

ECONOMIC IMPACT OF THE VOLKSWAGEN ASSEMBLY PLANT IN 2012

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Introduction

In the summer of 2008 Volkswagen announced its intention to invest \$1 billion to build an assembly plant in Chattanooga, Tennessee and employ 2,000 people at the facility. Within three years, the company had met its projections for investment and hiring. As of 2012, Volkswagen had added an additional 415 direct jobs and helped attract 17 supplier companies to the area.

Volkswagen's investment has dramatically benefitted Chattanooga, Hamilton County, and the State of Tennessee. The initial benefits came from the construction and equipping of the plant, which resulted in significant employment and incomes from the summer of 2008 to the beginning of 2011. This report examines the ongoing impact of annual plant operations.

Volkswagen's Chattanooga assembly plant manufactures a version of the Passat sedan specifically re-designed for the American market. The launch of the vehicle was highly successful, with critics praising the car for its safety among other characteristics. For example, the 2012 model was Motor Trend's Car of the Year.

The assembly plant, itself, has also garnered praise both for its manufacturing processes and environmental friendliness. Most notably, the plant achieved LEED Platinum Certification becoming the first manufacturing facility in the world to do so. In February 2013, the Environmental Protection Agency placed the Chattanooga plant on its Top 20 On-site list of largest green power purchasers as a result of Volkswagen's installation of a 33-acre solar park.

This study estimates the 2012 employment and earnings impacts of the direct operation of the Volkswagen assembly plant, its suppliers, and the resulting effects through the broader economy. Additionally, we examine Volkswagen's non-quantifiable benefits to Chattanooga, Hamilton County, and the broader Tennessee community.

Summary of Benefits

Volkswagen Chattanooga operations have created 12,400 full time equivalent jobs in Tennessee and are responsible for \$643.1 million annually in income. As a result, state and local governments benefit tremendously from the facility. Each year, Tennessee receives \$31.2 million in additional revenue, while local governments in Tennessee receive \$22.3 million in additional revenue related to the project.

Table 1: Summary of Annual Benefits

Income	\$643.1
Employment	12,400
Jobs at VW plant	2,415
State tax revenue	\$31.2
Local tax revenue	\$22.3
Total tax revenue	\$53.5

Note: Dollar values in millions

Income Benefits

The Volkswagen assembly plant generates income in several ways. First, the plant directly employs 2,415 people. Volkswagen pays \$159.2 million in direct income to its employees, not including fringe benefits.

Volkswagen’s purchases of inputs from Tennessee suppliers generate income and employment for the state. In 2012, the assembly plant purchased \$233.6 million from companies located in Tennessee, representing over 60 percent of its total supplier purchases. We refer to incomes created through suppliers as indirect income. Further, employees at both Volkswagen and supplier companies spend their incomes on items like groceries and clothing. This spending, in turn, leads to income for the employees of grocery and clothing stores and other places where Volkswagen’s employees spend their income. The resulting income and employment are referred to as multiplier effects. On an annual basis, Volkswagen accounts for \$483.9 million in income due to indirect and multiplier effects.

Table 2: Summary of Income Benefits

Direct effect	\$159.2
Indirect/multiplier effects	\$483.9
Total income benefits	\$643.1

Note: Dollar values are in millions

The jobs provided at the Volkswagen assembly plant are primarily high-quality jobs. All job types paid directly by Volkswagen earn at least \$50,000 annually on average, including bonus and overtime. On average, those employed and paid directly by Volkswagen make just under \$66,000 annually in total compensation plus they receive fringe benefits.

