

The Economic Impacts of Utah's International Exports 2007–2010 with 2011 update

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PREPARED FOR
Zion's Bank 10th Annual
Trade & Business Conference

MAY 2011
(UPDATED APRIL 2012)



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EXECUTIVE SUMMARY

- Utah exported \$13.6 billion worth of goods in 2010. This represented 1.1 percent of the United States' total exports, up from a share of 0.7 percent in 2007. At \$7.0 billion, gold and silver accounted for nearly 52 percent of Utah's 2010 exports. Excluding gold and silver, Utah exported \$6.6 billion of goods in 2010. Utah consistently had a trade surplus in goods over the period.
- The impacts presented in this report do not include international trade in services, data for which are not available at the state level. Exports of services are sizeable, representing an average of 30 percent of the United States' total exports between 2007 and 2010.
- After gold, the state's largest export by value in 2010 was computer memory, with \$1.2 billion worth shipped out of the country from Utah. Rounding out the top five were miscellaneous food preparations (\$298 million), molybdenum (\$279 million), civilian aircraft engines (\$277 million), and safety airbags (\$201 million). These five goods represented 35 percent of the value of Utah's exports (excluding gold and silver) in 2010.

Top 5* Exported Commodities from Utah by 2010 Value
(Millions of Constant 2010 Dollars)

Commodity	2007	2008	2009	2010	Change	
					Dollars	Relative
Electronic integrated circuit memory (RAM & ROM)	\$380	\$1,273	\$1,010	\$1,231	\$851	223.5%
Food preparations, NESOI	\$282	\$259	\$284	\$298	\$16	5.8%
Molybdenum ores and concentrates, not roasted	\$465	\$227	\$114	\$279	-\$186	-40.0%
Civilian aircraft, engines and parts	\$274	\$388	\$286	\$277	\$3	1.0%
Safety airbags with inflator system, parts thereof	\$209	\$203	\$158	\$201	-\$8	-3.7%
Total Utah Exports	\$8,006	\$10,070	\$10,833	\$13,572	\$5,566	69.5%
Share of U.S. Exports	0.7%	0.8%	1.0%	1.1%		
Total Exports Excluding Gold and Silver	\$4,982	\$6,126	\$5,152	\$6,560	\$1,578	31.7%

* Excluding gold. NESOI = not elsewhere specified or included.
Source: U.S. Census Bureau, Foreign Trade Division.

- Total estimated impacts on Utah's gross state product (GSP) as a result of the state's international exports of goods (excluding gold and silver) grew from \$4.4 billion in 2007 to \$5.9 billion in 2010 (in inflation-adjusted 2010 dollars). The impacts are equivalent to approximately 4 to 5 percent of annual GSP.
- Utah's international exports generated an estimated \$2.9 billion in total earnings in 2010, up from \$2.3 billion in 2007.
- The employment impacts of Utah's international exports ranged from an estimated 54,955 full- and part-time jobs in 2007 to 75,721 in 2010. On average, Utah's commodity exports support approximately 65,775 jobs each year, roughly 4 percent of the state's total nonfarm employment.

**Summary of Economic Impacts of Utah's Commodity Exports,
2007–2010**

Impact	2007	2008	2009	2010
GSP (millions of 2010 dollars)	\$4,449.1	\$5,458.9	\$4,739.3	\$5,924.2
Earnings (millions of 2010 dollars)	\$2,276.3	\$2,706.6	\$2,337.1	\$2,943.0
Employment (full- and part-time jobs)	54,955	70,537	61,885	75,721

Source: Bureau of Economic and Business Research, University of Utah, using RIMS II multipliers.

UTAH'S EXPORTS

Utah exported \$13.6 billion worth of goods in 2010. This represented 1.1 percent of the United States' total commodities exports, up from a share of 0.7 percent in 2007 (Table 1). At \$7.0 billion, gold and silver accounted for nearly 52 percent of Utah's exports by value in 2010.¹ Excluding gold and silver, Utah's international exports in 2010 were valued at nearly \$6.6 billion.

The U.S. Census Bureau's Foreign Trade Division reports the top 25 exported commodities by value for each state. Utah exports a broad range of manufactured goods, including electronics, food and other animal products, aircraft engines and parts, automotive parts, medical devices and pharmaceuticals, personal care products, sporting goods, and industrial goods like valves, drilling tools and parts, and fuses.

