CONTRIBUTION OF HONDA TO THE ECONOMIES OF SEVEN STATES AND THE UNITED STATES

PREPARED FOR

AMERICAN HONDA MOTOR CO., INC.

BY

ECONOMICS AND BUSINESS GROUP
CENTER FOR AUTOMOTIVE RESEARCH

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The statements, findings, and conclusions herein are those of the authors and do not necessarily reflect the views of the project sponsor.

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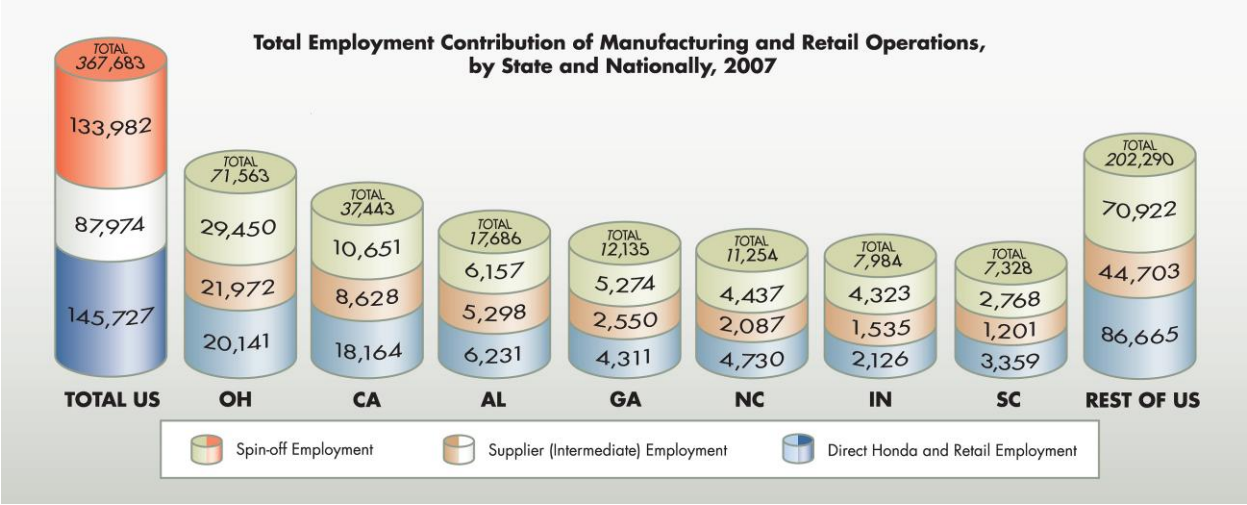
Executive Summary

Honda was the first Japanese automaker to build motor vehicles in the United States after a highly successful initial launch of its motorcycle manufacturing operations. This study's purpose is to quantify the employment and economic contributions of Honda's multi-line operations (defined in this analysis as: manufacturing, research, development and design, marketing, distribution, headquarters, and all other operational activities within the company, including Acura) and associated retail operations for Honda and Acura products by the end of 2007. The process of building this range of products necessitates a great many workers. In addition to the direct workers employed by Honda in all of its U.S. operations, many more people are needed to supply the goods and services that are directly or indirectly related to the operations of a motor vehicle and other consumer products company. The study finds that:

- A total of 367,683 private sector jobs, and $17 billion in annual wages and salaries, are generated as a result of Honda's total U.S. operations.

Total Employment Contribution of Manufacturing and Retail Operations, by State and Nationally, 2007



The study breaks out the economic and employment contribution in the following way:

- Of the total jobs, 151,957 private sector jobs are created as a result of Honda's direct employment in its manufacturer-related activities in the United States. Associated wages and salaries are estimated to be $9 billion,
- The remaining 215,726 private sector jobs, are generated by Honda's dealerships and Honda product-related retail employment in the United States. Their estimated associated wages and salaries are approximately $8 billion.
- An additional analysis of the expected contribution of the Greensburg, Indiana assembly facility, which began operations in October 2008, was also performed as part of this study. It estimates that a total of 12,840 jobs, with an expected annual compensation of $715 million, will result from the 2,000 direct employees at the plant when it is fully operational.

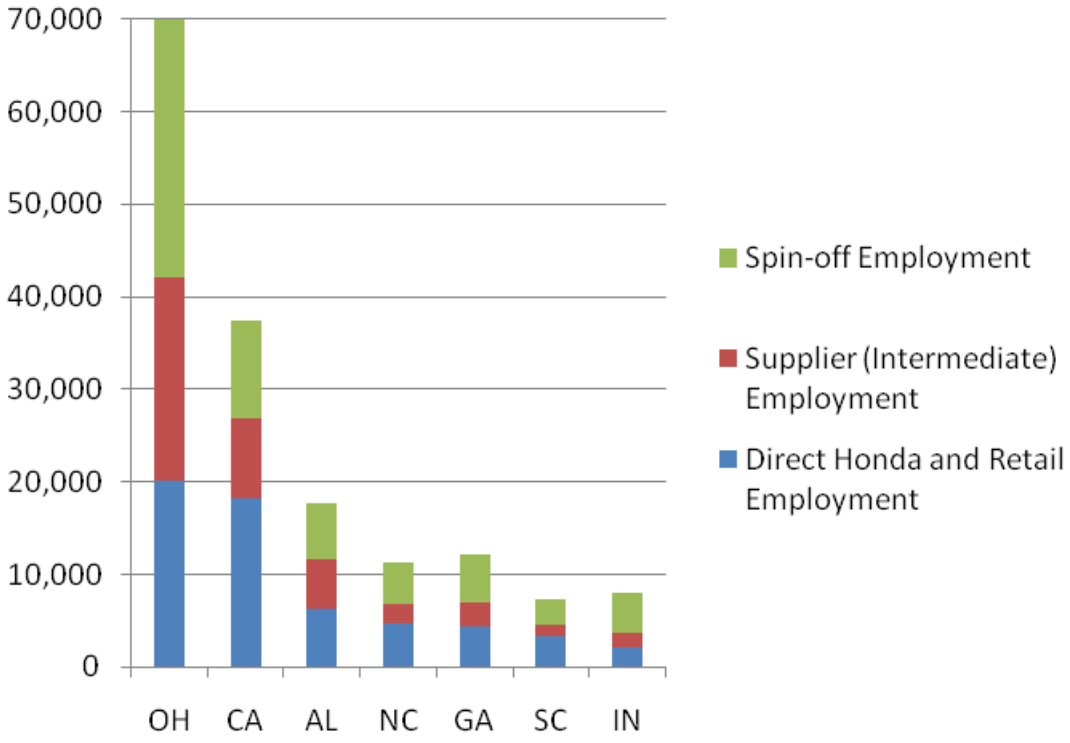
The estimates of employment and economic contributions in this study were derived using the latest version of a state-of-the-art economic model with direct employment and compensation data supplied by Honda, for calendar year 2007.

Across all of its product lines, Honda directly employed 27,011 people in the U.S., in 2007. Car and truck dealerships employed 62,172 people selling and servicing new Honda vehicles, with an additional 56,544 people employed at retail outlets selling non-automotive Honda products.

Honda's first U.S. motor vehicle assembly plant proved that international automakers could successfully produce motor vehicles manufactured by American workers and, as a result, a wave of automotive foreign direct investment in the U.S. soon followed. Not only has Honda's employment contribution to the communities in which it is located and the U.S. economy been significant, but its contribution to the processes and methods of manufacturing and design has served to add substantially to the productivity improvements in automotive and many other U.S. industries.

From its beginnings as a motorcycle and motor vehicle manufacturer in the U.S., Honda (by 2007) had expanded its U.S. operations to include automobile engines and transmissions; power equipment; general purpose engines; all terrain vehicles; personal watercraft; marine engines, and most recently, advanced light jets and turbofan jet engines, to become a true multi-line company.

Total Employment Contribution of Manufacturing and Retail Operations, for Selected States, 2007



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Introduction

The motor vehicle industry is the largest manufacturing industry in the United States. No other single industry is linked as closely to the U.S. manufacturing sector or directly generates as much retail business and employment as the motor vehicle industry. This study describes the economic contribution of American Honda Motor Co., Inc. and all of its U.S. Honda-affiliate companies.

The importance of this study is directly related to the importance of foreign direct investment and operations in the sustainability of the overall U.S. automotive industry. The domestic auto industry in the United States has undergone a restructuring. International manufacturers, however, have continued to expand operations here. Honda has been a pioneer in the localization of its manufacturing and R&D activities in the United Sates. Honda has consistently expanded its product development and manufacturing capabilities in the United States. A better understanding, then, of the role of Honda in the U.S. economy leads to a better understanding of the industry as a whole and how it will change in the future and further impact the U.S. economy.

The Center for Automotive Research (CAR) has undertaken this study, describing the economic contribution of Honda's total manufacturing and non-manufacturing operations in the United States. The first section of the study estimates the contribution of Honda's U.S. operations and dealership partners (employment and income) to the economies of seven states and the United States, for 2007. The 7 states analyzed in detail are Ohio, Alabama, California, Georgia, Indiana, North Carolina and South Carolina. The second section of the study presents an overview of Honda's history in the United States. The report also discusses Honda's achievements in sales, production, environmental leadership and quality performance.

Honda's economic contribution was analyzed using an economic model provided by Regional Economic Modeling, Inc. (REMI). The employment and compensation data used to perform the research was provided by Honda. The remaining data on the U.S. economy and the automotive industry was collected by CAR from a wide variety of publicly available sources, listed in the Reference section.

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Section I: The Economic Impact Analysis

The Economics and Business Group at CAR has carried out the majority of national level automotive economic contribution studies completed in the United States since 1992. This study, however, is the first such study where we examine the contribution of a single company across such a large number and variety of industries in the U.S. economy. The economic impact analysis is divided into several parts befitting the sheer breadth of Honda operations in the United States.

The study forecasts the economic contribution of Honda's operations to the economy of the United States and also specifically to the states of Ohio, Alabama, California, Georgia, North Carolina, South Carolina, and Indiana, for 2007. Results for the various industry segments that were examined include national and regional analyses of the economic contributions attributed to manufacturing, marketing, distribution, research, development and design, headquarters and all other operational activities within the company. American Honda Motor Co., Inc. and all U.S. Honda affiliate companies (hereafter referred to as Honda) manufacture a wide variety of products that are sold through general and specialty dealers and retail outlets throughout the country. The contribution through these outlets is also examined.

The beginning of this section details the economic contribution of Honda's U.S. automotive manufacturing and auto dealer operations. Within the section examining automotive operations, the report forecasts expected additional contributions to the Indiana state economy resulting from the construction and subsequent assembly operations of the new assembly plant in Greensburg, Indiana.

Recent economic contribution studies for the automotive industry performed by CAR are beginning to show the effects of globalization and the adverse employment impacts of lower tier, high labor content operations being moved offshore. The automobile industry has, over the past decade, strived to reduce costs. One component in this effort has been for many automotive companies to move higher labor content parts-making operations to lower-wage countries. While many arguments can be made as to the wisdom of such wholesale decisions, it is clear the impact on the U.S. parts supplier labor market has been dire. However, Honda has a number of programs designed specifically to strengthen U.S. suppliers and tool and die makers.

Therefore, a key finding of the automotive portion of the economic contribution section is a significant reduction in the jobs multiplier—derived by dividing total employment by direct employment. This study is an analysis using Honda-supplied data, but the model results reflect

the average performance of the automotive industry based on underlying national economic data. The study results therefore may understate Honda's performance in supporting supplier jobs in the U.S. For example, in 2007, Honda spent $17.1 billion on domestically produced materials, parts and components to supply its automotive manufacturing facilities. Because this study uses data showing the overall current state of the industry, study results estimated Honda's annual spending on domestic materials, parts and components at $14.1 billion. Therefore, even though the performance of the industry as a whole has brought about a decline in the industry's economic impact on U.S. and state economies, Honda's figures outperform the industry and show a significant contribution to the U.S. economy.

While the jobs multiplier may have declined from industry sales heights less than ten years ago, overall compensation and average compensation per employee continue to be much higher than in other sectors and other industries in the economy.

The next part of this economic contribution section examines the contribution of Honda operations that manufacture equipment for the powersports industries (all terrain vehicles, personal watercraft), power (generation and portable generation), outdoor yard and landscaping equipment (trimmers, snow blowers, lawn mowers, tillers) and various engines for wholesale distribution.

Estimates were made for retail employment supported by the sales of Honda products, and yet the products are sold in establishments not directly affiliated with Honda. Motorcycle dealerships that are direct Honda affiliates are counted in Honda dealership data. For power equipment, powersports and multi-purpose engine products, there are many dealers and retail outlets that sell these products and are not directly affiliated with Honda, and their employees are not Honda employees. However, Honda is a major contributor to retail employment for these products, often supplying 25 to 55 percent of the market for its various product lines. Therefore, the contribution of retail jobs directly attributable to Honda products was estimated.

The final part of this section combines all of Honda's operations and contributions and estimates the total footprint of Honda in individual states and within the entire United States. Manufacturing, research and development (R&D) and retail contributions are estimated.

Vehicle Manufacturer Activities

The tables in this section detail the forecasted and estimated employment and income contributions by Honda's U.S. automotive manufacturing and related operations to the private sector economies of the seven states and the country as a whole, for 2007. Employment estimates are broken out by direct employment (people forecasted to be employed directly by Honda); intermediate employment (people employed by suppliers to Honda and the suppliers who supply them); and spin-off employment (expenditure-induced employment resulting from spending by direct and intermediate employees who earn an income as a result of Honda-related activities).

Employment and income estimates are derived from analyses using a regional economic model, supplied by Regional Economic Models, Inc. (REMI), of Amherst, MA. (The model and methodology used will be further discussed in a later section.) Direct employment data was provided by Honda; the intermediate and spin-off effects were generated by the model. Direct employment data included white- and blue-collar job classifications.

