. Jobs

The U.S. services and digital sectors are creating the higher wage jobs that American workers need—both high school and college educated.

- U.S. Government 2019 employment data show that firms employed nearly 52 million workers in services occupations earning middle class wages as defined by Pew Research Center.
- Most American households today “sustain a middle-class living through work in areas outside manufacturing, especially in services sectors where the United States has comparative advantages.”
- The Bureau of Labor Statistics projects the number of jobs in these occupations will increase by 6% (+3.1 million jobs) over the next 10 years. Some of the fastest-growing occupations include software developers and testers, registered nurses, general and operations managers, and financial managers.
- It is worth noting that services workers play a key role addressing climate issues. Just one segment of this sector, energy efficiency services, employ more than 3 million, with more than 50% in construction, 20% in professional services, and 14% in manufacturing.

Increasing the competitiveness of U.S. services and digital trade firms in global markets will in turn help expand these jobs.

B. The Services Sector Provides Nearly Half of All U.S. Manufacturing Sector Jobs

To date, efforts to create good new jobs for American workers have focused largely on the manufacturing sector, based on the mistaken assumption that traditional production jobs pay better than other occupations. The emphasis on production work is misplaced, overlooking the major role that services play in creating good jobs in the manufacturing sector.

3 U.S. Department of Commerce, Bureau of Economic Analysis, “Table 6.4D: Full-Time and Part-Time Employees by Industry.”
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of Jobs</th>
<th>Typical Entry-Level Educational Requirement</th>
<th>Average Annual Wage (USD)</th>
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<tr>
<td>Production Occupations</td>
<td>6,466,390</td>
<td>High School</td>
<td>40,140</td>
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<tr>
<td>Transportation and Material Moving Occupations</td>
<td>1,095,620</td>
<td>High School</td>
<td>37,920</td>
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<td>Office and Administrative Support Occupations</td>
<td>1,031,950</td>
<td>High School</td>
<td>41,040</td>
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<tr>
<td>Architecture and Engineering Occupations</td>
<td>829,320</td>
<td>College</td>
<td>88,800</td>
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<tr>
<td>Management Occupations</td>
<td>718,560</td>
<td>College</td>
<td>122,480</td>
</tr>
<tr>
<td>Installation, Maintenance, and Repair Occupations</td>
<td>648,670</td>
<td>High School</td>
<td>50,130</td>
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<tr>
<td>Business and Financial Operations Occupations</td>
<td>526,720</td>
<td>College</td>
<td>78,130</td>
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<tr>
<td>Sales and Related Occupations</td>
<td>426,650</td>
<td>High School</td>
<td>43,060</td>
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<tr>
<td>Computer and Mathematical Occupations</td>
<td>307,140</td>
<td>College</td>
<td>93,760</td>
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<tr>
<td>Construction and Extraction Occupations</td>
<td>203,890</td>
<td>High School</td>
<td>52,580</td>
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<tr>
<td>Life, Physical, and Social Science Occupations</td>
<td>146,330</td>
<td>College</td>
<td>77,450</td>
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<tr>
<td>Arts, Design, Entertainment, Sports, &amp; Media Occ.</td>
<td>91,520</td>
<td>Various</td>
<td>61,960</td>
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<tr>
<td>Food Preparation and Serving Related Occupations</td>
<td>79,420</td>
<td>None</td>
<td>26,670</td>
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<tr>
<td>Building &amp; Grounds Cleaning &amp; Maintenance Occ.</td>
<td>65,540</td>
<td>None</td>
<td>31,250</td>
</tr>
<tr>
<td>Farming, Fishing, and Forestry Occupations</td>
<td>35,450</td>
<td>Various</td>
<td>31,340</td>
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<td>Protective Service Occupations</td>
<td>13,070</td>
<td>High School</td>
<td>49,880</td>
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<td>Healthcare Practitioners and Technical Occupations</td>
<td>10,790</td>
<td>College</td>
<td>83,640</td>
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<td>Legal Occupations</td>
<td>7,390</td>
<td>College</td>
<td>109,630</td>
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<td>Personal Care and Service Occupations</td>
<td>1,340</td>
<td>High School</td>
<td>31,260</td>
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<td>Healthcare Support Occupations</td>
<td>1,080</td>
<td>High School</td>
<td>31,010</td>
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<tr>
<td>Educational Instruction and Library Occupations</td>
<td>600</td>
<td>College</td>
<td>57,710</td>
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<tr>
<td>Community and Social Service Occupations</td>
<td>400</td>
<td>College</td>
<td>50,480</td>
</tr>
<tr>
<td>Total Occupations</td>
<td>12,707,840</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These data reflect the averages for the occupation generally, not specifically to that occupation within manufacturing. The latter data are not available.
A review of the U.S. Bureau of Labor categories of occupations involved in the manufacturing sector listed in Table 1 reveals that in 2019, 49% of all employees classified as working for a manufacturing firm (and thus counted in “manufacturing sector” employment) actually held services occupations. Moreover, 13 of these services occupations pay wages that would put families of the job holder in the middle class, as defined by Pew Research Center, and four of them are available to individuals with only a high school education.

