



2019 Economic Impact Analysis



Section One

Executive Summary

Located in Auburn, Indiana, DeKalb County Airport (GWB) is classified as a regional general aviation airport by the Federal Aviation Administration (FAA). The airport is operated by the DeKalb County Airport Authority and was originally constructed in 1964 to replace the Auburn airport. The airport's primary runway (09/27) is 5,000 feet long by 100 feet wide. The latest terminal area forecast (TAF) for GWB estimates 13,525 operations for the airport in 2019 with 68 based aircraft, including 4 jets. The TAF estimates the airport had 1,353 general aviation itinerant operations in 2019. In the mid-1990s, the airport opened a new terminal building, maintenance hangar and a 24,000-gallon Jet A and 100 LL fuel farm.

Three Categories of Economic Impact

An airport is a complex organization that has significant impacts well beyond its runways and taxiways. In addition to the staff that keep the airport operational, airports are responsible for significant economic impacts through large capital improvement projects for infrastructure and the visitor spending they facilitate as a point of entry to the local community. The three categories of economic impacts produced by GWB that are quantified in this study are:

- **On Airport Impacts:** includes the employment, payroll, and economic output tied to the operational activity of the airport and its related businesses. Examples include airport management and operation, fixed based operators (FBOs), flight schools, corporate flight departments and other businesses located at GWB.
- **Capital Improvement Impacts:** includes planned or ongoing public or private capital improvements to airport infrastructure including taxiways, runways, equipment, and hangars.
- **Visitor Spending Impacts:** includes spending by out-of-town visitors who use GWB as their point of entry to the community on general aviation aircraft. Examples of impacts include spending on commodities such as lodging, ground transportation, entertainment, and food and beverage.

Three Dimensions of Economic Impacts

Economic impacts can be quantified for several dimensions within each of the three categories of impacts at GWB. The three dimensions of economic impact analyzed in this report include:

- **Employment (jobs):** the number of employees that have jobs supported by airport or related operations. These are expressed as full-time equivalents with two part-time jobs equal to one full time job.
- **Payroll:** the annual wages, salaries, and benefits associated with the jobs supported by the airport.

- **Economic output (spending):** the economic activity generated by the airport and associated activity. Economic output includes spending of businesses such as ground-handling services, food vendors, airport management, operations staff, and businesses located at GWB.

The table below highlights the direct, indirect, and induced employment, payroll, and economic output generated by GWB in DeKalb and the 11-county Northeast Indiana region.

Impacts of GWB

	DeKalb County	11-County Northeast Indiana Region
Employment	162	188
Payroll (Millions)	\$5.5	\$8.3
Economic Output (Millions)	\$24.4	\$31.5

Section Two

Introduction to DeKalb County Airport

Located in Auburn, Indiana, DeKalb County Airport (GWB) is classified as a regional general aviation airport by the Federal Aviation Administration (FAA). The airport is operated by the DeKalb County Airport Authority and was originally constructed in 1964 to replace the Auburn airport. The airport's primary runway (09/27) is 5,000 feet long by 100 feet wide. The latest terminal area forecast (TAF) for GWB estimates 13,525 operations for the airport in 2019 with 68 based aircraft, including 4 jets. The TAF estimates the airport had 1,353 general aviation itinerant operations in 2019. In the mid-1990s, the airport opened a new terminal building, maintenance hangar and a 24,000-gallon Jet A and 100 LL fuel farm.

