



STATEWIDE ECONOMIC IMPACT OF AVIATION IN NORTH DAKOTA

Technical Report



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1 Introduction

Commercial and general aviation airports in North Dakota are important and highly visible transportation resources. As this report shows, airports in North Dakota are also important contributors to the local and state economies.

1.1 Study Content

Airports in North Dakota are centers of employment, and they facilitate the air travel needs of North Dakota residents and businesses, as well as visitors to the state. North Dakota's commercial and general aviation airports are important centers of payroll, employment, and economic activity. Further, there are many businesses in North Dakota that improve their efficiency through their use of aviation. This report helps to establish an annual economic value for these activities in North Dakota.

While many benefits associated with North Dakota's commercial and general aviation airports can be quantified, there are other benefits associated with the airports that cannot be quantified. These benefits relate to healthcare services and emergency medical needs. The airport system also helps to support aerial patrol of the state's grasslands and state and national parks. Agriculture is an important contributor to North Dakota's economy, and the airports play an important role in supporting aerial applicators who help to increase crop yields throughout the state. North Dakota's energy industry benefits from all facets of aviation. Employees of energy related companies, as well as their suppliers, rely on commercial airline service available at the state's eight commercial airports. Energy related companies also rely on general aviation planes to travel particularly from areas in Oklahoma and Texas to many different airports in North Dakota. As cities in western North Dakota have grown rapidly to meet the needs of new businesses and residents and a growing number of visitors, air cargo deliveries have also been critical to supply chain management.

This report first documents the annual economic impacts associated with the 89 commercial and general aviation airports in North Dakota. These impacts are reflective of conditions that characterized each of the state's public-use airports in the 2014-2015 time frame. Once annual economic impacts for each airport are documented, the report provides additional information on other quantifiable economic benefits from aviation in North Dakota:

- Throughout North Dakota, there are companies, not located on an airport, that are engaged in aviation or aerospace activities; these companies, their North Dakota employment, and other obtainable facts are documented in this report.
- Economic benefits associated with Minot Air Force Base and Grand Forks Air Force Base are discussed in the report; these benefits were not calculated as part of this analysis but were obtained from each base.
- North Dakota is a leader in UAS/UAV activity, and the current and the potential economic benefit to the state from this activity is also discussed.

- There are many non-aviation businesses in North Dakota that improve their efficiency through their use of aviation. Many non-aviation jobs in North Dakota have improved efficiency from using general aviation, commercial aviation and air cargo, and these benefits are also documented in this report.

Additionally, for the general public and elected officials throughout the state, it is important to “put a face” on each airport. Most of the activities researched in this phase of the study cannot be quantified. However, the benefits they provide are essential to telling the whole story for how airports in North Dakota provide essential support services. As part of this study’s research, hospitals, chambers of commerce, economic development groups, state and federal agencies, doctors, and others were contacted to document specific examples on the ways they rely on North Dakota’s airport system. **Appendix A** to this report documents airport specific examples of the ways that communities benefit from public-use airports. Section 8 of this Technical Report provides an overview of the results of this part of the study’s research.

1.2 Study Overview

In December 2010, the North Dakota Aeronautics Commission (NDAC) released the previous Statewide Economic Impact of Aviation report. This study documents estimates of annual economic impact associated with all commercial and general aviation airports in the state. Data that supports the 2010 economic impact analysis, for the most part, characterizes activity at North Dakota airports in 2009 but in some cases the data also reflects 2008 conditions. Since that time, the state has undergone significant economic change, influenced by energy exploration and production.

Table 1 - North Dakota Statewide Building Permits provides an example of how North Dakota’s economic conditions have changed since the 2010 study was released. Information presented in this table was collected by the U.S. Census Bureau; the most current calendar year for this data is 2013. Nevertheless, the available data helps provide important insight into the significant change in North Dakota’s economy that has taken place since the last statewide aviation economic impact study was prepared.

Table 1 - North Dakota Statewide Building Permits

Year	Buildings	Units	Value
2007	2,273	3,360	\$445,715,216
2008	1,960	2,833	\$398,837,656
2009	1,788	3,195	\$352,499,695
2010	2,187	3,833	\$481,143,489
2011	3,089	6,201	\$783,615,577
2012	4,904	10,340	\$1,397,525,198
2013	4,233	10,532	\$1,357,353,858

Source: U.S. Census Bureau

The number of building permits and the value of these permits are factors that reflect North Dakota’s overall economic growth and development. As shown in **Table 1**, between 2007 and



2009 when the last economic impact for airports in North Dakota was completed, the value of permits for new buildings and the number of permits was actually falling. By 2013, however, the value of building permits was three times higher than it was in 2010, increasing from \$481 million to \$1.4 billion.

North Dakota's commercial and general aviation airports have been and continue to be essential to supporting the state's economic growth. As this study demonstrates, annual economic impacts associated with the airport system have increased as a result of the state's overall economic growth.

The North Dakota airports support an increased number of visitors who travel to the state on both commercial and general aviation aircraft. New companies have located in the state, and many have corporate general aviation aircraft that they use on a regular basis at public-use airports. As passenger demand and aircraft operations have increased, the number of aviation businesses at North Dakota airports has also increased to keep pace with growing demand. Increased activity has resulted in an increase in the number of persons employed in the state to operate, maintain and administer the state's airport system. Additionally, investment to improve and expand the airport system has increased to help both commercial and general aviation airports keep pace with increasing demand. While capital improvement projects to expand existing and to develop new airports have been underway, the investment associated with these projects has supported other jobs and the payroll associated with these jobs. For economic impacts associated with capital investment, it is important to keep in mind that these impacts are present only when spending to implement a project is actually taking place.

2 Sources and Measurements of Economic Impact

2.1 Sources for Statewide and Airport Specific Economic Impacts

For this statewide study of North Dakota’s commercial and general aviation airports, economic impacts were estimated for various economic activity centers. For all 89 public-use airports, both commercial and general aviation, annual economic impacts were estimated for airport management, aviation related airport tenants, visitors arriving on general aviation aircraft, and investment related to capital improvements. The 89 public-use airports included in the economic impact study are shown in **Figure 1 - Public-Use Airports**. For the eight commercial airports, economic impacts from visitors arriving on commercial airlines were also estimated.

Figure 1 - Public-Use Airports



Centers of activity at North Dakota airports that generate annual economic impacts discussed in this study are described below.

- **Airport Management:** Most public-use airports support jobs that are associated with administering, maintaining and operating commercial and general aviation airports on a daily basis. These jobs may be full-time or part-time in nature and sometimes include contract employees. North Dakota airports also report that they sometimes support jobs that are only seasonal in nature. Finally, some public-use airports, both large and small, support jobs that are located off-airport. For some airports, employment related to human resources, accounting, and financial/legal services is located off-airport. Sometimes an airport's need for these services is not full-time; and the airport supported job is shared with other city/county functions. For example, at smaller airports, the airport manager's job might also be shared with other city/county functions. For this analysis, all part-time, seasonal, and off-airport jobs that are less than full-time were converted to full-time equivalent employment (FTE), based on the number of reported hours that each employee works directly in support of an airport.
- **Airport Tenants/Businesses:** Some of the 89 public-use airports in the North Dakota system also have businesses on-site that provide aviation related services or support airport customers. These tenants can be fixed base operators (FBO), aerial applicators, aircraft maintenance providers, Part 135 operators, flight schools, corporate flight departments, military units, avionics repair shops, and/or other similar aviation related businesses. For larger general aviation and commercial airports, tenants can include rental car companies, concessionaires, airlines, and cargo carriers.

Some airports have tenants on their property that are not aviation related. For instance, if an airport has an on-site tenant that manufactures plastic bottles, even though the business is located at the airport, the tenant is not aviation related. As a result, economic impacts for any non-aviation businesses are not considered in this analysis.
- **Capital Investment:** Airports in North Dakota often undertake capital improvement projects for maintenance, expansion, and/or replacement. Projects are often funded with grants from the North Dakota Aeronautics Commission and the Federal Aviation Administration (FAA). These grants are typically matched or leveraged with local funds from the airport or their public sponsor. Given the significant development needs of North Dakota's airports in recent years, the North Dakota Legislature also appropriated additional funding to address airport capital development needs. Occasionally, third party investment, especially for hangar development, is also made. For this study, average annual capital investment for a three-year historic period was considered to estimate economic impacts resulting from capital investment.

Unlike the other centers of economic impact discussed in this section, economic impacts in this category (jobs, payroll associated with the jobs, and output) occur only when the spending associated with the investment is taking place. Once project spending is over, economic impacts (jobs, payroll, and output) associated with capital investment also ends. Since economic impact studies reflect economic conditions that are a “snapshot in time”, impacts for this activity center have the propensity to change, perhaps even dramatically, between reporting periods. Economic impacts in the CIP investment category are not necessarily on-going and can change year-to-year unless CIP investment is constant annually and is at the same level. This is seldom if ever the case since the need for capital development changes annually.

As an example, if an airport had a major runway extension in 2008, the economic impact from that investment was considered in the 2010 statewide study. This current study considers capital investment for public-use airports going forward from 2012-2014. If the airport that had major capital investment (such as a runway extension) in 2008, but did not have a similar level of capital investment in the 2012-2014 time frame, economic impacts associated specifically with capital investment will be lower for the same airport in this study than in the prior study. The reverse would also be true as it relates to economic impact in this category.

- **Visitors Arriving on General Aviation Aircraft:** Throughout the year, public-use airports accommodate varying levels of visitors who fly to communities that the airports serve. Both commercial and general aviation airports serve visitors who arrive in North Dakota on general aviation planes. General aviation visitors to North Dakota airports may arrive one person at a time, or they may arrive in fairly large groups on non-scheduled charter aircraft. Some visitors to North Dakota communities rely on general aviation travel because it enables them to shorten the duration of their trip, or it enables the visitor to fly directly to a destination not served by scheduled commercial airlines.

Frequently, general aviation visitors arrive and depart on the same day, limiting the amount of spending they have in the community they visit. Other visitors who arrive on general aviation aircraft stay for one or more days; these visitors have a greater economic impact on North Dakota’s economy. Overnight visitors have spending for hotels, meals, retail, entertainment, and local transportation; the longer the visitor stays, typically the greater the amount they spend. Visitor spending helps to support jobs and the payroll associated with these jobs in service, hospitality, recreational, entertainment, retail, and ground transportation industries.

For this study, all system airports provided information that was used as the starting point for estimating the number of visitors that arrive on general aviation aircraft. Surveys completed with the assistance of FBOs and airports across the state helped to provide North Dakota specific information on the length of time general aviation visitors stay in the state and the average amount they spend per trip.

Many public-use airports also host transient aerial applicators. Data collected for this study shows that transient aerial applicators often operate at a North Dakota airport for three or four months at a time. When using a North Dakota airport as their base of operation, these visiting businesses typically report having three or four employees performing spraying activities. While in a North Dakota community, these transient aerial applicators are somewhat similar to general aviation visitors in that they have expenditures for lodging and food while in the community. As part of this effort, estimates of direct output (spending) in the general aviation visitor category were enhanced to reflect spending by transient aerial applicators in North Dakota.

- **Visitors Arriving on Scheduled Commercial Aircraft/Airlines:** The eight commercial airports in North Dakota have economic impacts associated with visitors who arrive on commercial airlines. Data from the USDOT supported estimates of commercial visitors for each of the airports. USDOT data provides estimates of residents versus visitors as a percent of each airport's total annual passenger enplanements. Similar to general aviation visitors, commercial airline visitors have spending that helps to support jobs and the payroll associated with these jobs. Surveys of visitors at all eight commercial airports, conducted in conjunction with this study, were used to determine average length of stay and visitor spending patterns. Using estimates of annual visitors, visitor spending, and stay patterns, this study estimated annual economic impacts for this activity center.

These centers of activity are those that were considered in this current statewide economic impact study for the airports in North Dakota. To the extent that there are not issues with confidentiality in reporting the data, economic impacts for each of the activity centers discussed above will be presented individually for the 89 public-use airports.

2.2 Measurements for Statewide and Airport Specific Economic Impacts

As part of this study, all annual economic impacts are estimated for three measures: jobs, payroll, and output. These measures are discussed below:

- **Jobs** are the most straightforward and the most easily understood measure of economic impact. In this study, jobs are identified for airport management and airport tenants. Spending by visitors who come to North Dakota on general aviation aircraft or on scheduled commercial carriers also support other jobs in communities throughout the state. Additionally, while investment is being made to implement capital projects or perform major maintenance, this investment helps to support jobs and payroll over the duration of the project's actual planning and construction.
- **Payroll** measured in this study is that associated with all jobs supported by airport management, airport tenants, air visitors, and capital investment. Payroll as estimated in this study includes benefits associated with estimated wages.

- **Output**, as discussed in this study, is somewhat more difficult to define in “simple” terms. For airport management and airport tenants, output is equal to their annual purchase of goods and services to run the airport or to run their business. Output for airports and airport tenants does not include payroll nor does it contain CIP investment. For visitors, both general aviation and commercial, output is equal to their annual spending while in North Dakota.