Table 1
Top 25 Exported Commodities from Utah by 2010 Value
(Millions of Constant 2010 Dollars)

Rank	Commodity	2007	2008	2009	2010	Change	
						Dollars	Relative
1	Gold, nonmonetary, unwrought (not powder)	\$2,983	\$3,908	\$5,575	\$6,936	\$3,953	132.5%
2	Electronic integrated circuit memory (RAM & ROM)	\$380	\$1,273	\$1,010	\$1,231	\$851	223.5%
3	Food preparations, NESOI	\$282	\$259	\$284	\$298	\$16	5.8%
4	Molybdenum ores and concentrates, not roasted	\$465	\$227	\$114	\$279	-\$186	-40.0%
5	Civilian aircraft, engines and parts	\$274	\$388	\$286	\$277	\$3	1.0%
6	Safety airbags with inflator system, parts thereof	\$209	\$203	\$158	\$201	-\$8	-3.7%
7	Refined copper cathodes and sections of cathodes	\$26	\$0	\$130	\$172	\$146	572.5%
8	Beauty & skin care preparation, NESOI	\$109	\$94	\$113	\$138	\$29	26.9%
9	Waste and scrap of precious metal, NESOI	\$48	\$50	\$34	\$133	\$85	175.9%
10	Transistors except photosensitive, with dissipation rate < 1W	\$126	\$125	\$104	\$129	\$3	2.6%
11	Safety fuses, detonating fuses, percussion caps, etc.	\$74	\$57	\$94	\$116	\$42	56.8%
12	X-ray/high-tension generators, control panels, examination/treatment tables, etc. and parts	\$25	\$46	\$74	\$107	\$82	332.2%
13	Medical syringes, needles, catheters, etc. and parts, NESOI	\$50	\$58	\$69	\$104	\$54	110.0%
14	Interchangeable tools and parts for hand tools or for machine-tools, for rock drilling or earth boring	\$61	\$80	\$47	\$80	\$19	31.2%
15	Silver, unwrought (not powder)	\$41	\$37	\$105	\$76	\$35	84.0%
16	Instruments & appliances for medical, surgical, dental, vet, NESOI	\$86	\$104	\$79	\$68	-\$18	-21.1%
17	Nonelectrical articles of graphite or carbon, NESOI	\$54	\$55	\$53	\$60	\$6	10.9%
18	Medicaments containing alkaloids (no hormones or antibiotics)	\$39	\$32	\$36	\$60	\$21	53.6%
19	Products of fish, crustaceans, mollusks etc, inedible; dead animals of	\$12	\$8	\$18	\$52	\$40	316.3%
20	Articles for exercise and sports etc., NESOI	\$50	\$43	\$46	\$47	-\$3	-5.3%
21	Mixtures of fruit and/or vegetable juices	\$33	\$49	\$57	\$46	\$13	39.7%
22	Taps, cocks, valves, etc, for pipes, tanks, etc. incl. thermostatically controlled valves, NESOI	\$22	\$29	\$32	\$45	\$23	107.9%
23	Machines for recep/convr/trans/recog of voice/image/data	\$3	\$10	\$10	\$42	\$39	1161.1%
24	Preparations for oral/dental hygiene, NESOI	\$34	\$37	\$42	\$42	\$8	24.3%
25	Parts & accessories of bodies of motor vehicles, NESOI	\$18	\$4	\$4	\$40	\$22	117.3%
Total Utah Exports		\$8,006	\$10,070	\$10,833	\$13,572	\$5,566	69.5%
Share of U.S. Exports		0.7%	0.8%	1.0%	1.1%		
Total Exports Excluding Gold and Silver		\$4,982	\$6,126	\$5,152	\$6,560	\$1,578	31.7%

NESOI = not elsewhere specified or included.

Source: U.S. Census Bureau, Foreign Trade Division.

¹ According to the 2010 Economic Report to the Governor, this gold was primarily mined in other western states then shipped to Utah for final processing and international export. Essentially all of the gold mined in Utah remains within the U.S. and is not exported. Furthermore, gold exports do not provide a substantial number of jobs for the state. For these reasons, we excluded gold (and silver, ranked 15th by value) from our economic impact calculations.

Excluding gold, the state's largest export by value in 2010 was computer memory, with \$1.2 billion worth shipped out of the country from Utah. Rounding out the top five were miscellaneous food preparations (\$298 million), molybdenum (\$279 million), civilian aircraft engines (\$277 million), and safety airbags (\$201 million). These five commodities represented 35 percent of the value of Utah's exports (excluding gold and silver) in 2010. The top 23 commodities represented 57 percent of Utah's total exports (excluding gold and silver) in 2010.²

While the export value of some commodities showed significant volatility between 2007 and 2010, total non-gold exports saw a real net gain of \$1.6 billion over the period, an increase of nearly one-third. Non-gold exports were valued at \$5.0 billion in 2007 (in constant 2010 dollars), grew to \$6.1 billion in 2008, dipped to \$5.2 billion in 2009 during the depths of the recession, then rebounded to \$6.6 billion in 2010. With gold and silver included, the value of Utah's exports saw consistent growth from \$8.0 billion in 2007 to \$13.6 billion in 2010, with only a slowing of growth in 2009.