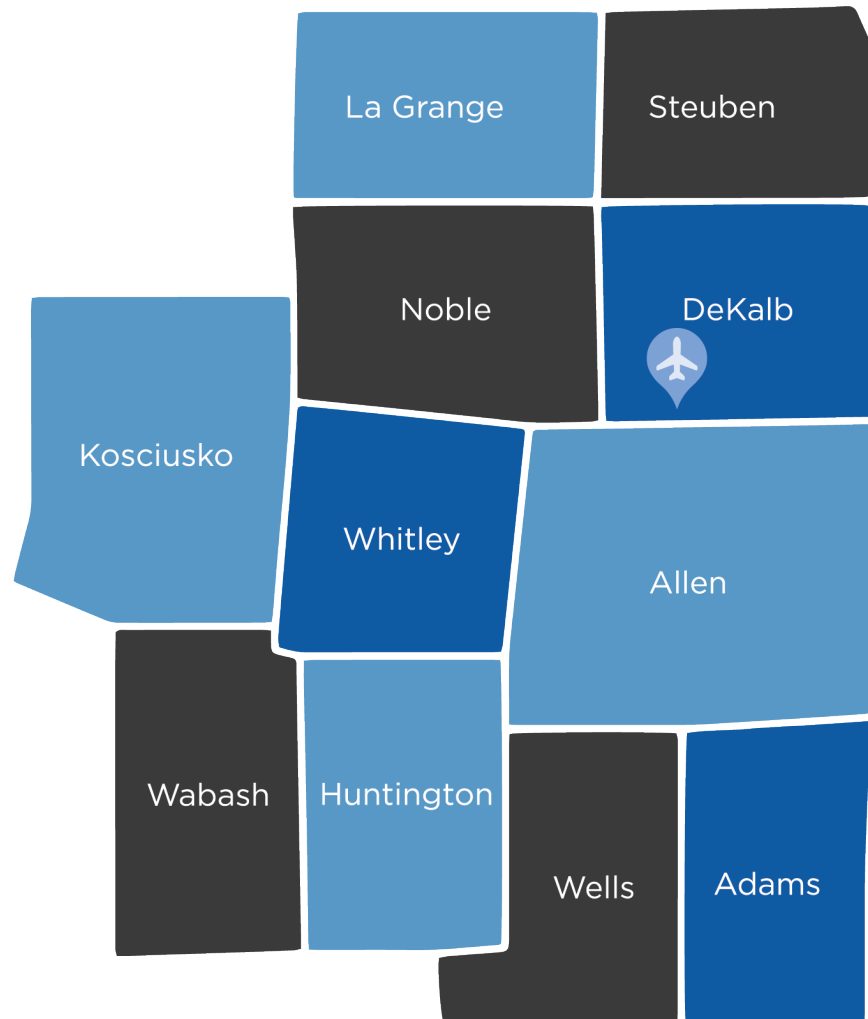
Section Three

Economic Impact Analysis Overview

Economic impact is defined as a measure of the spending and employment associated with a sector of the economy, a specific organization, project, or change in government policy or regulation. One of the critical steps in the economic impact analysis process is to identify the geography or geographies of interest for the study. To assess the economic impact of DeKalb County Airport (GWB), the research team decided to focus on two distinct geographies:

- DeKalb County, IN
- 11-county Northeast Indiana economic development region (Allen, DeKalb, Adams, Wells, Huntington, Wabash, Kosciusko, Whitley, Noble, LaGrange, Steuben Counties) (Figure 1).

It is important to remember, as the geography of interest changes, the overall impact of GWB will also change as the amount of benefits leak outside of the local economy of interest. Additionally, as the geographical area changes, the recycling of impacts in the economy will change, as the area becomes larger or smaller. Also, as different geographies are examined, the local purchase percentage of goods will increase or decrease accordingly. Importantly, as the geographic region changes, so too does the wage rates for occupations listed within each industry. Specifically, as the geographic increases in scope from DeKalb County to the 11-county Northeast Indiana region, the average wage for many occupations will decrease as the job impacts are spread across a larger region with, on average, lower wages. **This explains why there are often larger employment impacts across a larger region, but lower payroll and overall economic impacts.**

