

# Jobs Supported by State Exports 2015 

Jeffrey Hall and Chris Rasmussen
Office of Trade and Economic Analysis
International Trade Administration
Department of Commerce

May 31, 2016

## Jobs Supported by State Exports 2015

## Executive Summary

In 2015, exports of goods and services supported an estimated 11.5 million U.S. jobs. Nationally, goods exports consisting of manufactured products, agricultural products, natural resources and used/second-hand products supported 6.7 million jobs. The export of services accounted for the remaining 4.8 million jobs supported.

In this report, we present estimates of jobs supported by exports of goods at the state level. We find that goods exports from the states of Texas, California, Washington, Illinois, and New York supported an estimated 2.8 million jobs in 2015. This figure represents 41 percent of all U.S. jobs supported by goods exports in 2015.

Since 2009, we estimate that the number of jobs supported by the export of goods nationally has grown by 900 thousand. Goods exports from the states of Texas, California, Washington, Louisiana and Michigan supported nearly 50 percent of the total change in jobs supported over this time period.

## Introduction

In 2015, exports of goods and services supported an estimated 11.5 million U.S. jobs. Nationally, goods exports consisting of manufactured products, agricultural products, natural resources and used/second-hand products supported 6.7 million jobs. The export of services accounted for the remaining 4.8 million jobs supported.

This paper presents estimates of jobs supported by goods exports from the 50 states (Table 1). ${ }^{1}$ Because data on exports of services by state is unavailable, the breakout is limited to jobs supported by the export of goods. ${ }^{2}$ The complete set of results for jobs supported by goods exports from all 50 states and the District of Columbia for the years 2000-2015 can be found at http://trade.gov/mas/ian/employment/index.asp.

## State Export Data

The state goods export data employed in the breakout here is taken from two sources. For all products other than agriculture we use the Origin of Movement (OM) series produced by the United States Census Bureau. The OM series generally provides export data based on the state from which the good began its journey to the port of export. However, in some cases, the origin of movement data does not reflect the state from which the export was initially transported. For example, when shipments are consolidated, the OM data will reflect the consolidation point of the shipment as opposed to the transportation origin. The effect of consolidation on the data is particularly noticeable for agricultural exports that are shipped down the Mississippi River to New Orleans. For these products, Louisiana is identified as the state of origin in the data rather than the states where the commodities were produced and originally shipped. ${ }^{3}$

A similar problem can arise when looking at exports of other non-manufactured goods when those goods are stored and then exported by central offices or intermediaries: exports from the state in which the consolidation occurs will be overstated. ${ }^{4}$

[^0]Therefore, for agricultural exports as defined by NAICS, we use state export data from the Economic Research Service (ERS) of the United States Department of Agriculture (USDA), which attempts to trace agricultural exports back to the states where their production originated. The ERS estimates of state agricultural exports use a measure of state-level farm cash receipts from USDA farm survey data. Each state's export value is then derived using the state's share of cash receipts by sub-industry. These shares are applied to U.S. national export values to create state export values. ${ }^{5}$

## Methodology

The first step of the state-level estimates for years prior to 2015, takes a states' share of exports of a commodity for that year and applies it to the number of jobs supported nationally by the export of that commodity for the same year. For 2015, we assume that the commodity shares of total jobs supported are unchanged from 2014. The state results are then summed across commodities to obtain the total number of jobs supported by goods exports for each state.

## Interpretation of the Results

Given the data used to estimate job supported by state-level exports, care should be taken in the interpretation of the results. The figures presented in this paper should best be thought of as representing the number of jobs supported by the exports from a state as opposed to the number of jobs supported by exports within a state. As calculated, exports from a particular state are not necessarily produced in that state and, therefore, not all the labor embodied in the production of the export will be located in the state.

## Sources of Revisions

This release of Jobs Supported by State Exports includes preliminary values for the year 2015 and revised values for the years 2000 to 2014. Sources of revisions include: updated national Jobs Supported by Exports estimates, revised USDA State Agricultural Export estimates, and revised Census State Merchandise Export values.

[^1]Jobs Supported by Goods Exports from Individual States 2015
The state-level estimates of jobs supported by goods exports are presented in Figures 1 and 2. Goods exports from the fifteen states whose exports supported the most jobs accounted for almost 4.8 million jobs supported ( 71 percent of total jobs supported by goods exports) with exports from the states of Texas and California supporting one out of every four jobs. Exports from the remaining 35 states accounted for 29 percent of all jobs supported by goods exports.