A. American Workers Need Training to Take Advantage of New Services and Digital Jobs

Many of the services jobs that are being created require digital skills. Over the last decade, two-thirds of the 13 million U.S. jobs created required medium to advanced levels of digital skills. As the American Leadership Initiative recently noted, a large number of jobs available before the pandemic were unfilled because workers did not have the digital skills needed. Many services and digital trade firms have already implemented programs to train high-school graduates and re-skill workers for career-track jobs in the services sector. More must be done, with government in partnership, to expand worker training and re-skilling programs that connect high school graduates and unemployed or underemployed Americans to well-paying, 21st century jobs.

B. Services Support the Competitiveness of U.S. Manufacturing

Services are essential to the competitiveness of American manufacturers. As advances in information technology accelerate, U.S. manufacturers are using services – notably digitally-enabled products and services – not only to make products (e.g., through automation and robotics) but also to better differentiate and customize their offerings. An International Trade Commission survey of research found that access to a wide variety of high-quality services promotes manufacturing competitiveness: “[p]roducts that make greater use of services inputs exhibit higher product quality and higher export prices.” For example, GM offers OnStar Guardian customer support in many of its vehicles as a premium feature. Semiconductor chip manufacturers use “big data” analytics to estimate the performance of a range of product variations. Software enabled services help medical device manufacturers with “each step of the value chain, from designing a new product to helping firms comply with regulations.”

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8 Calculated by The Trade Partnership from data in Table 1.
9 Ibid.
11 Ibid., p. 10.
12 Ibid., p. 3-14.
14 Ibid.
C. **Services Support the Competitiveness of U.S. Small Businesses**

Digital tools are also increasingly enabling small businesses to export. Particularly during the pandemic, internet platforms afforded small businesses new opportunities to offer their goods and services globally, and software and services enabled small businesses to operate more competitively and efficiently. A study that surveyed U.S. small businesses found that 92% that export use digital tools such as online payment processing tools, online productivity tools, e-commerce websites, online marketing and other tools. That same study found that exporting accounts for a growing share of small business services firms’ revenues, reaching 25% in 2018, and nearly 6 million export-related jobs nationally.

Though small businesses tend to be short on financial resources and international sales experience, digital tools can help them gain access to new foreign markets. This is important to consider amid efforts to address economic and racial inequality: in 2018, 90% of all minority-owned small businesses were services firms.

**Services and Digital Trade Providers Are Key Partners in Efforts to End the Pandemic, Address Environmental Issues and Advance Racial Equity and Underserved Communities**

In addition to helping the Administration grow high-quality jobs in all sectors of the U.S. economy, a partnership with services and digital trade providers will help the Biden administration reach its goals of getting past the pandemic, addressing environmental issues, and advancing racial equity and underserved communities. Services and digital trade providers are already active on these issues.

A. **Services and Digital Trade Providers Stepped Up to Get the Economy Moving during the Pandemic**

Services helped the U.S. economy stay resilient in the face of sudden, severe disruptions from the pandemic.