Several commodities experienced remarkable export gains between 2007 and 2010, despite the intervening economic downturn. The value of exported machines for the reception, conversion, transmission, and recognition of voice, images, and data grew more than twelvefold from just \$3 million to \$42 million (in constant 2010 dollars). Refined copper cathode exports were nearly seven times higher in 2010, at \$172 million, than in 2007, after falling to zero in 2008. Exports of x-ray equipment and marine animal products (brine shrimp) both increased by more than 300 percent, to \$107 million and \$52 million respectively. Finally, the value of computer memory exports more than tripled between 2007 and 2010, from \$380 million to \$1.2 billion.

Four commodities (excluding gold) saw their exports more than double between 2007 and 2010: waste and scrap of precious metal (+176 percent), parts and accessories of motor vehicle bodies (+117 percent), medical syringes, needles, catheters, etc. (+110 percent), and industrial taps, cocks, and valves (+108 percent).

Only four of the top 25 commodities saw a decline in exports between 2007 and 2010. At \$279 million in 2010, molybdenum exports were 40 percent lower than in 2007, though they had more than doubled from \$114 million in 2009. Exports of instruments and appliances for medical, surgical, dental, and veterinary uses declined 21 percent over the period to \$68 million. Exports of sporting goods and of safety airbags were 5 percent and 4 percent lower, respectively, in 2010 than in 2007. However, both commodities have seen increased exports since 2009.

Ten countries purchased 79 percent of Utah's exports in 2010 (Table 2). The top destination by far is the United Kingdom. In 2010 Utah shipped almost \$4.2 billion worth of goods there, 31 percent of the state's total exports. The next largest recipients were Canada, with \$1.3 billion of goods and 9 percent of the total, and India, at \$1.1 billion and 8 percent. India was followed by Hong Kong (\$947 million), Switzerland (\$719 million), China (\$585 million), Taiwan (\$551 million), Singapore (\$524 million), Mexico (\$456 million), and Japan (\$406 million).

² The corresponding shares when gold and silver are included in total exports are 17 percent (top 5) and 28 percent (top 23).

Table 2
Top 10 Destination Countries for Utah Exports
by 2010 Value
(Millions of Constant 2010 Dollars)

Rank	Country	2007	2008	2009	2010	2010 Share
1	United Kingdom	\$2,440	\$3,436	\$4,573	\$4,164	30.7%
2	Canada	\$970	\$1,058	\$1,068	\$1,262	9.3%
3	India	\$393	\$486	\$681	\$1,125	8.3%
4	Hong Kong	\$104	\$130	\$160	\$947	7.0%
5	Switzerland	\$467	\$63	\$100	\$719	5.3%
6	China	\$396	\$515	\$568	\$585	4.3%
7	Taiwan	\$216	\$711	\$595	\$551	4.1%
8	Singapore	\$228	\$364	\$265	\$524	3.9%
9	Mexico	\$229	\$236	\$292	\$456	3.4%
10	Japan	\$426	\$367	\$358	\$406	3.0%
Top 10 Total		\$5,872	\$7,367	\$8,661	\$10,739	79.3%

Source: U.S. Census Bureau, Foreign Trade Division.

ECONOMIC IMPACTS

Economic impacts are the changes in the size and structure of a region's economy that result from purchases of goods and services from vendors within the region with money generated outside the region. Impacts are measured in terms of changes in value added,³ earnings, and jobs. There are three types of impacts: direct, indirect, and induced. In the case of Utah's international exports, the sales of exported goods are the direct impacts. These revenues are used by the exporting firms to purchase raw materials, equipment, or other inputs from local producers; these are the indirect impacts. Finally, the spending generated when households supported by the direct and indirect activities purchase goods and services in the regional economy produces the induced impacts.

Tables 3 through 5 give the estimated gross state product, earnings, and employment impacts of Utah's top 23 international exports, by industry, for 2007 through 2010. The estimated impacts for all non-gold commodities exports are also included.