Complete U.S. automotive manufacturing and related operations employment and payroll data supplied by Honda identified 24,669[1] employees. Employment and payroll data was coded (according to NAICS) into six categories for input into the model—motor vehicle manufacturing (category numbers: NAICS 3361-3363); management of companies (NAICS 551); professional, scientific and technical services (NAICS 541); securities, commodity contracts and investments (NAICS 523); warehousing and storage (NAICS 493); and wholesale trade (NAICS 42).

As can be seen in table 1-1, there are 47,445 intermediate jobs resulting from Honda's direct employment. The spin-off jobs associated with spending (from the people who work in the direct and intermediate jobs) add another 70,549 jobs, bringing the total jobs associated with Honda's automotive activities in the United States (direct plus intermediate plus spin-off) to nearly 142,700 jobs. The ratio of total jobs created to direct employment equals the employment multiplier of 5.8 (142,663 ÷ 24,669). This means there are 4.8 additional jobs in the U.S. economy for every one job at Honda automotive manufacturing operations.

[1] Note, the number 24,699 refers specifically to automotive manufacturing-related employees. The greater number used elsewhere in this study (27,011) refers to all Honda product manufacturing employees (automotive plus power equipment, powersports, and multi-purpose engine products).

Table 1-1: Total Contribution of Honda's Automotive Manufacturing and R&D Operations to the Private Sector Economy in the United States, 2007

Economic Impact	Manufacturer-related
Employment	
- Direct	24,669
- Intermediate	47,445
Total (Direct + Intermediate)	72,114
- Spin-off	70,549
Total (Direct + Intermediate + Spin-off)	142,663
Multiplier: (Direct + Intermediate + Spin-off)/Direct	5.8
Wages and Salaries ($ Billions)	7.5
Personal Taxes ($ Billions)	1.4

Compensation in the private sector associated with the total jobs (direct plus intermediate plus spin-off) amounts to $7.5 billion. Estimated personal taxes to be paid resulting from Honda's automotive manufacturing operations in 2007 are nearly $1.5 billion.

Suppliers

Table 1-2 provides a more detailed look at the intermediate or supplier employment and spin-off employment associated with Honda's manufacturer-related operations. In the intermediate employment category, there are 47,445 jobs spread across numerous manufacturing and non-manufacturing industries. As discussed earlier, the intermediate category captures the employment necessary to satisfy Honda's demand for the materials and services it needs to design, produce and sell motor vehicles. This can be broadly considered Honda's U.S. supplier network. This supply network consists of the suppliers who supply parts and services directly to Honda along with the suppliers who supply the basic materials and services to Honda's suppliers. Some of these companies supply basic commodities and can be several steps removed from the vehicle design and manufacturing process; however, they are categorized as Honda suppliers. Honda purchased $17.1 billion in materials, parts and component systems from U.S. suppliers in 2007 for its automotive manufacturing operations.

Table 1-2: Intermediate and Spin-off Employment Contribution of Honda's Automotive Manufacturing and R&D Operations in the U.S., 2007

Economic Impact	Intermediate	Spin-off
Manufacturing	**7,014**	**9,115**
Primary metal mfg	896	732
Fabricated metal prod mfg	1,828	1,400
Motor vehicle mfg	1,344	1,925
Plastics, rubber prod mfg	711	490
Other Manufacturing	2,235	4,568
Non-Manufacturing	**40,431**	**61,434**
Professional and Technical Services	7,413	3,553
Administration and Services	7,536	961
Wholesale Trade	3,697	1,848
Retail Trade	4,174	9,646
Transportation, Warehousing	2,572	3,556
Finance, Insurance	3,680	2,867
Management of Companies	1,447	477
Other Services (excluding Government)	3,067	4,377
Other Non-Manufacturing	6,845	34,149
Total	**47,445**	**70,549**

Note: Due to rounding, columns or rows may not sum exactly.

As shown in table 1-2, we find 7,014 intermediate jobs in the manufacturing sector, mostly in the industries obviously necessary to produce automobiles—e.g., 896 jobs in primary metal manufacturing, 1,828 in fabricated metal products manufacturing and 711 in plastics and rubber products manufacturing. Additionally, this category contains another 1,344 people who are involved in motor vehicle and parts manufacturing. These people are manufacturing the motor vehicles and parts necessary to produce the parts and services demanded by Honda. It does not include any of the 24,669[2] people directly employed by Honda auto manufacturing operations. The 7,014 intermediate jobs in the manufacturing sector also show 2,235 people employed in other manufacturing industries.

[2] Note, the number 24,699 refers specifically to automotive manufacturing-related employees. The greater number used elsewhere in this study (27,011) refers to all Honda product manufacturing employees (automotive plus power equipment, powersports, and multi-purpose engine products).

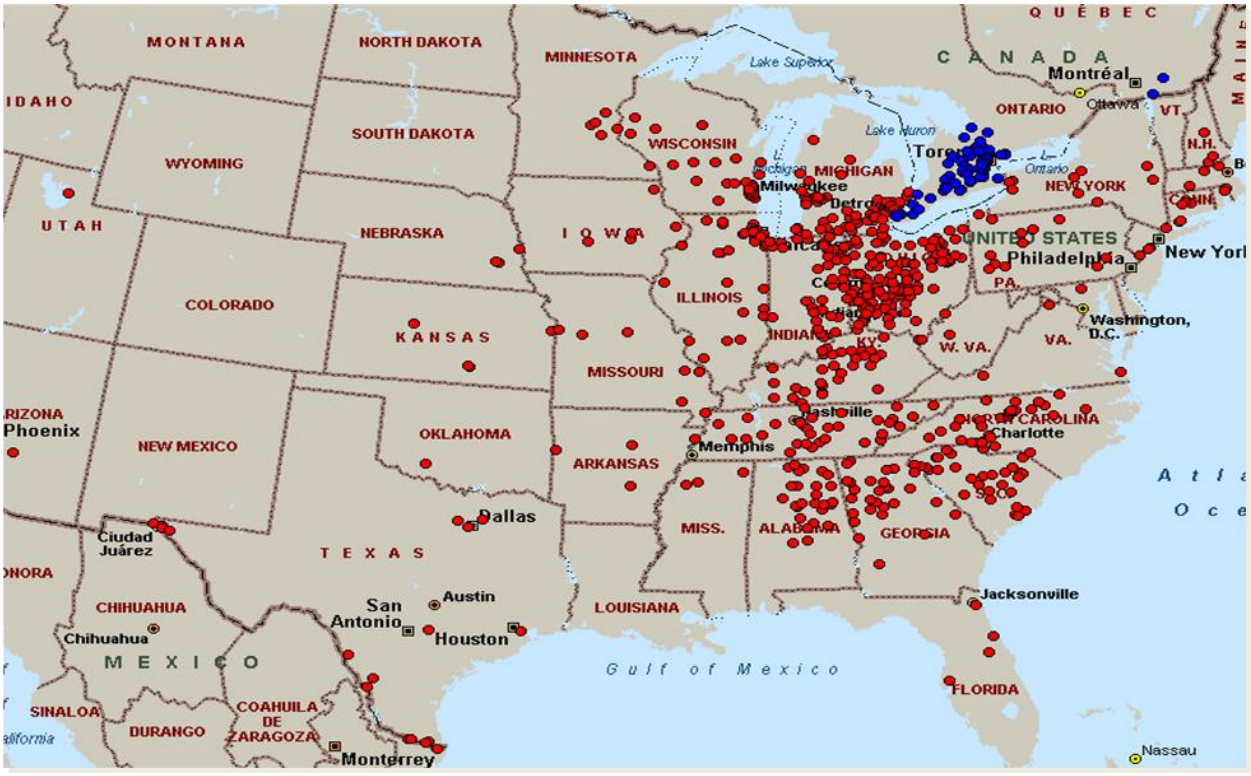
The bulk of the employment in the intermediate category is in the non-manufacturing sector—a total of 40,431 jobs. Industries within this category are not normally thought to be associated with automobile manufacturing in such high numbers. However, as a result of the separation of the complete vehicle design and parts manufacturing processes from within the automobile manufacturing company to the supplier sector, many more distinct industries have become major suppliers to the automobile industry. Industries of note in the non-manufacturing category are professional and technical services employing 7,413; administration and services, 7,536; wholesale trade, 3,697; and finance and insurance, 3,680.

Table 1-2 shows there are 70,549 total spin-off jobs associated with Honda's U.S. automobile manufacturing operations. These are expenditure-induced jobs, created as a result of spending by the people employed in the direct and intermediate categories. As could be expected, a large portion of the spin-off jobs (9,646 jobs) are in the non-manufacturing sector of retail trade. When employees use their paychecks to purchase a wide range of goods (including electronics equipment, clothing, food and even new automobiles), employment is created to supply their demands. Table 1-2 shows there are 1,925 jobs related to manufacturing motor vehicles and parts based on the demand of the employees in the direct and intermediate sectors. This employment number does not include any of the 24,669 jobs at Honda which have been accounted for in the direct employment category.

As shown in table 1-3, (U.S. and state totals for direct, intermediate, and spin-off manufacturer-related employment) Ohio, California and Alabama have significant numbers of jobs in the intermediate and spin-off categories partially as a result of the large number of people directly employed by Honda within the states. While Ohio, California and Alabama employment impacts are expected, due to the number of direct jobs within these states, it is truly interesting to note the job impact in other states where there are relatively few direct jobs. In a few states, it appears large numbers of jobs are generated due to the states' proximity to nearby Honda manufacturing and technical facilities. For instance, in Georgia and Indiana in 2007, there was direct employment of only 442 (excluding construction and production activity at Honda's new manufacturing facility). Neither of these states has significant Honda automotive employment, but Honda's intermediate—or supplier—job contribution in Indiana is estimated at 1,046 employees. Similarly, in Georgia, an additional 1,335 supplier jobs are estimated. All of these states see major additional impact from substantial numbers of highly-compensated spin-off jobs resulting from the spending of the direct and indirect employees.

These regional geographic impacts should not be surprising for a mature industry such as automobile manufacturing, now established in most of the states east of the Mississippi River. Direct suppliers and their suppliers have located throughout the country for a variety of reasons and have a significant effect on the economies in every state.[3] Each individual state's economic impact primarily reflects the effect of total national Honda employment on the state's employment and income. Even in California, the 9,000 jobs attributed to Honda are a result not only of Honda's California activities, but of total U.S. Honda activities and employment. Therefore, a multiplier is not calculated for any individual state—except where a specific investment has been added to the state, as in the case of the Greensburg assembly plant discussed later in this paper.

Locations of North American Suppliers to Honda Facilities, 2007



[3] The Office for the Study of Automotive Transportation, Transportation Research Institute, and the Institute of Labor and Industrial Relations, University of Michigan. The Contribution of the International Auto Sector to the U.S. Economy. A study prepared for the Association of International Automobile Manufacturers, Inc., Ann Arbor, March, 1998.

Table 1-3: Total Employment Contribution of Automotive Manufacturing, Corporate and R&D Operations, By State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
DIRECT	24,669	15,574	4,520	2,810	442	0	0	0	1,323
INTERMEDIATE	47,445	19,890	4,991	2,990	1,335	1,046	545	243	16,404
TOTAL (Direct + Intermediate)	72,114	35,464	9,511	5,800	1,777	1,046	545	243	17,727
Spin-off	70,549	22,292	5,746	3,200	2,896	3,114	1,424	832	31,045
TOTAL (Direct + Intermediate + Spin-off)	142,663	57,756	15,257	9,000	4,673	4,161	1,969	1,075	48,772
National Multiplier	**5.8**								

Note: Due to rounding, columns or rows may not sum exactly.

Automobile Dealers

Automobile dealers associated with selling, financing, and servicing new Honda cars and trucks also contribute to the United States and the states' economies. The tables in this section detail the estimated and forecasted employment and income contributions of Honda's U.S. new vehicle dealer operations to the private sector economies of the seven states and the country as a whole. The estimates of employment are broken out by direct employment (people employed directly by Honda), intermediate employment (people employed by suppliers to Honda dealerships and the suppliers who supply them), and spin-off employment (expenditure-induced employment resulting from spending by direct and intermediate employees who earn an income as a result of Honda dealer-related activities). Included in the intermediate employment category are such suppliers as the suppliers for dealer service operations and suppliers to the retail operations of dealerships.

Complete U.S. dealer-related operations employment and payroll data supplied by Honda identified 88,818 employees. The total Honda dealer employment was reduced by 30 percent to net out activities related to used vehicle sales and servicing (non-warranty). The net number of new vehicle dealer employees is 62,172. The data was coded according to NAICS category for retail trade (NAICS 44-45) for input into the model. Table 1-4 shows another 19,043 jobs

associated with suppliers to the dealerships, across many industries. Finally, 27,062 spin-off jobs are a result of the spending of the employees in the direct and intermediate jobs. Altogether, this total equals 108,278 jobs—a multiplier of 1.7. The multiplier effect for new vehicle dealers is much lower than the multiplier associated with Honda's manufacturing activities, because the dealer supplier network is not as broad as that which supports manufacturing, nor is the compensation for the dealer jobs as high on average as it is for the manufacturing-related jobs. Compensation for the 108,278 total jobs associated with new vehicle dealer activities totals over $4.1 billion. Personal taxes paid are forecasted to be more than $800 million.

Table 1-4: Total New Dealer Employment Contribution to the Private Sector Economy, U.S., 2007

Economic Impact	Dealers
Employment	
- Direct	62,172
- Intermediate	19,043
Total (Direct + Intermediate)	81,215
- Spin-off	27,062
Total (Direct + Intermediate + Spin-off)	108,278
Multiplier: (Direct + Intermediate + Spin-off)/Direct	1.7
Wages and Salaries ($ Billions)	4.2
Personal income taxes ($ Millions)	805

New vehicle dealer employment figures for the 7 individual states and the remainder of the United States, as well as national employment results, are shown in table 1-5. Direct dealer employment and total employment figures (direct + intermediate + spin-off) in the 7 states closely correlate to the population of each of the states, as more vehicle dealerships are needed to service larger populations. However, intermediate employment does not mirror the states' populations. Rather, as with the manufacturing operations, the location of intermediate employment (the suppliers to the dealers) is due to factors other than state population. Therefore, a predictable dispersion of intermediate jobs based on dealership locations is not to be expected.

