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# Jobs Supported by State Exports, 2016

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## Executive Summary

This paper presents estimates of jobs supported by goods exports from the 50 states. In 2016, exports of goods and services supported an estimated 10.7 million U.S. jobs, of which goods exports supported 6.3 million jobs, a decline of 100 thousand from the 2015 level. Exports from Texas, California, and Washington supported the most jobs in 2016, together accounting for over 1.9 million jobs. The decline in US jobs supported by goods exports in 2016 was reflected in the state level values, with 28 states seeing their exports support fewer jobs than in 2015.



## *Introduction*

In 2016, exports of goods and services supported an estimated 10.7 million U.S. jobs, a decline of 160 thousand jobs from the 2015 level. Nationally, goods exports consisting of manufactured products, agricultural products, natural resources and used/second-hand products supported 6.3 million jobs. The export of services accounted for the remaining 4.4 million jobs supported.

This paper presents estimates of jobs supported by goods exports from the 50 states (Table 1).<sup>1</sup> Because data on exports of services by state is unavailable, the breakout is limited to jobs supported by the export of goods.<sup>2</sup> The complete set of results for jobs supported by goods exports from all 50 states and the District of Columbia for the years 2000-2016 can be found at <http://trade.gov/mas/ian/employment/index.asp>.

## **Background**

### *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.<sup>3</sup>

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<sup>1</sup> For the national figures see Rasmussen, August, 2017, “Jobs Supported by Exports 2016: An Update.” U.S. Department of Commerce, International Trade Administration, Washington, DC.

<http://www.trade.gov/mas/ian/employment/index.asp>

<sup>2</sup> 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.

<sup>3</sup> 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>.

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.<sup>4</sup>

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.<sup>5</sup>

### *Methodology*

The first step of the state-level estimates for years prior to 2016, uses 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<sup>6</sup>. For 2016, we assume that the commodity shares of total jobs supported are unchanged from 2015. 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.

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<sup>4</sup> Ibid.

<sup>5</sup> 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>

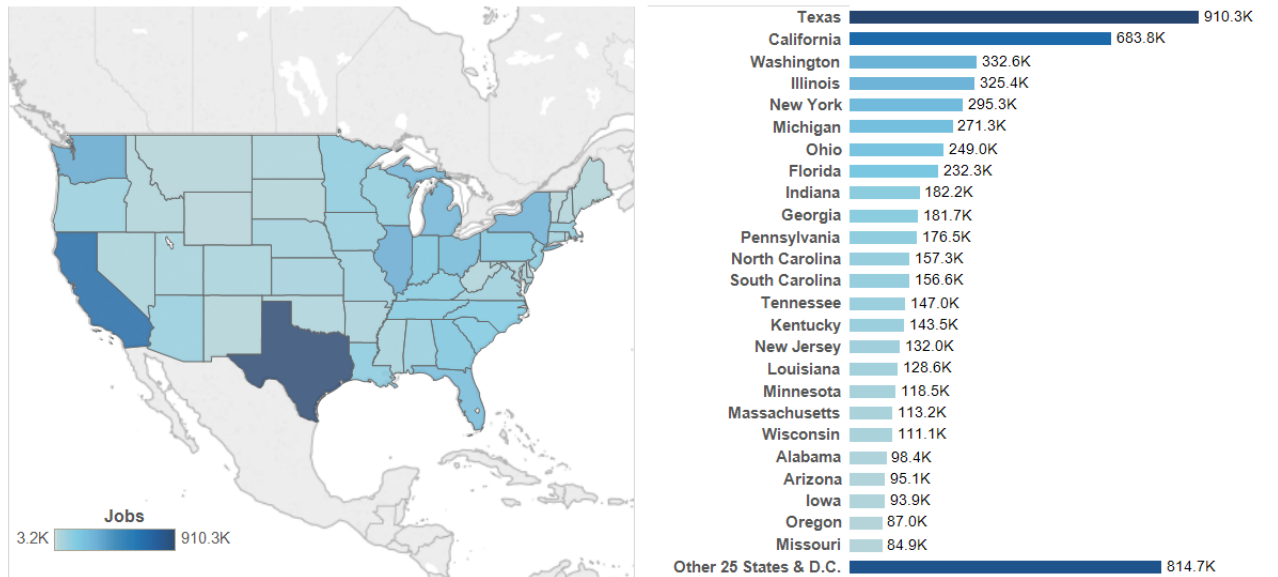
<sup>6</sup> For national level sector level jobs supported figures see Rasmussen, "Jobs Supported by Exports Product and Industry 2015" <http://www.trade.gov/mas/ian/employment/index.asp>

## Results

### *Jobs Supported by Goods Exports, 2016*

Goods exports from Texas, California, and Washington supported the most jobs in 2016 (910 thousand, 684 thousand, and 333 thousand jobs respectively). Exports from Texas and California together accounted for nearly 30% of jobs supported.