Figure 1: Map of 11-County Northeast Indiana Economic Development Region

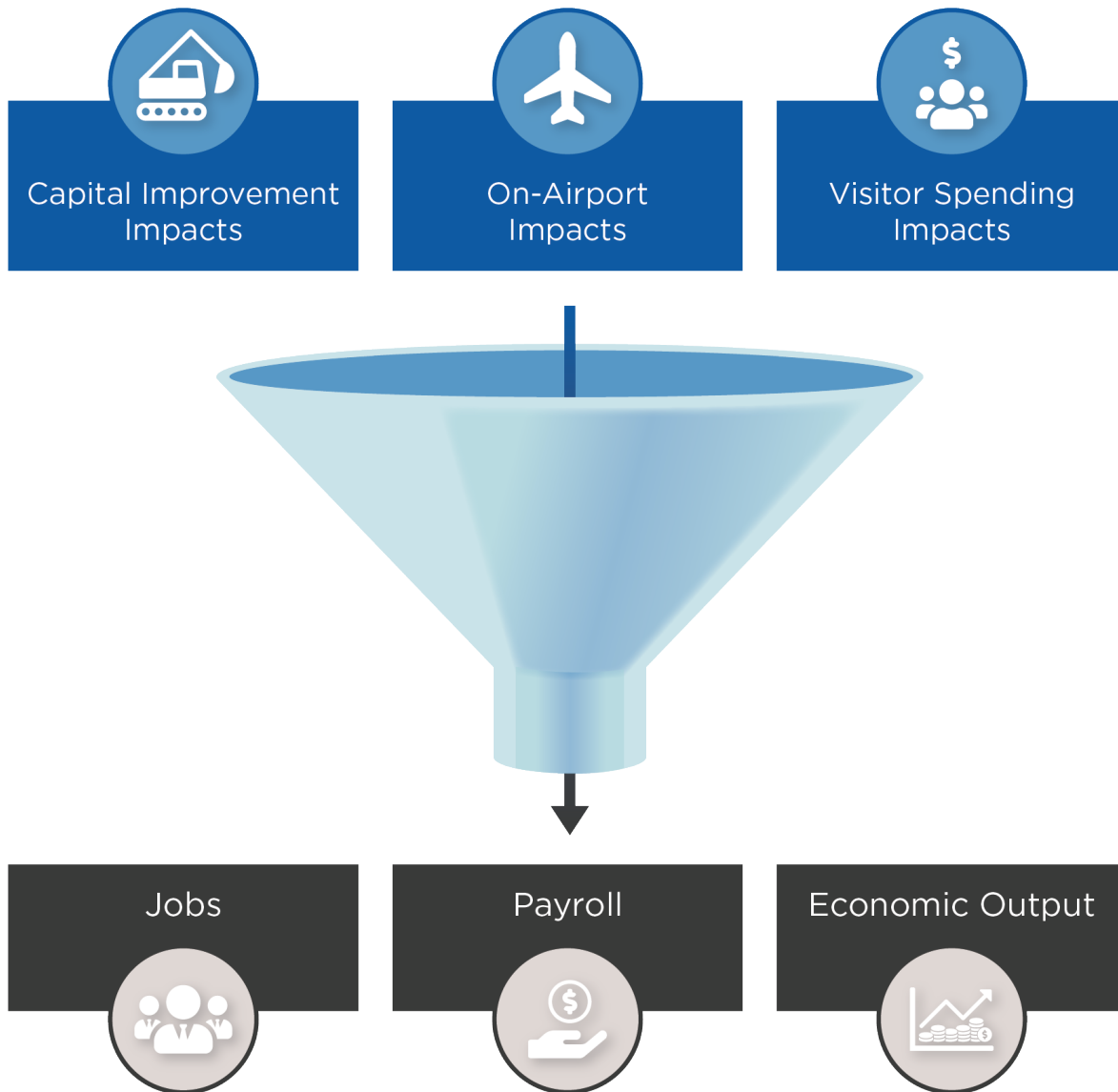
Three Categories of Economic Impact

An airport is a complex organization that has significant impacts well beyond its runways and taxiways. In addition to the staff that keep the airport operational, airports are responsible for significant economic impacts through large capital improvement projects for infrastructure and the visitor spending they facilitate as a point of entry to the local community. Figure 2 highlights three categories of economic impacts produced by GWB:

- **On Airport Impacts:** includes the employment, payroll, and economic output tied to the operational activity of the airport and its related businesses. Examples include airport management and operation, fixed based operators (FBOs), flight schools, corporate flight departments and other businesses located at GWB.
- **Capital Improvement Impacts:** includes planned or ongoing public or private capital improvements to airport infrastructure including taxiways, runways, equipment, and hangars.

- **Visitor Spending Impacts:** includes spending by out-of-town visitors who use GWB as their point of entry to the community on general aviation aircraft. Examples of impacts include spending on commodities such as lodging, ground transportation, entertainment, and food and beverage.

Figure 2: Airport-Related Economic Impacts



Three Dimensions of Economic Impact

Economic impacts can be quantified for several dimensions within each of the three categories of impacts at GWB. The three dimensions of economic impact analyzed in this report include:

- **Employment (jobs):** the number of employees that have jobs supported by airport or related operations. These are expressed as full-time equivalents with two part-time jobs equal to one full time job.
- **Payroll:** the annual wages, salaries, and benefits associated with the jobs supported by the airport.
- **Economic output (spending):** the economic activity generated by the airport and associated activity. Economic output includes spending of businesses such as ground-handling services, food vendors, airport management, operations staff, government organizations, and businesses located at GWB