- Millions of workers had to figure out ways to work or go to school from home, and the internet and other digital services made that possible.
- Digital services also enabled hundreds of thousands of small businesses to become digital virtually overnight, sustaining their businesses through the pandemic. One-third of small businesses state that they would not have survived the pandemic without access to digital tools.

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17 Connected Commerce Council, “Digitally Empowered.”
• Financial services firms made it possible for people to bank from home at the same time banks developed new digital technologies to assist the unbanked. They also supported thousands of companies in getting PPP loans.
• Digitally connected supply chains eventually enabled manufacturers to restock their customers. Transportation and warehouse workers kept supplies moving, particularly of PPE goods needed to fight the pandemic.
• Cross-border sharing of research and data supported the development of vaccines. The health care industry pivoted to telemedicine.
• Some service sectors were declared “essential” and allowed to continue operating outside the quarantine restrictions, including transportation and construction. Services are also key to getting the U.S. past the pandemic in the months ahead, helping accelerate a recovery.

B. Services and Digital Trade Providers Are Partners in Addressing Environmental Issues

U.S. environmental services and technologies are world class and have a critical role to play in combatting climate change. Digital technologies such as cloud services are already fundamental to promoting more sustainable forms of agriculture. Farmers are using artificial intelligence and machine learning to track supplies, use appropriate levels of inputs like fertilizers and water, and increase yields in environmentally sustainable ways. For example, some farm tractors come equipped with soil probes and sensors that send information to an online portal which aggregates the tractor’s data with other data, helping farmers to better plan and manage resources in environmentally responsible ways.18

Others are seeking to lower their carbon footprint. A leading technology company is using a combination of artificial intelligence, hybrid cloud and quantum computing to apply science to complex climate-related problems, such as the growing global carbon footprint of cloud workloads and data centers, methods to accurately model and assess the risk of changing environments and climate patterns, and the development of new polymers, membranes and materials that can capture and absorb carbon at the origin of emission.19

Finally, AI can help support more sustainable harvesting practices. Studies show that 90% of major fish stocks globally are either overfished or fully exploited – which is a trade problem in a world where over 3 billion people rely on fish for their main protein. Global negotiations on fishery subsidies are underway at the World Trade Organization, but with over 200,000 commercial fishing vessels around the world, there is a need to promote responsible fishing on a cross-border basis. Through a partnership with another leading technology company, two NGOs developed a tool called Global Fishing Watch to apply a data-driven approach to the issue of overfishing.20 These researchers apply AI to publicly available broadcast signals from commercial vessels to detect “zigzag” patterns associated with fishing vessels, and then follow these vessels on a public map to understand when and where they are fishing.

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18 Ofir Schlam, “4 ways big data analytics are transforming agriculture,” July 15, 2019.
20 Google, “Oceans of data: tracking illegal fishing over 1.4 billion square miles,” September 2018
Services and Digital Trade Firms Are Focused on Advancing Racial Equity and Underserved Communities

As major employers of people of color, services and digital trade providers have an important role to play in overcoming racial inequities that stand in the way of access to good jobs, financial resources, education and healthcare. Indeed, many have already announced new initiatives, including efforts to:

- Provide greater access to low-cost financial products to help those who do not use banks or do not use them effectively, and expand their access to credit to start or build new businesses.
- Expand access to digital services like speedy and reliable connection to the internet, in particular for those living in rural areas, older workers, and African Americans, Hispanics, and other underserved communities.
- Provide training that workers of the future will need to excel in the jobs of the future, which will increasingly be technology-intensive. Numerous leading services and digital trade firms already have and are enhancing firm apprentice programs and offering college tuition support, for example. As suggested by the American Leadership Initiative, new public-private partnerships will be necessary to do more.
- Promote diversity in services firms’ supply chains.

To Remain Competitive and Create Good U.S. Jobs, Services and Digital Firms Need Expanding Trade and Investment

Expanding U.S. services and digital trade and investment will enable U.S. services and digital sectors to remain competitive and strengthen the American middle class by providing a source of high-wage jobs. U.S. services and digital trade firms and workers need a global customer base that provides growing demand for new products and services. They sell to these customers through exports as well as through in-country investments. As explained below, while the cross-border exports of banking and insurance firms are limited pursuant to regulatory requirements, finance firms engaged in global securities trading are also among the largest exporters of services from the United States.