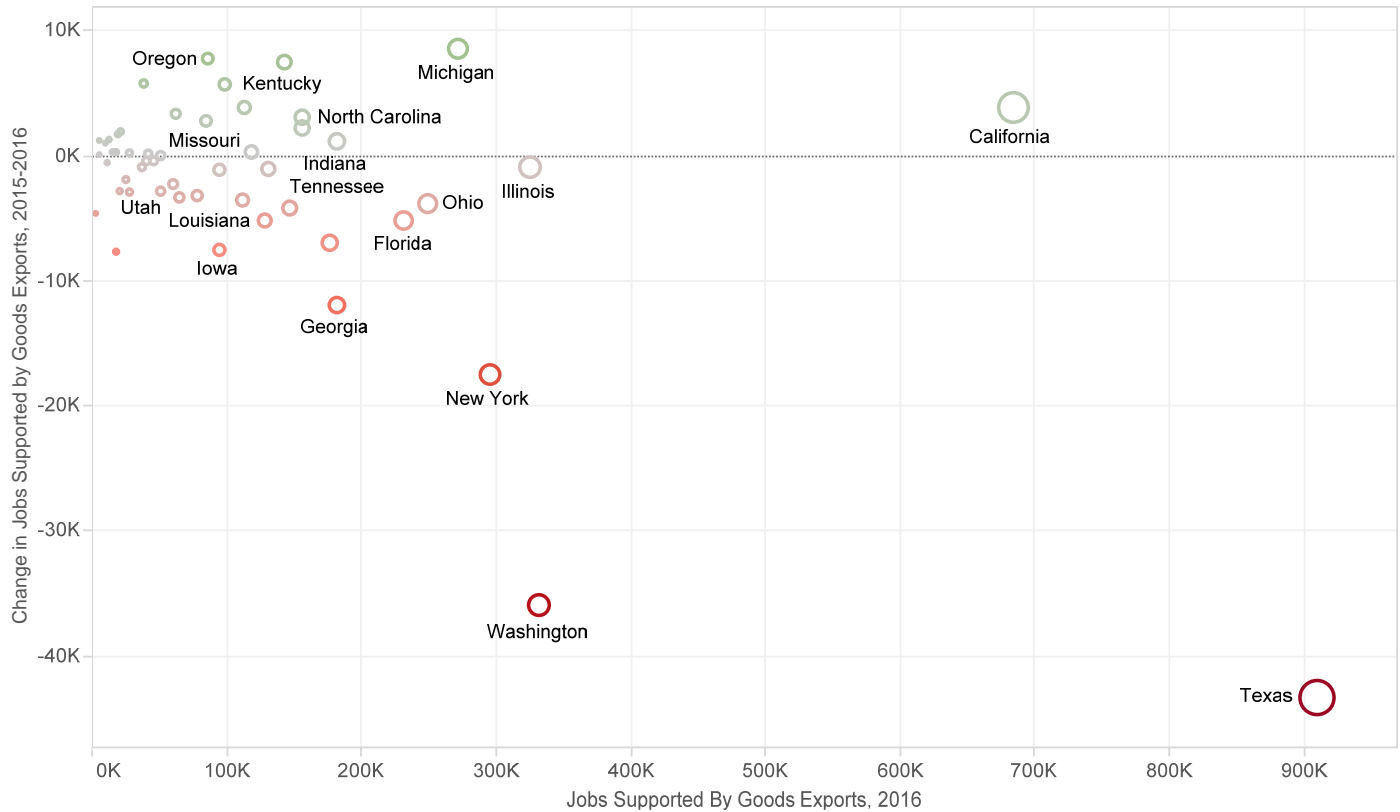
#### Jobs Supported by Goods Exports, 2016



### *2015-2016 Changes in Jobs Supported by Goods Exports*

At the national level, jobs supported by US goods exports declined by 1.9 percent in 2016 versus 2015 reflecting a 3.6 percent drop in the value of goods exports. 28 states saw declines in jobs supported by exports in 2016, with the largest declines occurring in jobs supported by exports from Texas (decline of 43 thousand) and Washington (decline of 36 thousand). Contributing to these declines in jobs supported were declines in the value of goods exports from Texas (decline of 7.0 percent) and Washington (decline of 7.9 percent). Jobs supported by exports from Michigan increased by over 8 thousand in 2016, the largest state increase.