Table 1-5: Total New Dealer Employment Contribution by State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
DIRECT	62,172	2,389	838	9,256	2,137	938	2,222	989	43,403
INTERMEDIATE	19,043	565	169	3,282	584	196	502	196	13,550
TOTAL (Direct + Intermediate)	81,215	2,954	1,007	12,538	2,721	1,134	2,724	1,185	56,953
Spin-off	27,062	991	371	4,296	1,028	458	978	458	18,482
TOTAL (Direct + Intermediate + Spin-off)	108,278	3,945	1,378	16,834	3,749	1,592	3,703	1,643	75,435
National Multiplier	**1.7**								

Note: Due to rounding, columns or rows may not sum exactly.

Table 1-6 shows that intermediate or supplier employment and spin-off employment resulting from the new vehicle dealer activities is distributed across a number of major industry divisions. New vehicle dealer retail and service activities generate about 1,382 intermediate and 1,493 spin-off manufacturing jobs, totaling 2,875 jobs (or about 3 percent of the total 108,278 jobs mentioned in table 2-4). The remaining 97 percent of the total of 108,278 jobs (or 105,402 jobs) are in non-manufacturing industries. As seen in table 1-6, there are 5,048 intermediate and spin-off jobs in the retail trade sector. When these 5,048 jobs are combined with the 62,172 direct jobs (dealership jobs, therefore also retail jobs—table 1-4), a total of 67,220 jobs (more than 60 percent of all 108,278 jobs) related to new vehicle dealer activities are in the retail trade sector.

Table 1-6: Intermediate and Spin-off Employment Contribution of New Vehicle Dealers in U.S., 2007

Economic Impact	Intermediate	Spin-off
Manufacturing	**1,382**	**1,493**
Primary metal mfg	27	15
Fabricated metal prod mfg	232	128
Motor vehicle mfg	39	101
Plastics, rubber prod mfg	140	90
Other Manufacturing	944	1,159
Non-Manufacturing	**17,661**	**25,569**
Professional and Technical Services	3,139	1,101
Administration and Services	4,438	435
Wholesale Trade	679	643
Retail Trade	949	4,099
Transportation, Warehousing	1,137	686
Finance, Insurance	1,502	923
Management of Companies	1,104	183
Other Services (excluding Government)	729	1,736
Other Non-Manufacturing	3,984	15,763
Total	**19,043**	**27,062**

Note: Due to rounding, columns or rows may not sum exactly.

Total U.S. Contribution of Honda Automotive Manufacturing, Corporate, R&D and Dealer-Related Activities

Table 1-7 sums the combined effects of Honda's automotive manufacturing operations (shown in table 1-1), and new vehicle dealer activities (shown in table 1-4), to produce the total effect of all of Honda's U.S. manufacturing- and dealer-related operations. Summing direct employment of 86,841 (24,669 automotive manufacturing-related + 62,172 new vehicle dealer operations), intermediate employment of 66,480, and spin-off employment of 97,604 produces a private sector employment total of 250,925 employees. Comparing total employment to direct employment produces an overall employment multiplier of over 2.9 (250,925 ÷ 86,841), meaning there are 1.9 additional jobs in the U.S. economy for every one job at Honda or its dealers. The estimate from the model of the total contribution of automotive manufacturing employment and new vehicle dealership employment produces a total number slightly less than summing the results from the two. This is because there is some, very slight, overlap in the

spin-off and indirect employment between the two direct employment populations. Therefore, the columns in table 1-7 below do not add precisely.

Table 1-7: Total Auto Manufacturing and Dealer Employment in the U.S., 2007

Economic Impact	Manufacturing	New Vehicle Dealer-related	Total
- Direct	24,669	62,172	86,841
- Intermediate	47,445	19,043	66,480
Total (Direct + Intermediate)	72,114	81,215	153,321
- Spin-off	70,549	27,062	97,604
Total (Direct + Intermediate + Spin-off)	142,663	108,278	250,925
Multiplier: (Direct + Intermediate + Spin-off)/Direct	5.8	1.7	2.9
Wages and Salaries ($ Billions)	7.5	4.2	11.7
Personal income taxes ($ Billions)	1.4	0.8	2.2

Note: Due to rounding, columns or rows may not sum exactly.

Total compensation for all 250,925 private sector workers associated with Honda's U.S. automotive operations is $11.7 billion.

Table 1-8 sums the combined effects of Honda's manufacturing operations (shown in table 1-3), and new vehicle dealer activities (shown in table 1-5), to produce the total effect from all of Honda's U.S. auto manufacturing and dealer-related operations across each of the 7 individual states and nationally. As in the summary for the United States in table 1-7 above, the sum of manufacturing-related employment and dealership employment on a state level will not be exactly the same as the results for the total when both types of employment are modeled together. This is because there is some, very slight, overlap in the spin-off and indirect employment between the two direct employment populations.

Table 1-8: Total Auto Manufacturer- and Dealer-Related Employment in the U.S. by State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
Manufacturer-related									
Direct Employment	24,669	15,574	4,520	2,810	442	0	0	0	1,323
Intermediate	47,445	19,890	4,991	2,990	1,335	1,046	545	243	16,404
Spin-off	70,549	22,292	5,746	3,200	2,896	3,114	1,424	832	31,045
New Vehicle Dealers									
Direct Employment	62,172	2,389	838	9,256	2,137	938	2,222	989	43,403
Intermediate	19,043	565	169	3,282	584	196	502	196	13,550
Spin-off	27,062	991	371	4,296	1,028	458	978	458	18,482
Total Employment	**250,925**	**61,697**	**16,629**	**25,984**	**8,446**	**5,726**	**5,698**	**2,731**	**124,014**

Note: Due to rounding, columns or rows may not sum exactly.

Power Equipment, Powersports and Multi-purpose Engine Manufacturing Activities

The tables in this section detail the forecasted and estimated employment and income contributions from Honda's U.S. power equipment, powersports and multi-purpose engine manufacturing and related operations[4] to the private sector economies of the seven states, and the country as a whole. The model and methodology used will be further discussed in a later section.

Direct employment data was provided by Honda, with the intermediate and spin-off effects generated by the model. Honda Power Equipment Mfg., Inc. based in North Carolina, and Honda of South Carolina Mfg., Inc. employ 2,342 employees. The manufacturing operations in North Carolina make small displacement multi-purpose engines, lawn and garden equipment and other portable power generation equipment for commercial and private use. Honda of South Carolina makes all terrain vehicles (ATVs) and personal watercraft (PWCs). Employment and payroll data was coded according to NAICS into several categories for input into the model—equipment manufacturing, non-automotive transportation equipment manufacturing; management of companies (NAICS 551); professional, scientific and technical services (NAICS 541); securities, commodity contracts and investments (NAICS 523); warehousing and storage (NAICS 493); and wholesale trade (NAICS 42).

[4] These products include motorcycles, ATVs, marine engines, personal watercraft, lawn and garden engine products, power generators and general purpose engines.

As can be seen in table 1-9, there are 2,421 intermediate jobs resulting from Honda's direct employment—slightly more than a 1:1 ratio. The spin-off jobs associated with spending (from the people who work in the direct and intermediate jobs) add another 4,564 jobs, bringing the total jobs associated with Honda's non-automotive activities in the United States (direct plus intermediate plus spin-off) to 9,327 jobs. The ratio of total jobs created (direct plus intermediate plus spin-off) to direct employment equals the employment multiplier of 4.0. This means there are 3.0 additional jobs in the U.S. economy for every one job at Honda's U.S. power equipment, powersports and multi-purpose engine manufacturing and related operations.

Compensation in the private sector associated with the total jobs (direct plus intermediate plus spin-off) amounts to nearly $500 million. Estimated personal taxes to be paid resulting from Honda's power equipment, powersports and multi-purpose engine manufacturing operations in 2007 are $83 million.

Table 1-9: Total Contribution of Honda's Power Equipment, Powersports and Multi-purpose Engine Manufacturing Operations to the Private Sector Economy in the United States, 2007

Economic Impact	Manufacturer-related
Employment	
- Direct	2,342
- Intermediate	2,421
Total (Direct + Intermediate)	4,763
- Spin-off	4,564
Total (Direct + Intermediate + Spin-off)	9,327
Multiplier: (Direct + Intermediate + Spin-off)/Direct	4.0
Wages and Salaries ($ Billions)	0.5
Personal Taxes ($ Billions)	0.08

Table 1-10 provides a more detailed look at the intermediate and spin-off employment associated with Honda's manufacturing operations. In the intermediate employment category, there are 2,421 jobs spread across numerous manufacturing and non-manufacturing industries. As discussed earlier, the intermediate category captures the employment necessary to satisfy Honda's demand for the materials and services it needs to design, produce and sell its products. This can be broadly considered Honda's U.S. supplier network. This supply network consists of the suppliers who supply parts and services directly to Honda along with the suppliers who supply the basic materials and services to Honda's suppliers.

Table 1-10: Intermediate and Spin-off Employment Contribution of Honda's Power Equipment, Powersports and Multi-Purpose Engine Manufacturing Operations, 2007

Economic Impact	Intermediate	Spin-off
Manufacturing	**341**	**606**
Non-Manufacturing	**2,080**	**3,958**
Professional and Technical Services	449	294
Administration and Services	438	57
Wholesale Trade	189	142
Transportation, Warehousing	127	167
Finance, Insurance	172	162
Management of Companies	94	56
Other Non-Manufacturing	611	3,080
Total	**2,421**	**4,564**

Note: Due to rounding, columns or rows may not sum exactly.

The bulk of the employment in the intermediate category is in the non-manufacturing sector and totals 2,080 jobs. The number of intermediate jobs that results from the manufacturing of products that are not motor vehicles is not as high as the number of intermediate jobs that results from the manufacturing of motor vehicles. This is because the motor vehicle industry, in general, procures motor vehicle parts and components that ultimately comprise more than 60 percent of the final vehicle. In addition, compensation levels for non-automotive manufacturing jobs (particularly in occupations in the intermediate category) tend to not run as high as compensation levels for automotive manufacturing jobs. Therefore, a smaller number of spin-off jobs results. Most other products manufactured are not as complex as motor vehicles; therefore, the indirect and spin-off industries do not include the variety of suppliers found in the motor vehicle industry.

In addition to producing these products for the U.S. market, Honda produces power equipment, powersports and multi-purpose engines for the export market. In the five years ending in 2007, Honda exported nearly $200 million of products to more than 30 countries.

Table 1-11 shows the breakout of employment for U.S. and state totals for direct, intermediate, and spin-off non-automotive manufacturing employment. As the majority of the direct jobs are

based in North Carolina and South Carolina, most of the intermediate and spin-off jobs are also located in these two states.

Table 1-11: Total Employment Contribution of Power Equipment, Powersports and Multi-Purpose Engine Manufacturing Operations, by State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
DIRECT	2,342	7	0	0	0	0	829	1,506	0
INTERMEDIATE	2,421	53	18	56	90	22	614	600	968
TOTAL (Direct + Intermediate)	4,763	60	18	56	90	22	1,443	2,106	968
Spin-off	4,564	137	61	22	265	71	1,043	985	1,980
TOTAL (Direct + Intermediate + Spin-off)	9,327	197	79	78	355	93	2,486	3,091	2,948
National Multiplier	**4.0**								

Note: Due to rounding, columns or rows may not sum exactly.

Retail Employment for Power Equipment, Powersports and Multi-Purpose Engine Products

Retail employment associated with selling Honda products contributes significantly to the United States and the states' economies. People involved in selling Honda products are not employed directly by Honda, but are the employees of individual and franchise sales outlets throughout the country. The estimates of the number of jobs that exist because of Honda product sales were based on the number of retail employees for narrowly defined product lines multiplied by the percentage share that Honda products have for respective product lines. See table 1-12 below.

Table 1-12: Estimated U.S. Direct Retail Employment for Honda Power Equipment, Powersports and Multi-Purpose Engine Products, 2007

Type of Retail Establishment	Total U.S. Retail Employment by Type of Retail	Estimated retail employees for Honda products
All Retail	15,490,700	56,545
Motorcycle, boat, and other vehicle dealers	128,300	32,075
Outdoor power equipment stores	31,400	3,140
Lawn and garden equipment and supplies stores	142,200	21,330

Source: U.S. Bureau of Labor Statistics. "Quarterly Census of Employment and Wages, 2007 Annual Data." www.bls.gov/cew/

Furthermore, estimates by state were developed by multiplying each state's share of retail employment by the number of employees in each product line and by Honda's share of sales in each product line. For the results of direct retail employment by state, please see table 1-13 below.

Table 1-13: Direct Retail Employment for Honda Power Equipment, Powersports and Multi-Purpose Engine Products, by State and Nationally, 2007

Retail Employment	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.	Total U.S.
Non Automotive	2,171	873	6,098	1,732	1,188	1,679	864	41,939	56,544

Total U.S. Contribution of Honda Marine, Powersports and Multi-Purpose Engine Products Manufacturing and Retail Activities

Table 1-14 sums the combined effects of Honda's manufacturing operations as well as estimated retail employment that exist because of Honda products (exclusive of motor vehicles). Summing direct employment of 58,886 (2,342 manufacturing-related + 56,544 retail operations), intermediate employment of 19,463, and spin-off employment of 28,798 generates a private sector employment total of 107,147 employees. Comparing total employment to direct employment produces an overall employment multiplier of over 1.8 (107,147 ÷ 58,886), meaning there are 0.8 additional jobs in the U.S. economy for every one job sells Honda products at Honda or a retail outlet.