For capital investment, output is generally equal to the average value or the cost of the investment. It is important to note that some capital spending results in higher economic return for the local and the state economy than do other types of capital spending. For instance, if a North Dakota airport has capital investment (output) to purchase snow removal equipment, the economic impact from that spending is largely realized outside the state. On the other hand, spending/output related to extending a runway or taxiway has a greater local/state economic impact. This greater impact results from the fact that materials and labor to accomplish the extension projects most likely comes from within North Dakota.

For this study, economic impacts for the state and for individual airports are expressed in terms of jobs, the annual payroll associated with these jobs, and the annual output that each airport supports. As noted, each of these three measurement categories (jobs, payroll, and output) are used to quantify annual economic impact from airport management, tenants, visitor spending, and capital investment.

2.2.1 Estimates of Direct Annual Economic Impacts

For this statewide economic impact study, total annual impacts are categorized as follows: direct, indirect, and total. North Dakota airports were most often the source of information to estimate “direct” impacts. “Indirect” impacts are the result of a multiplier effect. On a statewide and on an airport specific basis, “total” annual economic impacts are the sum of direct and indirect impacts.

All direct economic impacts identified in this report start with the daily operation of the airports; activities needed to serve customers using each airport; and steps that North Dakota airports take to maintain, improve, and expand their infrastructure. While not all direct impacts take place on-airport, all direct impacts are linked to the airports and their operation. Direct impacts for jobs, payroll and output are identified in this report as they relate to airport management, airport tenants, visitors (both general aviation and commercial as applicable), and capital investment.

2.2.2 Direct Airport Management Impacts

For this report, airports in North Dakota served as the primary source for identifying many direct impacts. Through surveys, on-site visits and phone interviews, airports provided information on airport management related employment, payroll, and output (the airport’s annual non-capital and non-payroll spending for goods and services). As part of this study, when all direct impacts were documented, each airport manager was provided with a report showing current direct

impacts estimated in this study. In addition, 2015 direct impacts were compared, when possible, to direct impacts that were reported in the 2010 study. This review enabled each airport to have oversight and input on information that provided the basis for their airport's annual economic impact presented in this document.

Because many of the public-use airports have small numbers of direct jobs in the airport management category, for reasons of confidentiality direct airport management payroll is not published in this report. This information, as it was documented in this analysis, has been furnished to NDAC. **Table 2 - Direct Airport Management Employment and Annual Output** provides information that shows direct full-time equivalent jobs reported by each airport, along with their reported annual spending (output) for goods and services. Jobs shown in **Table 2** are the sum of all full-time on and off-airport jobs, all part-time on- and off-airport jobs (based on the number of hours worked for the airport), and all seasonal jobs (translated into full-time based on the number of hours worked).

Direct output shown for airport management was obtained directly from each airport, as was the information on employment presented in **Table 2**. When reviewing **Table 2**, it is important to note that employment to operate some public-use airports is so minimal that it does not equate to one full-time job. In other instances, North Dakota airports are operated by non-compensated volunteers. As a result, in these particular instances there is no direct payroll or employment in the airport management category.

Table 2 - Direct Airport Management Employment and Annual Output

City	Airport	Direct Employment	Direct Output
Bismarck	Bismarck Municipal Airport	24	\$696,207
Devils Lake	Devils Lake Regional Airport	6	\$265,197
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	7	\$7,383,348
Fargo	Hector International Airport	27	\$14,386,173
Grand Forks	Grand Forks International Airport	28	\$10,356,773
Jamestown	Jamestown Regional Airport	4	\$1,200,123
Minot	Minot International Airport	21	\$8,754,318
Williston	Sloulin Field International Airport	10	\$4,318,742
Total Commercial Airports		127	\$47,360,881
Arthur	Arthur Airport	0	\$400
Ashley	Ashley Municipal Airport	1	\$67,660
Beach	Beach Airport	0	\$1,200
Beulah	Beulah Airport	1	\$67,660
Bottineau	Bottineau Municipal Airport	0	\$1,200
Bowbells	Bowbells Municipal Airport	0	\$600
Bowman	Bowman Regional Airport	2	\$160,000
Cando	Cando Municipal Airport	0	\$1,200
Carrington	Carrington Municipal Airport	1	\$67,660
Casselton	Casselton Robert Miller Regional Airport	2	\$135,320
Cavalier	Cavalier Municipal Airport	0	\$1,200
Columbus	Columbus Municipal Airport	0	\$400
Cooperstown	Cooperstown Municipal Airport	0	\$1,200
Crosby	Crosby Municipal Airport	0	\$1,200
Drayton	Drayton Municipal Airport	<1	\$1,200

Table 2 - Direct Airport Management Employment and Annual Output

City	Airport	Direct Employment	Direct Output
Dunseith	International Peace Garden	<1	\$3,600
Edgeley	Edgeley Municipal Airport	0	\$1,200
Elgin	Elgin Municipal Airport	0	\$600
Ellendale	Ellendale Municipal Airport	0	\$1,200
Enderlin	Sky Haven Airport	0	\$1,200
Fessenden	Fessenden – Streibel Municipal Airport	<1	\$600
Fort Yates	Standing Rock Airport	<1	\$1,200
Gackle	Gackle Municipal Airport	<1	\$400
Garrison	Garrison Municipal Airport	<1	\$1,200
Glen Ullin	Glen Ullin Regional Airport	0	\$1,200
Grafton	Hutson Field Airport	1	\$67,660
Gwinner	Gwinner- Roger Melroe Field	0	\$1,200
Harvey	Harvey Municipal Airport	1	\$67,660
Hazelton	Hazelton Municipal Airport	0	\$400
Hazen	Mercer County Regional Airport	<1	\$1,200
Hettinger	Hettinger Municipal Airport	0	\$25,000
Hillsboro	Hillsboro Regional Airport	1	\$67,660
Kenmare	Kenmare Municipal Airport	1	\$67,660
Killdeer	Dunn County Airport - Weydahl Field	1	\$67,660
Kindred	Robert Odegaard Field	<1	\$1,200
Kulm	Kulm Municipal Airport	1	\$67,660
Lakota	Lakota Municipal Airport	0	\$1,200
LaMoure	LaMoure Rott Municipal Airport	0	\$1,200
Langdon	Robertson Field Airport	<1	\$1,200
Larimore	Larimore Municipal Airport	1	\$234,794
Leeds	Leeds Municipal Airport	0	\$1,200
Lidgerwood	Lidgerwood Municipal Airport	0	\$400
Linton	Linton Municipal Airport	1	\$67,660
Lisbon	Lisbon Municipal Airport	<1	\$1,200
Maddock	Maddock Municipal Airport	0	\$600
Mandan	Mandan Municipal Airport	1	\$67,660
Mayville	Mayville Municipal Airport	0	\$1,200
McClusky	McClusky Municipal Airport	<1	\$600
McVie	McVie Municipal Airport	0	\$600
Milnor	Milnor Municipal Airport	0	\$600
Minto	Minto Municipal Airport	1	\$67,660
Mohall	Mohall Municipal Airport	1	\$67,660
Mott	Mott Municipal Airport	1	\$67,660
Napoleon	Napoleon Municipal Airport	0	\$1,200
New Rockford	Tomlinson Field Airport	0	\$1,200
New Town	New Town Municipal Airport	0	\$1,200
Northwood	Northwood Municipal-Vince Field	<1	\$1,200
Oakes	Oakes Municipal Airport	<1	\$1,200
Page	Page Regional Airport	0	\$282,160
Park River	Park River Airport-WC Skjerven Field	0	\$1,200
Parshall	Parshall-Hankins Airport	1	\$67,660
Pembina	Pembina Municipal Airport	1	\$202,980
Plaza	Trulson Field Airport	0	\$400
Richardton	Richardton Airport	0	\$400
Riverdale	Garrison Dam Recreational Airpark	<1	\$1,200

Table 2 - Direct Airport Management Employment and Annual Output

City	Airport	Direct Employment	Direct Output
Rolette	Rolette Airport	0	\$1,200
Rolla	Rolla Municipal Airport	0	\$1,200
Rugby	Rugby Municipal Airport	<1	\$1,200
St. Thomas	St. Thomas Municipal Airport	<1	\$1,200
Stanley	Stanley Municipal Airport	<1	\$1,200
Tioga	Tioga Municipal Airport	1	\$67,660
Towner	Towner Municipal Airport	0	\$1,200
Turtle Lake	Turtle Lake Municipal Airport	0	\$600
Valley City	Barnes County Municipal Airport	2	\$116,158
Wahpeton	Harry Stern Airport	1	\$67,660
Walhalla	Walhalla Municipal Airport	0	\$5,500
Washburn	Washburn Municipal Airport	0	\$15,000
Watford City	Watford City Municipal Airport	1	\$67,660
West Fargo	West Fargo Municipal Airport	1	\$67,660
Westhope	Westhope Municipal Airport	0	\$1,200
Wishek	Wishek Municipal Airport	0	\$30,000
Total General Aviation Airports		27	\$2,546,852
Total All Airports		154	\$49,907,733

Source: North Dakota Airport Managers

2.2.3 Direct Aviation Tenants Impacts

Each airport provided a list and contact information for all aviation-related tenants that do business at their airport. All tenants were contacted on several occasions by mail and phone to obtain information on the types of services they provide; their full-time, part-time, or seasonal employment; their annual payroll; and their annual purchase of goods and services (output) to run their business. When individual tenants did not respond to data requests, follow-up with airport management on tenant employment was undertaken, as was a review of third party business information sources such as Dunn and Bradstreet and/or Manta. For this study, all direct impacts in the airport tenant category, employment, payroll, and output, were estimated using data from one or more of these sources.

Similar to the airport management category, many of the public-use airports have only one on-site aviation related tenant. Therefore, to protect confidentiality, direct payroll for airport tenants is not reported in **Table 3 - Direct Airport Tenant Employment and Output**, but this information has been provided to NDAC. Direct output for airport tenants is also presented in **Table 3**. Direct output shown in **Table 3** represents combined annual purchases for goods and services by all airport tenants identified at each airport. For aerial applicators, their cost to purchase chemicals is not included in the direct annual output shown. Direct annual tenant output shown in **Table 3** does not reflect payroll or capital investment as these outputs are accounted for in other activity centers.

Table 3 provides total full-time tenant related jobs for each airport; part-time and seasonal jobs have been converted to full-time jobs based on the reported number of hours the employee worked directly in support of the airport. **Table 3** also reports the total number of aviation related

tenants reported for each airport; for many airports, this number was zero. **Table 4 - Tenants and Tenant Services by Airport** provides information that shows tenants by airport and type of service or services that each tenant reported provides. It is important to note that information presented in **Table 4** was obtained directly from each public-use airport and was verified with each airport manager. Since economic impact studies reflect are a “snapshot in time” and reflect conditions at each airport at the time the study was completed, it is important to note that it is possible that tenant listings presented in **Table 4** could have changed between the time this information was verified by each North Dakota airport (April 2015) and the time this technical report was published.