### 2016 Jobs Supported by Goods Exports Versus 2015-2016 Change in Jobs Supported by Exports



Many of the largest states saw declines in 2016. Of the top 10 states by jobs supported, 7 saw declines in jobs supported from 2015 to 2016. The 2016 decline in jobs supported by goods exports from Texas followed a larger decline of 99 thousand in 2015. The 36 thousand decline in jobs supported by goods exports from Washington followed a decline of 11 thousand in 2015. After a 2015 decline of 28 thousand jobs, jobs supported by goods export from California in 2016 increased by 4 thousand.

## Appendix

State	Number of Jobs Supported					2015-2016 Change
	2012 (R)	2013 (R)	2014 (R)	2015 (R)	2016 (P)	
Alabama	96,588	94,953	93,192	92,728	98,382	5,653
Alaska	37,535	38,694	38,396	38,096	37,100	-996
Arizona	81,624	84,361	89,665	96,137	95,074	-1,064
Arkansas	54,816	50,740	47,560	40,955	41,168	214
California	682,823	695,106	707,758	679,985	683,772	3,787
Colorado	42,880	42,644	42,403	40,885	40,421	-463
Connecticut	75,450	76,753	72,777	68,484	65,140	-3,344
Delaware	21,894	22,189	21,876	22,767	19,981	-2,785
District of Columbia	9,386	11,405	3,914	4,502	5,693	1,191
Florida	286,936	260,582	251,687	237,496	232,253	-5,243
Georgia	188,317	192,143	196,324	193,645	181,731	-11,914
Hawaii	3,313	2,561	5,323	7,937	3,232	-4,706
Idaho	29,470	27,416	24,856	20,526	22,437	1,911
Illinois	370,767	332,141	342,775	326,343	325,368	-975
Indiana	187,281	178,301	191,320	181,147	182,228	1,081
Iowa	120,656	106,081	110,966	101,410	93,941	-7,469
Kansas	68,094	68,539	67,177	62,388	60,121	-2,267
Kentucky	114,490	129,675	138,242	136,114	143,536	7,422
Louisiana	155,753	167,685	161,898	133,887	128,623	-5,264
Maine	18,275	16,783	16,700	17,270	17,568	299
Maryland	53,915	53,880	55,248	45,720	45,245	-475
Massachusetts	113,565	114,898	116,180	109,351	113,181	3,830
Michigan	284,288	291,577	278,143	262,840	271,337	8,497
Minnesota	129,011	125,014	124,528	118,113	118,458	345
Mississippi	54,296	54,164	50,808	51,105	51,113	7
Missouri	83,636	78,316	85,719	82,148	84,868	2,720
Montana	11,847	12,808	12,242	11,755	13,079	1,323
Nebraska	63,051	59,484	65,273	59,339	62,670	3,331
Nevada	35,892	31,973	29,510	33,433	39,077	5,644
New Hampshire	16,213	16,120	18,049	17,637	19,334	1,697
New Jersey	143,518	142,788	144,394	133,101	131,960	-1,140
New Mexico	12,830	11,607	15,218	14,705	14,958	253
New York	311,826	318,901	326,060	312,815	295,283	-17,532
North Carolina	155,867	154,557	161,704	154,273	157,285	3,013
North Dakota	35,386	32,544	34,619	30,952	28,002	-2,950
Ohio	255,492	259,664	260,907	252,789	248,978	-3,810
Oklahoma	36,684	37,462	33,615	28,088	28,292	204
Oregon	73,950	75,010	80,968	79,322	87,023	7,702
Pennsylvania	180,564	186,736	185,143	183,428	176,514	-6,915
Rhode Island	9,348	8,643	9,558	8,982	9,977	994
South Carolina	131,388	135,859	151,327	154,392	156,598	2,207
South Dakota	25,516	23,315	26,640	24,988	17,373	-7,615
Tennessee	149,637	153,658	156,016	151,263	146,976	-4,287
Texas	1,035,915	1,057,237	1,052,352	953,648	910,304	-43,344
Utah	65,654	58,915	49,364	54,064	51,267	-2,797
Vermont	16,649	15,591	14,006	12,254	11,707	-547
Virginia	87,220	82,574	86,685	81,726	78,434	-3,292
Washington	330,995	359,807	379,454	368,657	332,599	-36,058
West Virginia	50,589	38,924	34,902	27,884	25,883	-2,001
Wisconsin	126,975	122,350	120,746	114,654	111,075	-3,579
Wyoming	6,439	5,913	6,527	5,387	5,384	-3

Note: Values for 2009-2015 are revised. Values for 2016 are preliminary.

Source: ITA calculations from USDA and BEA data.