

**The Contribution of the Japanese-Branded
Automotive Industry to the United States Economy:**

2012 Update

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Executive Summary

A consistent bright spot for the U.S. automobile industry has been the growth of U.S.-based production and employment by Japanese-branded automakers. This report documents the continued growth and impact of the Japanese-branded automakers on the U.S. economy during 2012.

The key findings of this report are as follows:

- **Automobile Production-Driven Employment**
 - Japanese-branded automobile companies directly employ over 81,000 U.S. manufacturing, distribution, and R&D workers.
 - Another 218,000 U.S. workers are employed in intermediate goods and parts industries that supply the Japanese-branded automakers' U.S. vehicle production facilities.
 - An additional 383,000 U.S. jobs are supported by direct and intermediate employment (often referred to as "spin-off" employment).
 - All told, **more than 682,000 U.S. jobs are generated by the Japanese-branded automobile companies' production facilities.**

- **Dealer Network-Driven Employment**
 - Over 327,000 U.S. workers are directly employed in the Japanese-branded automobile companies' dealer network.
 - Another 106,000 U.S. workers are employed in intermediate goods industries associated the Japanese-branded automakers' dealer network.
 - An additional 245,000 U.S. spin-off jobs are supported by direct and intermediate employment.

- All told, **more than 678,000 U.S. jobs are generated by the Japanese-branded automobile companies' dealer network.**

- In total, the **Japanese-branded automobile companies' production facilities and dealer networks contribute to an estimated 1.36 million private sector U.S. jobs – an increase of over 125,000 jobs relative to the 2011 estimates.** This makes the Japanese-branded automobile companies among the largest job creators in the United States.

- **Total annual compensation via the jobs created by Japanese-branded automobile companies in the United States exceeds \$85 billion.**

- Personal taxes from these jobs are estimated to exceed \$12 billion.

I. Introduction

This study is an update of a previous report on the economic contribution of the Japanese-branded automotive industry to the U.S. economy. The employment and economic impact estimates in that prior report were based on 2011 data; this report revises those estimates using updated 2012 data.

The analysis shows the continued growth and significance of the Japanese-branded automotive industry. Vehicle production at Japanese-branded automotive companies' U.S. operations grew to nearly 3.3 million units (from 2.4 million units), a remarkable 36% year-over-year increase; vehicle exports from these same U.S. facilities grew a noteworthy 29% in 2012 (from 259,908 to 335,680 units).¹

Further, the updated analysis affirms the findings of the previous study – namely, that the Japanese-branded automotive companies are an important source of U.S. jobs and job growth. In 2012 an estimated 1.36 million American jobs were rooted either directly or indirectly in the Japanese-branded automotive companies' U.S. operations. These jobs are estimated to contribute to over \$85 billion in labor compensation in 2012.

II. Value of the Japanese-Branded Automotive Industry to the U.S. Economy

Using modeling techniques described in prior work, estimates are derived from the economic contribution associated with the Japanese-branded automotive industry in the United States.² The estimates include both direct employment and payroll, intermediate jobs at parts suppliers and other upstream firms, and spin-off jobs and

¹ Source: Japan Automobile Manufacturers Association.

² Thomas J. Prusa, "The Contribution of the Japanese-Branded Automotive Industry to the United States Economy," May 6, 2013.

compensation that result from the industry's direct and intermediate activity. The results are presented in three parts: the contributions of Japanese-branded automotive manufacturing, those associated with Japanese-branded new vehicle retail activities, and a combination of the two to represent the total impact of the Japanese-branded automotive industry.

A) Vehicle Manufacturer Activities

Summary estimates of the employment and income contributions of Japanese-branded automotive manufacturing to the private sector of the U.S. economy for 2012 are shown in Table 1.³ Both blue-collar and white-collar workers employed by the manufacturing firms are included in the direct effect. According to data collected by the Japan Automobile Manufacturers Association, 81,034 workers were employed in Japanese-branded U.S. automotive manufacturing and related operations.⁴ This is shown as direct employment in Table 1.

The intermediate employment category captures the jobs necessary to satisfy demands for the materials and services needed to design, produce, distribute, and sell motor vehicles and is sometimes referred to as the “automotive supplier network.” Intermediate employment (suppliers of goods and services) from these automotive manufacturing activities is estimated to be 218,000 jobs.⁵ The sum of direct and intermediate jobs equals 299,034 private sector jobs.

Table 1 also reports total spin-off jobs effect, also known as the expenditure-induced effect (spending from the people who work in the direct and intermediate jobs). The estimate of the expenditure-induced effect is 383,000 jobs which, when added to the 299,034 direct plus intermediate jobs, equals 682,034 total jobs.

³ Employment represents the total number of private sector jobs, including the self-employed. Compensation in the private sector consists of wage and salary disbursements, fringe benefits, and net incomes of owners of unincorporated businesses.

⁴ As of December 31, 2012.

⁵ Estimates of intermediate and spin-off employment are rounded to the nearest thousand.

Table 1: Private Sector Contributions of Japanese-Branded Automobile Manufacturing in the United States, 2012

	<u>Production</u>
Employment	
Total (Direct + Intermediate)	299,034
<i>Direct</i>	<i>81,034</i>
<i>Intermediate</i>	<i>218,000</i>
Spin-off	383,000
Grand Total (Direct + Intermediate + Spin-off)	682,034
Compensation (\$ billions nominal)	
Compensation	\$44.7
Less: transfer payments & social insurance contributions	(\$5.5)
Less: personal income taxes	(\$6.3)
Equals private disposable personal income	\$32.9

Compensation in the private sector associated with the total jobs (direct plus intermediate plus spin-off) amounts to \$44.7 billion. This estimate of compensation is prior to deductions for personal income taxes and contributions to social insurance programs and does not subtract transfer payments. Transfer payments and social insurance contributions amount to \$5.5 billion and personal income tax revenues amount to over \$6.3 billion. Disposable personal income, or personal income after taxes and subtraction of transfers and contributions, is estimated to be \$32.9 billion.