Employment Benefits

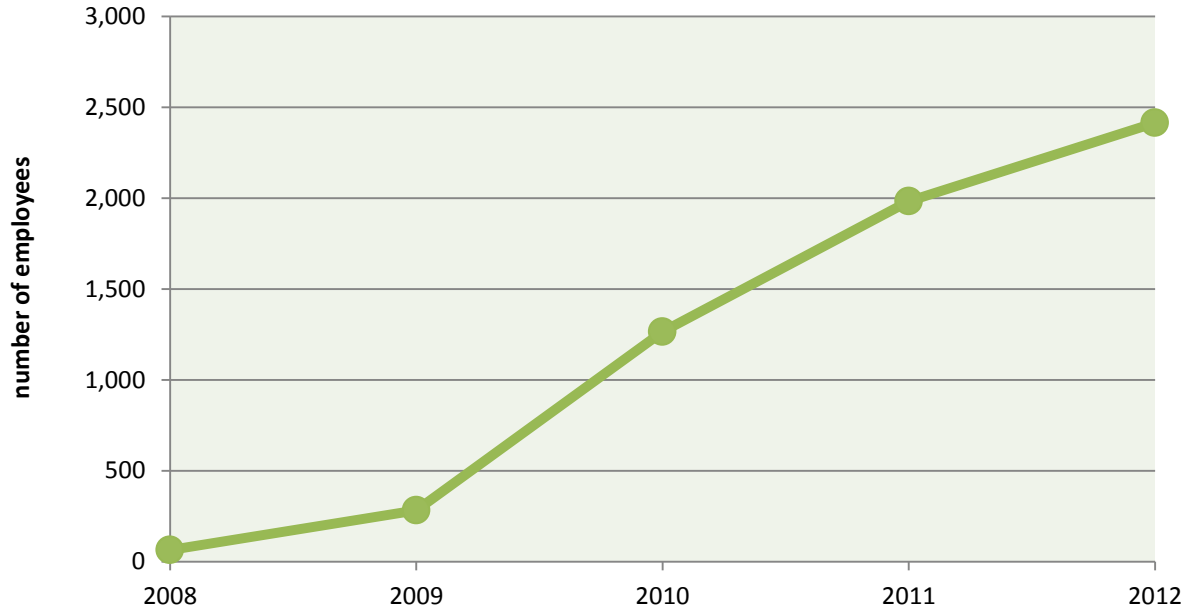
The Volkswagen assembly plant impacts employment in a similar manner as income, through direct, indirect and multiplier effects. As noted above, the plant employs 2,415 people. Employment growth at the Volkswagen assembly plant has been dramatic since 2008. Initially, Volkswagen had 64 salaried workers at the plant. By 2010, the addition of skilled maintenance and production workers increased employment to close to 1,300. By 2012, Volkswagen employment at the plant totaled 2,415 (see figure 1). Volkswagen’s employment mirrors the pattern that Tennessee has had with other automobile plants where employment has exceeded the totals discussed when the plant was announced.

Another 9,985 employees are created through the indirect and multiplier effects. The jobs come from employment at suppliers and jobs at other companies where Volkswagen and its supplier employees spend their earnings in the broader economy (Table 3).

Table 3: Summary of Employment Benefits

Direct effect	2,415
Indirect/multiplier effects	9,985
Total employment	12,400

Figure 1: Annual Employment at Volkswagen Assembly Plant



State and Local Tax Benefits

Volkswagen generates significant tax revenue for the state and local governments. The company pays sales taxes on much of its supplier purchases and utilities, and pays property taxes for education to local government. State and local sales taxes are also paid as Volkswagen’s employees and those associated with supplier and multiplier effects spend earnings and live in Tennessee. We estimate that nearly \$19 million in state sales taxes are generated plus \$12 million in other state taxes. In total, we estimate that the Volkswagen assembly plant will increase state revenues by \$31.2 million annually and local revenues by \$22.3 million each year. The table below summarizes the findings (Table 4).

Table 4: Summary of Tax Benefits

State Tax Benefits	\$31.2
Local Tax Benefits	\$22.3
Total Tax Benefits	\$53.5

Note: Dollar values in millions

Intangible Benefits

Chattanooga and Tennessee are greatly enhanced from the Volkswagen assembly plant in ways not directly related to plant operations. Volkswagen's investment in education is a major example. In March 2009, Volkswagen embarked on a five-year plan to expand Partners in Education by \$5.3 million. Close to \$4 million of this has been provided to different universities around the state, while the other \$1.3 million has been split between Oak Ridge National Laboratory and Hamilton County Schools.

Additionally, Volkswagen is a supporter of many charities such as the Red Cross, March of Dimes, Urban League, and the Land Trust, just to name a few.

Lastly, Volkswagen is committed to environmental stewardship. For instance, the roof of the assembly facility is made to reflect heat, lowering cooling costs and saving energy. In addition, Volkswagen's sustainably designed paint shop, low flow fixtures, rainwater harvesting and other measures save more than 50 million gallons of water a year. On top of that, Volkswagen has completed the largest single solar installation at an automotive manufacturing facility in the United States, which is also the biggest solar installation in the state of Tennessee. Taken together, all of these examples of Volkswagen's environmental efforts reinforce and add to Chattanooga's long-standing green image.

Volkswagen has clearly made a commitment to Chattanooga, Hamilton County, and the State of Tennessee that includes significant economic benefits but also extends to education, community engagement, and environmental stewardship.