



NORTH CAROLINA
**DEPARTMENT of
COMMERCE**

Roy Cooper
GOVERNOR

Machelle Baker Sanders
SECRETARY

May 10, 2021

The Honorable Eric Boyette
Secretary
North Carolina Department of Transportation
1 South Wilmington Street
Raleigh, NC 27601

Dear Secretary Boyette,

As you are aware, the State Transportation Strategic Investment (STIP) Law has a special exemption for funding used on economic development projects across the state. Part of the approval process to receive such an exemption requires an analysis of the economic benefits of the potential project completed by the Department of Commerce.

Pratt & Whitney plans to open a new production facility in Buncombe County and create 800 jobs and make a capital investment of \$650 million.

The attached economic analysis of this project indicates that upon completion of the project, the ongoing, annual employment impact will result in at least 1,534 jobs, including 800 direct jobs and an additional 734 jobs through indirect and induced effects. Upon completion of the project, the ongoing, annual direct economic impact will result in an increase of the region's gross domestic product by approximately \$636 million. Total State output, including indirect and induced effects, will increase by more than \$1 billion as a result of the project.

The funding request is for \$10 million towards the completion of new interchange on I-26 to serve the facility. As the total project investment is slated to be \$650 million, this is consistent with the requirement in the guidelines that the planned investment of the company is more than five times the expected STIP funds needed for the project.

Sincerely,

A handwritten signature in black ink that reads 'Machelle Sanders'.

Machelle Sanders
Secretary



Economic Impact of a New Pratt & Whitney Manufacturing Facility in Buncombe County, NC

INTRODUCTION

This report estimates the economic contributions and impacts of the planned creation of an aircraft engine manufacturing facility for Pratt & Whitney in Buncombe County, North Carolina. The purpose of this report is to provide information related to the potential economic impact of particular industry activities. Results are estimates, and are derived from inputs provided by the involved companies and in some cases based on forecast.

ANALYSIS ASSUMPTIONS & METHODOLOGY

Commerce uses IMPLAN¹ software for economic impact modeling. The IMPLAN model is widely used by local, state, and federal government agencies as well as private industry and universities. The following section summarizes the data and assumptions used in developing the economic impact model for this project in Buncombe County.

PROJECT DETAILS AND MODEL ASSUMPTIONS

Location of Projects / Economic Impact Area: Buncombe County, NC and surrounding counties

IMPLAN Sector - Sustained Operations: 355 – Aircraft Engine & Engine Parts Manufacturing

IMPLAN Sector - Temporary Operations: 51 – Construction of New Manufacturing Structures

Investment in Temporary Construction Operations: \$172,000,000

Investment in Tangible Personal Property: \$478,000,000

New Project Jobs: 800

ECONOMIC IMPACTS

While economic modeling can provide general information about how an economy will react as a result of a particular event or occurrence, future economic performance will vary with economic conditions. Economic modeling should be used in conjunction with other forms of analysis to estimate overall project merits and drawbacks. This project consists of two analysis components: 1) impacts associated with constructing/renovating facilities and 2) impacts associated with ongoing operations. As suggested by the IMPLAN model, all construction investment is expected to come from North Carolina vendors or inputs. All impacts are presented as regional impacts with monetary figures presented in 2021 dollars.

¹ IMPLAN Group, Inc. was founded in 1993 by Scott Lindall and Doug Olson as an outgrowth of their work at the University of Minnesota starting in 1984. This developmental work closely involved the U.S. Forest Service's Land Management Planning Unit in Fort Collins, and Dr. Wilbur Maki at the University of Minnesota. For more information please visit www.IMPLAN.com.

KEY ECONOMIC IMPACT DEFINITIONS

Direct Impacts: The known or predicted change in the economy that is being studied. In this analysis the direct impacts are the changes associated with the project site.

Indirect Impact: Secondary impact caused to industries in the supply chain of the direct impact. In this case, indirect impacts would result from industries supplying resources and materials.

Induced Impact: Direct and indirect employment (and increases in labor income) creates additional household spending on goods and services.

Employment: The number of full-time and part-time jobs; measured by place of employment. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not.

Value Added: is a measure of the contribution of each private industry and of government to a region's Gross Domestic Product. It is defined as an industry's gross output (which consists of sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (which consist of energy, raw materials, semi-finished goods, and services that are purchased from domestic industries or from foreign sources).

