

# THE AUTOMOBILE INDUSTRY IN KENTUCKY

## Overview

In December 1985, when Governor Martha Layne Collins and Toyota Motor Corporation announced the construction of a plant in Scott County, Kentucky (near Georgetown), to assemble passenger motor vehicles, it signaled the beginning of a wave of automobile plants that would soon be constructed across the South. Since that historic announcement, automobile assembly plants have been announced and/or established in Alabama, Georgia, Mississippi, South Carolina, Tennessee, Texas, and Virginia. As a result of the tremendous success of Kentucky's Toyota plant, the state has vaulted to the very top rung of automobile assembly plants in the United States, and as documented by the state's Cabinet for Economic Development, Kentucky's national standings remain impressive.

For instance, Kentucky is the fourth largest producer of cars and light vehicles and third largest producer of trucks in the country; in addition, the state accounts for 10.2 percent of all cars and trucks produced in the country and ranks sixth in total light vehicle production in North America.<sup>120</sup> Furthermore, Kentucky produces one of the three top selling cars in America (Toyota Camry in Georgetown); the number one and number three top selling trucks in the United States (Ford F-Series pickup and Ford Explorer, both in Louisville) and the country's top selling premium sports car (Chevrolet Corvette in Bowling Green). The contribution of the industry represents more than 8 percent of the state's gross state product (GSP) totaling \$9.6 billion in 2000. In 2001, the latest year available, it was \$10.3 billion.<sup>121</sup>

In terms of employment, Kentucky has the nation's third highest level of auto-industry related employment as a percent of total state employment, a further indication of the critical role played by the sector.

## Economic Impact of the Automotive Sector

According to an October 2002 study released by the Kentucky Cabinet for Economic Development, the automobile industry has "a very strong presence" in the state and "has impacted the economy and people of the Commonwealth in a very positive manner." As noted in this report, while the industry employs 36,700 across the state, there are 20,200 in the motor vehicle manufacturing industry. Employment growth in the industry has expanded significantly, more substantially than other industries; 35 percent since 1995 compared to 11 percent for all industries and 2.5 percent for manufacturing. Consequently, Kentucky's employment growth in the industry ranks second among the top 10 automobile producing states in the country.

In terms of GSP figures, the contribution from the industry has been stellar. The latest figures from the Bureau of Economic Analysis at the U.S. Department of Commerce notes that the motor vehicle industry's contribution to the state's GSP increased from \$2.4 billion in 1991, to \$5.8 billion in 1996, to \$10.3 billion in 2003. Even in terms of the industry's proportionate contribution to the GSP, the growth was substantial. While in 1991, it stood at 3.4 percent of total GSP, in 1996 the number increased to 6.1 percent and, finally, to 8.5 percent in 2001. Of note, this was the highest level among



## State Facts

Percent of Total Workforce	10
Direct Employment	28,100
Auto-Related Employment	72,600
Auto-Dependent Employment	165,500
Wages	\$5.5 Billion
New Vehicle Dealerships	334
Dealership Annual Sales	\$7 Billion
Production Facilities	4
Vehicles Produced	1,141,586
New Registrations	169,391
Registered Vehicles	2,286,403
Publicly-Owned Vehicles	42,954
Licensed Drivers	2,695,000
Total Miles Driven	46.8 Billion

Source: 2002 Ward's Motor Vehicle Facts & Figures

all 16 SLC states. Even in terms of GSP growth, the expansion has been solid; between 1991 and 2001, the industry's contribution to GSP grew by an astounding 332 percent, the third highest rate among the SLC states for the decade. (The SLC average stood at 207 percent while the U.S. average was 145 percent).

Another area that the industry has impacted the economy involves wages. As noted earlier, the industry provides for thousands of well-paying jobs. In 2000, the average weekly wage for the industry was \$1,373 compared to \$723 for manufacturing industries and \$551 for all industries. Employers in the auto industry paid over \$2 billion in wages to employees in 2000, and wages paid totaled over \$1.4 billion in just the motor vehicle manufacturing industry in 1999. Furthermore, in 1999, the value added by the auto industry was over \$13.3 billion while automobile manufacturers' value added totaled over \$10.6 billion. The latter number amounts to about 25 percent of the value added by Kentucky's manufacturers.