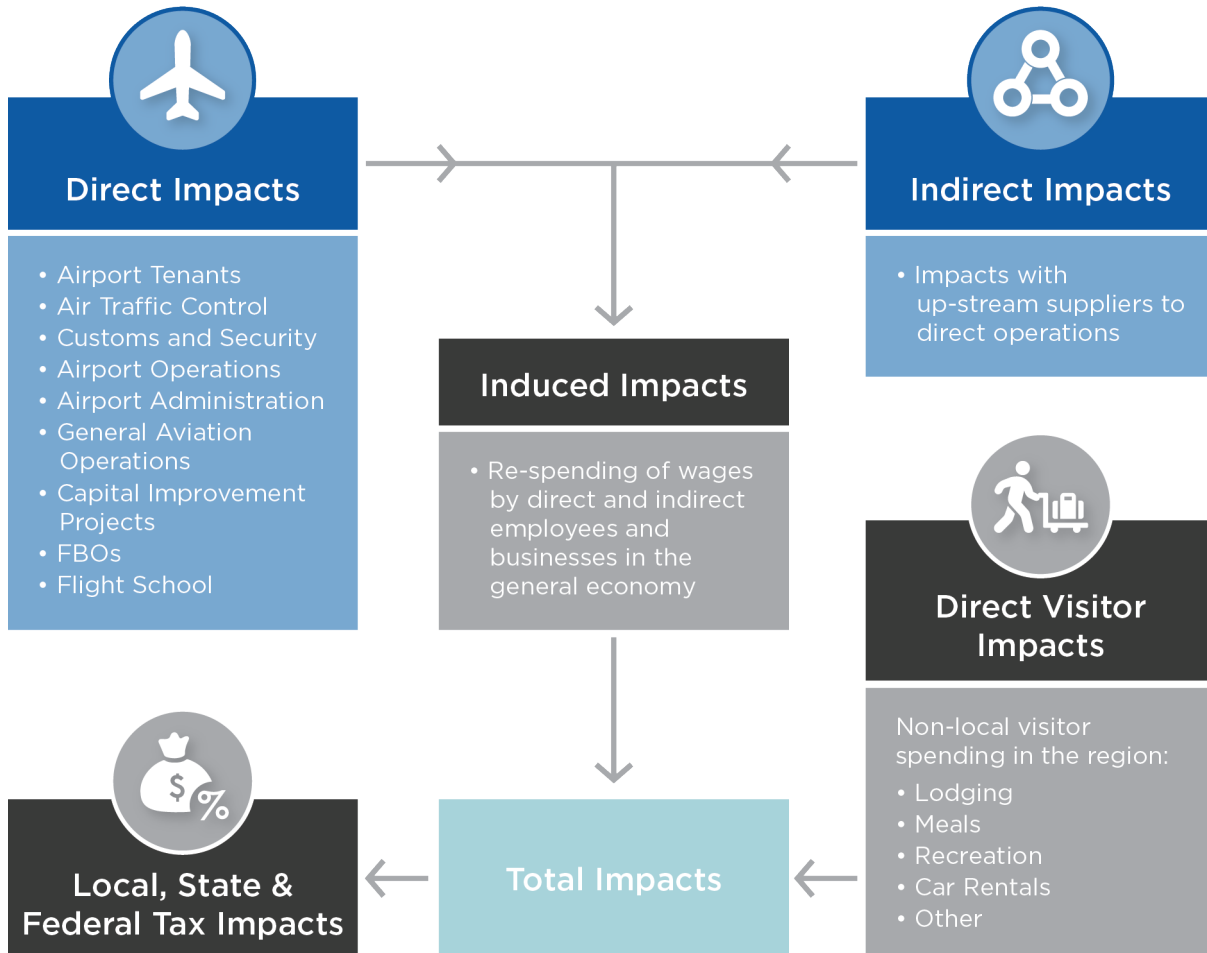
Indirect and Induced Impacts

In addition to the direct employment, payroll, and economic output produced by on-airport, capital infrastructure, and visitor spending impacts at GWB, the airport also generates significant indirect and induced impacts (Figure 3) that generate additional economic activity in the region.

- **Indirect impacts** occur when businesses spend their revenue on business expenses such as payroll or equipment. For example, if an FBO purchases fuel from a local distributor (the direct output) and the distributor purchases new equipment such as hoses, that additional purchase is an indirect impact. Additionally, if a local hotel (where visitors from a flight stay in the region) purchases food and drink for its bar, those expenses are indirect economic output.
- **Induced impacts** occur when employees spend their earnings on good and services in the local economy. For example, if an airport employee spends a portion of their wages on retail, restaurants, or professional services, those are included as induced impacts.

The economic impacts of GWB will be estimated using an input-output model developed by the IMPLAN Group. IMPLAN is an input-output model that accounts for all dollar flows across different sectors of the economy of a region. Using this information, IMPLAN models the way a dollar injected into one sector (via output or payroll) is spent and re-spent in other sectors. This spending generates waves of economic activity called multipliers, which are used to calculate indirect and induced impacts from a direct impact in one sector. The size of these multipliers varies across each category and depends on four main factors:

- The overall size and economic diversity of the region's economy
- The geographic extent of the region and its role within the broader region
- The nature of the economic sectors under consideration
- National economic trends during the year of examination

Figure 3: Relationship between Direct, Indirect, and Induced Impacts

IMPLAN generated multipliers are presented in a ratio:

$$\text{Multiplier} = \frac{\text{Direct} + \text{Indirect} + \text{Induced}}{\text{Direct}}$$

Therefore, a multiplier of 1.5 would represent a total of indirect and induced impact that is 50% of the total direct impact.

The research team used the latest available (2017) version of IMPLAN for each of the 11-counties and the State of Indiana to estimate the economic impacts of GWB. While the inputs for the model were 2017 dollars, the values presented in the results are represented as 2019 dollars to account for inflation. A more detailed discussion of the methodology for this study can be found in the Technical Appendix.