Table 3 - Direct Airport Tenant Employment and Output

City	Airport Name	Number of Aviation-Related Tenants	Total Direct Tenant Employment	Total Direct Tenant Output
Bismarck	Bismarck Municipal Airport	30	403	\$76,502,687
Devils Lake	Devils Lake Regional Airport	8	21	\$2,259,737
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	9	96	\$19,943,660
Fargo	Hector International Airport	30	1,045	\$113,803,635
Grand Forks	Grand Forks International Airport	20	481	\$66,898,995
Jamestown	Jamestown Regional Airport	9	26	\$9,943,670
Minot	Minot International Airport	26	210	\$38,669,836
Williston	Sloulin Field International Airport	12	187	\$49,078,021
Total Commercial Airports		144	2,469	\$377,100,241
Arthur	Arthur Airport	0	0	\$0
Ashley	Ashley Municipal Airport	1	10	\$1,089,030
Beach	Beach Airport	0	0	\$0
Beulah	Beulah Airport	1	9	\$980,127
Bottineau	Bottineau Municipal Airport	2	3	\$526,200
Bowbells	Bowbells Municipal Airport	0	0	\$0
Bowman	Bowman Regional Airport	2	3	\$326,709
Cando	Cando Municipal Airport	0	0	\$0
Carrington	Carrington Municipal Airport	2	5	\$544,515
Casselton	Casselton Robert Miller Regional Airport	10	25	\$2,722,575
Cavalier	Cavalier Municipal Airport	3	9	\$980,127
Columbus	Columbus Municipal Airport	0	0	\$0
Cooperstown	Cooperstown Municipal Airport	1	2	\$217,806
Crosby	Crosby Municipal Airport	0	0	\$0
Drayton	Drayton Municipal Airport	1	1	\$108,903
Dunseith	International Peace Garden	0	0	\$0
Edgeley	Edgeley Municipal Airport	1	3	\$326,709
Elgin	Elgin Municipal Airport	0	0	\$0
Ellendale	Ellendale Municipal Airport	0	0	\$0
Enderlin	Sky Haven Airport	0	0	\$0
Fessenden	Fessenden-Streibel Municipal Airport	2	5	\$544,515
Fort Yates	Standing Rock Airport	0	0	\$0
Gackle	Gackle Municipal Airport	0	0	\$0
Garrison	Garrison Municipal Airport	1	2	\$217,806
Glen Ullin	Glen Ullin Regional Airport	0	0	\$0
Grafton	Hutson Field Airport	2	6	\$653,418
Gwinner	Gwinner-Roger Melroe Field	1	1	\$108,903
Harvey	Harvey Municipal Airport	1	3	\$326,709

Table 3 - Direct Airport Tenant Employment and Output

City	Airport Name	Number of Aviation-Related Tenants	Total Direct Tenant Employment	Total Direct Tenant Output
Hazelton	Hazelton Municipal Airport	0	0	\$0
Hazen	Mercer County Regional Airport	2	2	\$217,806
Hettinger	Hettinger Municipal Airport	2	9	\$980,127
Hillsboro	Hillsboro Regional Airport	4	14	\$1,524,642
Kenmare	Kenmare Municipal Airport	2	8	\$871,224
Killdeer	Dunn County Airport - Weydahl Field	0	0	\$0
Kindred	Robert Odegaard Field	2	7	\$2,231,592
Kulm	Kulm Municipal Airport	0	0	\$0
Lakota	Lakota Municipal Airport	0	0	\$0
LaMoure	LaMoure Rott Municipal Airport	1	2	\$217,806
Langdon	Robertson Field Airport	3	3	\$326,709
Larimore	Larimore Municipal Airport	4	7	\$762,321
Leeds	Leeds Municipal Airport	0	0	\$0
Lidgerwood	Lidgerwood Municipal Airport	0	0	\$0
Linton	Linton Municipal Airport	2	4	\$435,612
Lisbon	Lisbon Municipal Airport	1	2	\$217,806
Maddock	Maddock Municipal Airport	3	5	\$810,924
Mandan	Mandan Municipal Airport	5	15	\$1,633,545
Mayville	Mayville Municipal Airport	2	4	\$435,612
McClusky	McClusky Municipal Airport	0	0	\$0
McVile	McVile Municipal Airport	0	0	\$0
Milnor	Milnor Municipal Airport	0	0	\$0
Minto	Minto Municipal Airport	1	4	\$435,612
Mohall	Mohall Municipal Airport	0	6	\$653,418
Mott	Mott Municipal Airport	1	0	\$0
Napoleon	Napoleon Municipal Airport	1	2	\$217,806
New Rockford	Tomlinson Field Airport	1	1	\$108,903
New Town	New Town Municipal Airport	0	0	\$0
Northwood	Northwood Municipal-Vince Field	1	4	\$435,612
Oakes	Oakes Municipal Airport	1	1	\$108,903
Page	Page Regional Airport	1	8	\$871,224
Park River	Park River Airport-WC Skjerven Field	2	6	\$653,418
Parshall	Parshall-Hankins Airport	0	0	\$0
Pembina	Pembina Municipal Airport	2	5	\$544,515
Plaza	Trulson Field Airport	0	0	\$0
Richardton	Richardton Airport	0	0	\$0
Riverdale	Garrison Dam Recreational Airpark	0	0	\$0
Rolette	Rolette Airport	0	0	\$0
Rolla	Rolla Municipal Airport	2	6	\$653,418
Rugby	Rugby Municipal Airport	1	2	\$217,806
St. Thomas	St. Thomas Municipal Airport	1	2	\$217,806
Stanley	Stanley Municipal Airport	1	1	\$108,903
Tioga	Tioga Municipal Airport	2	8	\$871,224
Towner	Towner Municipal Airport	0	0	\$0
Turtle Lake	Turtle Lake Municipal Airport	0	0	\$0
Valley City	Barnes County Municipal Airport	1	7	\$762,321
Wahpeton	Harry Stern Airport	5	18	\$1,960,254
Walhalla	Walhalla Municipal Airport	1	4	\$435,612
Washburn	Washburn Municipal Airport	1	0	\$0

Table 3 - Direct Airport Tenant Employment and Output

City	Airport Name	Number of Aviation-Related Tenants	Total Direct Tenant Employment	Total Direct Tenant Output
Watford City	Watford City Municipal Airport	2	9	\$980,127
West Fargo	West Fargo Municipal Airport	4	4	\$435,612
Westhope	Westhope Municipal Airport	0	2	\$217,806
Wishek	Wishek Municipal Airport	0	0	\$0
Total General Aviation Airports		96	269	\$31,230,078
Total All Airports		240	2,738	\$408,330,319

Source: North Dakota Airport Tenants, Managers; Manta; and Dun and Bradstreet

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Bismarck	Bismarck Municipal Airport	Chad Berger	Agricultural Spraying	0
Bismarck	Bismarck Municipal Airport	Sanford Air Med	Air Ambulance	6
Bismarck	Bismarck Municipal Airport	Aberdeen Flying Service	Air Cargo/Freight	3
Bismarck	Bismarck Municipal Airport	Federal Express (Corporate Air)	Air Cargo/Freight	33
Bismarck	Bismarck Municipal Airport	Millennium Express	Air Cargo/Freight	10
Bismarck	Bismarck Municipal Airport	Delta Global Services	Airline Support	25
Bismarck	Bismarck Municipal Airport	Trego-Dugan	Airline Support	4
Bismarck	Bismarck Municipal Airport	Basin Electric Power Cooperative	Corporate Flight Department	24
Bismarck	Bismarck Municipal Airport	MDU Resources	Corporate Flight Department	4
Bismarck	Bismarck Municipal Airport	Bismarck/Burleigh Emergency Management	Emergency Services	29
Bismarck	Bismarck Municipal Airport	Executive Air	FBO, Aircraft rental, Aircraft maintenance, Sales, training, air cargo, custom interiors, EMS	30
Bismarck	Bismarck Municipal Airport	Bismarck Aero Center	FBO, Aircraft Rental, Aircraft maintenance, training, corporate flight	34
Bismarck	Bismarck Municipal Airport	FAA Air Traffic Control Tower	Government	16
Bismarck	Bismarck Municipal Airport	FAA Airports District Office	Government	8
Bismarck	Bismarck Municipal Airport	FAA Airway Sector Office	Government	9
Bismarck	Bismarck Municipal Airport	NOAA	Government	23
Bismarck	Bismarck Municipal Airport	North Dakota Aeronautics Commission	Government	6
Bismarck	Bismarck Municipal Airport	North Dakota DOT	Government	5
Bismarck	Bismarck Municipal Airport	North Dakota Game and Fish	Government	1
Bismarck	Bismarck Municipal Airport	North Dakota Highway Patrol	Government	1
Bismarck	Bismarck Municipal Airport	North Dakota Army National Guard	Military	40
Bismarck	Bismarck Municipal Airport	North Dakota Civil Air Patrol	Military	1
Bismarck	Bismarck Municipal Airport	Rural Metro (Airport Fire Dept.)	Other - Fire Dept.	7
Bismarck	Bismarck Municipal Airport	Standard Parking	Parking	4
Bismarck	Bismarck Municipal Airport	Avis Rent a Car	Rental Car	10
Bismarck	Bismarck Municipal Airport	Enterprise Rent-A-Car	Rental Car	8
Bismarck	Bismarck Municipal Airport	Hertz Rent-A-Car	Rental Car	9
Bismarck	Bismarck Municipal Airport	TSA	Security/TSA	43
Bismarck	Bismarck Municipal Airport	Airport Gift Shop	Terminal Concessions	10
Bismarck	Bismarck Municipal Airport	Corner Café	Terminal Concessions	3
Devils Lake	Devils Lake Regional Airport	Brekke Aerial Service	Agricultural Spraying	0

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Devils Lake	Devils Lake Regional Airport	Crop Production Services	Agricultural Spraying	6
Devils Lake	Devils Lake Regional Airport	Wakefield Flight Service	Agricultural Spraying	0
Devils Lake	Devils Lake Regional Airport	Devils Lake Aero Service	Aircraft Maintenance	3
Devils Lake	Devils Lake Regional Airport	SkyWest Airlines	Airline	5
Devils Lake	Devils Lake Regional Airport	Foss and Meier's Flight Service	FBO, Aircraft rental, flight training, ag spraying	1
Devils Lake	Devils Lake Regional Airport	DL Aviation	FBO, Aircraft Sales, Flight Training, Curtsey Car, Ag Spraying, Hangar Rental	0
Devils Lake	Devils Lake Regional Airport	TSA	Security/TSA	5
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	FedEx	Air Cargo/Freight	10
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	UPS	Air Cargo/Freight	8
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	Delta Airlines	Airline	16
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	United Airlines	Airline	20
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	GAT - Airline Ground Support	Airline Support	24
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	Western Edge Aviation	FBO	8
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	Budget Rent a Car	Rental Car	2
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	Hanson (Hertz/Dollar)	Rental Car	5
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	TSA	Security/TSA	4
Fargo	Hector International Airport	Sanford Air Med	Air Ambulance	14
Fargo	Hector International Airport	Integrated Commercial Solutions	Air Cargo/Freight	1
Fargo	Hector International Airport	Red River Aero	Air Charter Service	3
Fargo	Hector International Airport	Fargo Aircraft Maintenance	Aircraft Maintenance	3
Fargo	Hector International Airport	Group IV	Aircraft maintenance/Avionics, Corporate Flight Department	3
Fargo	Hector International Airport	Vic's Aircraft Sales	Aircraft Sales, Flight Training	3
Fargo	Hector International Airport	Delta Global Services	Airline Support	26
Fargo	Hector International Airport	Worldwide Flight Services	Airline Support	12
Fargo	Hector International Airport	MidAmerica Charters	Corporate Flight Department	2
Fargo	Hector International Airport	Shaw Construction	Corporate Flight Department	0
Fargo	Hector International Airport	Spectrum Aeromed	Emergency Services	28
Fargo	Hector International Airport	Fargo Jet Center	FBO, aircraft rental, maintenance, sales, flight training	88
Fargo	Hector International Airport	FAA Air Traffic Control Tower	Government	26
Fargo	Hector International Airport	FAA Airway Facilities (DFAS)	Government	9

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Fargo	Hector International Airport	US Customs & Border Patrol	Government	2
Fargo	Hector International Airport	North Dakota Air National Guard	Military	597
Fargo	Hector International Airport	North Dakota State Armed Forces Reserve	Military	64
Fargo	Hector International Airport	Fargo Air Museum	Museum	5
Fargo	Hector International Airport	Northstar Aviation Insurance	Other - Aviation Insurance	3
Fargo	Hector International Airport	Standard Parking	Parking	5
Fargo	Hector International Airport	Dakota Air Parts, International	Part Sales	22
Fargo	Hector International Airport	Avis/Budget	Rental Car	9
Fargo	Hector International Airport	Hertz	Rental Car	8
Fargo	Hector International Airport	National/Alamo/Enterprise	Rental Car	10
Fargo	Hector International Airport	TSA	Security/TSA	52
Fargo	Hector International Airport	US Securities Associates	Security/TSA	7
Fargo	Hector International Airport	Airport Gift Shop	Terminal Concessions	7
Fargo	Hector International Airport	Interspace Airport Advertising	Terminal Concessions	0
Fargo	Hector International Airport	SkyDine	Terminal Concessions	32
Fargo	Hector International Airport	Weather Mod	Weather Research	6
Grand Forks	Grand Forks International Airport	Valley Med Flight	Air Ambulance	15
Grand Forks	Grand Forks International Airport	Consolidated Airline Service	Air Cargo/Freight	6
Grand Forks	Grand Forks International Airport	Corporate Air	Air Cargo/Freight	20
Grand Forks	Grand Forks International Airport	FedEx	Air Cargo/Freight	89
Grand Forks	Grand Forks International Airport	Delta Airlines - Delta Global Services	Airline	18
Grand Forks	Grand Forks International Airport	KBM, Inc.	Aviation manufacturing/engineering	2
Grand Forks	Grand Forks International Airport	Minnkota Power Cooperative Inc.	Corporate Flight Department	1
Grand Forks	Grand Forks International Airport	Rydell Hangar	Corporate Flight Department	1
Grand Forks	Grand Forks International Airport	GFK Flight Support	FBO, A/C Rental Maintenance	26
Grand Forks	Grand Forks International Airport	J.D. Odegard School of Aerospace Sciences	Flight Training	205
Grand Forks	Grand Forks International Airport	FAA Air Traffic Control Tower	Government	34
Grand Forks	Grand Forks International Airport	FAA Technical Operations	Government	8
Grand Forks	Grand Forks International Airport	Grand Forks Cooperative Weather Observer	Government	4
Grand Forks	Grand Forks International Airport	US Customs & Border Protection	Government	2
Grand Forks	Grand Forks International Airport	Republic Parking System	Parking	5
Grand Forks	Grand Forks International Airport	Avis Car Rental	Rental Car	5
Grand Forks	Grand Forks International Airport	Enterprise/National Car Rental	Rental Car	5
Grand Forks	Grand Forks International Airport	Hertz Rent-A-Car	Rental Car	4