Table 1-14: Total Power Equipment, Powersports and Multi-Purpose Engine Manufacturing and Retail-Related Employment in the U.S., 2007

Economic Impact	Marine, Power, Sports and Engine
- Direct, Manufacturing	2,342
- Direct, Retail	56,544
Total Direct	58,886
- Intermediate	19,463
Total (Direct + Intermediate)	78,349
- Spin-off	28,798
Total (Direct + Intermediate + Spin-off)	107,147
Multiplier: (Direct + Intermediate + Spin-off)/Direct	1.8
Wages and Salaries ($ Billions)	4.2
Personal income taxes	0.8

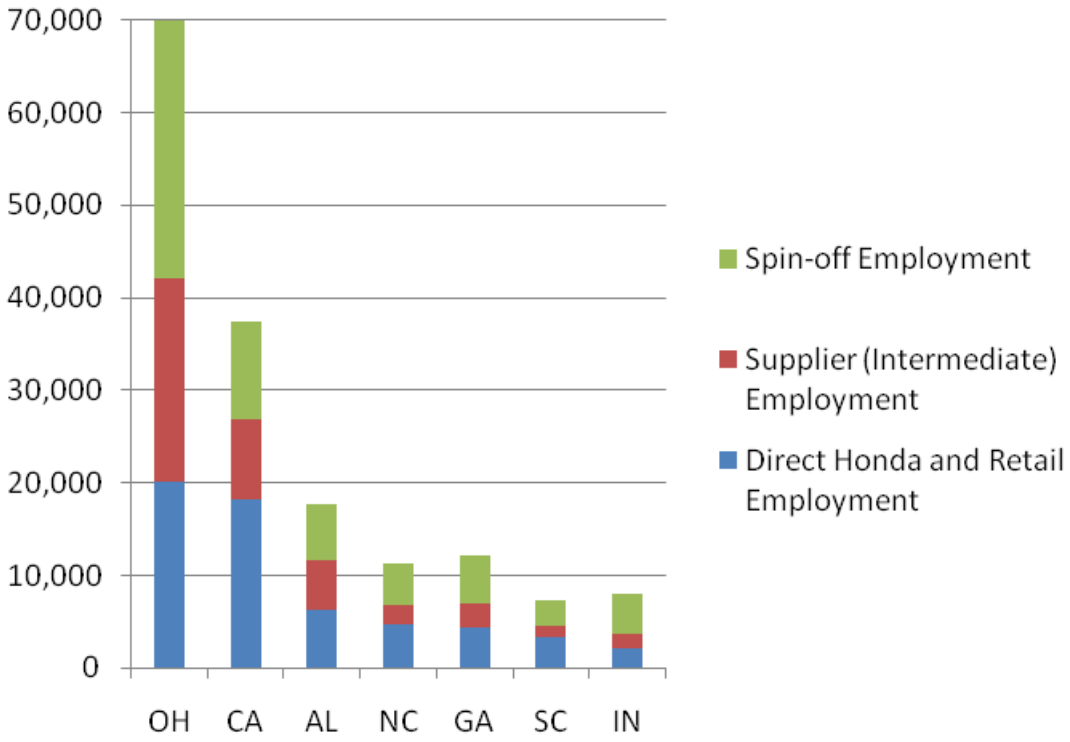
Note: Due to rounding, columns or rows may not sum exactly.

Total compensation for all 107,147 private sector workers associated with Honda's U.S. operations in non-automotive lines is $4.2 billion.

State-level Analysis of the Contributions of Honda's Operations

Honda operations are a significant contributor to certain states in which Honda operates a number of facilities – in particular, headquarters operations in California; automotive manufacturing and R&D facilities in Ohio, Alabama, Georgia and Indiana; small engine manufacturing and R&D facilities in North Carolina and South Carolina; and aerospace operations in North Carolina. Honda's contribution to the economies of each of these states was modeled independently to assess Honda's footprint in these states. Honda also operates major parts warehouse facilities in California, Ohio, Oregon, Iowa, Texas, New Jersey and Connecticut.

Chart 1-1 Total Employment Contribution of Manufacturing and Retail Operations, for Selected States, 2007



Contribution of Honda's Operations to the State of Ohio

In 1979, Honda produced its first motor vehicle in the United States at the Marysville motorcycle plant in Ohio. Now, Honda has nearly 16,000 Ohio employees at four manufacturing plants and their support facilities. Honda's four manufacturing plants in Ohio are the Marysville Motorcycle Plant, Marysville Auto Plant, Anna Engine Plant, and East Liberty Auto Plant. These plants produce automobiles, motorcycles, all-terrain vehicles and engines. Including other Honda operations in Ohio (such as Honda of America Mfg., Inc., Honda Transmission Mfg. of America, Inc., Honda R&D Americas Inc.-Ohio Center and Honda Trading America Corp.), Honda employs 15,581 Ohio residents. The majority of Honda's Ohio employees are involved in automotive-related manufacturing operations. Honda's Ohio operations are especially well-known for purchasing and product engineering expertise, as well as for being the focal point of Honda's supplier logistics and automotive parts exports.

The estimation of Honda's contribution modeled Ohio employment solely, as if there were no Honda operations in the rest of the country. This analysis evaluates the economic impact of these employees of Honda assembly facilities and other Honda facilities on the Ohio state economy and the U.S. economy through direct, intermediate, and spin-off employment effects. Table 1-15 shows the employment impact for the year 2007, a typical year for operational results.

Table 1-15: Ohio Employment Contribution for the year 2007

	Ohio	Total U.S.
Total Employment	54,125	95,954
Direct Employment	15,581	15,581
Intermediate Employment	19,544	32,621
Spin-Off Employment	19,000	47,752
Multiplier		6.2
Wages and Salaries ($ Billions)	2.8	4.9
Personal Taxes ($ Billions)	0.6	0. 9

Expected private sector salaries and wages earned in Ohio and resulting from Honda's Ohio operations are estimated to be nearly $2.8 billion and nearly $5 billion for the United States.

Estimated personal taxes paid in the state are over $500 million and nearly one billion dollars for the entire nation (including Ohio).

Contribution of Honda's Operations to the State of California

California is home to a number of Honda facilities, including the corporate headquarters of American Honda Motor Co., Inc., Honda Financial Services, Inc., and Honda R&D Americas, Inc., which includes three product design studios, an advanced hydrogen production and refueling facility, and a dynamic test track facility. Together, these operations in California employ 2,810 people in a wide variety of corporate and automotive careers. Testing, research, export, customer service, corporate affairs, human resources, legal, accounting, finance (both corporate finance and consumer auto finance), warehousing, sales and marketing offices are all located in California. In addition, Honda Performance Development, Inc. (auto racing) is headquartered in California.

Table 1-16: California Employment Contribution for the year 2007

	California	Total U.S.
Total Employment	8,939	10,339
Direct Employment	2,810	2,810
Intermediate Employment	2,544	3,109
Spin-Off Employment	3,585	4,420
Multiplier		3.7
Wages and Salaries ($ Billions)	0.7	0.8
Personal Taxes ($ Billions)	0.1	0. 1

This estimation of Honda's contribution modeled California employment solely, as if there were no Honda operations in the rest of the country. The majority of Honda's California employees are involved in functions that are not manufacturing occupations. There are 2,810 non-retail Honda employees in California. This analysis evaluates the economic impact of these employees on the California state economy through direct, intermediate and spin-off employment effects. Table 1-16 shows the employment impact for the year 2007, a typical year for operational results.

Expected private sector salaries and wages earned in California and resulting from Honda's California operations are estimated to be $690 million and $765 million for the United States.

Estimated personal taxes paid in the state are $121 million and $136 million for the entire nation (including California).

Contribution of Honda's Operations to the State of Alabama

Honda Manufacturing of Alabama, LLC started production in Lincoln, Alabama in 2001. The site is 1,350 acres. It has a capital investment of $1.4 billion, and it employs 4,520 associates. This Honda plant produces the Odyssey minivan, Pilot SUV, and V-6 engines for both models, and it has an annual production capacity of 300,000 vehicles and V-6 engines. In 2009, the plant will add production of the Ridgeline truck and Accord V-6 sedan models. Honda Manufacturing of Alabama has its own engine plant, producing V-6 engines in sync with automotive production. 2006 saw the plant undergo a $70 million expansion; the Alabama manufacturing plant operates as a Zero Waste-To-Landfill facility.

Table 1-17: Alabama Employment Contribution for the year 2007

	Alabama	Total U.S.
Total Employment	14,128	30,592
Direct Employment	4,520	4,520
Intermediate Employment	4,762	10,150
Spin-Off Employment	4,846	15,922
Multiplier		6.8
Wages and Salaries ($ Billions)	0.8	1.7
Personal Taxes ($ Billions)	0.1	0.3

This estimation of Honda's contribution modeled Alabama employment solely, as if there were no Honda operations in the rest of the country. The majority of Honda's Alabama employees are involved in automotive-related manufacturing operations. There are 4,520 non-retail Honda employees in Alabama. This analysis evaluates the economic impact of these employees at the assembly facility on the Alabama state economy through direct, intermediate and spin-off employment effects. Table 1-17 shows the employment impact for the year 2007, a typical year for operational results. There are 4,762 intermediate or supplier jobs in Alabama as a result of the assembly plant and its 4,520 direct employees. Overall, in the United States there are another estimated 5,388 supplier (intermediate or indirect) jobs, for a total contribution of 10,150 supplier jobs due to the Alabama assembly plant. There are also an estimated 15,922 spin-off jobs total in the United States (including Alabama) as a result of the spending of the plant's 4,520 direct employees.

Expected private sector salaries and wages earned in Alabama and resulting from Honda's Alabama operations are estimated to be $803 million and $1.7 billion for the United States (including the Alabama salaries and wages). Estimated personal taxes paid in the state are over $100 million and $267 million for the entire nation (including Alabama).

Contribution of Honda's Operations to the State of North Carolina

In 1984, Honda established a power equipment manufacturing facility, Honda Power Equipment Mfg., Inc., in Swepsonville, North Carolina. The Swepsonville plant produces multi-purpose engines, walk-behind lawn mowers, snow blowers, string trimmers, water pumps and tillers. The facility has the capacity to produce two million small displacement engines annually. The entire product line, in fact, is exclusively powered by advanced 4-stroke engines, improving fuel economy and reducing exhaust emissions. The plant is 364,000 square feet, and has a capital investment of $192 million. Through a series of expansions, Honda has dramatically increased the capacity of the Swepsonville facility in order to meet growing demand for its power equipment models. Manufacturing operations are comprised of die casting, machining and final assembly. In addition to direct manufacturing jobs, this facility indirectly creates jobs in the Swepsonville area and in North Carolina as a whole. Swepsonville, North Carolina also houses research & development and testing activities for power equipment products at a Honda R&D Americas, Inc. facility adjacent to the plant.

In 2010, Honda will open two new manufacturing facilities in North Carolina. Honda Aircraft Co., Inc. will assemble the HondaJet, while Honda Aero, Inc. will manufacture jet engines for sale to other airframe manufacturers and to the Honda Aircraft Company. When HondaJet production begins, approximately 90 percent of the parts for the HondaJet aircraft will be purchased from suppliers in North America. Because the volume of jets to be produced is not at the same level as the number of motor vehicles that Honda makes, and also because jet manufacturing plants do not mirror automotive assembly plants, employment contribution numbers are not at the intensity level of auto assembly and parts supply facilities. However, the types of jobs these two new plants will require are highly skilled, high-paying jobs. The two manufacturing facilities–for HondaJet and GE-Honda turbofan engines–are very close in proximity, further magnifying their impact on the local economy. Given the significance of these operations in North Carolina, this study modeled the expected contribution of Honda's new aircraft operations for the year 2012–a typical year for operational results once full production has started. This estimation modeled future North Carolina employment solely, as if there were no Honda operations in the rest of the country. The analysis evaluates the economic impact of these Honda manufacturing employees on the North Carolina state economy through direct, intermediate, and spin-off employment effects. Table 1-18 shows the employment forecast for the year 2012, when full production of aircraft is ongoing.

Table 1-18: North Carolina Employment Contribution for the year 2012

	North Carolina	Total U.S.
Total Employment	3,250	4,875
Direct Employment	1,227	1,227
Intermediate Employment	732	1,297
Spin-Off Employment	1,291	2,351
Multiplier		4.0
Wages and Salaries ($ Billions)	0.2	0.3
Personal Taxes ($ Billions)	0.04	0.06

Expected private sector salaries and wages resulting from Honda's North Carolina operations is estimated to be nearly $200 million for North Carolina and more than $300 million for the United States. Estimated personal taxes paid in the state are over $35 million and $56 million for the United States.

Contribution of Honda's Operations to the State of Georgia

Honda Precision Parts of Georgia, LLC was established in May 2006 in Tallapoosa, Georgia. The plant is 350,000 square feet, with a capital investment of $150 million and a production capacity of 300,000 units annually. It produces automatic transmissions for the Honda Pilot and Odyssey models, which are built 60 miles to the west at the Honda Manufacturing of Alabama operations. In 2009, the plant will add production of automatic transmissions for the Ridgeline truck and Accord V-6 sedan models that will be built at Honda Manufacturing of Alabama. The strategic decision to build the Georgia plant close to the Alabama plant highlights the benefits of synchronous assembly, with powertrain production near vehicle production. The Georgia facility was expanded to more than triple its original size soon after opening in 2006, and it directly employs 440 people.

Honda invested more than $6 million in the new Power Equipment Division sales headquarters, which moved from California to Alpharetta, Georgia in 1990. The facility oversees the sales, distribution, marketing and exportation of Honda power equipment products.

Table 1-19: Georgia Employment Contribution for the year 2007

	Georgia	Total U.S.
Total Employment	1,488	2,641
Direct Employment	442	442
Intermediate Employment	458	836
Spin-Off Employment	588	1,363
Multiplier		6.0
Wages and Salaries ($ Billions)	0.1	0.2
Personal Taxes ($ Billions)	0.02	0. 03

This estimation of Honda's contribution modeled Georgia employment solely, as if there were no Honda operations in the rest of the country. The majority of Honda's Georgia employees are involved in automotive-related manufacturing operations. There are 442 non-retail Honda employees in Georgia. This analysis evaluates the economic impact of these employees of Honda facilities on the Georgia state economy through direct, intermediate and spin-off

employment effects. Table 1-19 shows the employment impact for the year 2007, a typical year for operational results.