Output: is the amount of production, including all intermediate goods purchased as well as value added (compensation and profit).

Job-Years: IMPLAN measures employment impacts in job-years with each unit of employment equivalent to one job for one year. This is important when IMPLAN is used to measure construction or other non-permanent operations. For example, IMPLAN does not distinguish between ten units of employment (workers) employed over five years, and fifty workers employed in one year. Therefore, one construction worker may account for multiple units of employment if that person is employed over multiple years.

ECONOMIC IMPACTS FROM ONGOING OPERATIONS

ONGOING EMPLOYMENT IMPACTS

In this section, we analyze the impact of adding 800 jobs to the Buncombe County economy, which this project has estimated will result from the company's new manufacturing facility.

When complete, the ongoing, annual employment impact of the new facility will result in approximately 1,534 jobs in the Buncombe County area. Some of these jobs are company jobs at Pratt & Whitney (800). These direct project jobs create an additional 734 jobs in the region through indirect and induced effects. Many of the additional jobs occur in sectors directly impacted by aircraft engine and engine parts manufacturing, like wholesale machinery, equipment, and supplies, custom computer programming services, and employment services. Other jobs occur in sectors that support the direct employees of this project, including restaurants and real estate.

ONGOING IMPACTS TO THE REGION'S ECONOMY

Upon completion the project, the ongoing, annual direct economic impact will result in an increase of the region's gross domestic product by approximately \$636 million. Total regional output, including indirect and induced effects, will increase by just over \$1 billion as a result of the project.

Table 1: Annual, Ongoing Economic Impacts

Impact Type	Employment	Value Added (GDP)	Output
Direct Effect	800	\$577,000,000	\$947,000,000
Indirect Effect	264	\$21,000,000	\$41,000,000
Induced Effect	470	\$37,000,000	\$66,000,000
Total Effect	1,534	\$636,000,000	\$1,053,000,000

Source: MIG IMPLAN 3.1; model created January 2021.

All monetary impacts presented in 2021 dollars and rounded to the nearest million;

Employment impacts rounded to the nearest five.

Sums of effects may not add to Total Effects due to rounding error.

TEMPORARY ECONOMIC IMPACTS FROM CONSTRUCTION

TEMPORARY EMPLOYMENT IMPACTS

In this section, we analyze the temporary impact of constructing the new manufacturing facility in Buncombe County. Pratt & Whitney has estimated that approximately \$172 million will be invested in the construction of their new facility. This analysis considers only the construction of the facility and does not include any associated infrastructure construction.

Approximately 2,270 total jobs (including indirect and induced effects) will result from construction investments in the project, with roughly 1,520 directly needed in the construction industry.² It is important to recognize that the jobs associated with this project's construction are not permanent, continuous jobs. Rather, when the projects are complete, the employment demands created by project construction will cease.

TEMPORARY IMPACTS TO THE REGION'S ECONOMY

Upon completion of the project, the construction investment is estimated to positively impact the region's gross domestic product by \$145 million and increase output by \$285 million.

Table 2: Construction Investment Economic Impacts

Impact Type	Employment	Value Added (GDP)	Output
Direct Effect	1,520	\$83,000,000	\$172,000,000
Indirect Effect	253	\$22,000,000	\$44,000,000
Induced Effect	496	\$39,000,000	\$69,000,000
Total Effect	2,270	\$145,000,000	\$285,000,000

Source: MIG IMPLAN 3.1; model created January 2021.

All monetary impacts presented in 2021 dollars and rounded to the nearest million;

Employment impacts rounded to the nearest five.

Sums of effects may not add to Total Effects due to rounding error.

Disclaimer: *Economic modeling provides general impact estimates for economic development projects. However, future results will be affected by political, social, and economic conditions. Economic modeling is most informative when used with other forms of analysis, such as cost-benefit analysis and fiscal impact analysis, to estimate the overall impact of economic changes. The use of inputs from the company does not endorse, confirm, or support the methodology or assumptions used in deriving estimates relating to the project.*

² IMPLAN measures employment impacts in job-years with each unit of employment equivalent to one job for one year. For example, IMPLAN does not distinguish between ten units of employment (workers) employed over five years, and fifty workers employed in one year. Therefore, one construction worker may account for multiple units of employment if that person is employed over multiple years.