Millions of jobs are at stake. More than 4 million American jobs were tied to services exports in 2016, with up to 2.4 million U.S. jobs linked to digital trade. Every billion dollars of services exports supports over 6,700 jobs.

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21 Microsoft is implementing programs that address several of the initiatives listed below. See “New ideas and energized employees fuel Microsoft’s ongoing efforts toward racial equity,” March 10, 2021.

22 For example, the Entertainment Software Association is working with Black Girls CODE to teach coding and technology skills to 1 million girls and young women by 2040. Entertainment Software Association, “The Entertainment Software Association Announces $1 Million Initiative to Support Black Girls Code Through Its Philanthropic Foundation.”

23 Two examples of many are MetLife’s 2019 Sustainability Report, and FedEx, “Diversity & inclusion: Our values in Action.”


26 Rasmussen, op. cit.
U.S. exports of digital services have surpassed $500 billion, accounting for more than half of all U.S. service exports and generating a U.S. digital trade surplus in excess of $200 billion. Likewise, U.S. exports of aircraft, automobiles, machinery, telecommunication equipment and other connected devices that incorporate significant services functionality exceed $500 billion. Digital services play a major role in supporting commerce in all sectors: Over 75 percent of the value of cross-border data transfers accrues to industries like agriculture, manufacturing, and logistics.

Digital services support millions of American jobs. For example, software alone supports over 14 million American jobs—jobs that not only pay more than twice the average annual wage for all U.S. occupations, but also are often accessible without a costly four-year college degree. As a dynamic and innovative economy, the United States is primed for continued growth in these strategic export sectors. With over 1 million software and digital jobs across manufacturing and service facilities going unfilled across the country, there is continued room to grow the economy through digital services trade.

A. Services Exports Matter to High-Wage Jobs, Manufacturing

Services Firms That Export Pay Higher Wages to both Blue- and White-Collar Workers

Export-intensive services firms pay higher wages than services firms that are not export intensive. Workers at export-intensive services firms earn 15.5% more than workers in other services firms. The wage premium is even stronger for blue-collar workers: they earn 18% more than their white-collar colleagues (12.0%).

U.S. Data Understates the Value of Services Exports and Importance to Manufacturing

The low levels of U.S. direct services exports compared to goods exports greatly understates the actual level of services trade flows to global markets. This is due to the poor quality of services data: U.S. goods exports contain a large percentage of services input that has only recently begun to be tracked by BEA and the OECD. As a result, the positive impacts of the U.S. services sector on jobs and wages, particularly in manufacturing, is not sufficiently recognized (see the Appendix for a discussion of some of these data issues).

In fact, services and digital trade exports matter to U.S. manufacturers and their workers. U.S. manufacturing firms (particularly chemical manufacturers and computer and electronics parts manufacturers) are among the largest exporters of services (primarily income they receive for

use of intellectual property, R&D and consulting services). The incorporation of services with finished advanced manufactured goods makes those products highly sought after by global customers and enables manufacturers to charge higher prices, and represents indirect, and unmeasured, exports of services.

B. Services Investment Supports U.S. Jobs and Growth

Inbound and Outbound Services Investment Supports U.S. Jobs

Services investments, both inbound and outbound, are a growing source of American middleclass jobs. Foreign services firms employed 8.6 million workers in the United States in 2018--more than 62% of all workers employed by foreign firms located in the United States that year. Inbound investment in services sectors grew at an average annual rate of 6% from 2015-2018.33

These are high-paying jobs. Compensation per employee in 2018 placed such workers well into the American middle class: finance and insurance, $199,107; company management, $126,970; professional, scientific, and technical services, $120,279; information services, $94,823; real estate and rental and leasing, $87,851; health care and social assistance, $62,199; and transportation and warehousing, $55,656.