Total estimated impacts on Utah's gross state product (GSP) as a result of its exports of non-gold commodities grew from \$4.4 billion to \$5.9 billion (in inflation-adjusted 2010 dollars) (Table 3). The impacts are equivalent to approximately 4 to 5 percent of annual GSP.

Utah's international exports generated an estimated \$2.9 billion in total earnings in 2010, up from \$2.3 billion in 2007 (Table 4).

The employment impacts range from an estimated 54,955 full- and part-time jobs in 2007 to 75,721 in 2010 (Table 5). On average, Utah's major exports support approximately 65,775 jobs each year.

³ Value added is the gross output of an industry or a sector less its intermediate inputs. It can also be considered as the contribution of an industry or sector to gross domestic product or, in this case, gross state product.

Table 3
Gross State Product Impacts of Utah's Major Exports by Commodity, 2007–2010
(Millions of Constant 2010 Dollars)

Industry	2007	2008	2009	2010	Change	
					Dollar	Percent
Electronic integrated circuit memory (RAM & ROM)	\$341.2	\$1,141.8	\$905.8	\$1,104.0	\$762.8	223.5%
Food preparations, NESOI	207.1	190.8	208.5	219.2	12.0	5.8%
Molybdenum ores and concentrates, not roasted	574.3	280.5	140.6	344.4	-229.9	-40.0%
Civilian aircraft, engines and parts	266.0	375.9	277.7	268.6	2.6	1.0%
Safety airbags with inflator system, parts thereof	198.7	193.4	150.3	191.4	-7.3	-3.7%
Refined copper cathodes and sections of cathodes	14.6	0.0	74.2	98.4	83.8	572.5%
Beauty & skin care preparation, NESOI	91.3	78.8	94.8	115.9	24.5	26.9%
Waste and scrap of precious metal, NESOI	43.4	45.1	30.2	119.7	76.3	175.9%
Transistors except photosensitive, with dissipation rate < 1W	115.5	115.2	95.9	118.6	3.0	2.6%
Safety fuses, detonating fuses, percussion caps, etc.	54.5	42.0	69.3	85.5	31.0	56.8%
X-ray/high-tension generators, control panels, examination/ treatment tables, etc. and parts	19.9	36.8	59.3	86.0	66.1	332.2%
Medical syringes, needles, catheters, etc. and parts, NESOI	47.3	55.2	65.8	99.4	52.1	110.0%
Interchangeable tools and parts for hand tools or for machine- tools, for rock drilling or earth boring	58.9	77.2	45.3	77.2	18.4	31.2%
Instruments & appliances for medical, surgical, dental, vet, NESOI	84.4	101.4	77.2	66.6	-17.8	-21.1%
Nonelectrical articles of graphite or carbon, NESOI	54.1	54.9	52.5	60.0	5.9	10.9%
Medicaments containing alkaloids (no hormones or antibiotics)	36.1	29.5	33.5	55.4	19.3	53.6%
Products of fish, crustaceans, mollusks etc., inedible; dead animals of	14.7	8.9	20.8	61.2	46.5	316.3%
Articles for exercise and sports etc., NESOI	34.4	30.0	31.6	32.6	-1.8	-5.3%
Mixtures of fruit and/or vegetable juices	22.8	34.0	39.5	31.8	9.0	39.7%
Taps, cocks, valves, etc., for pipes, tanks, etc. including thermostatically controlled valves, NESOI	22.8	30.4	34.1	47.3	24.6	107.9%
Machines for recep/convr/trans/recog of voice/image/data	3.7	11.1	10.8	46.6	42.9	1161.1%
Preparations for oral/dental hygiene, NESOI	28.7	31.6	36.1	35.7	7.0	24.3%
Parts & accessories of bodies of motor vehicles, NESOI	16.8	3.7	3.7	36.5	19.7	117.3%
Total Impacts of Major Exports	\$2,351.3	\$2,968.2	\$2,557.3	\$3,401.9	\$1,050.6	44.7%
Estimated Impacts of All Non-Gold Exports	\$4,449.1	\$5,458.9	\$4,739.3	\$5,924.2	\$1,475.0	33.2%

NESOI = not elsewhere specified or included.

Source: BEBR analysis of Census Bureau export data using RIMS II multipliers.