Expected private sector salaries and wages earned in Georgia and resulting from Honda's Georgia operations are estimated to be $105 million and $172 million for the United States. Estimated personal taxes paid in the state are $16 million and $27 million for the entire nation (including Georgia).

Contribution of Honda's Operations to the State of South Carolina

Production for Honda of South Carolina Mfg., Inc. began in Timmonsville, South Carolina in 1998. The plant produces all-terrain vehicles (ATV), personal watercraft (PWC) and multi-purpose engines. South Carolina was specifically chosen as a manufacturing site because of Honda's dedication to assembling products close to its customers. As evidence of Honda's significant impact on the state economy, Honda is Florence County's largest Industrial/Manufacturing employer, and one of the biggest overall employers in the entire Pee Dee region.

The plant has a capital investment of $266 million and 1,506 associates. Annual production capacity is 340,000 ATVs, 310,000 engines and 29,000 PWCs.

Table 1-20: South Carolina Employment Contribution for the year 2007

	South Carolina	Total U.S.
Total Employment	2,972	5,751
Direct Employment	1,506	1,506
Intermediate Employment	557	1,433
Spin-Off Employment	909	2,812
Multiplier		3.8
Wages and Salaries ($ Billions)	0.2	0.3
Personal Taxes ($ Billions)	0.02	0.05

This estimation of Honda's contribution modeled South Carolina employment solely, as if there were no Honda operations in the rest of the country. The majority of Honda's South Carolina employees are involved in manufacturing operations for products other than automobiles. There are 1,506 non-retail Honda employees in South Carolina. This analysis evaluates the economic impact of these employees on the South Carolina state economy through direct, intermediate and spin-off employment effects. Table 1-20 shows the employment impact for the year 2007, a typical year for operational results.

Expected private sector salaries and wages earned in South Carolina and resulting from Honda's South Carolina operations are estimated to be $155 million and $316 million for the

United States. Estimated personal taxes paid in the state are $22 million and $50 million for the entire nation (including South Carolina).

Indiana Economic Forecast

In 2006, Honda announced it would build an assembly plant, Honda Manufacturing of Indiana, LLC, to manufacture Honda Civics in Greensburg, Indiana. The plant began operations in October, 2008. It is expected that 2009 will be the first full year of production at the plant. This analysis will evaluate the future (potential) economic contribution of the Honda assembly facility on the Indiana state economy through direct, intermediate and spin-off employment effects. This employment is in addition to the existing Honda-related employment forecasted in the previous section of this report. The analysis models both the effect caused by the construction and equipment investment activities from 2006 through 2008 as the company builds and equips the plant as well as the employment impact of the operational phase of the plant. This operational phase is modeled through 2014. Table 1-16 shows the employment forecast for the year 2010, a typical year for operational results.

Table 1-21: Indiana Projected Employment Impact for the year 2010

	Indiana	Total U.S.
Total Employment	6,480	12,840
Direct Plant Employment	2,000	2,000
Intermediate Employment	2,225	4,270
Spin-Off Employment	2,255	6,570
Multiplier		6.4
Wages and Salaries ($ Billions)	0.3	0.7
Personal Taxes ($ Billions)	0.06	0.1

The company estimates 2,000 workers in the plant when it is fully operational in 2009. In the model, structural investment costs for the period of 2006 through 2008 are estimated and allocated between construction and equipment purchases. The REMI model calculates the number of jobs created by the construction activity and equipment purchases, based on the monetary inputs. For assembly operations, the assumption was made that one-half of the Indiana facility workforce (1,000 employees) will be in place for training and testing of the new facility in 2008, with a full workforce of 2,000 employees in place in 2009.

There are other automotive assembly plants located in Indiana. However, it is unlikely that Indiana's automotive sector will provide all of the equipment required by Honda for the Indiana assembly plant. Some equipment will be procured from outside of the state. Therefore, the simulation assumes some of the demand for the assembly plant will be provided regionally rather than strictly within Indiana. Greensburg is located near the borders of Ohio and Kentucky. These states will likely see significant employment in intermediate (supplier) and spin-off jobs resulting from the direct employment that the plant provides. It is estimated the plant will add 6,480 employees to the state of Indiana and approximately 12,840 jobs to the U.S. economy, mostly within the greater region surrounding Indiana. The entire impact of the plant on the region and the United States shows an employment multiplier of 6.4—that is, there are 5.4 jobs nationwide for every one job at the plant.

It is forecast for 2010 that expected private sector salaries and wages earned within Indiana, resulting from Honda's Greensburg plant, will be more than $330 million for Indiana and nearly $715 million for the United States (primarily the region surrounding Greensburg). Estimated personal taxes that will be paid in 2010 are $57.7 million for the state of Indiana, and $72.7 million for the rest of the nation—totaling more than $130 million for the entire country (including Indiana).

All Manufacturing, R&D and Retail Operations

Given the extensive breadth and depth of Honda's manufacturing operations, as well as the extent of retail employment supported by all of Honda's product lines, the tables in this section examine the total estimated employment and income contributions of Honda's U.S. manufacturing, R&D and related operations to the private sector economies of the seven states and the country as a whole for 2007. The estimates of employment are broken out by direct employment (people forecasted to be employed directly by Honda or directly supported in a retail position because of Honda products); intermediate employment (people employed by suppliers who supply Honda); and spin-off employment (expenditure-induced employment resulting from spending by direct and intermediate employees who earn an income as a result of Honda-related activities).

Complete U.S. manufacturing, R&D and related operations employment and payroll data supplied by Honda totaled 27,011 employees. Total retail and dealership employment is 118,716 jobs; this number includes 62,172 direct jobs at Honda car dealerships and another 56,545 retail jobs in retail stores and franchises that exist because of Honda product lines. All direct jobs for Honda operations plus associated retail employment total 145,727.

Table 1-22 examines the combined effects from Honda's manufacturing and R&D operations and all retail activities to produce the total effect of all of Honda's U.S. manufacturing and retail-related operations. The estimate from the model representing the total contribution of manufacturing employment and retail employment produces a different number than the number derived from summing the results of the two separate runs for manufacturing operations and retail activities. This is because there is some overlap in the spin-off and indirect employment between the two populations of direct employment. With numbers this large, there is also a ripple effect when the national and local economies are shocked (please see Section III for a detailed explanation of model methodology) by testing the effects of removing this quantity of jobs. Therefore, the totals for Manufacturing and Retail in table 1-22 do not add to the precise figure given in the Total column (which represents a separate model of the economy).

As can be seen in table 1-22, there are 87,974 intermediate jobs resulting from Honda's direct and retail employment. The spin-off jobs associated with spending (from the people who work in the direct and intermediate jobs) add another 133,982 jobs, bringing the total jobs associated with all of Honda's operations and associated retail activities in the United States (direct plus intermediate plus spin-off) to 367,683 jobs. The ratio of total jobs created (direct plus intermediate plus spin-off) to direct employment equals the employment multiplier of 2.5

(367,683 ÷ 145,727). This means there are 1.5 additional jobs in the U.S. economy for every one job at all Honda or associated retail operations.

Table 1-22: Total Contribution of Honda's Manufacturing Operations, R&D and Retail Direct Employment to the Private Sector Economy in the United States, 2007

Economic Impact	Manufacturing	Retail	Total
- Direct	27,011	118,716	145,727
- Intermediate	49,844	36,096	87,974
Total (Direct + Intermediate)	76,855	154,812	233,701
- Spin-off	75,102	51,331	133,982
Total (Direct + Intermediate + Spin-off)	151,957	206,143	367,683
Multiplier: (All Empl/Direct)	5.6	1.7	2.5
Wages and Salaries ($ Billions)	8.9	8.0	16.9
Personal income taxes ($ Billions)	1.5	1.5	3.2

Note: Due to rounding, columns or rows may not sum exactly.

Compensation in the private sector associated with the total jobs (direct plus intermediate plus spin-off) amounts to $16.9 billion. Estimated personal taxes resulting from Honda's manufacturing and associated retail operations in 2007 is $3.2 billion.

Tables 1-23, 1-24 and 1-25 below examine the total contributions of all Honda U.S. operations to the U.S. economy and to individual states. Table 1-23 looks at the contributions of all manufacturing and R&D facilities. Table 1-24 shows the results of modeling all retail employment associated with selling all Honda products. Finally, table 1-25 gives the combined contribution of all direct, supplier and spin-off employment related to the manufacture and sales of Honda products. The estimate from the model of the total contribution of manufacturing employment and retail employment produces a total number slightly less than summing the results from the two. This is because there is some, very slight, overlap in the spin-off and indirect employment between the two direct employment populations. Therefore, the columns in tables 1-23 and 1-24 below do not add precisely to the results shown in table 1-25.

Table 1-23: Total Employment Contribution of Manufacturing and R&D Operations, by State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
DIRECT	27,011	15,581	4,520	2,810	442	0	829	1,506	1,323
INTERMEDIATE	49,844	19,950	5,010	3,044	1,426	1,069	1,145	823	17,377
TOTAL (Direct + Intermediate)	76,855	35,531	9,530	5,854	1,868	1,069	1,974	2,329	18,700
Spin-off	75,102	22,436	5,816	3,214	3,160	3,184	2,508	1,839	32,945
TOTAL (Direct + Intermediate + Spin-off)	151,957	57,967	15,346	9,068	5,028	4,253	4,482	4,168	51,645
Wages and Salaries ($ Billions)	8.9	3.6	0.8	0.6	0.3	0.2	0.3	0.2	2.9
Personal income taxes ($ Billions)	1.5	0.6	0.1	0.1	0.04	0.04	0.04	0.03	0.5
National Multiplier	**5.6**								

Note: Due to rounding, columns or rows may not sum exactly.

Table 1-24: Total Employment Contribution of All Retail Operations, by State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
- Direct Auto Dealership	62,172	2,389	838	9,256	2,137	938	2,222	989	43,403
- Direct Other Retail	56,544	2,171	873	6,098	1,732	1,188	1,679	864	41,939
TOTAL DIRECT	118,716	4,560	1,711	15,354	3,869	2,126	3,901	1,853	85,342
INTERMEDIATE	36,096	1,089	339	5,489	1,076	424	901	367	26,411
TOTAL (Direct + Intermediate)	154,812	5,649	2,050	20,843	4,945	2,550	4,802	2,220	111,753
Spin-off	51,331	1,907	733	7,261	1,948	952	1,801	881	35,848
TOTAL (Direct + Intermediate + Spin-off)	206,143	7,556	2,783	28,104	6,893	3,502	6,603	3,101	147,601
Wages and Salaries ($ Billions)	8.0	0.3	0.09	1.2	0.3	0.1	0.2	0.1	5.7
Personal income taxes ($ Billions)	1.5	0.05	0.01	0.3	0.04	0.02	0.04	0.02	1.1
National Multiplier	**1.7**								

Note: Due to rounding, columns or rows may not sum exactly.

Table 1-25: Total Employment Contribution of Manufacturing and Retail Operations, by State and Nationally, 2007

Economic Impact	U.S.	OH	AL	CA	GA	IN	NC	SC	Rest of U.S.
DIRECT	145,727	20,141	6,231	18,164	4,311	2,126	4,730	3,359	86,665
INTERMEDIATE	87,974	21,972	5,298	8,628	2,550	1,535	2,087	1,201	44,703
TOTAL (Direct + Intermediate)	233,701	42,113	11,529	26,792	6,861	3,661	6,817	4,560	131,368
Spin-off	133,982	29,450	6,157	10,651	5,274	4,323	4,437	2,768	70,922
TOTAL (Direct + Intermediate + Spin-off)	367,683	71,563	17,686	37,443	12,135	7,984	11,254	7,328	202,290
Wages and Salaries ($ Billions)	16.9	3.9	0.8	1.8	0.5	0.3	0.4	0.3	8.8
Personal income taxes ($ Billions)	3.2	0.8	0.1	0.4	0.09	0.06	0.08	0.05	1.6
National Multiplier	**2.5**								

Note: Due to rounding, columns or rows may not sum exactly.

Section II: Honda's U.S. Presence

American Honda Motor Co., Inc. was established in 1959 as Honda's first subsidiary outside Japan, marking 2009 as Honda's 50th anniversary in the U.S. The company began with the sale of motorcycles. It sold its first passenger car in 1970. Honda's presence in the U.S. has steadily expanded to include a remarkably diverse portfolio of products, including Honda and Acura brand passenger cars and light trucks; Honda motorcycles; automobile engines and transmissions; power equipment; general purpose engines; all terrain vehicles (ATVs); personal watercraft (PWCs); marine engines; and, most recently, advanced light jets and turbofan jet engines. Many of these products are designed and built in the United States at facilities employing 27,011 employees. Honda's growth in the U.S. has been accompanied and driven by a sense of purpose and identity likely unmatched by any other high-volume vehicle manufacturer. Honda's core values include maintaining a sharp customer focus, an independent spirit and a commitment to engineering-driven products. That this sense of purpose and identity has been maintained while deploying so diverse a product line is the element that perhaps most strongly makes this story uniquely "Honda."

This section of the study describes Honda's contribution to the economy and benefit of the U.S. in a variety of roles not captured by the economic simulation model described in Section I. While it would be impossible to list the full extent of Honda's environmental, safety, charitable and other contributions comprehensibly, the section provides key examples and analyzes them with the goal of demonstrating their uniqueness, as well as the uniqueness of the company responsible for these achievements.