Research into the U.S. employment (and other) impacts of outward U.S. investment has concluded that U.S. foreign affiliate activity tends to complement, not substitute, for U.S. activity, including employment. The global work of American multinational companies is concentrated in the United States, not in their affiliates abroad. More company-wide employment is located in the United States -- i.e., 2.2 employees for every one foreign employee.34 For example, industry experts estimate that more than 32,000 domestic jobs are created as a result of international property and casualty insurance trade, resulting in more than $3 billion in U.S. payroll and employment benefits. That payroll, in turn, produces hundreds of millions of dollars in federal, state, and local payroll and sales taxes

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33 Based on data for seven services sectors for which a complete time series were available for the 2015-2018 period.
34 2018 is the latest year data are available. Bureau of Economic Analysis, “Foreign Direct Investment in the U.S., All U.S. Affiliates.”
for the U.S. economy.\textsuperscript{35} By expanding sales for U.S. services (and other sectors) through foreign affiliate sales, U.S. parent companies can increase employment in the United States.

Finally, U.S. foreign direct investment enhances U.S. influence abroad in promoting American values such as rule of law, greater transparency, and respect for human rights and the environment.

\textit{Foreign Investment Plays a Much Greater Role Than Exports In Generating Services Sector Growth}

Despite the growing importance of digitally enabled cross-border services trade, the primary means for the global supply of services is investment. In 2018, two-thirds ($1.7 trillion) of U.S. sales of services to foreign customers were supplied by U.S. services companies through their foreign affiliates; one-third were supplied through cross-border exports.\textsuperscript{36}

This reliance on foreign investment is due to several factors. First, and perhaps most important: many services such as financial services, telecommunications, and to a lesser extent, professional services are heavily regulated in most countries. For example, financial services are subject to local prudential and other regulatory requirements such as establishment of legal presence, investment of capital assets, and local licensing in order to supply a service in a local market. Such requirements can only be fulfilled by local establishment.

Second, the provision of many services requires proximity to local customers to make sales and provide ongoing customer service and after sales services. Retail or wholesale distribution services and logistics are both examples of services that require in-country presence and proximity to customers. In the case of retail, while online shopping has become widespread, a brick-and-mortar presence in local markets as well as online, referred to as an “omni-channel” model, is still often preferred by local customers and local establishment may also be required by regulators.

\textbf{C. Services Trade and Investment Commitments Impact Direct Services Exports}

While the market access commitments under the World Trade Organization (WTO) General Agreement on Trade in Services (GATS) and U.S. free trade agreements (FTAs) provide for some opening in foreign markets, these multilateral and bilateral agreements do not eliminate all services trade restrictions, particularly with respect to cross-border trade. Furthermore, GATS services market access commitments are particularly weak as they are based on a “positive list” approach in which WTO members are only required to provide market access in those sectors

\textsuperscript{35} American Property and Casualty Insurance Association, unpublished data.
\textsuperscript{36} Bureau of Economic Analysis, "\textit{International Services (Expanded Detail)}."
and modes of services supply where they choose to do so. Thus, out of the 160 possible services sub-sectors in which services commitments can be made, the average number of sectors covered in WTO members’ GATS schedules is only 55.\(^{37}\)

In addition, in the case of financial services, cross-border commitments in banking and insurance are specifically limited and thus only a relatively narrow sliver of the services in those sectors are exported. During the WTO Uruguay Round Financial Services negotiations, a group of WTO members developed the Understanding on Commitments in Financial Services (Understanding) which was intended to be a model for how WTO members should schedule their financial services commitments.\(^{38}\) The Understanding provides a closed list of specific insurance and banking sector services that should be subject to WTO member cross-border commitments. Pursuant to the Understanding, in the banking sector cross-border commitments should be made only with regard to transfer of information, information processing and advisory services. In insurance, the Understanding limited cross-border commitments to marine, aviation and transportation insurance, goods in-transit, reinsurance and retrocession, and services auxiliary to insurance. The United States and many other WTO members, particularly developed countries, incorporated the practice of limiting financial services cross-border commitments to the specific lists provided in the Understanding in their FTAs.\(^{39}\) In U.S. FTAs, these cross-border financial services commitments have been broadened to include portfolio management and electronic payment services, but they still remain relatively narrow. The ITC found that U.S. property and casualty insurance exports would increase by 48% if all of the examined countries were to fully liberalize cross-border insurance trade rules, and U.S.-based jobs would increase.\(^{40}\)