### **Kentucky's Advantages in the Automobile Industry**

Like so many other states in the South, Kentucky pro-actively seeks to attract, retain and maintain automobile industry operations within its borders. In this regard, the October 2002 report referenced earlier, notes that "Kentucky continues to be the state with the lowest overall cost of doing business in the eastern United States." table 22, presents information to this effect in comparing Kentucky with the 10 top auto producing states.

<b>Automobile Industry Cost of Doing Business, Index and National Rankings 2000</b>								
<b>Top 10 State</b>	<b>Overall Cost</b>		<b>Unit Labor Cost</b>		<b>Energy</b>		<b>Taxes</b>	
	<b>Index</b>	<b>Rank</b>	<b>Index</b>	<b>Rank</b>	<b>Index</b>	<b>Rank</b>	<b>Index</b>	<b>Rank</b>
Kentucky	89.5	44	92.3	41	69.9	49	97.8	25
Tennessee	93.8	37	98.4	23	79.5	43	80.6	49
Missouri	95.2	31	97.6	24	86.9	34	89.9	45
Georgia	95.3	30	96.3	30	92.8	24	91.8	42
Indiana	96.0	28	99.3	17	82.4	40	91.6	43
Ohio	99.1	20	97.4	25	102.0	17	107.4	10
Illinois	102.5	12	103.5	8	103.1	14	93.7	37
California	107.2	9	101.9	10	135.5	10	104.4	16
Michigan	108.7	6	109.2	3	109.6	12	103.6	20
New Jersey	114.8	2	110.4	2	143.5	9	104.9	15

Source: North American Business Cost Review (Updated November 2001) and reported by Kentucky Cabinet for Economic Development

Note: A ranking of one (1) represents the highest cost; U.S. average cost index = 100.0.

As demonstrated in table 22, Kentucky's overall score ranks the state lowest in terms of cost among the nation's top 10 auto producing states. In terms of labor (fifth lowest among the top 10); state and local tax costs (second lowest); and utility costs (lowest), all remain powerful incentives for companies operating in the automobile industry to consider operations in the state. In terms of its transportation system, the state remains very competitive. In this regard, the state's highway system, rail freight utilization, thriving airports, both passenger and cargo (Cincinnati/Northern Kentucky International and Louisville International), low state fuel taxes and fees, remain important.

## **Kentucky's Major Automotive Assembly Plants**

### » *Ford*

Ford's operations in Kentucky involve two distinct units, both located in Louisville. One unit manufactures the Explorer, Explorer Sport Truck and Mountaineer, while the other manufactures the F-Series Truck and the Excursion. Ford first came to Kentucky 90 years ago in 1913 when Henry Ford established a factory in Louisville. Later on in 1925, Henry Ford created "the first modern assembly plant" in Louisville. This plant manufactured the Model A and other Ford trucks and cars. During World War II, the plant produced a range of military equipment.

While the current Louisville plant was opened in 1955, the eastern Jefferson County truck plant (F-Series) was established in 1969. Employment at the former facility stands at 3,800 (as of 2001) while the latter facility employs 7,100 persons. Given the growing demand for its F-Series pickup, Ford's truck plant expanded in 1997 and now covers 4.6 million square feet, the second largest Ford assembly plant in North America.

### » *General Motors*

In June 1981, General Motors moved production of its flagship Corvette line to Bowling Green, Kentucky, from its former location in St. Louis. This location now remains the exclusive home of the Corvette. More recently, in 2002, General Motors also decided to produce the new Cadillac XLR at this location. This 1 million square foot plant produces about 35,000 vehicles annually and, as of 2001, had about 1,000 employees.