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Grand Forks	Grand Forks International Airport	TSA	Security/TSA	27
Grand Forks	Grand Forks International Airport	Red River Valley Grill & Market	Terminal Concessions	6
Jamestown	Jamestown Regional Airport	Central Ag Spraying	Agricultural Spraying	2
Jamestown	Jamestown Regional Airport	Jarrett Airspray Inc.	Agricultural Spraying	2
Jamestown	Jamestown Regional Airport	James River Aviation	Aircraft Maintenance	1
Jamestown	Jamestown Regional Airport	SkyWest Airlines	Airline	4
Jamestown	Jamestown Regional Airport	First Class Aviation	FBO	4
Jamestown	Jamestown Regional Airport	Civil Air Patrol	Military	0
Jamestown	Jamestown Regional Airport	Kinder-Morgan Pipeline	Pipeline Inspector	7
Jamestown	Jamestown Regional Airport	Avis Rent a Car	Rental Car	3
Jamestown	Jamestown Regional Airport	TSA	Security/TSA	4
Minot	Minot International Airport	Aviation Services	Agricultural Spraying	2
Minot	Minot International Airport	Pioneer Agviation	Agricultural Spraying	2
Minot	Minot International Airport	Federal Express	Air Cargo/Freight	20
Minot	Minot International Airport	Pietsch Aircraft Restoration	Aircraft Maintenance	28
Minot	Minot International Airport	Don Bessette Aviation	Aircraft Sales	3
Minot	Minot International Airport	Delta Global Service (United/Delta)	Airline Support	35
Minot	Minot International Airport	Trego-Dugan (Allegiant Airlines)	Airline Support	7
Minot	Minot International Airport	Minot Aero Center	FBO	26
Minot	Minot International Airport	Minot Aviation	FBO	6
Minot	Minot International Airport	Customs and Border Patrol	Government	7
Minot	Minot International Airport	FAA	Government	8
Minot	Minot International Airport	Minot FCT (Contract Tower)	Government	5
Minot	Minot International Airport	North Dakota Army National Guard	Military	2
Minot	Minot International Airport	Dakota Territory Air Museum	Museum	1
Minot	Minot International Airport	Republic Parking	Parking	5
Minot	Minot International Airport	Corpat Inc. (dba National/Alamo Car Rental)	Rental Car	8
Minot	Minot International Airport	Enterprise Rent-A-Car	Rental Car	6
Minot	Minot International Airport	Meier Leasing (Avis)	Rental Car	4
Minot	Minot International Airport	Minot Rent-A-Car (Hertz)	Rental Car	6
Minot	Minot International Airport	TSA	Security/TSA	24
Minot	Minot International Airport	Coca-Cola	Terminal Concessions	0
Minot	Minot International Airport	Ecolab	Terminal Concessions	0
Minot	Minot International Airport	Environmental Specialist	Terminal Concessions	0

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Minot	Minot International Airport	Hangar Grill	Terminal Concessions	5
Minot	Minot International Airport	Myers Vending	Terminal Concessions	0
Minot	Minot International Airport	Weather Mod	Weather Research	1
Williston	Sloulin Field International Airport	Aero Spraying Service	Agricultural Spraying	5
Williston	Sloulin Field International Airport	Valley Med Flight	Air Ambulance	25
Williston	Sloulin Field International Airport	Federal Express	Air Cargo/Freight	20
Williston	Sloulin Field International Airport	UPS	Air Cargo/Freight	20
Williston	Sloulin Field International Airport	Delta Global Services (Delta and United)	Airline Support	50
Williston	Sloulin Field International Airport	Landmark Aviation	FBO, Parking	26
Williston	Sloulin Field International Airport	US Customs and Border Patrol	Government	1
Williston	Sloulin Field International Airport	Avis Rent a Car	Rental Car	8
Williston	Sloulin Field International Airport	Enterprise Rent-A-Car	Rental Car	8
Williston	Sloulin Field International Airport	Hansen Louse Rental Car	Rental Car	11
Williston	Sloulin Field International Airport	TSA	Security/TSA	13
Williston	Sloulin Field International Airport	Weather Mod	Weather Research	1
			Total Commercial Airports	2,468
Arthur	Arthur Airport	No Tenants in 2014	NA	0
Ashley	Ashley Airport	Ladelle Flying Service	Agricultural Spraying	10
Beach	Beach Airport	No Tenants in 2014	NA	0
Beulah	Beulah Airport	Dakota Helicopters	Agricultural Spraying	9
Bottineau	Bottineau Municipal Airport	Glinz Ag Aerial	Agricultural Spraying	2
Bottineau	Bottineau Municipal Airport	Botno Aircraft Services	FBO	1
Bowbells	Bowbells Municipal Airport	No Tenants in 2014	NA	0
Bowman	Bowman Regional Airport	Bottomline Aviation	FBO	1
Bowman	Bowman Regional Airport	Weather Mod	Weather Research	2
Cando	Cando Municipal Airport	No Tenants in 2014	NA	0
Carrington	Carrington Municipal Airport	Andy Deterding Ag Spraying	Agricultural Spraying	2
Carrington	Carrington Municipal Airport	Larry's Ag Spraying	Agricultural Spraying	3
Casselton	Casselton Robert Miller Regional Airport	Beilke Spraying	Agricultural Spraying	2
Casselton	Casselton Robert Miller Regional Airport	Dittmer Aerial Spraying	Agricultural Spraying	0
Casselton	Casselton Robert Miller Regional Airport	Dusty's Spraying Service	Agricultural Spraying	1
Casselton	Casselton Robert Miller Regional Airport	Leedahl Aircraft LLC	Agricultural Spraying	1
Casselton	Casselton Robert Miller Regional Airport	Wischer Aviation Inc.	Agricultural Spraying	4
Casselton	Casselton Robert Miller Regional Airport	AIC Maintenance	Aircraft Maintenance	6

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Casselton	Casselton Robert Miller Regional Airport	Custom Aircraft Refinishing (CAR)	Aircraft Maintenance	5
Casselton	Casselton Robert Miller Regional Airport	Milstar Properties	Aircraft maintenance	1
Casselton	Casselton Robert Miller Regional Airport	Tundra Aviation	Aircraft Sales	3
Casselton	Casselton Robert Miller Regional Airport	Aircraft Investment Co	Aircraft sales and Maintenance	2
Cavalier	Cavalier Municipal Airport	Hinkle Airspray Inc.	Agricultural Spraying	2
Cavalier	Cavalier Municipal Airport	Hartje Aviation	Aircraft Maintenance	1
Cavalier	Cavalier Municipal Airport	Cavalier Airport Service	FBO	6
Columbus	Columbus Municipal Airport	No Tenants in 2014	NA	0
Cooperstown	Cooperstown Municipal Airport	Aerial Timber Applicators	Agricultural Spraying	2
Crosby	Crosby Municipal Airport	No Tenants in 2014	NA	0
Drayton	Drayton Municipal Airport	Flying G Aviation	Agricultural Spraying	1
Dunseith	International Peace Garden Airport	No Tenants in 2014	NA	0
Edgeley	Edgeley Municipal Airport	D-LUX Aerial Sprayer	Agricultural Spraying	3
Elgin	Elgin Municipal Airport	No Tenants in 2014	NA	0
Ellendale	Ellendale Municipal Airport	No Tenants in 2014	NA	0
Enderlin	Sky Haven Airport	No Tenants in 2014	NA	0
Fessenden	Fessenden-Streibel Municipal Airport	Lloyd Crop Management	Agricultural Spraying	2
Fessenden	Fessenden-Streibel Municipal Airport	Slater Spray Service	Agricultural Spraying	2
Fort Yates	Standing Rock Airport	No Tenants in 2014	NA	0
Gackle	Gackle Municipal Airport	No Tenants in 2014	NA	0
Garrison	Garrison Municipal Airport	Stoddard Flying Service	Agricultural Spraying	2
Glen Ullin	Glen Ullin Regional Airport	No Tenants in 2014	NA	0
Grafton	Hutson Field Airport	Johnson Airspray	Agricultural Spraying	1
Grafton	Hutson Field Airport	Agrimax	FBO, Ag Spray	5
Gwinner	Gwinner-Roger Melroe Field	Hoistad Flying Service Inc.	Agricultural Spraying	1
Harvey	Harvey Municipal Airport	Helm Spraying Service	Agricultural Spraying	3
Hazelton	Hazelton Municipal Airport	No Tenants in 2014	NA	0
Hazen	Mercer County Regional Airport	Andy Deterding Ag Spraying	Agricultural Spraying	1
Hazen	Mercer County Regional Airport	Vanco Aviation	FBO	1
Hettinger	Hettinger Municipal Airport	Bill Austin Aviation	Aircraft Sales	1
Hettinger	Hettinger Municipal Airport	Air Dakota Flite	FBO	8
Hillsboro	Hillsboro Regional Airport	Pro Air Service	Agricultural Spraying	2
Hillsboro	Hillsboro Regional Airport	Sky Tractor Supply Co	FBO, Agricultural Spraying	4
Hillsboro	Hillsboro Regional Airport	On-Site Aviation, Inc.	FBO, Aircraft Maintenance, Aircraft Sales	8

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Hillsboro	Hillsboro Regional Airport	On-Site Flight, Inc.	Flight Training	1
Kenmare	Kenmare Municipal Airport	Great Plains Aero	Agricultural Spraying	7
Kenmare	Kenmare Municipal Airport	Weather Mod	Weather Research	1
Killdeer	Dunn County Airport – Weydahl Field	No Tenants in 2014	NA	0
Kindred	Robert Odegaard Field	Odegaard Wings Inc.	Aircraft Maintenance	6
Kindred	Robert Odegaard Field	Odegaard Aviation	FBO (Manager)	1
Kulm	Kulm Municipal Airport	No Tenants in 2014	NA	0
Lakota	Lakota Municipal Airport	No Tenants in 2014	NA	0
LaMoure	LaMoure Rott Municipal Airport	Roberts Ag Air Service Inc.	Agricultural Spraying	2
Langdon	Robertson Field Airport	Border Aviation	Agricultural Spraying	0
Langdon	Robertson Field Airport	Forest Flying Service	Agricultural Spraying	2
Langdon	Robertson Field Airport	Howatt Air	Agricultural Spraying	1
Larimore	Larimore Municipal Airport	Air Service Morten	Agricultural Spraying	2
Larimore	Larimore Municipal Airport	Airspray Arvilla	Agricultural Spraying	1
Larimore	Larimore Municipal Airport	Morten Helicopters	Agricultural Spraying	3
Larimore	Larimore Municipal Airport	Pietron Spraying	Agricultural Spraying	1
Leeds	Leeds Municipal Airport	No Tenants in 2014	NA	0
Lidgerwood	Lidgerwood Municipal Airport	No Tenants in 2014	NA	0
Linton	Linton Municipal Airport	Gunia Ag Spraying	Agricultural Spraying	1
Linton	Linton Municipal Airport	North Central Aviation	FBO, Aircraft Maintenance/Avionics, Aircraft Sales, Flight Training, Rental Car, Auto Parking, Security, Ag Spray	3
Lisbon	Lisbon Municipal Airport	Wilbur-Ellis Air LLC	Agricultural Spraying	2
Maddock	Maddock Municipal Airport	Sabbe Bros Flying Service	Agricultural Spraying	2
Maddock	Maddock Municipal Airport	Slater Spray Service	Agricultural Spraying	1
Maddock	Maddock Municipal Airport	Rice Aviation	Aircraft Sales	1
Mandan	Mandan Municipal Airport	Larson Flying Services	Agricultural Spraying	3
Mandan	Mandan Municipal Airport	Mandan Aviation	Agricultural Spraying	0
Mandan	Mandan Municipal Airport	Sprayers Inc.	Agricultural Spraying	8
Mandan	Mandan Municipal Airport	Mandan Aero Center	Aircraft Maintenance	2
Mandan	Mandan Municipal Airport	Clear Skies Aviation	FBO	2
Mayville	Mayville Municipal Airport	Ingebretson Airspray Inc,	Agricultural Spraying	2
Mayville	Mayville Municipal Airport	Mayport Aviation Inc	FBO	3
McClusky	McClusky Municipal Airport	No Tenants in 2014	NA	0