Section Four

Impact of GWB on DeKalb County

On-Airport Impacts

The largest component of employment, payroll, and economic output generated by GWB is from the day-to-day operation of the airport, facilities, concessions, and aviation-related businesses at the airfield. The direct jobs supported by the airport include a wide range of functions such as the 5 employees of the DeKalb County Airport Authority, 48 employees in corporate aviation departments, and 4 employees at the FBO. In addition, GWB supports additional private employment including the 16 employees of Midwest Powerline who work at a facility located on airport property.

The on-airport impacts at GWB were derived using employment and payroll data provided by the DeKalb County Airport Authority while the indirect and induced impacts were generated using the IMPLAN model. For a more complete discussion of the methodology, see the Technical Appendix.

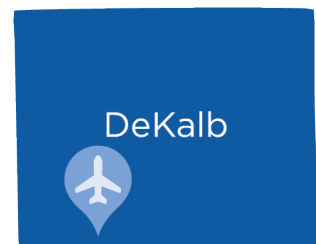


Table 1 highlights the employment, payroll, and economic output generated by all on-airport impacts at GWB. GWB directly supports 82 jobs, \$2.1 million in payroll, and \$15 million in economic output in DeKalb County. Business to business (indirect) expenditures as a result of GWB support an additional 35 jobs, \$1.8 million in payroll, and \$4.6 million in economic output in the county. The spending of wages by employees (induced) support an additional 9 jobs, \$0.3 million in payroll, and \$1 million in economic output. In sum, on-airport operations at GWB support 126 jobs, \$4.1 million in payroll, and \$20.6 million in economic output in DeKalb County.

Table 1: On-Airport of DeKalb County Airport (DeKalb County)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	82	\$2.1	\$15.0
Indirect	35	\$1.8	\$4.6
Induced	9	\$0.3	\$1.0
Total*	126	\$4.1	\$20.6

** Totals may not sum due to rounding*

Capital Improvement Impacts

In addition to the day-to-day operations of GWB, and their associated businesses, capital improvements to the terminal, runways, taxiways, and other facilities the airport generate additional impacts to the county. To derive the impacts of capital improvement projects at GWB, the research team relied on data provided by the DeKalb County Airport that outlined their total

capital improvement expenditures in 2017. Using this data, the research team used IMPLAN to generate the indirect and induced impacts generated as a result of the direct expenditures on capital improvements in DeKalb County.

Table 2 highlights the employment, payroll, and economic output generated by capital improvement impacts at GWB. Capital improvement projects directly support 19 jobs, \$1.0million in payroll, and \$2.5 million in economic output in DeKalb County. Business to business (indirect) expenditures on supplies and equipment supported an additional 3 jobs, \$135,000 in payroll, and \$418,000 in economic output. The spending of wages by employees in the county supported an additional 3 jobs, \$89,000 in payroll, and an additional \$313,000 in economic output. Overall, capital improvement expenditures at GWB generated 25 jobs, \$1.2 million in payroll, and \$3.2 million in economic output in DeKalb County.

Table 2: Capital Improvement Impacts at GWB (DeKalb County)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	19	\$1.0	\$2.5
Indirect	3	\$0.1	\$0.4
Induced	3	\$0.1	\$0.3
Total*	25	\$1.2	\$3.2

** Totals may not sum due to rounding*

Visitor Spending Impacts

GWB serves as a point of entry for visitors to DeKalb County and the entire northeast Indiana region by facilitating general aviation operations. Visitors who use GWB to access the region generate significant employment, payroll, and economic impacts by staying in hotels, eating and drinking in local restaurants, purchasing goods and services, and enjoying the wide range of entertainment amenities that region has to offer. To derive the direct spending attributable to visitors to the region using GWB the research team relied on data provided by DeKalb County Airport Authority, which was derived from state data. The research team then used IMPLAN to estimate the indirect and induced impacts. For more information on the calculation of visitor spending impacts, please see the Technical Appendix.

Table 3 presents the employment, payroll, and economic impacts generated as a result of visitors to DeKalb County who use GWB. Visitors to the region directly support 9 jobs, \$0.2 million in payroll, and \$0.5 million in economic output. Business to business (indirect) expenditures generated by visitors to the region support an additional 1 job, \$30,000 in payroll, and \$94,000 in economic output. Wages spent by employees in the region supported an additional 1 job, \$16,000 in payroll, and \$57,000 million in economic output. In sum, visitor spending enabled by GWB resulted in 10 jobs, \$208,000 in payroll, and \$602,000 in total economic output for DeKalb County.