B) Automobile Dealerships

Table 2 reports the estimated employment contributions by new Japanese-branded vehicle dealer operations for 2012. Employment estimates are broken out by direct

employment (people employed directly by dealerships); intermediate employment (people employed by those who provide goods and services, excepting inventory, to dealerships); and spin-off employment (expenditure-induced employment resulting from spending by direct and intermediate employees).

Japanese-branded automotive dealerships directly employed (for new vehicle sales) 327,477 workers. As can be seen in Table 2 there are 106,000 intermediate jobs that support direct employment in the industry (suppliers of goods and services, not including motor vehicle inventory). Thus, the total employment (direct and intermediate) generated by Japanese-branded automotive dealerships is 433,477 workers.

The spin-off employment associated with spending by the people who work in the direct and intermediate jobs adds another 245,000 jobs, bringing the total jobs associated with Japanese-branded new motor vehicle retail operations in the United States (direct plus intermediate plus spin-off) to more than 678,000 jobs.

Table 2: Private Sector Contributions of Japanese-Branded New Vehicle Dealers (Retail) in the United States, 2012

	New Vehicle Dealers
Employment	
Total (Direct + Intermediate)	433,477
<i>Direct</i>	327,477
<i>Intermediate</i>	106,000
Spin-off	245,000
Grand Total (Direct + Intermediate + Spin-off)	678,477
Compensation (\$ billions nominal)	
Compensation	\$40.3
Less: transfer payments & social insurance contributions	(\$4.3)
Less: personal income taxes	(\$6.0)
Equals private disposable personal income	\$30.0

The bottom panel of Table 2 reports the estimates for compensation in the private sector associated with total jobs (direct plus intermediate plus spin-off), which amounts to more than \$40 billion. The estimate of compensation is prior to deductions for personal income taxes and contributions to social insurance programs, and does not include transfer payments. As shown, a reduction in transfer payments and social insurance contributions of \$4.3 billion is associated with new Japanese-branded vehicle dealer activity, and personal income tax revenues are increased by \$6 billion. The implication for disposable personal income, or personal income after taxes and subtraction of transfers and contributions, is an increase of almost \$30 billion in the domestic economy.

C) Total Contribution

Combining the estimates for Japanese-branded automotive production with the estimates for Japanese-branded vehicle dealer operations yields the “bottom line” for the Japanese-branded automotive industry as a whole. These results for the total U.S. private sector contributions from Japanese-branded automotive industry activities are shown in Table 3.

The Japanese-branded automobile manufacturers directly employ over 408,000 employees – over 81,000 in the production and distribution of their U.S.-built automobiles and over 327,000 in their new dealer vehicle networks. In turn, these 408,000 direct jobs support another 324,000 intermediate jobs (such as auto parts, raw and fabricated steel, etc.). All told, over 732,000 direct and intermediate jobs are rooted in the Japanese-branded automobile companies U.S. production and sales.

Table 3: Private Sector Contributions of Japanese-Branded Automobile Activity, 2012

	<u>Production</u>	<u>New Vehicle Dealers</u>	<u>Total</u>
Employment			
Total (Direct + Intermediate)	299,034	433,477	732,511
<i>Direct</i>	81,034	327,477	408,511
<i>Intermediate</i>	218,000	106,000	324,000
Spin-off	383,000	245,000	628,000
Grand Total (Direct + Intermediate + Spin-off)	682,034	678,477	1,360,511
Compensation (\$ billions nominal)			
Compensation	\$44.7	\$40.3	\$85.0
Less: transfer payments & social insurance contributions	(\$5.5)	(\$4.3)	(\$9.8)
Less: personal income taxes	(\$6.3)	(\$6.0)	(\$12.3)
Equals private disposable personal income	\$32.9	\$30.0	\$62.9

Table 3 also reports total spin-off jobs effect, which includes the expenditure-induced effect (spending from the people who work in the direct and intermediate jobs). The estimate of the expenditure-induced effect is 628,000 jobs. By combining this figure with the direct plus intermediate jobs, this study estimates the Japanese-branded automobile companies have a total employment effect of 1,360,511 jobs.

Compensation in the private sector associated with total jobs (direct plus intermediate plus spin-off) amounts to \$85 billion. As mentioned earlier, the estimate of compensation is prior to deductions for personal income taxes and contributions to social insurance programs, and does not include transfer payments. As shown in the bottom panel of Table 3, a reduction in transfer payments of \$9.8 billion is associated with automotive manufacturing activity, and personal

income tax revenues are increased by over \$12 billion. On net, disposable personal income, or personal income after taxes and including transfers, is increased by almost \$63 billion in the domestic economy.

III. Concluding Comments

This study highlights the continued economic importance of the Japanese-branded automakers' U.S.-based production. We find that by all metrics Japanese-branded automakers' economic contributions grew substantially in 2012: vehicle production grew by a remarkable 36%, vehicle exports grew by a noteworthy 29%, and more than 1.36 million U.S. workers' employment is tied to the Japanese-branded automakers. The estimate of the total jobs stemming from the Japanese-branded automakers' operations grew by more than 125,000 in 2012 (relative to the 2011 estimate) and our estimate for total compensation grew by over \$8 billion. The analysis confirms that the Japanese automakers' investments in U.S. automobile vehicle production and automobile parts facilities continue to add value to the U.S. economy.