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
McVie	McVie Municipal Airport	No Tenants in 2014	NA	0
Milnor	Milnor Harris Lumborg Field	No Tenants in 2014	NA	0
Minto	Minto Municipal Airport	Minto Flying Service	Agricultural Spraying	4
Mohall	Mohall Municipal Airport	No Tenants in 2014	NA	0
Mott	Mott Municipal Airport	Wilbur-Ellis	Agricultural Spraying	0
Napoleon	Napoleon Municipal Airport	Mattern Spray Service	Agricultural Spraying	2
New Rockford	Tomlinson Field Airport	Georgeson Aerial	Agricultural Spraying	1
New Town	New Town Municipal Airport	No Tenants in 2014	NA	0
Northwood	Northwood Municipal-Vince Field	Northwood Aero Service	FBO, Aircraft Maintenance, Ag Spraying	4
Oakes	Oakes Municipal Airport	Bear Creek Flying Service	Agricultural Spraying	1
Page	Page Regional Airport	Tall Towers Aviation	FBO	8
Park River	Park River Airport-WC Skjerven Field	Valley Sprayers	Agricultural Spraying	3
Park River	Park River Airport-WC Skjerven Field	Northern Aircraft Services, Inc	Aircraft Maintenance	3
Parshall	Parshall - Hankins Airport	No Tenants in 2014	NA	0
Pembina	Pembina Municipal Airport	North Star Aviation	Agricultural Spraying	2
Pembina	Pembina Municipal Airport	Nord Aviation, Inc	FBO	3
Plaza	Trulson Field Airport	No Tenants in 2014	NA	0
Richardton	Richardton Airport	No Tenants in 2014	NA	0
Riverdale	Garrison Dam Recreational Airpark	No Tenants in 2014	NA	0
Rolette	Rolette Airport	No Tenants in 2014	NA	0
Rolla	Rolla Municipal Airport	Wilbur Ellis Air LLC	FBO, Ag Spray	5
Rolla	Rolla Municipal Airport	Rolla Flying Service	FBO, Aircraft Rental, Flight Training	1
Rugby	Rugby Municipal Airport	Schneider Aerial, Inc.	FBO, Agricultural Spraying	2
St. Thomas	St. Thomas Municipal Airport	TLB Air	Agricultural Spraying	2
Stanley	Stanley Municipal Airport	Weather Mod	Weather Research	1
Tioga	Tioga Municipal Airport	Knutson Flying Service	Agricultural Spraying	5
Tioga	Tioga Municipal Airport	Tioga Aero Center	FBO	3
Towner	Towner Municipal Airport	No Tenants in 2014	NA	0
Turtle Lake	Turtle Lake Municipal Airport	No Tenants in 2014	NA	0
Valley City	Barnes County Municipal Airport	North Valley Aircraft, Inc	FBO, Agricultural Spraying	7
Wahpeton	Harry Stern Airport	Allen Yaggie Spray	Agricultural Spraying	2
Wahpeton	Harry Stern Airport	Wilbur-Ellis	Agricultural Spraying	7
Wahpeton	Harry Stern Airport	Equipment Services	Aircraft Storage	0
Wahpeton	Harry Stern Airport	Tri-State Aviation, Inc	FBO	8

Table 4 - Tenants and Tenant Services by Airport

City	Airport Name	Tenant Name	Tenant Type	Employees
Wahpeton	Harry Stern Airport	Fixed Wing Pilot Training	Flight Training	1
Walhalla	Walhalla Municipal Airport	Walhalla Ag Service	Agricultural Spraying	4
Washburn	Washburn Municipal Airport	Wholesale Ag Spraying	Agricultural Spraying	0
Watford City	Watford City Municipal Airport	Taylor Ag	Agricultural Spraying	8
Watford City	Watford City Municipal Airport	Weather Mod	Weather Research	1
West Fargo	West Fargo Municipal Airport	Ag Air Limited	Agricultural Spraying	1
West Fargo	West Fargo Municipal Airport	West Fargo Aviation, Inc.	FBO	1
West Fargo	West Fargo Municipal Airport	Delta 54 Aviation LLC	FBO, Aircraft Maintenance	1
West Fargo	West Fargo Municipal Airport	SkyDive Fargo Inc	Other - Sky Dive	1
Westhope	Westhope Municipal Airport	Dakota Wild Aviation	Agricultural Spraying	1
Westhope	Westhope Municipal Airport	Northern Air and Ag	Agricultural Spraying	1
Wishek	Wishek Municipal Airport	No Tenants in 2014		0
			Total General Aviation Airports	262
			Total All Airports	2,730

Source: North Dakota Airport Managers and Airport Tenants

There are a few noteworthy points related to the results presented in **Table 3** that warrant discussion. These points relate to direct tenant employment reported for Fargo, Grand Forks and Jamestown:

- **Fargo:** Fargo is one of North Dakota's civilian airports that has on-site military employment. It is a standard practice for the economic impacts of on-site military units at civilian airports to be included in the airport tenant category. Included in Fargo's on-site military employees are a reported 734 Reservists. The number of hours associated with a job as a reservist with the military is far less than the number of hours associated with a full-time equivalent (FTE) position.

Interviews with military personnel stationed at Fargo indicate that a logical conversion is to assume that four jobs in the military reserve category equal one (1) FTE. For this 2015 update to North Dakota's statewide aviation economic study, all full-time jobs for the military tenants at Fargo are estimated and reported at 597. In the prior 2010 study, full-time military employment for this airport was reported at 720, a difference of 123 direct tenant jobs.

In the 2010 study, it appears that every two reservist jobs may have been translated to one full-time position, accounting for the difference in direct military tenant employment between the two studies. Based on research and review, it was determined that an estimate of 597 direct military employees is reasonable; and this estimate was used to reflect direct employment for Fargo's military tenants.

- **Grand Forks:** Grand Forks is home to the University of North Dakota (UND). UND has one of the best known and most prestigious aviation programs in the country. A significant part of UND's aviation program operates at the airport; however, there are also employees in the aviation program that are located on campus. Extensive discussions with the University's Human Resources Department, indicates the University supports 205 full-time jobs which are located at the airport. The prior 2010 study reported this number as 301. This prior estimate appears to be, based on University review, division-wide employment and not just the portion of the aviation/aeronautics department that is physically based at the airport. After review and discussion with UND and NDAC, this report opted to select 205 as the number of full-time jobs supported by UND at the Grand Forks Airport.
- **Jamestown:** The 2010 economic impact study appears to have included Dakota Brands as an on-site "aviation-related" tenant. While this business is located at the airport, it does not provide aviation services nor is it aviation dependent. As a result, this business was removed from the airport's list of tenants. Another very large tenant at the Jamestown Airport, UTC Aerospace Systems, is engaged in the production of aviation/aerospace products. UTC Aerospace Systems has an estimated 600 employees at the Jamestown Regional Airport. This company's location, however, is not dependent on nor does this company use the Jamestown Regional Airport to support its activities.

The impacts for UTC Aerospace Systems at Jamestown Regional were not included in direct tenant impacts in the 2010 statewide economic impact study; to be consistent, they were not included as part of tenant impacts in this update. It is important to note, however, that economic impacts of UTC Aerospace Systems are reflected in a different section of this study. Following airport-specific economic impacts, a subsequent section of this report provides information on the economic impacts of aviation and aerospace companies in North Dakota that are not located at one of the 89 public-use airports. While the impacts of this employer are not captured as part of the economic impacts of Jamestown Regional Airport, the company's economic benefit to the state of North Dakota are still documented in this analysis.

2.2.4 Direct Capital Investment Impacts

As indicated, while direct capital investment is on-going at an airport, this investment supports employment and payroll over the duration of the project. An airport's direct economic impact, in this category, has the most potential to change between cycles for measuring airport related economic impact. This is because capital investment at any given airport changes year-to-year.

For this study, direct capital investment impacts were estimated using information supplied by NDAC, the FAA, public-use airports, and tenants at public-use airports. The goal was to capture investment that has been made at North Dakota airports by local, state, and federal governments, as well as to consider private investment. Local investment, although not entirely, is made primarily to match state and FAA grants. Private investment at some public-use airports has also taken place to build hangars.

Since capital investment at an airport changes year-to-year, average annual investment, both public and private, over the past three years was used to estimate direct impacts in this category. These three years represent investment that has been made at North Dakota airports to respond to the state's unprecedented economic growth. Overall economic growth has necessitated the expansion of many of the state's airports. It is possible that the next time North Dakota's airport related economic impacts are measured, impacts both airport specific and statewide in this category could be lower.

In the capital investment impact category, average annual capital investment, statewide and airport specific, equates to annual direct output. Once annual direct output is established, information in the IMPLAN model is used to estimate direct employment and direct payroll for this impact category. **Table 5 - Direct Impacts from Capital Investment** provides average annual capital investment (direct output) for each public-use airport. In addition, **Table 5** also shows direct employment and payroll supported by direct output in the capital investment category.

Table 5 - Direct Impacts from Capital Investment

City	Airport Name	Direct Employment	Direct Payroll	Direct Output
Bismarck	Bismarck Municipal Airport	62	\$4,102,808	\$11,094,850
Devils Lake	Devils Lake Regional Airport	18	\$1,095,865	\$3,174,557
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	11	\$990,641	\$2,242,152
Fargo	Hector International Airport	73	\$5,783,724	\$14,124,640
Grand Forks	Grand Forks International Airport	54	\$3,780,506	\$9,937,683
Jamestown	Jamestown Regional Airport	7	\$409,759	\$1,184,307
Minot	Minot International Airport	113	\$10,031,087	\$22,913,672
Williston	Sloulin Field International Airport	8	\$932,330	\$1,857,248
Total Commercial Airports		346	\$27,126,720	\$66,529,109
Arthur	Arthur Airport	0	\$0	\$0
Ashley	Ashley Municipal Airport	2	\$70,973	\$286,380
Beach	Beach Airport	5	\$150,250	\$323,325
Beulah	Beulah Airport	0	\$0	\$6,580
Bottineau	Bottineau Municipal Airport	1	\$72,014	\$207,696
Bowbells	Bowbells Municipal Airport	0	\$0	\$5,000
Bowman	Bowman Regional Airport	31	\$2,495,874	\$6,018,202
Cando	Cando Municipal Airport	6	\$273,616	\$1,008,156
Carrington	Carrington Municipal Airport	2	\$93,208	\$278,533
Casselton	Casselton Robert Miller Regional Airport	2	\$148,860	\$363,537
Cavalier	Cavalier Municipal Airport	1	\$81,385	\$194,669
Columbus	Columbus Municipal Airport	0	\$0	\$0
Cooperstown	Cooperstown Municipal Airport	0	\$0	\$54,320
Crosby	Crosby Municipal Airport	5	\$252,866	\$769,865
Drayton	Drayton Municipal Airport	0	\$0	\$7,333
Dunseith	International Peace Garden	0	\$0	\$58,353
Edgeley	Edgeley Municipal Airport	2	\$126,055	\$408,658
Elgin	Elgin Municipal Airport	0	\$0	\$425
Ellendale	Ellendale Municipal Airport	4	\$150,488	\$558,358
Enderlin	Sky Haven Airport	0	\$0	\$56,504
Fessenden	Fessenden-Streibel Municipal Airport	0	\$0	\$0
Fort Yates	Standing Rock Airport	0	\$0	\$3,333
Gackle	Gackle Municipal Airport	0	\$0	\$4,686
Garrison	Garrison Municipal Airport	1	\$79,360	\$201,323
Glen Ullin	Glen Ullin Regional Airport	1	\$75,129	\$190,500
Grafton	Hutson Field Airport	3	\$204,998	\$540,752
Gwinner	Gwinner-Roger Melroe Field	11	\$649,922	\$1,917,571
Harvey	Harvey Municipal Airport	0	\$0	\$59,398
Hazelton	Hazelton Municipal Airport	0	\$0	\$0
Hazen	Mercer County Regional Airport	0	\$0	\$58,241
Hettinger	Hettinger Municipal Airport	3	\$176,634	\$535,655
Hillsboro	Hillsboro Regional Airport	0	\$0	\$2,167
Kenmare	Kenmare Municipal Airport	4	\$369,288	\$614,576
Killdeer	Dunn County Airport - Weydahl Field	10	\$928,270	\$1,667,942
Kindred	Robert Odegaard Field	0	\$0	\$16,409
Kulm	Kulm Municipal Airport	1	\$65,666	\$93,973
Lakota	Lakota Municipal Airport	0	\$0	\$89,351
LaMoure	LaMoure Rott Municipal Airport	0	\$0	\$6,028
Langdon	Robertson Field Airport	2	\$106,416	\$290,650
Larimore	Larimore Municipal Airport	1	\$60,651	\$159,525