Table 3: Visitor Spending Impacts Supported by GWB (DeKalb County)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	9	\$0.2	\$0.5
Indirect	1	\$0.0	\$0.1
Induced	1	\$0.0	\$0.1
Total*	10	\$0.2	\$0.6

* Totals may not sum due to rounding

Table 4 illustrates the total employment, payroll, and economic impacts generated by GWB in DeKalb County. Direct on-airport, capital improvement, and visitor spending account for a total of 110 jobs, \$3.2 million in payroll, and \$17.9 million in economic impact in DeKalb County. Indirect business to business impacts account for an additional 39 jobs, \$1.9 million in payroll, and \$5.1 million in economic output. Employee spending of wages earned as a result of GWB result in an additional 12 jobs, \$0.4 million in payroll, and \$1.4 million in economic output. In sum, GWB supports 162 jobs and \$5.5 million in payroll while generating \$24.4 in economic impact within DeKalb County.

Table 4: Total Impacts at GWB (DeKalb County)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	110	\$3.2	\$17.9
Indirect	39	\$1.9	\$5.1
Induced	12	\$0.4	\$1.4
Total*	162	\$5.5	\$24.4

* Totals may not sum due to rounding

Section Five

Impacts of GWB on Northeast Indiana Region

On-Airport Impacts

As was the case with the DeKalb County analysis, the largest component of employment, payroll, and economic output generated by GWB is from the day-to-day operation of the airport, facilities, concessions, and aviation-related businesses at the airfields. The on-airport impacts at GWB were derived using employment and payroll data provided by the DeKalb County Airport while the indirect and induced impacts were generated using the IMPLAN model. For a more complete discussion of the methodology, see the Technical Appendix.

Table 5 highlights the employment, payroll, and economic output generated by all on-airport impacts at GWB. GWB directly supports 82 jobs, \$3.5 million in payroll, and \$17.1 million in economic output in the 11-county Northeast Indiana region. Business to business (indirect) expenditures as a result of GWB operations support an additional 38 jobs, \$1.8 million in payroll, and \$6.2 million in economic output in the region. The spending of wages by employees (induced) support an additional 28 jobs, \$1.2 million in payroll, and \$3.6 million in economic output. In sum, on-airport operations at GWB support 148 jobs, \$6.5 million in payroll, and \$26.8 million in economic output in the 11-county Northeast Indiana region.

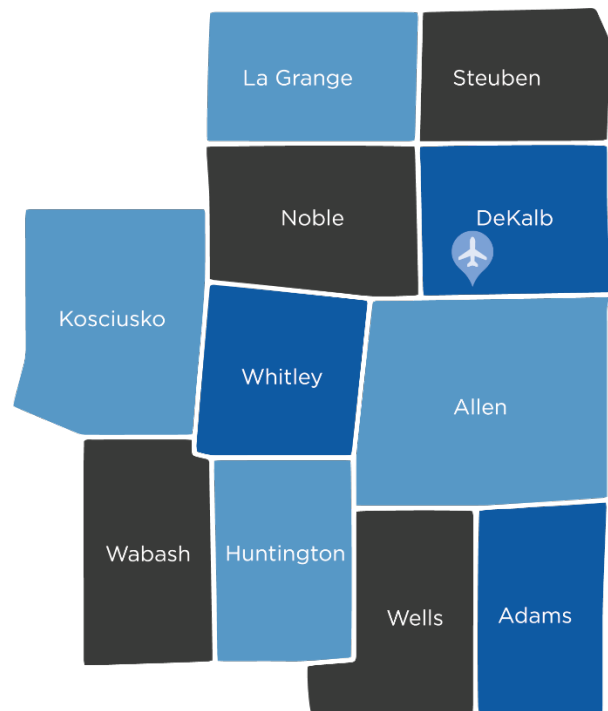


Table 5: On-Airport Impacts at GWB (11-County NEI Region)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	82	\$3.5	\$17.1
Indirect	38	\$1.8	\$6.2
Induced	28	\$1.2	\$3.6
Total*	148	\$6.5	\$26.8

* Totals may not sum due to rounding

Capital Improvement Impacts

In addition to the day-to-day operations of GWB, and its associated businesses, capital improvements to the terminal, runways, taxiways, and other facilities at the airport generate additional impacts to the region. To derive the impacts of capital improvement projects at GWB, the research team relied on data provided by the DeKalb County Airport that outlined their total capital improvement expenditures in 2017. Using this data, the research team used IMPLAN to generate the indirect and induced impacts generated as a result of the direct expenditures on capital improvements in the 11-county Northeast Indiana region.

Table 6 highlights the employment, payroll, and economic output generated by capital improvement impacts at GWB. Capital improvement projects directly support 18 jobs, \$1.1 million in payroll, and \$2.5 million in economic output in the 11-County Northeast Indiana region. Business to business (indirect) expenditures on supplies and equipment supported an additional 4 jobs, over \$0.2 million in payroll, and \$0.6 million in economic output. The spending of wages by employees in the region supported an additional 7 jobs, \$0.3 million in payroll, and an additional \$0.8 million in economic output. Overall, capital improvement expenditures at GWB generated 28 jobs, \$1.5 million in payroll, and \$3.9 million in economic output in the 11-County Northeast Indiana region.

