



## International Trade Agreements and Job Estimates

### Overview

The Obama Administration engaged in negotiations on two mega-regional free trade agreements (FTAs): the Trans-Pacific Partnership (TPP) among the United States and eleven other Asia-Pacific countries and the U.S.-European Transatlantic Trade and Investment Partnership (T-TIP). TPP was concluded and signed, but required implementing legislation to become effective, while T-TIP negotiations were not concluded. Upon taking office, the Trump Administration withdrew from the TPP, but may be reconsidering under different negotiating objectives. Discussions on TPP, T-TIP and other FTAs, including during the recent election, have focused attention on quantifying the impact of trade agreements on jobs in the U.S. economy.

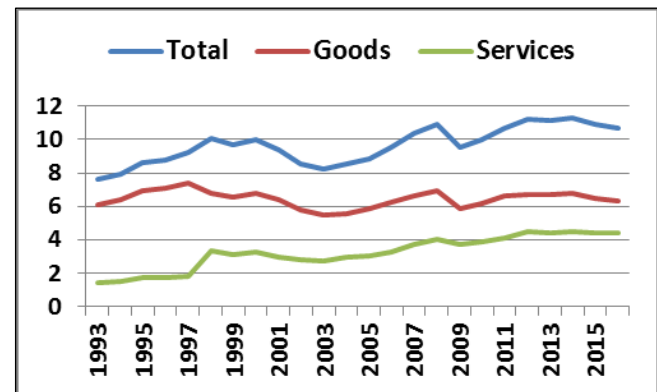
Economists and others often use sophisticated economic models to estimate the economic impact of trade agreements on the economy, particularly the impact on jobs and wages. The International Trade Commission (ITC), for instance, provides estimates of the impact of FTAs on the U.S. economy. Limitations of data and important theoretical and practical issues make it difficult to derive precise estimates of the impact of a particular trade agreement on the U.S. economy. Such models use a number of assumptions that are necessary to derive the results, but such assumptions reduce the reliability of the estimates. In addition, the economy as a whole is subject to a broad range of events, often unforeseen, that cannot be modeled ahead of time in generating trade estimates, but may affect economic performance, including job creation and job losses, in ways that may outweigh the impact of free trade agreements.

### Estimating Employment Related to Trade

Most trade models do not estimate the number of jobs that could be associated with a particular trade agreement, in part because they do not contain the type of microeconomic data that would be required to make such an estimate. As a result, some groups have attempted to use proxy estimators. Some estimates of the relationship between trade and employment have used data developed by the Department of Commerce's International Trade Administration (ITA). These estimates use input-output data to estimate the average number of jobs that are supported (not created) by exports in the U.S. economy based on several factors: the average relationships between the value of goods and services in the economy relative to the average number of jobs that are required to produce that output for each industry, the value of inputs used in their production, and the value of transportation and other marketing services required to bring goods and services to buyers. The agency did not develop a similar methodology to estimate potential job losses due to imports.

The ITA estimated that in 2016, U.S. exports of goods and services supported 10.7 million jobs – 6.3 million in the goods producing sector and 4.4 million in services, as indicated in Figure 1.

**Figure 1. Jobs Supported by Exports in the Goods and Services Sectors of the U.S. Economy, 1998-2016**  
(in millions of jobs)



Source: International Trade Administration

The ITA also projected that on average one billion dollars of merchandise goods exports supported 5,223 jobs, and one billion dollars of services exports supported 6,706 jobs, or an average of 5,744 jobs were supported by goods and services exports combined. Expressed differently, \$191,461 in merchandise goods exports, \$149,120 in services exports, or an average of \$174,095 in goods and services exports, supported one job in each respective sector.

ITA also estimated that jobs associated with international trade, especially export-intensive manufacturing industries, earn 18% more, on average, than comparable workers in other manufacturing industries, because industries with greater access to international markets invest heavily in technology and capital in those areas where the United States has an international comparative advantage. While views differ on this subject, others conclude that a number of factors could account for the observed relationships between trade and worker incomes, which make it difficult to estimate a direct cause and effect relationship.