Figure 1: The 15 States Whose Goods Exports Supported the Most Jobs in 2015


Figure 2: Shares of Jobs Supported by Total Goods Exports, State Breakout


Jobs Supported by Manufactured Exports from Individual States in 2015
Since manufacturing plays a large role in the economies of individual states, we also estimate jobs supported by manufactured exports at the state-level. Manufactured products account for 89 percent of all jobs supported by the export of goods. Nationally we estimate that exports of manufactured products supported approximately 6.0 million jobs in 2015 . Jobs supported by manufactured exports broken down by state are presented in Figure 3.

Figure 3: The 15 States Whose Manufactured Exports Supported the Most Jobs in 2015


Reflecting the predominance of manufactured products in the composition of all goods exports, the 15 states whose exports of manufactured goods supported the greatest number of jobs are also the 15 states whose total goods exports supported the greatest number of jobs. Overall, the 15 states whose manufactured exports supported the most jobs accounted for 73 percent of jobs supported by the export of manufactured products (Figure 4).

Figure 4: Shares of Jobs Supported by Manufactured Exports, State Breakout


## Changes in Jobs Supported by Goods Exports from Individual States

The export of goods supported nearly 900,000 additional jobs in 2015 as compared to the low level during the end of the recession in 2009. Figure 5 presents the 15 states with the largest change in jobs supported by exports over the period 2009-2015. Exports from these 15 states supported almost 821,000 more jobs in 2015 than in 2009, while exports from the remaining 35 states accounted for almost 62,000 additional jobs supported.

Figure 5: Change in Jobs Supported by Exports, 2009-2015


Figure 6 shows the 2009 to 2015 trend in jobs supported for the five states whose exports supported the most jobs in 2015.

Figure 6: Jobs Supported by Goods Exports 2009-2015, Top Five States


The exports of 27 states supported more jobs in 2015 than in 2014. Figure 7 presents the 15 states with the largest change in jobs supported by exports over the period 2014-2015. Exports from these 15 states supported over 70,000 more jobs in 2015 than the previous year.

Figure 7: Change in Jobs Supported by Exports, 2014-2015


## Conclusion

In 2015, goods exports from the states of Texas, California, Washington, Illinois and New York supported an estimated 2.8 million or 41 percent of all U.S. jobs supported by the export of goods. Manufactured exports from the same five states supported 2.5 million U.S. jobs.