Table 5 - Direct Impacts from Capital Investment

City	Airport Name	Direct Employment	Direct Payroll	Direct Output
Leeds	Leeds Municipal Airport	1	\$43,119	\$113,725
Lidgerwood	Lidgerwood Municipal Airport	0	\$0	\$6,443
Linton	Linton Municipal Airport	1	\$75,580	\$225,877
Lisbon	Lisbon Municipal Airport	1	\$57,072	\$190,875
Maddock	Maddock Municipal Airport	2	\$152,361	\$401,936
Mandan	Mandan Municipal Airport	17	\$1,250,445	\$3,170,691
Mayville	Mayville Municipal Airport	6	\$287,697	\$923,705
McClusky	McClusky Municipal Airport	0	\$0	\$3,917
McVile	McVile Municipal Airport	0	\$0	\$0
Milnor	Milnor Municipal Airport	0	\$0	\$35,248
Minto	Minto Municipal Airport	0	\$0	\$5,000
Mohall	Mohall Municipal Airport	4	\$99,389	\$515,524
Mott	Mott Municipal Airport	1	\$65,666	\$156,237
Napoleon	Napoleon Municipal Airport	0	\$0	\$0
New Rockford	Tomlinson Field Airport	0	\$0	\$14,281
New Town	New Town Municipal Airport	9	\$779,492	\$1,764,343
Northwood	Northwood Municipal-Vince Field	0	\$0	\$47,406
Oakes	Oakes Municipal Airport	8	\$324,386	\$1,203,579
Page	Page Regional Airport	1	\$51,014	\$124,583
Park River	Park River Airport-WC Skjerven Field	0	\$0	\$32,255
Parshall	Parshall-Hankins Airport	2	\$220,039	\$498,047
Pembina	Pembina Municipal Airport	1	\$65,666	\$108,262
Plaza	Trulson Field Airport	0	\$0	\$0
Richardton	Richardton Airport	0	\$0	\$3,033
Riverdale	Garrison Dam Recreational Airpark	0	\$0	\$12,456
Rolette	Rolette Airport	2	\$130,165	\$353,158
Rolla	Rolla Municipal Airport	5	\$322,311	\$874,482
Rugby	Rugby Municipal Airport	2	\$127,330	\$338,573
St. Thomas	St. Thomas Municipal Airport	0	\$0	\$5,635
Stanley	Stanley Municipal Airport	5	\$418,682	\$947,666
Tioga	Tioga Municipal Airport	3	\$277,474	\$553,064
Towner	Towner Municipal Airport	0	\$0	\$0
Turtle Lake	Turtle Lake Municipal Airport	0	\$0	\$27,466
Valley City	Barnes County Municipal Airport	4	\$241,929	\$696,134
Wahpeton	Harry Stern Airport	3	\$166,607	\$451,737
Walhalla	Walhalla Municipal Airport	3	\$195,623	\$467,920
Washburn	Washburn Municipal Airport	0	\$0	\$94,629
Watford City	Watford City Municipal Airport	8	\$681,250	\$1,346,173
West Fargo	West Fargo Municipal Airport	1	\$39,608	\$96,728
Westhope	Westhope Municipal Airport	0	\$0	\$2,600
Wishek	Wishek Municipal Airport	0	\$0	\$22,009
Total General Aviation Airports		188	\$12,704,828	\$32,893,371
Total All Airports		534	\$39,831,548	\$99,422,480

Source: NDAC, FAA, North Dakota Airport Managers and Airport Tenants

2.2.5 Direct General Aviation Visitor Impacts

North Dakota airports included in this study provided estimates of the number of visiting general aviation aircraft that typically arrive each week at their facility. Airports also provided an estimate

for the mix of their weekly arriving general aviation planes (single-engine, multi-engine, and jet) that are transient or visiting in nature. The typical number of visitors that arrive on each type of visiting aircraft was also provided by public-use airports.

Using this information, estimates of annual visiting (transient) aircraft arrivals were developed. These estimates were then compared to each airport's total annual itinerant general aviation arrivals. Annual general aviation itinerant arrivals for each airport were obtained either from the FAA's 5010 Form, NDAC, or from the airport's air traffic control tower. Transient (visiting) arrivals are only a portion of each airport's total annual general aviation itinerant arrivals. The other portion of each airport's itinerant arrivals is attributed to aircraft based at the airport. As a result, transient arrivals should always be lower than total annual itinerant arrivals. Additional investigation was needed in cases where an airport estimated their transient or visiting arrivals to be higher than their total annual itinerant arrivals. This additional investigation was carried out with individual airports and with NDAC staff.

It is worth noting that this study's analysis to estimate general aviation visitor arrivals was far more rigorous than the methodology used in the state's previous economic impact study. The Aircraft Owners and Pilots Association (AOPA) has a published report that states that "on average" 30% of an airport's total annual itinerant arrivals are visiting or transient aircraft. While this "rule of thumb" works for some airports, for most airports using this type of general approach results in either overestimating or underestimating visitors arriving on general aviation aircraft. The bottom-up, airport-specific approach used in this study included individual airport input and review. This approach provides the best available estimate of the number of visitors who came to North Dakota on a general aviation plane.

Refined estimates of annual visiting aircraft arrivals were used to develop an estimate of annual general aviation visitors for each airport. This was accomplished by applying the estimated mix of visiting aircraft and the number of persons per arrival by aircraft type. Once these estimates were completed, they were compared to similar estimates from the 2010 study and were discussed with Aeronautics Commission staff, most familiar with each airport. This process led to final draft estimates of each airport's annual visiting general aviation aircraft arrivals and to the development of an estimate of annual visitors who arrive on general aviation planes at each public-use airport.

In the process of comparing 2010 and 2015 estimates of general aviation visitors, it was determined that general aviation visitors arriving at the Grand Forks International Airport were overestimated in the 2010 study. As noted in the 2010 study, a more general rule of thumb approach was used to estimate general aviation visiting aircraft and general aviation visitors. The 2010 study included training operations flown by UND students when estimating visiting aircraft. This resulted in overestimating the number of general aviation visitors who arrive in North Dakota using this airport. The estimates of visiting general aircraft developed for this 2015 study are lower, but more accurate since they factor out student training flights.

Final estimates of general aviation visitors were sent to each airport for their review before they were used to develop estimates of direct general aviation visitor related economic impact. **Table**

6 - Estimates of General Aviation Visitors provides the following for each public-use airport: an estimate of total annual visiting general aviation aircraft arrivals, the implied number of visitors per plane, and the estimate of total annual general aviation visitors for each airport. As **Table 6** shows, the total number of annual visitors estimated to arrive in North Dakota on general aviation aircraft is 382,177. In 2010, the number of visitors estimated to be arriving in North Dakota on general aviation aircraft was 222,318. Over the past five years, North Dakota's general aviation visitors have increased by 72%.

Table 6 - Estimates of General Aviation Visitors

City	Airport Name	Annual Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors	Number of Visitors per Transient Arrival
Bismarck	Bismarck Municipal Airport	8,580	32,201	3.8
Devils Lake	Devils Lake Regional Airport	3,120	6,992	2.2
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	8,320	29,129	3.5
Fargo	Hector International Airport	11,960	64,350	5.4
Grand Forks	Grand Forks International Airport	7,800	40,560	5.2
Jamestown	Jamestown Regional Airport	3,380	13,524	4.0
Minot	Minot International Airport	9,360	48,369	5.2
Williston	Sloulin Field International Airport	11,440	62,688	5.5
Total Commercial Airports		63,960	297,813	Average 4.3
Arthur	Arthur Airport	52	50	1.0
Ashley	Ashley Municipal Airport	416	832	2.0
Beach	Beach Airport	260	520	2.0
Beulah	Beulah Airport	260	520	2.0
Bottineau	Bottineau Municipal Airport	1,040	3,120	3.0
Bowbells	Bowbells Municipal Airport	52	156	3.0
Bowman	Bowman Regional Airport	884	2,272	2.6
Cando	Cando Municipal Airport	208	442	2.1
Carrington	Carrington Municipal Airport	416	1,240	3.0
Casselton	Casselton Robert Miller Regional Airport	1,144	2,746	2.4
Cavalier	Cavalier Municipal Airport	208	312	1.5
Columbus	Columbus Municipal Airport	52	52	1.0
Cooperstown	Cooperstown Municipal Airport	364	734	2.0
Crosby	Crosby Municipal Airport	312	793	2.5
Drayton	Drayton Municipal Airport	104	125	1.2
Dunseith	International Peace Garden	104	208	2.0
Edgeley	Edgeley Municipal Airport	260	390	1.5
Elgin	Elgin Municipal Airport	52	52	1.0
Ellendale	Ellendale Municipal Airport	260	572	2.2
Enderlin	Sky Haven Airport	312	405	1.3
Fessenden	Fessenden-Streibel Municipal Airport	52	52	1.0
Fort Yates	Standing Rock Airport	52	52	1.0
Gackle	Gackle Municipal Airport	0	0	0.0
Garrison	Garrison Municipal Airport	468	1,170	2.5
Glen Ullin	Glen Ullin Regional Airport	208	416	2.0
Grafton	Hutson Field Airport	1,040	2,392	2.3
Gwinner	Gwinner-Roger Melroe Field	416	1,352	3.3
Harvey	Harvey Municipal Airport	208	512	2.5
Hazleton	Hazleton Municipal Airport	52	52	1.0

Table 6 - Estimates of General Aviation Visitors

City	Airport Name	Annual Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors	Number of Visitors per Transient Arrival
Hazen	Mercer County Regional Airport	416	1,196	2.9
Hettinger	Hettinger Municipal Airport	572	1,560	2.7
Hillsboro	Hillsboro Regional Airport	1,560	3,900	2.5
Kenmare	Kenmare Municipal Airport	728	5,043	6.9
Killdeer	Dunn County Airport-Weydahl Field	52	187	3.6
Kindred	Robert Odegaard Field	312	624	2.0
Kulm	Kulm Municipal Airport	52	52	1.0
Lakota	Lakota Municipal Airport	312	649	2.1
LaMoure	LaMoure Rott Municipal Airport	104	198	1.9
Langdon	Robertson Field Airport	260	390	1.5
Larimore	Larimore Municipal Airport	416	499	1.2
Leeds	Leeds Municipal Airport	52	52	1.0
Lidgerwood	Lidgerwood Municipal Airport	12	24	2.0
Linton	Linton Municipal Airport	884	1,326	1.5
Lisbon	Lisbon Municipal Airport	208	312	1.5
Maddock	Maddock Municipal Airport	52	52	1.0
Mandan	Mandan Municipal Airport	1,360	4,356	3.2
Mayville	Mayville Municipal Airport	780	1,062	1.4
McClusky	McClusky Municipal Airport	52	52	1.0
McVile	McVile Municipal Airport	52	52	1.0
Milnor	Milnor Municipal Airport	52	52	1.0
Minto	Minto Municipal Airport	52	78	1.5
Mohall	Mohall Municipal Airport	624	1,248	2.0
Mott	Mott Municipal Airport	104	197	1.9
Napoleon	Napoleon Municipal Airport	52	52	1.0
New Rockford	Tomlinson Field Airport	104	208	2.0
New Town	New Town Municipal Airport	520	1,560	3.0
Northwood	Northwood Municipal-Vince Field	884	2,210	2.5
Oakes	Oakes Municipal Airport	260	520	2.0
Page	Page Regional Airport	260	260	1.0
Park River	Park River Airport-WC Skjerven Field	416	790	1.9
Parshall	Parshall-Hankins Airport	520	936	1.8
Pembina	Pembina Municipal Airport	260	897	3.5
Plaza	Trulson Field Airport	0	0	0.0
Richardton	Richardton Airport	15	28	1.9
Riverdale	Garrison Dam Recreational Airpark	52	99	1.9
Rolette	Rolette Airport	104	104	1.0
Rolla	Rolla Municipal Airport	364	880	2.4
Rugby	Rugby Municipal Airport	364	936	2.6
St. Thomas	St. Thomas Municipal Airport	52	52	1.0
Stanley	Stanley Municipal Airport	1,560	3,443	2.2
Tioga	Tioga Municipal Airport	3,120	9,360	3.0
Towner	Towner Municipal Airport	52	78	1.5
Turtle Lake	Turtle Lake Municipal Airport	104	156	1.5
Valley City	Barnes County Municipal Airport	832	1,781	2.1
Wahpeton	Harry Stern Airport	1,300	3,692	2.8
Walhalla	Walhalla Municipal Airport	312	780	2.5

Table 6 - Estimates of General Aviation Visitors

City	Airport Name	Annual Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors	Number of Visitors per Transient Arrival
Washburn	Washburn Municipal Airport	364	728	2.0
Watford City	Watford City Municipal Airport	2,340	8,060	3.4
West Fargo	West Fargo Municipal Airport	520	1,560	3.0
Westhope	Westhope Municipal Airport	52	78	1.5
Wishek	Wishek Municipal Airport	208	416	2.0
Total General Aviation Airports		33,315	84,364	Average 2.0
Total All Airports		97,275	382,177	Average 3.2

Source: Airport Managers and NDAC

Using final general aviation visitor estimates from **Table 6**, information from surveys (conducted for this study) on trip duration and spending per trip was used to estimate total annual general aviation spending or direct annual output in this impact category. In the case of some of the least active airports, direct visitor spending (output) was not enough to produce measurable economic impacts in this category. While direct output associated with general aviation visitors may be reported, in many cases this spending (output) was not significant enough to support a job or the payroll associated with that job.