### Trade Deficits and Job Losses

Some groups have equated bilateral trade deficits with a loss of employment. Most economists, however, argue that equating a trade deficit, whether on a bilateral basis or overall, with a specific amount of unemployment or job losses in the economy is questionable. In some cases, both opponents and proponents of trade and trade agreements have used the methodology developed by the ITA on exports and jobs supported in the economy to estimate the employment effects of FTAs. Sometimes, these data have

been used in reverse to argue that if a certain number of jobs were supported by a billion dollars of exports, then that same number could be used to argue that a certain number of jobs would be “lost” by a billion dollars of imports, so that any net increase in imports associated with a trade agreement would necessarily result in a loss of employment for the economy. This approach also has been used to argue that the U.S. trade deficit implies a net loss of jobs in the economy.

The ITA’s methodology, however, is unique to estimating a static number of jobs supported (not created) by exports. The composition of U.S. imports is fundamentally different from that of U.S. exports. While some imports and exports represent clearly substitutable items, which may adversely affect U.S. jobs, other imports represent inputs to further processing, or are items that either are not available or are not fully available in the economy. In addition, import-competing industries likely do not have the same mix of capital and labor in their production processes as do export-oriented industries so that demands on capital and labor markets could vary substantially across industrial sectors. While some job losses associated with imports can be highly concentrated, imports also support a broad range of widely-dispersed service-sector jobs, including transportation, sales, finance, marketing, insurance, and accounting.

### ITA Clarification and Disclaimer

ITA has issued various statements indicating that using the data on jobs supported by exports to estimate any relationship between imports and jobs is not appropriate. As ITA has indicated, the employment estimate is a static relationship, or it reflects a relationship at a point in time, and is not a multiplier and should not be used to estimate changes in jobs that are associated with changes in exports or imports in a multiplier fashion to estimate the number of U.S. jobs that have been lost or created as a result of trade agreements.

In addition, ITA’s estimates relate to the average number of jobs supported by exports across a broad section of the economy, which is not the same as estimating the number of jobs that would be added or lost as a result of a trade agreement. Such an estimate would need to focus on estimating the change in the composition of employment that would be associated with a change in trade as a result of a trade agreement. Also, most trade agreements incorporate provisions governing trade in services, investment, nontariff barriers, and a broad range of other trade-related issues that are not reflected in the ITA estimates.

ITA argues that its estimate of the number of jobs supported by exports should not be used with projected changes in trade to estimate potential employment effects from trade agreements. It says: “Averages derived from IO [input-output] analysis should not be used as proxies for change. They should not be used to estimate the net change in employment that might be supported by increases or decreases in total exports, in the exports of selected products, or in the exports to selected countries or regions.”

The ITA also indicated that, “The averages are not proxies because the number of jobs supported by exports usually does not change at the same rate as export value. The rate is not the same because other factors, such as prices, resource utilization, business practices, and productivity, do not usually change at the same rate. In addition, the material and service inputs and the labor and capital inputs differ significantly across types of exports. For example, the labor requirements for an exported aircraft are significantly different from those of an exported agricultural product or an educational service.”

Ideally, estimates of changes in jobs that arise from changes in trade flows that are associated with changes in tariff reductions would be derived using figures that reflect actual changes in employment (based on the mix of goods traded) that would occur at the margin as a result of changes in the volume of goods traded. According to the ITA, though, such data do not exist. The only data that are available reflect the estimated average number of jobs supported across the U.S. economy by a given level of exports. During periods of slack business activity, increased output, such as exports, would tend to increase employment, lower unemployment, and increase labor force participation. Conversely, during periods of high business activity, when industries operate at or near full capacity and employment, increased output, including output for exports, would tend to raise employment less—if at all—and instead likely would mainly shift employment to industries that pay higher wages.

### Issues for Congress

Trade agreements often are controversial for a number of reasons, including the estimated impact they might have on jobs in the economy. In examining the impact of trade agreements on the U.S. economy, Congress may:

- Assess the current state of data on trade and trade-related employment to determine what if any action may be taken to improve such data and the costs and benefits involved in doing so.
- Assess the current state of data to determine if such data can be used to provide more informed estimates of the potential long-run impact on the economy as a whole and on particular sectors within the economy of a trade agreement.
- Assess the role that such other factors as education, job training, and adjustment assistance programs have in positioning the economy to be competitive overall and in adjusting in a timely fashion to shifting trade trends.

### More Information

For more information see CRS Report R44717, *International Trade and Finance: Overview and Issues for the 115th Congress*, coordinated by Mary A. Itrace and Rebecca M. Nelson.

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