D. Services and Digital Trade and Investment Barriers Are Increasing

A robust U.S. trade agenda for services and digital trade is especially important now because foreign barriers to services and digital trade and investment are increasing. The Organization for Economic Cooperation and Development found that the services regulatory environment, particularly for foreign investment, became more restrictive in 2020 and the pace of tightening has accelerated.\(^{41}\) Digital fragmentation is on the rise: as the OECD recognized, “rules and regulations remain fragmented by borders,” and the resulting “regulatory divergences” are raising cross-border costs “as activities need to be aligned across multiple regulatory frameworks.”\(^{42}\)

These barriers negatively impact not only services and digital trade providers and their U.S. workforce, but the range of other U.S. industries that are integrated with them, notably manufacturing. The ITC found that by reducing costs and increasing the variety of services


\(^{42}\) Organization for Economic Cooperation and Development, op. cit
available to U.S. manufacturers, services liberalization could serve as “an important component of efforts to boost manufacturing competitiveness,” in particular for motor vehicles. They also impact the success of the Administration’s efforts to get past the pandemic and address climate issues. Many of these growing barriers interfere with the efficient global development of vaccines to treat the coronavirus and other deadly diseases. Tariffs on goods and regulatory and other restrictions on environmental services make addressing climate change costlier around the world, and in particular the development of new services and technologies that get economies to net zero carbon emissions.

**Conclusion**

CSI members support efforts to increase middle class jobs, particularly for communities left behind, to get past the pandemic, to address environmental issues and climate change, and to promote inclusive prosperity for all segments of the workforce. To do this, however, we need the Administration’s assistance in accessing global markets for American services and digital trade products. Such access makes our firms and workers globally competitive and better able to develop the innovative products and services that will employ more workers at higher wages in the United States.

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43 ITC, op. cit., p. 3-14-15.
Appendix

**Services and Digital Trade Data Significantly Understate the Importance of that Trade to the American Economy**

It is widely acknowledged that official government data reporting U.S. exports, imports and investment related to services and digital trade is incomplete and dated. It does not measure all the ways in which services from the United States cross borders or U.S. services traded between domestic and foreign affiliates impact U.S. operations and employment. As such, it significantly understates the importance of that trade to the American economy.

An assessment by McKinsey Global Institute of just three deficiencies in services and digital trade data collection demonstrates that, if those deficiencies were corrected, the value of services and digital trade would be considerably greater than policy makers currently believe.\(^4^4\) Globally, McKinsey concluded that if three additional channels for services delivery were counted, the total value of services trade flows would exceed that for goods.

According to McKinsey:

- Trade statistics do not fully report the value of services that go into the production of traded goods, such as design, marketing, R&D, and other types of intellectual property. This services value is largely counted in the value of goods exports in official government trade data. These “hidden” services exports amount to a lot. When value added trade data are used, one finds that services represent 31% of the value of goods trade (2014).
- Intangibles like design, brands, software, organizational capital, and training for example, are increasingly important features of traded goods, but they are hard to measure and not always reported in trade data as such if they do not cross borders as discrete transactions (a growing exception is when intangibles are patented or trademarked and recognized as royalty payments in services trade data). McKinsey estimated that if these services were captured in trade data, they would cut the U.S. trade deficit by almost one third.
- Free digital services like email, social media, mapping and search engines are not counted in statistics. McKinsey estimated the estimated value of free services could add as much as $3.2 trillion to global trade in services.

Again, these are just three of the problems with services and digital trade data. Statisticians are aware of many more and are expanding their data coverage little by little, as their budget resources allow and as they are able to overcome measurement and data collection roadblocks. But we have a long way to go. In the interim, policy makers should not underestimate the value of international services and digital trade, and the potential benefits of increasing that trade and investment through trade policies, judging from its size relative to goods trade as currently reported in official statistics.

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