A total of 67 airports and/or FBOs in North Dakota agreed to assist in the process to distribute surveys to general aviation users. The general aviation user survey collected information from all general aviation users, both North Dakota residents and visitors. Residents were asked to provide information on how they use various airports in the state to improve their efficiency, support their business, or increase the market area for their services. General aviation visitors were asked to provide information on the purpose of their trip; the duration of their stay in North Dakota; and the amount of money that they spent for various categories such as hotel, food, retail, ground transportation, and entertainment.

Annual visitor spending is equivalent to “direct” output in this impact category. Once direct visitor output/spending is calculated, information from the IMPLAN model (discussed in the next section) is used to determine the number of direct jobs and direct payroll that direct annual visitor spending/output supports in this category. Employment and payroll supported by visitor spending in North Dakota is primarily, but not exclusively, associated with off-airport establishments. For instance, spending by visitors to North Dakota arriving on general aviation aircraft helps to support some of the jobs associated with hotels and in restaurants in the state.

Table 7 - General Aviation Visitor Direct Employment, Payroll, and Output Spending provides information on direct output from general aviation spending. As noted the output estimate was derived from surveys, interviews, and research conducted specifically for this study. Estimates of direct employment and payroll in this impact category were based on annual direct spending/output and were derived from ratios in the IMPLAN model.

Table 7 - General Aviation Visitor Direct Employment, Payroll, and Output Spending

City	Airport Name	Direct Employment	Direct Payroll	Direct Output
Bismarck	Bismarck Municipal Airport	48	\$1,186,848	\$4,385,640
Devils Lake	Devils Lake Regional Airport	7	\$150,731	\$807,576
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	39	\$1,064,700	\$3,772,814
Fargo	Hector International Airport	90	\$2,445,300	\$14,124,640
Grand Forks	Grand Forks International Airport	57	\$1,349,760	\$5,305,248
Jamestown	Jamestown Regional Airport	14	\$283,416	\$1,328,733
Minot	Minot International Airport	116	\$2,925,752	\$10,955,050
Williston	Sloulin Field International Airport	174	\$5,310,654	\$16,812,564
Total Commercial Airports		545	\$14,717,161	\$57,492,265
Arthur	Arthur Airport	0	\$0	\$22,850
Ashley	Ashley Municipal Airport	0	\$0	\$31,200
Beach	Beach Airport	1	\$22,970	\$52,100
Beulah	Beulah Airport	0	\$0	\$31,850
Bottineau	Bottineau Municipal Airport	3	\$41,469	\$211,350
Bowbells	Bowbells Municipal Airport	0	\$0	\$2,600
Bowman	Bowman Regional Airport	4	\$65,484	\$292,130
Cando	Cando Municipal Airport	0	\$0	\$36,825
Carrington	Carrington Municipal Airport	1	\$22,970	\$75,950
Casselton	Casselton Robert Miller Regional Airport	3	\$74,319	\$247,140
Cavalier	Cavalier Municipal Airport	0	\$0	\$19,110
Columbus	Columbus Municipal Airport	0	\$0	\$2,600
Cooperstown	Cooperstown Municipal Airport	0	\$0	\$27,525
Crosby	Crosby Municipal Airport	1	\$22,970	\$68,821
Drayton	Drayton Municipal Airport	0	\$0	\$2,600
Dunseith	International Peace Garden	0	\$0	\$7,800
Edgeley	Edgeley Municipal Airport	0	\$0	\$14,625
Elgin	Elgin Municipal Airport	0	\$0	\$2,600
Ellendale	Ellendale Municipal Airport	0	\$0	\$41,700
Enderlin	Sky Haven Airport	0	\$0	\$15,188
Fessenden	Fessenden-Streibel Municipal Airport	0	\$0	\$2,600
Fort Yates	Standing Rock Airport	0	\$0	\$2,600
Gackle	Gackle Municipal Airport	0	\$0	\$2,600
Garrison	Garrison Municipal Airport	1	\$22,970	\$71,663
Glen Ullin	Glen Ullin Regional Airport	0	\$0	\$15,600
Grafton	Hutson Field Airport	2	\$45,940	\$146,510
Gwinner	Gwinner-Roger Melroe Field	1	\$22,970	\$82,810
Harvey	Harvey Municipal Airport	0	\$0	\$19,200
Hazelton	Hazelton Municipal Airport	0	\$0	\$22,850
Hazen	Mercer County Regional Airport	1	\$22,970	\$107,640
Hettinger	Hettinger Municipal Airport	1	\$15,720	\$95,550
Hillsboro	Hillsboro Regional Airport	3	\$39,327	\$238,875
Kenmare	Kenmare Municipal Airport	4	\$90,684	\$308,884
Killdeer	Dunn County Airport-Weydahl Field	0	\$0	\$11,454
Kindred	Robert Odegaard Field	0	\$0	\$38,220
Kulm	Kulm Municipal Airport	0	\$0	\$2,600
Lakota	Lakota Municipal Airport	0	\$0	\$40,531
LaMoure	LaMoure Rott Municipal Airport	0	\$0	\$6,188
Langdon	Robertson Field Airport	0	\$0	\$14,625
Larimore	Larimore Municipal Airport	0	\$0	\$32,725

Table 7 - General Aviation Visitor Direct Employment, Payroll, and Output Spending

City	Airport Name	Direct Employment	Direct Payroll	Direct Output
Leeds	Leeds Municipal Airport	0	\$0	\$22,850
Lidgerwood	Lidgerwood Municipal Airport	0	\$0	\$2,600
Linton	Linton Municipal Airport	3	\$75,580	\$246,127
Lisbon	Lisbon Municipal Airport	0	\$0	\$11,700
Maddock	Maddock Municipal Airport	0	\$0	\$2,600
Mandan	Mandan Municipal Airport	5	\$99,578	\$392,040
Mayville	Mayville Municipal Airport	1	\$22,970	\$65,048
McClusky	McClusky Municipal Airport	0	\$0	\$2,600
McVile	McVile Municipal Airport	0	\$0	\$22,850
Milnor	Milnor Municipal Airport	0	\$0	\$2,600
Minto	Minto Municipal Airport	0	\$0	\$2,600
Mohall	Mohall Municipal Airport	1	\$22,970	\$76,440
Mott	Mott Municipal Airport	1	\$22,970	\$72,816
Napoleon	Napoleon Municipal Airport	0	\$0	\$22,850
New Rockford	Tomlinson Field Airport	0	\$0	\$28,050
New Town	New Town Municipal Airport	1	\$22,970	\$58,500
Northwood	Northwood Municipal-Vince Field	1	\$22,970	\$82,875
Oakes	Oakes Municipal Airport	0	\$0	\$31,850
Page	Page Regional Airport	0	\$0	\$6,500
Park River	Park River Airport-WC Skjerven Field	0	\$0	\$29,625
Parshall	Parshall-Hankins Airport	1	\$22,970	\$77,580
Pembina	Pembina Municipal Airport	0	\$0	\$33,638
Plaza	Trulson Field Airport	0	\$0	\$2,600
Richardton	Richardton Airport	0	\$0	\$2,600
Riverdale	Garrison Dam Recreational Airpark	0	\$0	\$3,713
Rolette	Rolette Airport	0	\$0	\$22,850
Rolla	Rolla Municipal Airport	1	\$22,970	\$53,900
Rugby	Rugby Municipal Airport	1	\$22,970	\$57,330
St. Thomas	St. Thomas Municipal Airport	0	\$0	\$2,600
Stanley	Stanley Municipal Airport	5	\$108,619	\$370,620
Tioga	Tioga Municipal Airport	11	\$292,260	\$882,900
Towner	Towner Municipal Airport	0	\$0	\$22,850
Turtle Lake	Turtle Lake Municipal Airport	0	\$0	\$23,175
Valley City	Barnes County Municipal Airport	1	\$23,813	\$111,336
Wahpeton	Harry Stern Airport	3	\$48,777	\$226,135
Walhalla	Walhalla Municipal Airport	0	\$0	\$29,250
Washburn	Washburn Municipal Airport	0	\$0	\$28,800
Watford City	Watford City Municipal Airport	10	\$229,884	\$725,400
West Fargo	West Fargo Municipal Airport	2	\$42,221	\$140,400
Westhope	Westhope Municipal Airport	0	\$0	\$2,925
Wishek	Wishek Municipal Airport	0	\$0	\$33,250
Total General Aviation Airports		74	\$1,615,255	\$6,507,262
Total All Airports		619	\$16,332,416	\$63,999,527

Source: Airport Surveys and IMPLAN

It is also worth re-stating that some of the spending shown in **Table 6** results from activities associated with transient aerial applicators who use various airports in North Dakota for extended periods of time. **Figure 2 - North Dakota Airports Supporting Aerial Applicators**

shows airports in North Dakota where transient aerial applicators operate, contributing to direct general aviation visitor spending. While in some instances general aviation visitor spending is below the level needed to support at least one full-time job and the payroll associated with that job, the community, nevertheless, benefits from direct output (spending) in the general aviation visitor spending category.

Figure 2 - North Dakota Airports Supporting Aerial Applicators



Source: North Dakota Airport Managers, Airport Tenants, and NDAC

2.2.6 Direct Commercial Visitor Impacts

Similar to spending related to visitors who arrive on general aviation aircraft, visitors to North Dakota who arrive on scheduled commercial airline flights also have annual spending/output in the direct impact category. For this study, direct annual impacts related to commercial service visitor spending were estimated by first identifying each commercial airport's total annual 2014 commercial airline passenger enplanements. Each airport reports its monthly enplanements to the NDAC, enabling the NDAC to provide the total annual enplanements for each of the eight commercial airports. In the case of Jamestown and Devils Lake, commercial airline service during the first months of 2014 was actually suspended. Monthly enplanements for both airports, after service was reinstated, were used to develop annual enplanement estimates for these airports. It is worth noting that since service has been reinstated to both of these North Dakota airports, higher than anticipated enplanement numbers have been reported.

Data from the USDOT was examined to determine the portion of each airport's annual enplanements that are visiting in nature. **Table 8 - Visitors Arriving in North Dakota on Commercial Airlines** provides information on annual airport enplanements and the portion of these enplanements that were assumed to be visiting, as opposed to resident commercial airline travelers. As **Table 8** shows, the total number of visitors estimated to arrive annually on North Dakota commercial airline aircraft is 533,112. In 2010, the number of visitors estimated to be arriving in North Dakota on commercial planes was 322,983. Over the past five years, North Dakota's commercial visitors have increased by 65%. Once each airport's annual commercial airline visitors were estimated, information collected from study surveys was used to develop estimates of average spending per visitor, per trip for each of the eight airports.

Table 8 - Visitors Arriving in North Dakota on Commercial Airlines

City	Airport Name	Total Annual Enplanements	% Of Enplanements that are Visitors	Total Annual Commercial Visitors
Bismarck	Bismarck Municipal Airport	245,205	45%	110,342
Devils Lake	Devils Lake Regional Airport	4,200*	45%	1,890
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	58,843	44%	25,891
Fargo	Hector International Airport	448,848	40%	179,539
Grand Forks	Grand Forks International Airport	285,564	44%	62,824
Jamestown	Jamestown Regional Airport	7,700*	46%	3,542
Minot	Minot International Airport	222,144	43%	95,669
Williston	Sloulin Field International Airport	116,119	46%	53,415
Total Commercial Airports		1,377,065	Average 44%	533,112

* Annual enplanements estimated based on first quarter enplanements for 2015

Source: NDAC and USDOT

Beginning in October 2014 and extending through May 2015, passenger surveys were made available to enplaning passengers at all eight commercial airports. Survey respondents had the option for completing a paper or online version of the survey that could be submitted prior to boarding their flight. Several of the airports also provided the survey link when travelers logged on to use the airport's free Wi-Fi. Over 4,000 surveys were completed by commercial airline travelers. The average length of stay and average spending per stay, according to survey results, is different among the eight commercial airports. In particular for Grand Forks International, spending patterns for Canadian travelers departing from this North Dakota commercial airport were adjusted to account for the fact that Canadians drive to North Dakota and spend a night before departing and occasionally when returning. Canadian spending for retail purchases were also far in excess of normal spending patterns.

Using airport specific information, estimates of total annual commercial visitor spending by airport were developed. Annual visitor spending in this category is equal to direct output. **Table 9 - Direct Impacts from Commercial Visitor Spending** presents annual direct output for this impact category. Once direct output was estimated, the IMPLAN model was used to estimate employment that is supported by this spending along with direct payroll supported by the direct employment.