Table 1 - Jobs Supported by Goods Exports from Individual States 2009-2015

| State | Number of Jobs Supported |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 (R) | 2010 (R) | 2011 (R) | 2012 (R) | 2013 (R) | 2014 (R) | 2015 (P) |
| Alabama | 78,301 | 82,002 | 88,911 | 97,366 | 94,563 | 92,970 | 97,098 |
| Alaska | 30,884 | 34,081 | 41,837 | 38,199 | 38,461 | 38,431 | 41,566 |
| Arizona | 78,554 | 75,975 | 83,392 | 82,192 | 84,516 | 89,992 | 101,579 |
| Arkansas | 48,752 | 44,910 | 43,888 | 54,936 | 50,324 | 47,667 | 49,387 |
| California | 658,719 | 683,610 | 710,381 | 682,964 | 689,239 | 703,360 | 706,969 |
| Colorado | 35,964 | 38,439 | 41,120 | 42,947 | 42,338 | 41,656 | 41,849 |
| Connecticut | 77,205 | 78,680 | 77,174 | 75,483 | 76,494 | 73,180 | 70,038 |
| Delaware | 22,950 | 23,653 | 23,834 | 21,905 | 22,050 | 21,691 | 23,672 |
| Florida | 266,427 | 273,786 | 293,220 | 286,998 | 257,739 | 249,563 | 243,755 |
| Georgia | 150,167 | 167,779 | 190,357 | 188,549 | 190,915 | 195,736 | 198,488 |
| Hawaii | 3,189 | 3,412 | 4,299 | 3,383 | 2,621 | 5,568 | 8,434 |
| Idaho | 22,686 | 26,831 | 29,716 | 29,453 | 27,087 | 24,500 | 21,124 |
| Illinois | 284,927 | 305,920 | 354,660 | 371,288 | 329,717 | 338,502 | 333,674 |
| Indiana | 156,017 | 168,813 | 175,220 | 187,472 | 176,519 | 188,736 | 190,511 |
| Iowa | 102,061 | 106,142 | 112,785 | 121,072 | 105,129 | 110,049 | 101,986 |
| Kansas | 65,647 | 68,951 | 70,934 | 65,874 | 66,138 | 64,776 | 59,175 |
| Kentucky | 111,279 | 108,050 | 105,261 | 114,457 | 128,532 | 137,886 | 140,352 |
| Louisiana | 100,425 | 113,785 | 136,180 | 156,359 | 168,872 | 170,488 | 155,428 |
| Maine | 16,037 | 19,115 | 19,636 | 18,271 | 16,619 | 16,314 | 17,543 |
| Maryland | 53,446 | 52,237 | 49,992 | 54,028 | 53,459 | 54,942 | 46,385 |
| Massachusetts | 127,738 | 128,907 | 126,922 | 113,563 | 113,355 | 114,579 | 111,875 |
| Michigan | 207,450 | 239,415 | 250,559 | 284,596 | 286,080 | 270,035 | 270,240 |
| Minnesota | 118,788 | 126,027 | 127,928 | 129,533 | 124,240 | 123,845 | 119,119 |
| Mississippi | 41,043 | 43,328 | 49,139 | 54,370 | 54,080 | 51,945 | 53,945 |
| Missouri | 74,047 | 86,013 | 87,109 | 84,125 | 77,720 | 84,824 | 87,927 |
| Montana | 10,217 | 11,978 | 15,035 | 11,958 | 12,771 | 12,084 | 12,085 |
| Nebraska | 56,655 | 56,791 | 67,861 | 63,220 | 58,983 | 64,600 | 58,300 |
| Nevada | 28,732 | 26,247 | 29,600 | 36,309 | 31,281 | 28,873 | 34,492 |
| New Hampshire | 17,802 | 22,720 | 21,259 | 16,213 | 15,973 | 17,849 | 18,281 |
| New Jersey | 143,387 | 150,105 | 158,424 | 143,537 | 141,279 | 143,489 | 137,140 |
| New Mexico | 7,497 | 8,220 | 10,004 | 12,838 | 11,564 | 15,131 | 15,144 |
| New York | 279,371 | 296,143 | 328,608 | 312,109 | 313,262 | 318,308 | 315,221 |
| North Carolina | 144,773 | 148,651 | 152,681 | 156,176 | 152,930 | 160,211 | 158,222 |
| North Dakota | 27,462 | 28,968 | 32,430 | 35,478 | 32,480 | 33,715 | 34,767 |
| Ohio | 226,728 | 240,979 | 245,309 | 255,794 | 256,480 | 258,170 | 260,436 |
| Oklahoma | 31,121 | 33,409 | 33,974 | 36,693 | 37,166 | 33,406 | 28,530 |
| Oregon | 71,337 | 76,181 | 76,174 | 73,957 | 74,325 | 80,183 | 81,547 |
| Pennsylvania | 165,354 | 180,743 | 192,465 | 181,199 | 185,692 | 183,995 | 190,351 |
| Rhode Island | 8,574 | 9,410 | 10,010 | 9,352 | 8,477 | 9,330 | 9,117 |
| South Carolina | 110,261 | 115,620 | 130,263 | 131,390 | 134,461 | 149,622 | 158,242 |
| South Dakota | 24,316 | 23,040 | 25,692 | 25,636 | 23,166 | 26,172 | 23,848 |
| Tennessee | 123,109 | 134,157 | 144,532 | 149,685 | 151,594 | 153,241 | 158,078 |
| Texas | 849,510 | 918,398 | 988,943 | 1,036,176 | 1,063,052 | 1,084,456 | 1,046,549 |
| Utah | 51,913 | 59,297 | 65,167 | 65,782 | 57,011 | 48,590 | 55,795 |
| Vermont | 16,277 | 18,671 | 18,031 | 16,660 | 15,508 | 13,888 | 12,698 |
| Virginia | 86,225 | 89,556 | 88,854 | 87,390 | 81,921 | 86,374 | 87,259 |
| Washington | 278,448 | 258,083 | 293,924 | 331,127 | 359,096 | 385,249 | 375,009 |
| West Virginia | 28,593 | 32,564 | 40,899 | 53,813 | 39,880 | 35,034 | 30,458 |
| Wisconsin | 109,939 | 115,032 | 122,411 | 127,066 | 121,428 | 120,101 | 118,958 |
| Wyoming | 4,969 | 4,660 | 5,506 | 6,468 | 5,895 | 6,627 | 5,369 |

Note: Values for 2009-2014 are revised. Values for 2015 are preliminary.
Source: ITA calculations from USDA and BEA data.


[^0]:    ${ }^{1}$ For the national figures see Rasmussen, April, 2016, "Jobs Supported by Exports 2015: An Update." U.S. Department of Commerce, International Trade Administration, Washington, DC. http://www.trade.gov/mas/ian/employment/index.asp
    ${ }^{2}$ Goods exports consist of manufactured exports (NAICS 31-33), agricultural and natural resource and mining exports (NAICS 11 and NAICS 21) and scrap/second hand goods.
    ${ }^{3}$ For a discussion of the OM data series see the Foreign Trade Division's State Data series page located at https://www.census.gov/foreign-trade/aip/elom.html. ${ }^{4}$ Ibid.

[^1]:    ${ }^{5}$ For a discuss of the ERS methodology employed in their state export data see: http://www.ers.usda.gov/data-products/state-export-data/documentation.aspx