U.S. Production

Honda was the first Japanese automaker to produce automobiles in the United States. Production of motorcycles began in Marysville, Ohio in 1979. Automobile production began in 1982 when the newly created Marysville auto plant began producing the Honda Accord sedan. As vehicle production continued to grow, Honda added U.S. production of vehicle engines and components in 1985 and transmissions in 1989. Honda's U.S. capacity for production of automobiles and automobile components has since grown to nearly 1.2 million cars and light trucks; 1.5 million car and light truck engines; and more than 1 million car and light truck transmissions. In addition to making products sold in North America, Honda's U.S. facilities make a variety of products and major components that are exported around the world. In 2007, more than 43,000 Honda and Acura cars and light trucks were exported to destinations outside the United States and Canada. Further, more than 770,000 component parts sets were shipped

to Honda plants in other countries for assembly into vehicles in those markets. Table 2-1 provides a summary of Honda's U.S. manufacturing facilities. Honda operates 10 major manufacturing facilities in the U.S., with two new aviation facilities under construction: a plant for production of jets in Greensboro, North Carolina; and a plant for production of turbofan aircraft engines in Burlington, North Carolina. To date, Honda has invested nearly $9.5 billion in its U.S. facilities.

Table 2-1: Honda U.S. Production Facilities

Facility/Location	Current Product	Production Start	Plant Size	Annual Capacity	Employees	Investment
Marysville, OH	Vehicles	1982	3.9 mill sq. ft.	440,000	5,300	$3.8B
East Liberty, OH	Vehicles	1989	1.9 mill sq. ft.	240,000	2,500	$1.1B
Anna, OH	Engines	1985	1.6 mill sq. ft.	1,180,000	2,800	$1.5B
Marysville, OH	Motorcycles	1979	260,000 sq. ft.	75,000 E, 75,000 V	600	$169M
Lincoln, AL	Engines and Vehicles	2001	3.4 mill sq. ft.	300,000 V, 300,000 E	4,500	$1.4B
Swepsonville, N.C.	Mowers and Engines	1984	358,820 sq. ft.	340,000 M, 2 Million E	600	$192M
Timmonsville, S.C.	ATVs, Engines, PWCs	1998	521,000 sq. ft.	280,000 ATV & E, 11,500 PWC	1,650	$266M
Russells Point, OH	Automatic Transmissions, Gears	1996	600,000 sq. ft.	750,000 T	900	$325M
Tallapoosa, GA	Automatic Transmissions	2006	100,000 sq. ft.	300,000	440	$150M
Greensburg, IN	Vehicles	2008	1.7 mill sq. ft.	200,000	2,000	$550M

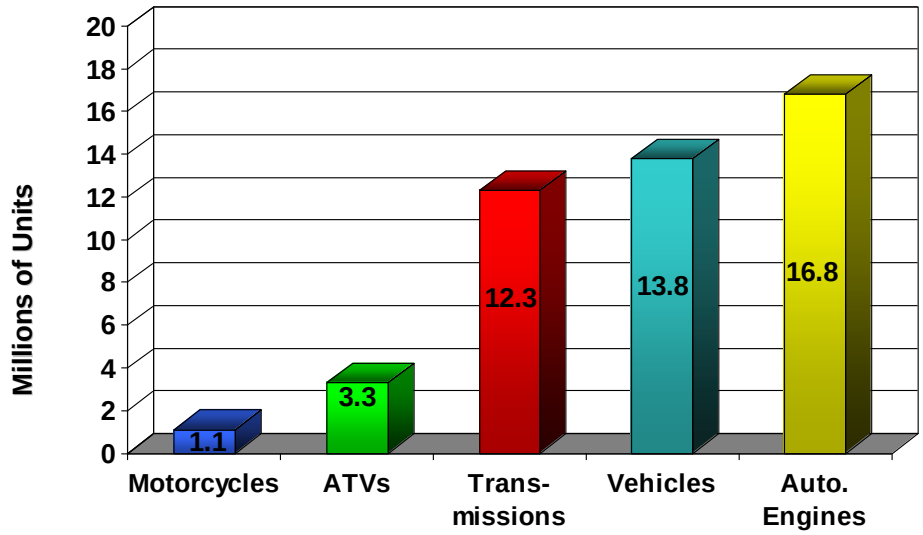
Source: 2008 Honda Factbook

Through 2007, Honda's North American production facilities had produced a total of 18.6 million cars and light trucks, including 13.8 million units in the U.S. Further, Honda had produced 16.8 million engines for cars and light trucks and 12.3 million car and light truck transmissions in the U.S. Historical data for Honda U.S. production is provided in chart 2-2. Honda had also produced 3.3 million ATVs and 1.1 million motorcycles in the U.S. Honda began U.S. production of PWCs in 2002, and had produced more than 50,000 units through 2007. The total economic benefit of this commitment to U.S. manufacturing, as well as the benefit of the supplier and spin-off jobs it generates, has had a tremendous positive impact on the communities where these manufacturing facilities are located, as well as on the economy of the United States as a whole.

Honda's U.S. manufacturing operations have created additional economic benefit by sourcing goods from U.S.-based suppliers. Honda currently has 516 component suppliers in 34 states. In 2007, Honda purchased approximately $17 billion worth of goods and services from these firms. Honda's relationships with suppliers are among the best in the automotive industry. Honda consistently scores well in supplier rankings of automakers' supply chain relationships.

The firm has worked proactively with suppliers for many years to improve quality, cost and delivery performance and recently received a U.S. patent for a method of monitoring suppliers' financial health in order to assist them before problems occur in Honda's supply chain.

Chart 2-2: Total Honda U.S. Production, 1979 – 2007

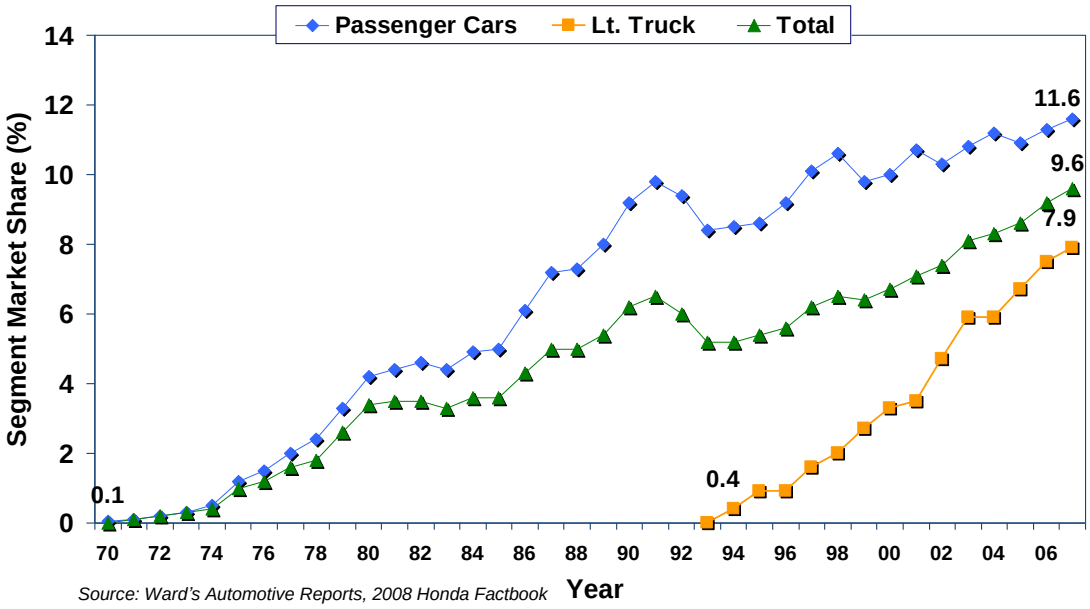


Source: 2008 Honda Factbook

Vehicle Sales History

Honda's history of selling cars and light trucks in the U.S. began in 1970, when just over 4,000 vehicles were sold. Honda has since experienced steadily increasing demand from consumers in the United States; U.S. sales of Honda and Acura automobiles grew to more than 1.5 million units in 2007. Honda's U.S. market share has grown steadily over three decades and reached 9.6 percent through 2007. Chart 2-3 provides details of Honda's U.S. market share history. Honda began selling light trucks in 1994. Its light truck market share has grown even faster than its passenger car market share, reaching 7.9 percent of the light truck market through 2007.

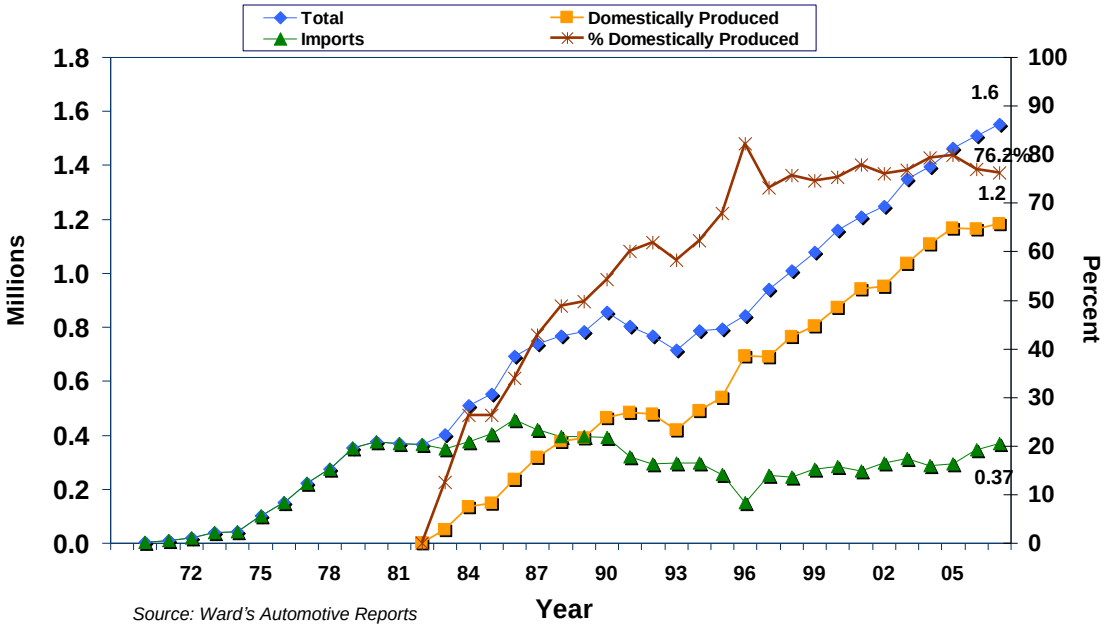
Chart 2-3: Honda Passenger Car and Light Truck Market Share, 1970 – 2007



Source: Ward's Automotive Reports, 2008 Honda Factbook

Since U.S. production of the Honda Accord began in 1982, imported vehicles have represented a decreasing portion of Honda's U.S. auto sales. Chart 2-4 illustrates the steady increase in the share of Honda and Acura vehicles sold in the U.S. that were domestically produced. In 2007, Honda sold nearly 1.2 million North American-built vehicles while selling fewer than 370 thousand imported vehicles. Domestically produced vehicles accounted for 76.2 percent of Honda's total U.S. light-duty vehicle sales in 2007. Honda's newest U.S. assembly plant, located in Greensburg, Indiana, began production in the fall of 2008. As a result of the addition of this facility's products, approximately 80 percent of Honda and Acura vehicles sold in the United States will be domestically produced, representing the highest percentage of any international automaker.

Chart 2-4: Honda U.S. Sales, 1970 – 2007

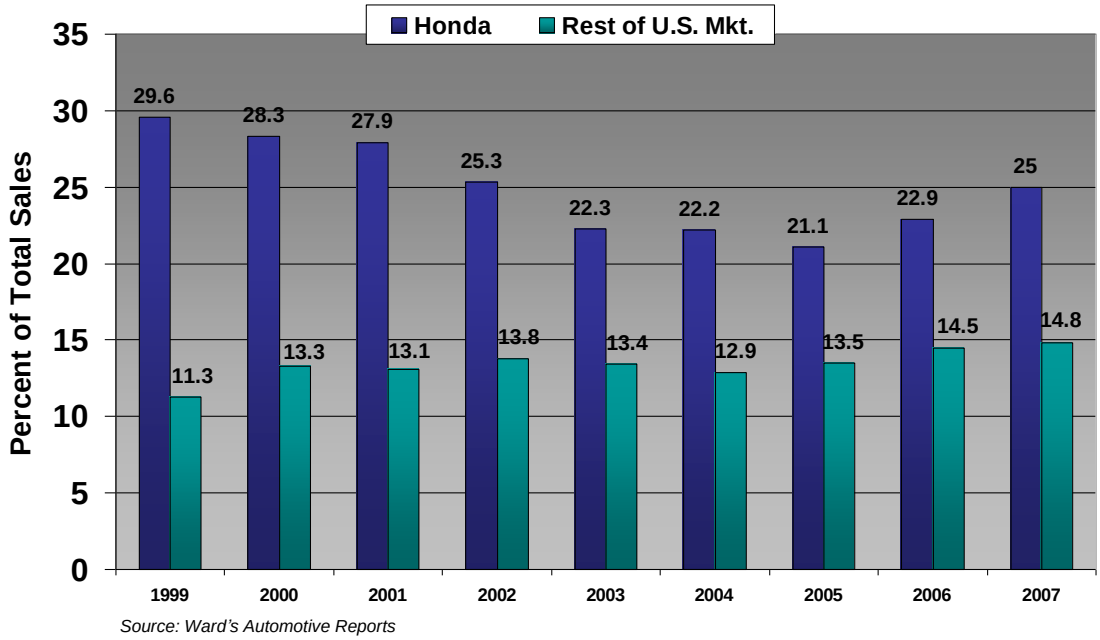


Source: Ward's Automotive Reports

A Unique Product Strategy

More than any other automaker operating in North America, Honda has stayed true to its tradition of producing fuel-efficient and environmentally friendly vehicles. Chart 2-5 illustrates the high percentage of small cars in Honda's U.S. sales and provides a comparison to other automakers also selling in the U.S. market. Honda has consistently led the industry in this regard. During the last three years, small and more fuel-efficient cars have grown to 25 percent of Honda's sales, compared to 14.8 percent for the other automakers operating in the U.S. This commitment is bearing fruit in today's challenging market as high fuel prices and changing consumer preferences have made smaller, more efficient, vehicles more popular than ever with American consumers.