Table 6: Capital Improvement Impacts at GWB (11-County NEI Region)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	18	\$1.1	\$2.5
Indirect	4	\$0.2	\$0.6
Induced	7	\$0.3	\$0.8
Total*	28	\$1.5	\$3.9

** Totals may not sum due to rounding*

Visitor Spending Impacts

GWB serves as a point of entry for visitors to the region by facilitating itinerant general aviation operations. Visitors who use GWB to access the region generate significant employment, payroll, and economic impacts in each of the 11-counties. To derive the direct spending attributable to visitors to the region using GWB, the research team relied on data provided by the DeKalb County Airport Authority, which was derived from state data. The research team then used IMPLAN to estimate the indirect and induced impacts. For more information on the calculation of visitor spending impacts, please see the Technical Appendix.

Table 7 presents the employment, payroll, and economic impacts generated as a result of visitors to the 11-county Northeast Indiana region who use GWB. Visitors to the region directly support 9 jobs, over \$0.1 million in payroll, and \$0.5 million in economic output. Business to business (indirect) expenditures generated by visitors to the region support an additional 1 job, \$45,000 in payroll, and \$0.2 million in economic output. Wages spent by employees in the region supported an additional 1 job, \$ 48,000 in payroll, and \$0.2 million in economic output. In sum, visitor

spending enabled by GWB resulted in 11 jobs, \$0.3 million in payroll, and \$0.8 million in total economic output for the 11-county Northeast Indiana region.

Table 7: Visitor Spending Impacts Supported by GWB (11-County NEI Region)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	9	\$0.2	\$0.5
Indirect	1	\$0.0	\$0.2
Induced	1	\$0.0	\$0.2
Total*	11	\$0.3	\$0.8

** Totals may not sum due to rounding*

Table 8 illustrates the total employment, payroll, and economic impacts generated by GWB in the 11-county Northeast Indiana region. Direct on-airport, capital improvement, and visitor spending account for a total of 109 jobs, \$4.8 million in payroll, and \$20.0 million in economic impact in the 11-county region. Indirect business to business impacts account for an additional 44 jobs, \$2.1 million in payroll, and \$6.9 million in economic output. Employee spending of wages earned as a result of GWB result in an additional 36 jobs, \$1.5 million in payroll, and \$4.6 million in economic output. In sum, GWB supports 188 jobs and \$8.3 million in payroll while generating \$31.5 million in economic impact within the 11-county region.

Table 8: Total Impacts at GWB (11-County NEI Region)

	Employment	Payroll (Millions)	Economic Output (Millions)
Direct	109	\$4.8	\$20.0
Indirect	44	\$2.1	\$6.9
Induced	36	\$1.5	\$4.6
Total*	188	\$8.3	\$31.5

** Totals may not sum due to rounding*

Section Six

Technical Appendix

On-Airport Impacts

To derive the direct jobs and payroll supported by on-airport activities at GWB, the research team relied on estimates of employment and payroll provided by DeKalb County Airport. Specifically, the data provided by GWB contained employment figures for a variety of on-airport functions including airport personnel, fixed based operator (FBO) staff, flight school instructors, and aircraft maintenance personnel. In addition, GWB provided information on non-aeronautical tenants located on GWB property.

Using the data provided by GWB, the research team allocated each of the employment or payroll numbers into IMPLAN industry codes. The research team relied on a crosswalk that matches North American Industry Classification System (NAICS) codes with the 537 IMPLAN industry codes. For example, the team allocated airport personnel, which are captured under NAICS code 488119 (Airports, civil, operation and maintenance) into IMPLAN industry code 414 (Scenic and sightseeing transportation and support activities for transportation). Table A1 highlights the allocation of on-airport employment at GWB, sorted by employment.

Table A1: IMPLAN Sectoring for On Airport Employment

Functional Area	Number of Employees	IMPLAN Industry Code
Corporate Flight Department/Charter Operators	52	408-Air Transportation
Midwest Powerline	16	507-Commercial and industrial machinery and equipment repair
Airport management, aircraft maintenance, and FBOs	9	414-Scenic and sightseeing transportation and support activities for transportation
FAA Tech Ops Personnel	2	535- Employment and payroll of Federal government, non-military
Flight Schools	2	474-Other Educational Services
BF&S Engineering Services	1	449-Architectural, Engineering and Other Services
Total	82	

Capital Improvement Impacts

The research team estimated the impacts associated with capital improvements to GWB. Officials at GWB provided a figure of overall expenditures on capital improvement projects in 2017 of

\$2,404,983. Based on experience with capital improvement projects at airports, the research team used a 90%/10% split between engineering and architectural services and construction costs for capital improvement projects at GWB (Table A2).