Table 4
Earnings Impacts of Utah's Major Exports by Commodity, 2007–2010
(Millions of Constant 2010 Dollars)

Industry	2007	2008	2009	2010	Change	
					Dollar	Percent
Electronic integrated circuit memory (RAM & ROM)	\$154.3	\$516.4	\$409.7	\$499.3	\$345.0	223.5%
Food preparations, NESOI	108.3	99.7	109.0	114.6	6.3	5.8%
Molybdenum ores and concentrates, not roasted	304.9	148.9	74.7	182.9	-122.1	-40.0%
Civilian aircraft, engines and parts	144.7	204.5	151.1	146.1	1.4	1.0%
Safety airbags with inflator system, parts thereof	111.5	108.6	84.3	107.4	-4.1	-3.7%
Refined copper cathodes and sections of cathodes	6.9	0.0	35.1	46.6	39.7	572.5%
Beauty & skin care preparation, NESOI	36.6	31.6	37.9	46.4	9.8	26.9%
Waste and scrap of precious metal, NESOI	22.8	23.7	15.9	63.0	40.1	175.9%
Transistors except photosensitive, with dissipation rate < 1W	52.3	52.1	43.4	53.6	1.4	2.6%
Safety fuses, detonating fuses, percussion caps, etc.	30.7	23.7	39.0	48.2	17.4	56.8%
X-ray/high-tension generators, control panels, examination/ treatment tables, etc. and parts	10.1	18.7	30.2	43.7	33.6	332.2%
Medical syringes, needles, catheters, etc. and parts, NESOI	24.7	28.8	34.3	51.8	27.1	110.0%
Interchangeable tools and parts for handtools or for machine- tools, for rock drilling or earth boring	35.5	46.5	27.3	46.5	11.1	31.2%
Instruments & appliances for medical, surgical, dental, vet, NESOI	45.7	55.0	41.8	36.1	-9.6	-21.1%
Nonelectrical articles of graphite or carbon, NESOI	27.7	28.1	26.8	30.7	3.0	10.9%
Medicaments containing alkaloids (no hormones or antibiotics)	13.6	11.1	12.6	20.8	7.3	53.6%
Products of fish, crustaceans, mollusks etc., inedible; dead animals of	8.1	4.9	11.4	33.7	25.6	316.3%
Articles for exercise and sports etc., NESOI	18.9	16.5	17.4	17.9	-1.0	-5.3%
Mixtures of fruit and/or vegetable juices	11.1	16.6	19.3	15.5	4.4	39.7%
Taps, cocks, valves, etc., for pipes, tanks, etc. including thermostatically controlled valves, NESOI	11.6	15.4	17.3	24.1	12.5	107.9%
Machines for recep/convr/trans/recog of voice/image/data	2.1	6.3	6.1	26.4	24.3	1161.1%
Preparations for oral/dental hygiene, NESOI	11.5	12.6	14.4	14.3	2.8	24.3%
Parts & accessories of bodies of motor vehicles, NESOI	9.4	2.1	2.1	20.5	11.0	117.3%
Total Impacts of Major Exports	\$1,203.0	\$1,471.7	\$1,261.1	\$1,690.0	\$487.0	40.5%
Estimated Impacts of All Non-Gold Exports	\$2,276.3	\$2,706.6	\$2,337.1	\$2,943.0	\$666.7	29.3%

NESOI = not elsewhere specified or included.

Source: BEBR analysis of Census Bureau export data using RIMS II multipliers.

Table 5
Employment Impacts of Utah's Major Exports by Commodity, 2007–2010
 (Full- and Part-Time Jobs)

Industry	2007	2008	2009	2010
Electronic integrated circuit memory (RAM & ROM)	4,713.3	15,770.1	12,511.4	15,248.5
Food preparations, NESOI	3,155.9	2,907.4	3,177.0	3,339.4
Molybdenum ores and concentrates, not roasted	5,911.8	2,887.2	1,447.8	3,545.0
Civilian aircraft, engines and parts	3,195.0	4,515.1	3,335.8	3,226.4
Safety airbags with inflator system, parts thereof	2,676.9	2,605.7	2,024.7	2,578.6
Refined copper cathodes and sections of cathodes	221.6	0.0	1,122.7	1,490.2
Beauty & skin care preparation, NESOI	901.1	778.0	935.1	1,143.3
Waste and scrap of precious metal, NESOI	380.8	395.6	264.8	1,050.8
Transistors except photosensitive, with dissipation rate < 1 W	1,557.3	1,553.4	1,292.2	1,597.9
Safety fuses, detonating fuses, percussion caps, etc.	754.4	581.4	958.5	1,182.6
X-ray/high-tension generators, control panels, examination/ treatment tables, etc. and parts	226.9	419.9	676.8	980.7
Medical syringes, needles, catheters, etc. and parts, NESOI	604.2	704.8	840.1	1,268.9
Interchangeable tools and parts for hand tools or for machine-tools, for rock drilling or earth boring	786.7	1,030.9	605.2	1,032.0
Instruments & appliances for medical, surgical, dental, vet, NESOI	1,161.5	1,396.4	1,062.7	916.7
Nonelectrical articles of graphite or carbon, NESOI	634.2	643.4	615.5	703.4
Medicaments containing alkaloids (no hormones or antibiotics)	278.7	228.2	258.6	428.1
Products of fish, crustaceans, mollusks etc., inedible; dead animals of	175.6	106.1	248.2	731.2
Articles for exercise and sports etc., NESOI	548.6	479.1	503.6	519.5
Mixtures of fruit and/or vegetable juices	324.8	483.9	563.4	453.7
Taps, cocks, valves, etc., for pipes, tanks, etc. including thermostatically controlled valves, NESOI	267.5	357.1	400.5	556.3
Machines for recep/convr/trans/recog of voice/image/data	49.8	149.4	145.7	627.8
Preparations for oral/dental hygiene, NESOI	280.0	307.8	351.7	348.0
Parts & accessories of bodies of motor vehicles, NESOI	236.2	51.9	51.6	513.1
Total Impacts of Major Exports	29,043	38,353	33,394	43,482
Estimated Impacts of All Non-Gold Exports	54,955	70,537	61,885	75,721