Chart 2-5: Small Car Percentage of U.S. Sales, 1999 – 2007

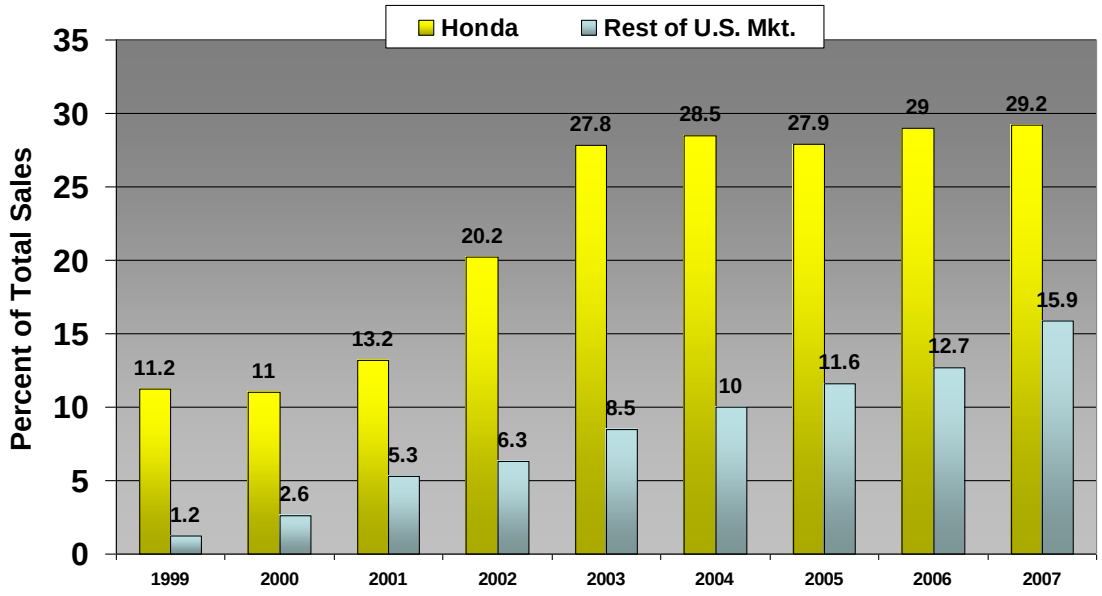


Source: Ward's Automotive Reports

As previously noted, Honda has stayed away from the traditional pickup and SUV segments, preferring instead to produce Crossover Utility Vehicles (CUVs) and the Ridgeline—a unique type of pickup built on a unibody platform and powered by a V6 engine, instead of the body-on-frame construction and V8 engines used in most full-size pickups. Considering that SUVs traditionally brought automakers more profits than any other segment (up to $15 thousand per vehicle), Honda's decision not to produce these vehicles becomes even more remarkable. Honda stood by this decision even during the height of the "truck boom" of the late 1990s. Instead, Honda focused on CUVs, which combine utility similar to that of SUVs with fuel economy, emissions and driving performance closer to that of passenger cars. Honda's

decision to focus on CUVs took advantage of the company's expertise in developing unibody passenger cars and smaller, more fuel-efficient, engines. It also allowed the company to utilize existing plant capacity to expand into new markets. Chart 2-6 illustrates Honda's CUV strategy for U.S. sales and provides a comparison to other automakers also selling in the U.S. market. Honda has consistently been well ahead of the industry in this regard. In 1999, more than 11 percent of Honda's U.S. sales were CUVs, compared to just over 1 percent for the rest of the automakers selling here. Honda's commitment to this segment has continued, growing to more than 29 percent of Honda sales in 2007—nearly double the percentage of other automakers.

Chart 2-6: CUV Percentage of U.S. Sales, 1999 – 2007

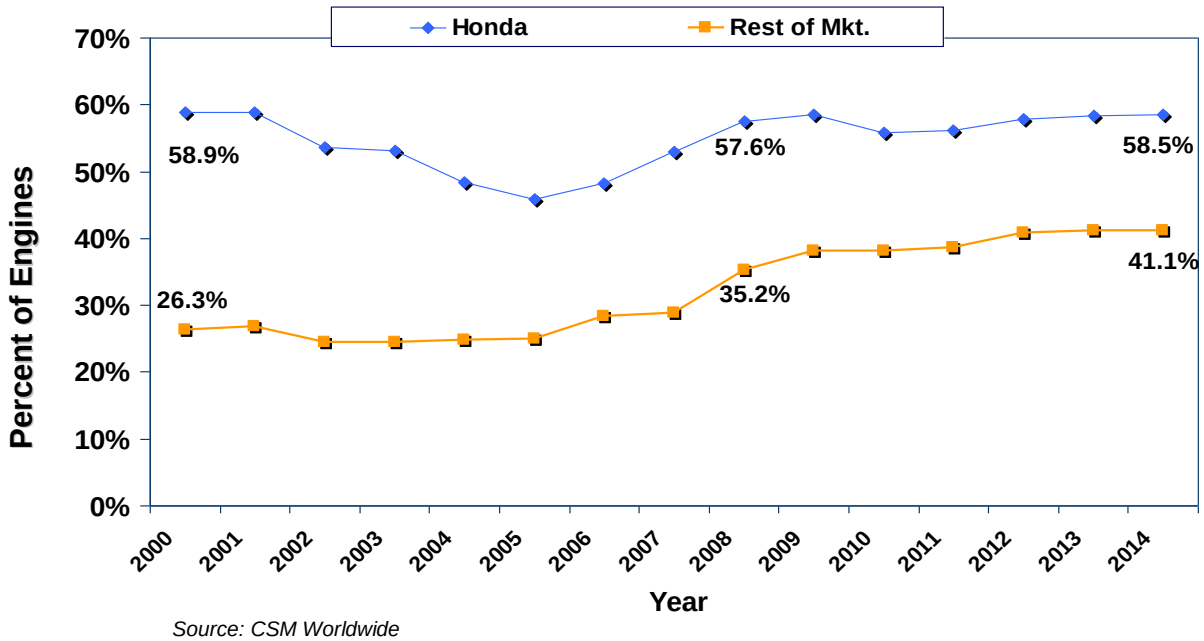


Source: Ward's Automotive Reports

A key aspect of Honda's focus on fuel-efficient products is the engines that power its vehicles. As previously mentioned, Honda has preferred to invest in technology that advanced both the performance and fuel efficiency of its smaller 4- and 6-cylinder engines. Chart 2-7 illustrates Honda's commitment to 4-cylinder engines and provides a comparison to other automakers selling vehicles in the United States. (A CSM Worldwide forecast through 2014 is included.) Despite a slight dip from 2003 through 2007, Honda's use of 4-cylinder engines is remarkably stable—beginning with 58.9 percent of U.S. sales in 2000, reaching 57.6 percent in 2008 and forecast at 58.5 percent in 2014. These rates are in contrast to other automakers selling vehicles in the United States, whose reliance on 4-cylinder engines was limited to 26.3 percent in 2000, 35.2 percent in 2008, and is forecast to reach only 41.1 percent in 2014. While the alternative powertrain vehicle analysis provided later in this report complements this data, it is

clear that, even with vehicles equipped only with internal combustion engines, the rest of the automotive industry lags behind Honda.

Chart 2-7: 4-Cylinder Share of U.S. Engine Production, 2000 – 2014



Source: CSM Worldwide

Environmental Leadership in Products

Honda's environmental leadership in the U.S. began nearly the moment it sold its first car on American soil. Its products have been recognized in a wide variety of environmental "firsts" over the last three decades–including pioneering efforts to reduce both air pollution and CO2 emissions. Highlights of these achievements include:

- First to comply with the Clean Air Act without aftertreatment of exhaust (1975)
- First manufacturer to employ variable valve timing engine technology that varies both value lift and duration for improved fuel economy, emissions and performance (1988)
- First to be certified as Low Emission Vehicle (LEV) (1995)
- First to be certified as Ultra Low Emission Vehicle (ULEV) (1997)
- First gasoline-electric hybrid sold in the U.S. (1999)
- First to sell gasoline-powered Super Low Emission Vehicle (SULEV) (1999)
- First Partial Zero Emission Vehicle (P-ZEV) (2000)
- First application of hybrid technology on an existing car (2002)
- First Environmental Protection Agency (EPA) and California Air Resources Board (CARB) certified fuel cell vehicle (2002)
- First hybrid vehicle certified as Advanced Technology Partial Zero Emissions Vehicle (AT-PZEV) (2003)
- First fuel cell electric vehicle certified by U.S. EPA (2002) and leased to individual customer (2005)

Honda's commitment to the pursuit of new technologies to meet environmental challenges (such as reducing tailpipe emissions ahead of regulatory requirements for low emission vehicles) accelerated the pace of innovation as the entire automotive industry reacted to meet these challenges.

It is also important to consider Honda's environmental leadership in light of decisions *not* to produce environmentally unfriendly products–vehicles that, compared to the product segments in which Honda functions, generally consume more fuel and generate larger amounts of emissions (such as pickups and SUVs). Unlike many automakers, Honda's environmental achievements are not tempered by products with negative environmental impact.

Honda's products continue to reflect a focus on environmental leadership for both the near- and long-term future. Honda has recently announced plans to produce a new generation of affordable hybrid vehicles, including a new 5-door, 5-seat, Insight, which is expected to be the lowest-priced hybrid vehicle on the market when sales begin in spring 2009. This will be

followed by the introduction of a sporty 2-door hybrid model shortly thereafter. In addition, with an eye toward the fuel cell powertrains that are likely to power vehicles in the long-term future, Honda has recently begun low-volume deliveries of the FCX Clarity, a hydrogen fuel cell, electric-powered, sedan.

Reduced Environmental Impact of Operations

Honda's commitment to minimizing its environmental impact is demonstrated not only by its leadership in fuel economy and the use of alternative fuels, but also in its effort to reduce the environmental footprint of its manufacturing facilities and processes with its Green Factory program. Honda has consistently sought ways to reduce waste and minimize the amount of energy used to produce its vehicles. A key result of this approach is the reduction of total energy used per auto produced from a high of 7.2 gj (gigajoules) in 2003 to a low of 6.6 gj in 2007. The proactive efforts taken by Honda have resulted in its three major U.S. facilities being recognized by the U.S. EPA as being among the most energy-efficient in America. Since 1988, Honda has sought out third party certification to stringent environmental management standards for all its plants in North America. By 2007, 13 of its 14 operating plants were certified to the ISO (International Organization for Standardization) 14001:2004 standard. Honda is also the first and only OEM to announce a plan to reduce the CO2 emissions intensity (emissions per unit of production) at its automobile, powersports and power equipment manufacturing plants on a global basis.

Honda has also taken proactive steps to reduce landfill waste and operates six plants in North America as zero-waste-to-landfill facilities. The Greensburg, Indiana assembly plant that opened in fall 2008, also was designed as such a facility. Honda has taken a two-pronged approach to this challenge, focusing on efficient manufacturing to produce less waste and maximizing recycling and reuse practices. Because of these innovative measures, Honda has been able to successfully reduce its landfill waste by 66% when compared to 2001 levels. Honda has worked with suppliers to minimize wasteful packaging and to set up standards and testing procedures for reusable parts. Beginning as early as 1998, Honda asked its major suppliers in Ohio and Ontario to obtain ISO14001 certification. Since then, Honda has expanded this request to lower-level suppliers as well as to suppliers operating in support of its Lincoln, Alabama plant. As of 2007, 80% of Honda's total North American OEM supply chain (consisting of more than 600 suppliers) is ISO140001 certified.

The recently-introduced U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification is the nationally accepted and most stringent benchmark for the

design, construction and operation of green buildings. Since 2002, when Honda was the first automaker to achieve Gold certification for a mixed-use industrial building, it has shown real innovation with the construction of green facilities. Honda continues to grow operations in the U.S. and, as a result, certified five new green buildings in 2008 as further proof of its dedication to building environmentally responsible facilities.

Safety Leadership

In 2003, Honda announced its "Safety for Everyone" concept – an initiative to enhance vehicle safety for vehicle occupants, drivers of other vehicles and pedestrians. These priorities apply to all Honda and Acura vehicles, regardless of their size or price.

"Safety for Everyone" has resulted in numerous safety improvements in Honda and Acura vehicles. With the introduction of the 2007 model line, for example, the company fulfilled its commitment to equip all of its vehicles with side curtain airbags within four years of the "Safety for Everyone" announcement. Only one model in Honda's lineup–the S2000 roadster–does not come standard with side curtain airbags, due in part to its convertible roof design. In addition, virtually all Honda and Acura vehicles, regardless of size or price, feature a range of safety features that include anti-lock brakes (ABS) and Vehicle Stability Assist (VSA) with rollover sensor for all light truck models.

American Honda (Honda and Acura) is the only major automaker with an entire lineup of light trucks (SUVs, minivans and pickups) that all have earned NHTSA 5-star ratings in both frontal and side impact tests. In addition to these accomplishments, numerous American Honda models have achieved both the NHTSA 5-star/5-star (frontal and side impact) and IIHS "Top Safety Pick" crash test safety ratings.

Collision Compatibility

As part of the "Safety for Everyone" initiative, Honda has made a unique commitment to addressing the issue of compatibility in collisions between vehicles of different sizes, working to enhance the safety of Honda vehicle occupants and those of the opposing vehicle. This commitment led Honda to introduce the Advanced Compatibility Engineering™ (ACE™) Body Structure in 2005. The ACE body enhances occupant protection and helps limit the damage to the opposing crash vehicle in frontal collisions. To date, the ACE body has been applied to 15 of 19 Honda and Acura models. Further, the Honda Ridgeline pickup was originally designed

with a “compatibility bracket” under the frame rail to help prevent override of smaller vehicles in frontal crashes, further improving its crash compatibility with other vehicles.