Table A2: IMPLAN Sectoring for Capital Expenditures

Functional Area	Capital Expenditure	IMPLAN Industry Code
Engineering and Architecture for Projects	\$123,283	449-Architectural, engineering and related services
Construction Costs	\$2,281,700	58- Construction of New Nonresidential Structures
Total	\$2,404,983	

Visitor Spending Impacts

To derive the direct impact of visitor spending facilitated by GWB, the research team relied on data provided by GWB, who estimated the total gross revenue for hotels, food/beverage, retail and entertainment and recreation attributable to commercial and general aviation passengers at GWB. Using the figures provided by GWB, the research team allocated the overall spending amounts into distinct IMPLAN industry codes as outlined in Table A3. The research team used its local knowledge of DeKalb County as well as the IMPLAN model for the region to determine if an allocation to an industry sector was justified.

Without original survey data, the research team was limited in its ability to assess the true allocation of visitor spending dollars in the region. Data provided by GWB contained an initial breakout of visitor spending by airport passengers by high-level categories including hotel, food and beverage, retail, entertainment, and ground transportation. The research team equally divided the total off-airport food and beverage figure provided by GWB of \$162,356 among three IMPLAN industry sectors: full-service restaurants, limited-service restaurants, and other food and drinking places including bars. In addition, the research team equally divided the total off-airport retail spending of \$127,566 among seven IMPLAN retail sectors: food and beverage stores, health and personal care stores, gasoline stores, clothing and accessory stores, sporting goods, hobby, musical instrument, and bookstores, general merchandise stores, and miscellaneous stores. The entire \$92,775 for visitor spending on hotels was allocated to the IMPLAN industry code for hotels. Finally, the research team equally divided the total for entertainment spending of \$104,372 among three IMPLAN entertainment categories: independent artists, museums, zoos, and historical sites, and other recreation including golf courses.

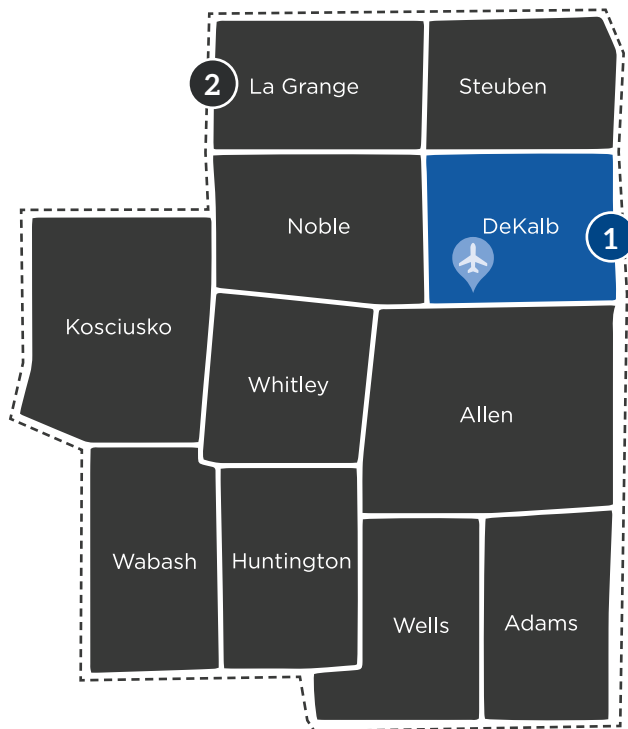
Table A3: IMPLAN Sectoring for Visitor Spending

Functional Area	Annual Visitor Spending	IMPLAN Industry Code
Food/Beverage (Off Airport)	\$54,119	501-Full-Service Restaurant
Food/Beverage (Off Airport)	\$54,119	502-Limited-Service Restaurants
Food/Beverage (Off Airport)	\$54,119	503-All Other Food and Drinking Places (Bars)
Hotels	\$92,775	499-Hotels and Motels, Including Casino Hotels
Retail (Off airport)	\$18,224	400-Food and Beverage Stores
Retail (Off airport)	\$18,224	401-Health and Personal Care Stores
Retail (Off airport)	\$18,224	402-Gasoline Stores
Retail (Off airport)	\$18,224	403-Clothing and clothing accessories stores
Retail (Off airport)	\$18,224	404-Sporting goods, hobby, musical instrument and bookstores
Retail (Off airport)	\$18,224	405-General merchandise stores
Retail (Off airport)	\$18,224	406-Miscellaneous store retailers
Entertainment	\$34,791	492- Independent artists, writers, and performers
Entertainment	\$34,791	493- Museums, historical sites, zoos, and parks
Entertainment	\$34,791	496- Other amusement and recreation industries
Total	\$568,247	



2019 Economic Impact Analysis

Economic Impacts of DeKalb County Airport (GWB)



Below you can see the the three categories of economic impact and the resulting employment, payroll, and economic output generated by GWB in DeKalb County and the 11-county Northeast Indiana region.



1	DeKalb County
2	11-County Northeast Indiana Region