### » *Toyota*

Signaling the start of a wave of automobile assembly plants locating in the South, Toyota's Georgetown, Kentucky, plant began producing vehicles in 1988. This plant, Toyota's largest production facility in North America, manufactures the Avalon, Camry and Solara, along with engines (both 4 and 6 cylinder), steering components, axles, blocks, cylinder heads and crankshafts. More than 7,600 employees are based at this plant, and they manufacture about 500,000 vehicles and 400,000 engines each year. In addition, Toyota's North American headquarters is located in Erlanger, Kentucky (employing about 800), and Toyota's North American Parts Logistics Division is located in Hebron, Kentucky (employing about 400).

## **The Economic Impact of Kentucky's Toyota Facility**

The quick and resounding success of the Toyota plant in Kentucky was certainly a catalyst for automakers to consider and then establish a number of other plants across the South. While analysts have noted that the incentive package offered by Kentucky to Toyota has been more than justified, the direct, indirect and induced economic benefits have multiplied several times by the expansion decisions made since the initial announcement in 1985. In order to capture the full extent of this economic impact, the University of Kentucky's Gatton College of Business and Economics completed a study of the plant's activities in 1992; this study was then updated in 1998, the most recent study carried out of the plant.<sup>122</sup> Now, even though the data in this report is some five years old, it contains valuable information reinforcing the positive impact played by the Toyota plant in the Kentucky economy. Hence, it is useful to consider the report's 1998 findings despite the passage of five years.

Prior to evaluating the economic impact of the plant, it is important to consider the financial incentive package provided by Kentucky to Toyota. As reported by the Kentucky Cabinet for Economic Development, the initial incentive package provided to Toyota by the state is presented in table 23.

<b>Toyota Initial Incentive, December 1985</b>	
<b>Incentive Type</b>	<b>Amount</b>
Land Purchase	\$10,273,524
Site Preparation	\$20,000,000
Water and Gas Lines	\$10,286,743
Training Facility	\$7,200,000
Wastewater Facility	\$12,239,733
Highway Improvements	\$32,000,000
Training and Education	\$55,000,000
<b>Total</b>	<b>\$147,000,000</b>

Source: Kentucky Cabinet for Economic Development, February 2003

While the total initial incentive package amounted to \$147 million in 1985, the return on this investment has been significantly more in the ensuing years. Toyota's commitment at that time was to invest \$800 million to build and operate an assembly plant to produce 200,000 passenger cars, employ a work force of 3,000 and maintain an annual payroll of \$90 million. As detailed in the 1998 University of Kentucky report, the following conclusions remain important:

- » Employment was projected in 1986 to reach between 3,000 and 3,200 jobs at the point of full production at the Scott County plant. At the end of 1997, this target number was more than doubled; it was 7,689. (By the end of 2002, total employment at the plant was 7,600;<sup>123</sup> when one factors in the 800 at Toyota's North American Headquarters in Erlanger and the additional 400 at Toyota's North American Parts Logistics Division, the total leaps to a resounding 8,800<sup>124</sup> )
- » Annual payroll was projected to reach approximately \$90 million at the time of full production. In 1997, payroll was \$470.4 million with an additional \$125.6 million in employee benefits.



Toyota Motors Manufacturing North American Headquarters, Erlanger, Kentucky

- » Originally, Toyota's investment at the plant was projected to be \$800 million. By the end of 1997, the automaker's total investment at the plant was \$4,524.4 million (or \$4.5 billion).
- » In 1985, full production capacity was expected to reach 200,000; in 1998, this level was more than doubled with capacity reaching 435,000 motor vehicles and 500,000 engines.
- » In 1985, it was forecasted that the domestic content of the motor vehicle produced at the plant would be approximately 60 percent of the value of the finished product. At the time of the 1998 report, the domestic content of the finished product was in excess of 75 percent.
- » In terms of state revenue collections, discounted cash flow analysis in 1985 indicated an annual rate of return of 8.5 percent from increased revenue collections attributable to the direct and indirect effects of the plant's operations. A 1992 economic impact study, also carried out by the University of Kentucky, revealed that the projected rate of return had increased to 16.8 percent per annum. These projections were revised upward again in the 1998 study which indicated that the updated annual rate of return stood at 36.8 percent. Between 1986 and 2005, this 1998 study noted that Kentucky would collect over and above the costs of the incentive package, approximately \$1.2 billion in tax revenues, attributable to the direct and indirect effects of Toyota's operations in the commonwealth.