NESOI = not elsewhere specified or included.

Source: BEBR analysis of Census Bureau export data using RIMS II multipliers.

Methodology

The economic impacts were calculated using RIMS II, a model developed by the Bureau of Economic Analysis at the U.S. Department of Commerce. RIMS II is based on an accounting framework called an I-O table, which shows the input and output structure of approximately 500 industries in the U.S. A typical I-O table in RIMS II is derived mainly from two data sources: BEA's national I-O table and BEA's regional economic accounts, which are used to adjust the national I-O table to show a region's industrial structure and trading patterns.

The export data from the Census Bureau used in this study is the selling price of the goods at the U.S. port of export. In I-O parlance this is called a "change in final demand." To derive the economic impacts of Utah's exports we found the corresponding industry for each exported commodity. We then applied each industry's total final-demand multipliers for value added, earnings, and employment to the value of its exports. These give us the increases in gross state product, earnings, and jobs for each dollar (or million dollars, in the case of employment) of exported commodities. The impacts represent the increase in the economic base of the state. These impacts occur only in the year in which the corresponding export sales take place and cannot be summed over multiple years to give a cumulative impact.

The export value includes the cost of inland or domestic shipping to the U.S. port of export. RIMS provides national average cost data for exports that show what share of the purchaser's value is attributable to producer's costs, transportation costs, and wholesale and retail sales margins. These can then be separated out and impacts can be calculated separately for the transportation and sales portions that occurred in the study region. Without further primary research we do not know where the U.S. port of export was for Utah's exported goods, whether they were transported there by Utah-based companies, or whether a Utah-based wholesaler was involved. Therefore we calculated impacts based only on the producer's share of the export value. Total GSP, earnings, and employment impacts based on the full value of the 23 commodities are about 17 percent higher than the totals given here.

The top 23 exports represent, on average, only 55 percent of Utah's total annual non-gold exports. In order to capture the impacts of the remaining 45 percent, we scaled up the summed impacts for the top commodities each year based on the commodities' combined share of total non-gold exports for the year. For example, in 2010 the top 23 exported goods represented 57.4 percent of Utah's total non-gold exports. To estimate the 2010 impacts of *all* non-gold exports we divided the sum of the impacts of the top 23 goods, for each type of impact (GSP, earnings, and employment), by 0.574.

The impacts presented in this report do not include international trade in services, data for which are not available at the state level. Exports of services are sizeable, representing an average of 30 percent of the United States' total exports between 2007 and 2010. Utah provides financial and engineering services, among others, to international customers. These industries have larger multipliers than most of those for the manufacturing sectors.

Because of these factors, the impacts presented here are conservative estimates of the true economic impacts of Utah's international exports. The actual impacts are no doubt higher. It is also important to keep in mind that, like all economic impact models, RIMS provides only approximate order-of-magnitude estimates of impacts.

Table 6 shows the crosswalk from commodity-based export codes to industry-based RIMS codes. When a commodity corresponded with multiple detailed RIMS industries it was assigned to the most appropriate aggregated industry.

