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

2013 Update

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Executive Summary

While the automobile industry has long been the largest manufacturing industry in the United States, the impressive growth of U.S.-based production by Japanese-branded automakers has emerged as one of the success stories of the U.S.' post-recession recovery. Today more than 1.36 million U.S. jobs are rooted in the Japanese-branded automobile companies' production facilities and dealer networks. Notably, jobs originating from the Japanese-branded automakers have grown in each of the last two years and are now more than 10% larger than they were just two years ago.

The key findings of this report are as follows:

- **Automobile Production-Driven Employment**
    - Japanese-branded automobile companies directly employ almost 83,000 U.S. manufacturing, distribution, and R&D workers.
    - Another 224,000 U.S. workers are employed in intermediate goods and parts industries that supply the Japanese-branded automakers' U.S. vehicle production facilities.
    - An additional 393,000 U.S. jobs are supported by direct and intermediate employment (often referred to as "spin-off" employment).
    - All told, **almost 700,000 U.S. jobs are generated by the Japanese-branded automobile companies' <u>production</u> facilities**.

- **Dealer Network-Driven Employment**
    - Approximately 320,000 U.S. workers are directly employed in the Japanese-branded automobile companies' dealer network.
    - Another 104,000 U.S. workers are employed in intermediate goods industries associated the Japanese-branded automakers' dealer network.
    - An additional 240,000 U.S. spin-off jobs are supported by direct and intermediate employment.
    - All told, **more than 660,000 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 almost 3,000 jobs relative to the 2012 estimates**. The Japanese-branded automobile companies remain among the largest job creators in the United States.
- **Total <u>annual</u> compensation via the jobs created by Japanese-branded automobile companies in the United States exceeds $85 billion, a slight increase relative to last year's estimate**.
- Personal taxes from these jobs are estimated to exceed $12 billion.

I. Introduction

This study updates two previous reports on the economic contribution of the Japanese-branded automotive industry to the U.S. economy. Earlier studies estimated the employment and economic impact using 2011 and 2012 data; this report revises those estimates using updated 2013 data.

The analysis shows the continued growth and significance of the Japanese-branded automotive industry. This 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 2013 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 2013.

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.[1] The estimates include both direct employment and payroll, intermediate jobs at parts suppliers and other upstream firms, and spin-off jobs and 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

[1] Thomas J. Prusa, "The Contribution of the Japanese-Branded Automotive Industry to the United States Economy," May 6, 2013; and Thomas J. Prusa, "The Contribution of the Japanese-Branded Automotive Industry to the United States Economy: 2012 Update," July 30, 2013.

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 2013 are shown in Table 1.[2] 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, 82,816 workers were employed in Japanese-branded U.S. automotive manufacturing and related operations.[3] 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 224,000 jobs.[4] The sum of direct and intermediate jobs equals 306,816 private sector jobs.

Table 1 also reports the 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 393,000 jobs which, when added to the 306,816 direct plus intermediate jobs, equals 699,816 total jobs. Over the last year, therefore, I find nearly 20,000 new American jobs derived from the ongoing growth in Japanese-branded automotive manufacturing in the U.S.

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[2] 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.

[3] As of December 31, 2013.

[4] 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, 2013

	Production
Employment	
Total (Direct + Intermediate)	306,816
Direct	*82,816*
Intermediate	*224,000*
Spin-off	393,000
Grand Total (Direct + Intermediate + Spin-off)	699,816
Compensation ($ billions nominal)	
Compensation	$45.9
Less: transfer payments & social insurance contributions	($5.6)
Less: personal income taxes	($6.5)
Equals private disposable personal income	$33.7

Compensation in the private sector associated with the total jobs (direct plus intermediate plus spin-off) amounts to $45.9 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 $5.6 billion and personal income tax revenues amount to over $6.5 billion. Disposable personal income, or personal income after taxes and subtraction of transfers and contributions, is estimated to be $33.7 billion.

B) Automobile Dealerships

Table 2 reports the estimated employment contributions by new Japanese-branded vehicle dealer operations for 2013. 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) 319,568 workers. As can be seen in Table 2 there are 104,000 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 423,568 workers.

The spin-off employment associated with spending by the people who work in the direct and intermediate jobs adds another 240,000 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 663,000 jobs. While this figure is a slight decrease in dealership derived jobs over the past year, there has nevertheless been a net increase in dealership derived jobs of nearly 10,000 jobs since 2011.

Table 2: Private Sector Contributions of Japanese-Branded New Vehicle Dealers (Retail) in the United States, 2013

	New Vehicle Dealers
Employment	
Total (Direct + Intermediate)	423,568
Direct	*319,568*
Intermediate	*104,000*
Spin-off	240,000
Grand Total (Direct + Intermediate + Spin-off)	663,568
Compensation ($ billions nominal)	
Compensation	$39.3
Less: transfer payments & social insurance contributions	($4.2)
Less: personal income taxes	($5.8)
Equals private disposable personal income	$29.2

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 $39 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 $4.2 billion is associated with new Japanese-branded vehicle dealer activity, and personal income tax revenues are increased by $5.8 billion. The implication for disposable personal income, or personal income after taxes and subtraction of transfers and contributions, is an increase of $29 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 more than 402,000 employees – over 82,000 in the production and distribution of their U.S.-built automobiles and almost 320,000 in their new dealer vehicle networks. In turn, these 402,000 direct jobs support another 328,000 intermediate jobs (such as auto parts, raw and fabricated steel, etc.). All told, over 730,000 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, 2013

	Production	New Vehicle Dealers	Total
Employment			
Total (Direct + Intermediate)	306,816	423,568	730,384
Direct	*82,816*	*319,568*	*402,384*
Intermediate	*224,000*	*104,000*	*328,000*
Spin-off	393,000	240,000	633,000
Grand Total (Direct + Intermediate + Spin-off)	699,816	663,568	1,363,384
Compensation ($ billions nominal)			
Compensation	$45.9	$39.3	$85.1
Less: transfer payments & social insurance contributions	($5.6)	($4.2)	($9.8)
Less: personal income taxes	($6.5)	($5.8)	($12.3)
Equals private disposable personal income	$33.7	$29.2	$63.0

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 633,000 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 1,363,384 jobs. This figure represents a growth of about 3,000 jobs since 2012 and an extraordinary 125,000 jobs since 2011.

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. Consistent with the finding of our previous update, we again find that Japanese-branded automakers' economic contributions grew in 2013: today 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 reflects growth both over the last 12 months and also over the last two years. Given the growth in jobs it is no surprise that we also estimate growing total compensation due to Japanese-branded automakers. 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.