- » Cumulatively, Toyota's 1997 outlays of \$1,702.7 million in Kentucky for parts and materials, payroll, plant and equipment generated \$4,408 million total spending, \$1,407 million in household earnings, and 34,544 jobs in the state. Outlays for the period 1998-2005 are projected to rise only by the amount of expected increases in wage rates and costs of parts and materials; after increasing to 34,797 in 2000, the employment effect is expected to remain stable at about 35,000 jobs through 2005.
- » Finally, through the expenditures of its subsidiaries and affiliates in the United States, Toyota has multiplier effects, roughly estimated in the 1998 report, at \$25.2 billion for the total spending effect, \$6.1 billion for the household earnings effect, and 150,000 jobs for the employment effect. More importantly for Kentucky, the Scott County and other operations in the commonwealth account for about two-thirds of the economic multiplier effects of automaker's U.S. operations.

### Kentucky's Automobile-Industry Related Operations

Alongside the motor vehicle manufacturing facilities, the presence of several hundred motor-vehicle related facilities adds considerably to the economic potential of the industry in Kentucky as well. According to the latest compilation from the Kentucky Cabinet for Economic Development (July 2, 2003), there are 461 facilities employing 87,794 people, a concrete demonstration of the economic power of the industry throughout the state. (These figures do not include establishments with fewer than five employees.) These companies range from Bluegrass Spring Co., LLC in London with eight employees (established in 1993) manufacturing compression, extension and formed wire and flat springs, to Intertec Systems, LLC in Bardstown with 162 employees (established in 1988) manufacturing automotive interiors, to Lear Corp. in Louisville with 607 employees (established in 1990) manufacturing automobile and van seats, to AMBRAKE Corp. in Elizabethtown with 1,005 employees (established in 1987) manufacturing automotive disc and drum brakes.<sup>125</sup> Additional details on the number of employees at Kentucky's motor vehicle-related facilities drives home the point about the importance of the economic impact of this entity. Table 24 provides some of these details and as indicated a majority of the firms fall into the category of maintaining somewhere between one and 99 employees. The commonwealth's prominent employers, those facilities retaining more than 1,000 employees, number seven and are specifically mentioned in table 24.

<b>Number of Employees at Kentucky's Motor Vehicle-Related Facilities July 2003</b>	
<b>Range of Employees</b>	<b>Number of Facilities</b>
1,000 + Employees	
Toyota Motor Manufacturing Kentucky (7,600 employees in 2002)	
Ford Motor Company-Truck Plant (7,100 employees in 2002)	
Ford Motor Company-Assembly Pit (3,800 employees in 2001)	
AK Steel Corporation (1,400 employees in 2002)	
Continental Tire North America (1,300 employees in 2002)	
AMBRAKE Corporation (1,005 employees in 2001)	
General Motors Corporation (1,000 employees in 2002)	7
500 to 999 Employees	26
200 to 499 Employees	92
100 to 199 Employees	87
1-99 Employees	245
<b>Total Number of Facilities as of July 21, 2003</b>	<b>459</b>

Source: Kentucky Cabinet for Economic Development, Division of Research

Motor-vehicle related establishments continue to establish their operations in Kentucky, boosting the economic potential of the commonwealth. One of the more recent such decisions was Kobe Steel, a major Japanese steelmaker that is building a \$32.7 million plant in Bowling Green to produce an aluminum material used in making parts for car suspensions.<sup>126</sup> While the production of aluminum forgings, a lightweight material made of pressed metal, is expected to begin in June 2005, the demand for these items has been growing steadily in recent years. As cars are fitted with more safety features and options, the demand for lighter parts has been increasing too. Kobe Steel forecasts annual sales at the new plant to reach \$25 million by its second year; the plant will employ 78 persons. The plant's products will be marketed to both United States and Japanese automakers across the country.