Table 6
Correspondence Between Export Commodity and RIMS Industry

Export Commodity	HS Code	RIMS Industry	RIMS Code
Electronic integrated circuit memory (RAM & ROM)	854232	Semiconductor and related device manufacturing	334413
Food preparations, NESOI	210690	All other food manufacturing	311990
Molybdenum ores and concentrates, not roasted	261390	Gold, silver, and other metal ore mining	2122A0
Civilian aircraft, engines and parts	880000	Aircraft engine and engine parts manufacturing	336412
Safety airbags with inflator system, parts thereof	870895	Motor vehicle parts manufacturing	336300
Refined copper cathodes and sections of cathodes	740311	Primary smelting and refining of copper	331411
Beauty & skin care preparation, NESOI	330499	Toiletry preparation manufacturing	325620
Waste and scrap of precious metal, NESOI	711299	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding and alloying	331492
Transistors except photosensitive, with dissipation rate < 1W	854121	Semiconductor and related device manufacturing	334413
Safety fuses, detonating fuses, percussion caps, etc.	360300	All other chemical product and preparation manufacturing	3259A0
X-ray/high-tension generators, control panels, examination/treatment tables, etc. and parts	902290	Irradiation apparatus manufacturing	334517
Medical syringes, needles, catheters, etc. and parts, NESOI	901839	Surgical and medical instrument manufacturing	339112
Interchangeable tools and parts for hand tools or for machine-tools, for rock drilling or earth boring	820719	Mining and oil and gas field machinery manufacturing	333130
Instruments & appliances for medical, surgical, dental, vet, NESOI	901890	Miscellaneous manufacturing	18
Nonelectrical articles of graphite or carbon, NESOI	681510	Carbon and graphite product manufacturing	335991
Medicaments containing alkaloids (no hormones or antibiotics)	300440	Pharmaceutical preparation manufacturing	325412
Products of fish, crustaceans, mollusks etc, inedible; dead animals of	051191	Animal (except poultry) slaughtering, rendering, and processing	31161A
Articles for exercise and sports etc., NESOI	950699	Sporting and athletic goods manufacturing	339920
Mixtures of fruit and/or vegetable juices	200990	Fruit and vegetable canning, pickling, and drying	311420
Taps, cocks, valves, etc, for pipes, tanks, etc. incl. thermostatically controlled valves, NESOI	848180	Valves and fittings other than plumbing	33291A
Machines for recep/convr/trans/recog of voice/image/data	851762	Computer and electronic product manufacturing	13
Preparations for oral/dental hygiene, NESOI	330690	Toiletry preparation manufacturing	325620
Parts & accessories of bodies of motor vehicles, NESOI	870829	Motor vehicle parts manufacturing	336300
Gold, nonmonetary, unwrought (not powder)	710812	Primary smelting and refining of nonferrous metal (except copper and aluminum)	331419
Silver, unwrought (not powder)	710691		

HS = harmonized system. NESOI = not elsewhere specified or included.

Source: U.S. Census Bureau, <http://censtats.census.gov/cgi-bin/concordance/concordance.pl>

2011 UPDATE

At the request of the Governor's Office of Economic Development, BEBR calculated the employment impacts of Utah's exports in 2011. We also recalculated the 2010 impacts since the Census Bureau had revised the export numbers for that year. Note that we used different price deflators and/or inflators for some commodities in the latest calculations. Note also that the commodity mix of "major exports" (top 23 excl. unwrought gold and silver) changed slightly from 2010 to 2011.

Summary of Change in Utah Exports, 2010–2011

(Amounts are in millions of nominal dollars, not adjusted for inflation)

Description	2010	2011	Change
Total Utah Exports	\$13,809	\$18,929	37.1%
Total Utah Non-Gold (and -Silver) Exports	\$6,553	\$7,101	8.4%
Total, Top 25 Commodities	\$10,794	\$15,832	46.7%
Total, Top 23 Commodities (excl. unwrought gold and silver)	\$3,538	\$4,004	13.2%
Share of total non-gold (and -silver) exports	54.0%	56.4%	
Gold, nonmonetary, unwrought (not powder)	\$7,180	\$11,758	63.8%
Silver, unwrought (not powder)	\$76	\$70	-7.9%
Combined Share of Total State Exports	52.5%	62.5%	

Note: The value of total exports in 2010 was revised upward by the Census Bureau. For the original calculations it was \$13.572 billion.