Diversification of Product Lines

As discussed above, Honda began producing motorcycles in the U.S. in 1979 and cars in 1982. In 1984, a new Honda facility in Swepsonville, North Carolina began producing lawnmowers and small displacement general purpose engines used in a variety of power equipment. In 1999, another new facility in Timmonsville, South Carolina began production of ATVs and later, PWCs, as well as the engines that power these vehicles. Honda's diversification into these product lines is unique among large global automakers. As with its cars, all of these products use internal combustion engines, providing Honda with an opportunity to apply its engine expertise to a wider array of products. Because of Honda's diversification into these product lines, it is able to serve more than 23 million consumers worldwide with new Honda products each year–more than any other automaker. That Honda's decision to pursue these diverse product lines has proven successful is an indication that Honda has accomplished a blend of wide reach and narrow focus that would perhaps not be possible for a company without such a strong sense of identity.

Perhaps Honda's most dramatic departure from its traditional, automotive products is the HondaJet, which was conceived and developed by Honda beginning in 1997. While the HondaJet itself is a unique product, the process through which it was conceived and added to Honda's stable of products is also unique. As stated during an interview for this study by the engineer who led development of the HondaJet in the U.S., the HondaJet exists because of Honda's ability to "accept the exception."

The HondaJet, while in many ways a radical departure from Honda's traditional products, embodies traits that make it a true Honda in very meaningful ways. The HondaJet consumes about 30 percent less fuel than jets of comparable performance and features nimble handling characteristics, traits commonly associated with Honda passenger vehicles. Like Honda's passenger vehicles, the HondaJet has characteristics that have spread, or are likely to spread, to other manufacturers' products, including its unique over-the-wing-engine mount design, all-glass cockpit, fuel-efficient GE-Honda engines, high build quality, and unique all-composite body. The unique turbofan jet engine used by the HondaJet was developed by Honda, is being advanced in partnership with GE Aerospace and will be manufactured by Honda Aero–a company established specifically for this purpose.

Research and Development

Honda operates 13 major R&D facilities in the United States. These facilities employ designers, engineers, technicians, and other personnel who engage in a wide variety of activities–ranging from adapting global platforms for use in the U.S. market to creating entirely new products. Developing vehicles locally ensures that they are optimized for the preferences of U.S. consumers. These R&D centers have been critical to Honda's efforts to develop relationships with U.S. parts and materials suppliers and to increase sourcing from these companies. The majority of the Honda and Acura light-truck vehicles, as well as a number of passenger cars, were researched, designed and developed in these U.S. facilities. In addition, the vast majority of research and development of the HondaJet was conducted at a Honda R&D facility in Greensboro, North Carolina.

Brief History of Honda R&D Efforts in the U.S.

1975 – Marketing research operation established by Honda R&D in the U.S. The Los Angeles facility evolves into the Los Angeles Center of Honda R&D Americas, Inc. (HRA).

1985 – HRA Ohio Center established in location close to Honda's first U.S. auto plant – the center now handles technology research and complete vehicle design and development including body, chassis, interior, electrical, engine application and safety engineering, as well as support of North American and global manufacturing operations and component suppliers.

1988 – Honda created the Transportation Research Center in Ohio – includes a 7.5-mile banked oval test track, numerous on-road and off-road dynamic test tracks

1990 – Honda Proving Center of California opened in California – includes 7.5 mile oval test track with numerous on and off-road test courses

1991 – First Honda vehicle (Accord Wagon) designed and developed by Honda R&D in the U.S.

1993 – HRA North Carolina Center established for design, testing and prototype development and supplier support for Honda power equipment products

1993 – HRA opened major $25 million expansion of its Ohio Center, focused on advancing its capabilities in the areas of product development, supplier development and technology creation

1995 – First Acura vehicle (Acura CL coupe) designed and developed in the U.S.

1999 – HRA joined as founding member of California Fuel Cell Partnership, playing an active role in a collaborative effort involving automakers, energy providers and the state of California to research and advance fuel cell vehicle technology

2001 – first light truck (Acura MDX) designed and developed in the U.S.

2001 – solar cell-powered experimental hydrogen station established at HRA Los Angeles Center for refueling of experimental fuel cell vehicles

2003 – $30 million Automotive Safety Research Facility opened at HRA Ohio Center–housing one of the world's highest resolution crash test barriers and the world's first pitching crash test simulator. This facility is used in the development and testing of all safety systems for U.S.-developed vehicles.

2003 – Honda Research Institute established to focus on longer term research and discovery in order to innovate Honda's future products. HRI maintains three U.S. offices dedicated to the fields of material science (Columbus, OH), computer science research (Cambridge, MA) and strategic venturing (Sunnyvale, CA)

2003 – HRA Los Angeles Center began operating experimental Home Energy Station, which provides heat and electricity for the home as well as fuel for a hydrogen-powered fuel cell vehicle. Facility is part of key role HRA plays in testing of Honda fuel cell vehicles.

2007 – HRA Los Angeles Center expands with two new design studios: the $15 million Acura Design Studio which plays a leading role in market research, concept creation and vehicle design of future Acura models while the Advanced Design Studio in Old Pasadena, California focuses on the conception and creation of future design concepts. The original facility now is refocused as the Honda Design Studio and plays a leading role in market research, concept creation and vehicle design of future Honda automobile and motorcycle/ATV models.

In addition to the engineering benefit derived from R&D centers, Honda's products benefit from engineering performed at the race track. In the United States, Honda participates in the American LeMans Series, the IndyCar Series, as well as several other racing events. Honda's participation in these efforts is not merely a marketing effort but a source of technology and engineering knowledge that improves the vehicles Honda sells to consumers.

Corporate Citizenship

Honda's commitment to the physical environment is part of a larger corporate goal to be considered "a company that society wants to exist." This principle guides business decisions holistically through the company and is manifested in numerous initiatives entailing volunteerism, foundation activity, grant programs, and financial support of worthy causes. Following is a sampling of some of Honda's corporate citizenship initiatives.

Honda's commitment to corporate citizenship has lead it to create two primary foundations: the Honda of America Mfg. Foundation and the American Honda Foundation. The Honda of America Mfg. Foundation was established in 1981 and specifically supports community outreach in the counties surrounding the company's operations in Ohio. With a focus on youth in underserved areas, the Honda of America Mfg. Foundation helps foster development in literacy, mathematics and science education. The American Honda Foundation was established in 1984 as another conduit to give back to the community after 25 years of investment in the United States. The American Honda Foundation has contributed more than $21 million in grants to agencies based in 47 different states. With a focus on youth education for science, mathematics, technology, the environment and literacy, AHF contributes to both K-12 and accredited higher education institutions. Other entities receiving funds in the past include scholarship and fellowship programs, scientific and education-related non-profits and media outlets fostering youth or general scientific education.

The financial support of worthy causes by Honda's foundations is complemented by the active commitment of its associates and retirees, as well as their family members, who volunteer their time and energy in their communities. Every year Honda associates donate thousands of hours of community service to a variety of worthwhile causes. In California, for example, Honda's Community Action Team actively seeks out opportunities to work with local community organizations to set up events and serve as the face of Honda's corporate community relations. Community Action Team supported events include Thanksgiving in a Box, Special Olympics of Southern California, and the California Coastal Cleanup.

Honda has sought to provide financial support for charitable causes supported by its associates. In Ohio, through its Honda Heroes program, associates can volunteer their time to community organizations of their choice and then apply for "Dollars for Doers" grants for eligible non-profit organizations. Since its inception in 1995, over 400,000 volunteer hours have been donated. Through the Community Action Team and Honda Heroes program, Honda creates an

atmosphere that promotes individual initiative and encourages volunteerism as well as corporate visibility, through charitable works.

Two unique ways in which Honda's corporate citizenship is best displayed are the Honda Campus All-Star Challenge and the Eagle Rock School.

The Eagle Rock School (ERS) and Professional Development Center (PDC) located in Estes Park, Colorado, is a school for both high school students and educators. Opened in 1993, as a wholly funded initiative of the American Honda Education Corporation, ERS is a residential tuition-free school that offers a second chance to students who have not been able to adapt to the traditional school setting. To help strengthen schools nationally, the PDC also provides teachers with opportunities to develop curricula and teaching methods modeled on the Eagle Rock formula, and learn more about how to address the drop-out problem in America. To date, thousands of educators have had the opportunity to research and learn at Eagle Rock.

Honda Campus All-Star Challenge (HCASC) is the first-ever academic competition between students at America's Historically Black Colleges and Universities (HBCUs). HCASC campus play is open to all 4-year, degree-granting HBCUs in the continental U.S. Each year, 64 schools qualify to attend the National Championship Tournament (NCT). In 1989, American Honda Motor Co., Inc., established the Honda Campus All-Star Challenge as a way to showcase and recognize the academic talents of students at America's Historically Black Colleges and Universities (HBCUs).

Honda's involvement in this program goes beyond that of sponsor. Honda is an active program participant, helping to guide the program. Many Honda associates serve as volunteers in the program. The now 20-year involvement by Honda associates has helped the program flourish so that it can enrich the lives of the participants. Since the inception of the program, more than 50,000 HBCU students have participated, and Honda has awarded nearly $6 million in grants to HBCUs to improve campus life through facility improvements and increasing academic resources.

Honda Manufacturing of Alabama (HMA) has made significant contributions. Honda Manufacturing of Alabama's Community Partners Program works in much the same way as Honda's Foundations giving in the areas of Education/Youth, Health/Safety & Human Services, Environment and Community or Civic projects as they align with Honda's overall direction. HMA's contributions to the communities in which their Alabama associates live and work total more than $5.5 million (including in-kind donations) since the Alabama plant began operating in

2001. Associate volunteerism plays a pivotal role for HMA. Since 2007, more than 1,000 associates from Honda Manufacturing of Alabama have volunteered more than 5,000 hours of their time at dozens of local charities through the Alabama company's “Volunteer Month” activities. Under the theme, “Driven to Make a Difference,” associates who volunteered a minimum of five hours for their favorite charity in July also helped that organization’s bottom line with a $100 donation from HMA. All totaled, more than $100,000 has been distributed to 150 different charitable organizations in 20 different counties and communities that HMA associates call home. Volunteer opportunities during the month of July (2007 and 2008) have encompassed a wide variety of non-profit organizations, including schools, community service organizations, hospitals, museums and animal shelters. In addition to the Volunteer Month program, HMA has a community involvement program named HondaStar that is designed to support year-round associate volunteer efforts. This program offers HMA associates and their spouses who volunteer a minimum of 40 hours within a 12-month period to earn a $200 grant for a qualified non-profit organization. Since the program started in 2003, 426 associates have participated, earning $85,200 for their favorite charities.

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Section III: Methodology

The basic approach in these analyses has been to use a specially constructed regional economic impact model, input Honda-specific data, and generate estimates of the economic contribution associated with Honda's U.S. operations.

The Macroeconomic Model

For the estimation of employment and compensation associated with Honda's U.S. operations, and to forecast the expected contribution of a new assembly plant to the Indiana economy, an economic model supplied and constructed specifically for this study by Regional Economic Models, Inc. (REMI) of Amherst, Massachusetts was used. Adjustments were then made to the model to reflect the general characteristics of the automobile industry, the other industries examined and Honda's specific employment and compensation data. The REMI model, which has been fully documented and peer-reviewed, was designed for the type of analyses employed in this current study and has been used by CAR and other organizations for over two decades.

The version of the model used in this study represents the economies of 7 states—Ohio, California, North Carolina, South Carolina, Georgia, Alabama, Indiana—and the rest of the United States. This model permitted simulation of the interaction among all the regional economies and the rest of the nation, providing for an accounting of interregional trade and migration. Therefore, the model can simulate economic impacts that could occur in any one region, resulting from changing Honda's level of activities in any or all of the regions.

The data provided by Honda for input into the model included employment and compensation for each region at the end of 2007 and, in the case of the Indiana forecast, expected construction expenses and purchase of equipment. Before the data was input, it was first coded according to the North American Industry Classification System (NAICS). Adjustments were made to estimate the used vehicle dealer employees and subtract them from the total to derive new vehicle dealer employment; a separate Indiana scenario to determine a range of job creation estimates was also run.

The general methodology in the analyses is to run baseline simulations for each region's economy, then subtract Honda's activities in each of the regions and run another set of simulations. The difference between the simulations represents the impact Honda has on each region. The Indiana scenario is similar, except that the employment is added to the model and the differences compared.

Changes to the REMI Model: Version 6.0 to Version 9.0

This study used REMI Model 9.0, which constitutes a major revision of earlier models—specifically, REMI Model 6.0, that has been used for the most recent economic contribution studies of the automotive industry conducted by CAR. One key change in Model 9.0 was the updating of the underlying business, demographic and trade data from government sources. The results in this study reflect the economic changes affecting the automotive industry in the United States. High labor, low technology jobs have largely moved offshore, and products created from this type of labor are now sourced from overseas production facilities. Due to the lag in the publication of government data (sometimes by two or three years) the effects of this offshore outsourcing are only recently becoming evident in model results.

Within the REMI model, other changes from the earlier versions are that migration equations (the movement of population from area or state to another area), often due to economic pulls or pushes, have been updated to more accurately reflect the mobility of the population. Investment equations have been modified to reflect the age structure of existing facilities by area. The results of this modification are that investment demand forecasts more accurately reflect a given area's need to replace capital structures.

In the compensation module, transfer payment categories and variables have changed. Overall transfer payments continue to reflect actual economic activity. However, detailed categories within transfer payments (social insurance payments, transfer receipts, other miscellaneous categories) are not comparable between version 6.0 and version 9.0. Therefore, in current studies, these items are now being reported in the broader category of transfer payments and social contributions.

These changes to the model allow for the most detailed and accurate study of the employment and compensation data attributable to the automotive industry, other manufacturing industries, and individual firms' activities.

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