Source: U.S. Census Bureau, Foreign Trade, State Trade Data: <http://www.census.gov/foreign-trade/statistics/state/>

Top 23 Exported Commodities from Utah by 2011 Value

(Millions of nominal dollars)

Commodity	2010	2011
Electronic integrated circuit memory (RAM & ROM)	\$1,231	\$1,297
Molybdenum ores and concentrates, not roasted	\$279	\$358
Food preparations, NESOI	\$298	\$346
Civilian aircraft, engines and parts	\$273	\$211
Safety airbags with inflator system, parts thereof	\$203	\$202
Waste and scrap of precious metal, NESOI	\$133	\$186
X-ray/high-tension generators, control panels, examination/treatment tables, etc. and parts	\$106	\$150
Transistors except photosensitive, with dissipation rate < 1W	\$129	\$119
Medical syringes, needles, catheters, etc. and parts, NESOI	\$104	\$116
Beauty & skin care preparation, NESOI	\$138	\$112
Safety fuses, detonating fuses, percussion caps, etc.	\$115	\$109
Interchangeable tools and parts for handtools or for machine-tools, for rock drilling or earth boring	\$80	\$107
Silver, semimanufactured	\$0	\$98
X-ray tubes	\$38	\$82
Nonelectrical articles of graphite or carbon, NESOI	\$60	\$80
Parts & accessories of bodies of motor vehicles, NESOI	\$40	\$71
Instruments & appliances for medical, surgical, dental, vet, NESOI	\$68	\$66
Articles for sports, etc., NESOI	\$47	\$59
Digital processing units, NESOI	\$22	\$56
Medicaments containing alkaloids (no hormones or antibiotics)	\$60	\$55
Preparations for oral/dental hygiene, NESOI	\$42	\$46
Zirconium and articles thereof, NESOI	\$35	\$40
Prepared explosives, other than propellant powders	\$38	\$39

NESOI = not elsewhere specified or included.

Source: U.S. Census Bureau, Foreign Trade, State Trade Data.

Keep in mind that employment impacts are measured as a stock and not a flow. This means that they are an estimate for the given year only and cannot be added over time.

Employment Impacts of Utah's Major Exports by Commodity, 2010–2011
(Full- and Part-Time Jobs)

Commodity	Impacts (Jobs)		2010–2011 Change	
	2010	2011	Absolute	Relative
Electronic integrated circuit memory (RAM & ROM)	15,261	16,980	1,719	11.3%
Molybdenum ores and concentrates, not roasted	3,551	4,122	571	16.1%
Food preparations, NESOI	3,335	3,260	-75	-2.3%
Safety airbags with inflator system, parts thereof	2,604	2,549	-55	-2.1%
Civilian aircraft, engines and parts	3,178	2,372	-805	-25.3%
Transistors except photosensitive, with dissipation rate < 1W	1,599	1,558	-41	-2.6%
X-ray/high-tension generators, control panels, examination/treatment tables, etc. and parts	966	1,374	408	42.3%
Waste and scrap of precious metal, NESOI	1,053	1,332	279	26.5%
Interchangeable tools and parts for handtools or for machine-tools, for rock drilling or earth boring	1,034	1,251	217	21.0%
Medical syringes, needles, catheters, etc. and parts, NESOI	1,190	1,103	-87	-7.3%
Silver, semimanufactured	0	975	975	—
Safety fuses, detonating fuses, percussion caps, etc.	1,173	924	-249	-21.2%
Beauty & skin care preparation, NESOI	1,143	914	-229	-20.0%
Parts & accessories of bodies of motor vehicles, NESOI	513	896	383	74.6%
Nonelectrical articles of graphite or carbon, NESOI	705	850	145	20.6%
Instruments & appliances for medical, surgical, dental, vet, NESOI*	837	735	-102	-12.2%
Articles for sports, etc., NESOI	519	642	123	23.7%
X-ray tubes	327	586	259	79.3%
Digital processing units, NESOI	204	549	345	168.8%
Zirconium and articles thereof, NESOI	385	398	13	3.4%
Medicaments containing alkaloids (no hormones or antibiotics)	428	387	-41	-9.6%
Preparations for oral/dental hygiene, NESOI	348	375	28	8.0%
Prepared explosives, other than propellant powders	388	331	-57	-14.7%
Total Employment Impacts of Major Exports	40,739	44,461	3,723	9.1%
Estimated Employment Impact of All Non-Gold Exports	75,455	78,851	3,396	4.5%

Note: Amounts represent full-time and part-time jobs, and wage, salary, and proprietors' employment.
NESOI = not elsewhere specified or included.

Impacts exclude the value of exported unwrought nonmonetary gold and unwrought silver.

*This commodity was assigned to the RIMS miscellaneous manufacturing industry for the 2007–2010 impacts; for the current impacts it was assigned to the surgical and medical instrument manufacturing industry.

Source: BEBR analysis of Census Bureau export data using RIMS II multipliers.