Table 9 - Direct Impacts from Commercial Visitor Spending

City	Airport Name	Direct Employment	Direct Payroll	Direct Output
Bismarck	Bismarck Municipal Airport	764	\$18,643,128	\$68,838,160
Devils Lake	Devils Lake Regional Airport	7	\$163,884	\$706,140
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	161	\$4,395,300	\$15,845,243
Fargo	Hector International Airport	1,156	\$29,473,376	\$96,087,225
Grand Forks	Grand Forks International Airport	527	\$12,045,639	\$35,112,077
Jamestown	Jamestown Regional Airport	14	\$292,194	\$1,419,312
Minot	Minot International Airport	897	\$21,717,267	\$80,945,371
Williston	Sloulin Field International Airport	625	\$18,704,375	\$61,963,315
Total Commercial Airports		4,151	\$105,435,163	\$360,916,843

Source: Airport Surveys and IMPLAN

2.2.7 Summary of Direct Economic Impacts

The preceding sections presented information on direct employment, payroll, and output impacts for airport management, airport tenants, capital investment, general aviation visitor spending and commercial visitor spending. In some cases, as a result of confidentiality, direct payroll information was not provided.

Direct impacts are typically the easiest to understand because each is related to activity at each airport that can be quantified in some way. **Table 10 - Summary of Total Annual Direct Impacts for Public-Use Airports** provides a summary of direct impacts by airport for employment, payroll, and output. This information is a sum of direct impacts previously presented for each airport for each of the five activity centers: airport management, airport tenants, capital investment, general aviation visitors, and when applicable commercial visitors.

Table 10 - Summary of Total Annual Direct Impacts for Public-Use Airports

City	Airport Name	Total Direct Employment	Total Direct Payroll	Total Direct Output
Bismarck	Bismarck Municipal Airport	1,301	\$48,824,779	\$161,517,544
Devils Lake	Devils Lake Regional Airport	59	\$2,764,625	\$7,213,207
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	314	\$12,470,880	\$49,187,217
Fargo	Hector International Airport	2,391	\$98,456,860	\$252,526,313
Grand Forks	Grand Forks International Airport	1,147	\$49,329,548	\$127,610,776
Jamestown	Jamestown Regional Airport	65	\$2,119,084	\$15,076,145
Minot	Minot International Airport	1,357	\$46,012,253	\$162,238,247
Williston	Sloulin Field International Airport	1,004	\$35,224,844	\$134,029,890
Total Commercial Airports		7,638	\$295,202,873	\$909,399,339
Arthur	Arthur Airport	0	\$0	\$23,250
Ashley	Ashley Municipal Airport	13	\$537,033	\$1,474,270
Beach	Beach Airport	6	\$173,220	\$376,625
Beulah	Beulah Airport	10	\$422,854	\$1,086,217
Bottineau	Bottineau Municipal Airport	7	\$338,136	\$946,446
Bowbells	Bowbells Municipal Airport	0	\$0	\$8,200
Bowman	Bowman Regional Airport	40	\$2,810,504	\$6,797,041
Cando	Cando Municipal Airport	6	\$273,616	\$1,046,181
Carrington	Carrington Municipal Airport	9	\$309,282	\$966,658
Casselton	Casselton Robert Miller Regional Airport	32	\$1,141,699	\$3,468,572

Table 10 - Summary of Total Annual Direct Impacts for Public-Use Airports

City	Airport Name	Total Direct Employment	Total Direct Payroll	Total Direct Output
Cavalier	Cavalier Municipal Airport	10	\$374,581	\$1,195,106
Columbus	Columbus Municipal Airport	0	\$0	\$3,000
Cooperstown	Cooperstown Municipal Airport	2	\$86,412	\$300,851
Crosby	Crosby Municipal Airport	6	\$275,836	\$839,886
Drayton	Drayton Municipal Airport	1	\$43,206	\$120,036
Dunseith	International Peace Garden	1	\$0	\$69,753
Edgeley	Edgeley Municipal Airport	5	\$260,470	\$751,192
Elgin	Elgin Municipal Airport	0	\$0	\$3,625
Ellendale	Ellendale Municipal Airport	4	\$150,488	\$601,258
Enderlin	Sky Haven Airport	0	\$0	\$72,892
Fessenden	Fessenden-Streibel Municipal Airport	5	\$224,025	\$547,715
Fort Yates	Standing Rock Airport	<1	\$0	\$7,133
Gackle	Gackle Municipal Airport	<1	\$0	\$7,686
Garrison	Garrison Municipal Airport	4	\$191,940	\$491,992
Glen Ullin	Glen Ullin Regional Airport	1	\$75,129	\$207,300
Grafton	Hutson Field Airport	12	\$547,374	\$1,408,340
Gwinner	Gwinner-Roger Melroe Field	13	\$716,098	\$2,110,484
Harvey	Harvey Municipal Airport	4	\$163,618	\$472,967
Hazelton	Hazelton Municipal Airport	0	\$0	\$23,250
Hazen	Mercer County Regional Airport	3	\$109,382	\$384,887
Hettinger	Hettinger Municipal Airport	13	\$619,171	\$1,636,332
Hillsboro	Hillsboro Regional Airport	18	\$593,689	\$1,833,344
Kenmare	Kenmare Municipal Airport	17	\$839,620	\$1,862,344
Killdeer	Dunn County Airport-Weydahl Field	11	\$962,270	\$1,747,056
Kindred	Robert Odegaard Field	7	\$227,178	\$2,287,421
Kulm	Kulm Municipal Airport	2	\$99,666	\$164,233
Lakota	Lakota Municipal Airport	0	\$0	\$131,082
LaMoure	LaMoure Rott Municipal Airport	2	\$86,412	\$231,222
Langdon	Robertson Field Airport	5	\$183,072	\$633,184
Larimore	Larimore Municipal Airport	9	\$339,327	\$1,189,365
Leeds	Leeds Municipal Airport	1	\$43,110	\$137,775
Lidgerwood	Lidgerwood Municipal Airport	0	\$0	\$9,443
Linton	Linton Municipal Airport	9	\$331,509	\$975,276
Lisbon	Lisbon Municipal Airport	3	\$202,588	\$421,581
Maddock	Maddock Municipal Airport	7	\$806,205	\$1,216,060
Mandan	Mandan Municipal Airport	38	\$1,986,600	\$5,263,936
Mayville	Mayville Municipal Airport	11	\$489,887	\$1,425,565
McClusky	McClusky Municipal Airport	<1	\$0	\$7,117
McVie	McVie Municipal Airport	0	\$0	\$23,450
Milnor	Milnor Municipal Airport	0	\$0	\$38,448
Minto	Minto Municipal Airport	5	\$206,824	\$510,872
Mohall	Mohall Municipal Airport	12	\$415,595	\$1,313,042
Mott	Mott Municipal Airport	3	\$129,036	\$296,713
Napoleon	Napoleon Municipal Airport	2	\$86,412	\$241,856
New Rockford	Tomlinson Field Airport	1	\$43,206	\$152,434
New Town	New Town Municipal Airport	10	\$802,462	\$1,824,043
Northwood	Northwood Municipal-Vince Field	5	\$167,654	\$567,093
Oakes	Oakes Municipal Airport	9	\$394,452	\$1,345,532
Page	Page Regional Airport	9	\$320,466	\$1,284,467

Table 10 - Summary of Total Annual Direct Impacts for Public-Use Airports

City	Airport Name	Total Direct Employment	Total Direct Payroll	Total Direct Output
Park River	Park River Airport-WC Skjerven Field	6	\$259,236	\$716,498
Parshall	Parshall-Hankins Airport	4	\$277,009	\$643,287
Pembina	Pembina Municipal Airport	7	\$270,054	\$889,395
Plaza	Trulson Field Airport	0	\$0	\$3,000
Richardton	Richardton Airport	0	\$0	\$6,033
Riverdale	Garrison Dam Recreational Airpark	<1	\$1,800	\$17,369
Rolette	Rolette Airport	2	\$130,165	\$377,208
Rolla	Rolla Municipal Airport	12	\$545,366	\$1,583,000
Rugby	Rugby Municipal Airport	5	\$239,910	\$614,909
St. Thomas	St. Thomas Municipal Airport	2	\$86,412	\$227,241
Stanley	Stanley Municipal Airport	10	\$570,507	\$1,428,389
Tioga	Tioga Municipal Airport	23	\$949,382	\$2,374,848
Towner	Towner Municipal Airport	0	\$0	\$24,050
Turtle Lake	Turtle Lake Municipal Airport	0	\$0	\$51,241
Valley City	Barnes County Municipal Airport	14	\$584,889	\$1,685,949
Wahpeton	Harry Stern Airport	25	\$949,948	\$2,705,786
Walhalla	Walhalla Municipal Airport	7	\$368,447	\$938,282
Washburn	Washburn Municipal Airport	0	\$0	\$138,429
Watford City	Watford City Municipal Airport	28	\$1,299,664	\$3,119,360
West Fargo	West Fargo Municipal Airport	8	\$243,573	\$740,400
Westhope	Westhope Municipal Airport	2	\$86,412	\$224,531
Wishek	Wishek Municipal Airport	0	\$0	\$85,259
Total General Aviation Airports		558	\$26,464,088	\$73,177,563
Total All Airports		8,196	\$321,666,961	\$982,576,902

Source: North Dakota Airport Managers and Tenants, Manta, Dun and Bradstreet, NDAC, FAA, Airport Surveys, and IMPLAN

3 Estimates of Indirect Annual Economic Impacts

3.1 Discussion and Measurement of Indirect Economic Impacts

An economy, similar to the one characterizing the state of North Dakota, has several important features. First, most sectors of North Dakota's economy are linked, some "directly" and others "indirectly." Preceding sections of this report discussed direct impacts for airport management, airport tenants, capital investment, and air visitor spending. This section discusses indirect economic impacts for all public-use airports. While many sectors of the economy considered in this analysis are linked directly, many if, not more, are linked indirectly.

As discussed, when visitors arrive in North Dakota by air, they spend money on rental cars, hotels, food, entertainment and retail. These expenditures are direct outputs that also support direct employment and payroll. As an example of how indirect economic impacts are created, a North Dakota hotel, supported by visitor spending, needs to pay for utilities, purchase linens, and buy new carpeting. In turn the suppliers of the utilities, linen and carpet also buy inputs, make payments for salaries, and generate additional economic impacts. The impacts associated with the hotel and its operation are examples of how direct impacts generate additional indirect impacts based on sector specific multipliers. In the economic modeling process, direct impacts in one sector lead to additional indirect impacts in other sectors of the economy.

In this example, the hotel also paid salaries to their employees. In turn, these employees generate their own indirect or multiplier impacts. For example, a hotel employee may use part of his/her income to take his/her family to dinner. Part of this expenditure becomes income to the waiter; he then spends some of his income at the dry cleaners and part of this expenditure is then used by the owners of the dry cleaning business to buy materials to renovate their house. Indirect or multiplier impacts continue until the impact diminishes to zero.

Indirect or multiplier impacts are not the same for all economies. What indirect impacts really represent or measure are the opportunities for businesses and individuals to purchase the goods and services they need in their local or state economy. The larger and more developed the economy of the area being studied, the greater the chance for purchasing a high percentage of what is needed by both businesses and individuals in the local or state economy. For small cities and rural areas, the opportunity to purchase needed goods and services locally is not as great. However, the business or individual may still be able to purchase what they need within the state, in this case North Dakota.

For this study, each airport's impact on its local and the state economy were estimated. For airports located in less developed areas of North Dakota, the total economic impact of the airport on the local economy is less than the airport's total annual economic impact on North Dakota's economy. This difference reflects that while goods and services may not be able to be purchased locally, the goods and services may still be purchased in the state, resulting in a positive economic benefit to North Dakota's economy.

Appendix A to this report provides comparative tables that show each airport's impact to just its local economy, contrasting that impact to the airport's total economic impact on the state economy. For the information presented in Appendix A it is important to note that all indirect and total annual economic impacts discussed in this report were derived from the state model and not from the local/county models. For North Dakota airports located in the biggest cities, there is only a minimal difference between their local and their state impact. For the remainder of this report, all indirect (multiplier) and total annual economic impacts discussed and presented are those produced considering each airport's total impact on North Dakota's statewide economy and were developed using the state model. Each airport's impact on just its local economy is presented only in Appendix A and is provided for those airports wishing to compare their local to their statewide economic impact.

To estimate local and statewide economic impacts for each public-use airport, a series of models for different spatial division of the state were prepared. Economic input/output models were developed for Metropolitan Statistical Areas (MSA) that often involve more than one county, for each county, and for the state. The primary source of data for all models came from IMPLAN, a proprietary suite of models that has been offered for several decades by a North Carolina-based privately-owned company. The most current version of IMPLAN, with information that is specific to North Dakota, was used in this analysis.

While there are a number of input/output models, most are maintained by the U.S. Department of Commerce. The data (population, employment, income, and other factors) upon which government maintained input/output models are based tends to be less current than the data in IMPLAN since this model is maintained by a private sector firm.

IMPLAN is an acronym for **IMP**act analysis for **PLAN**ning; the model was developed more than 35 years ago and is approved by FAA to estimate aviation related economic impacts. IMPLAN is a general input/output model that is comprised of software and regional data sets. IMPLAN provides a system to estimate the interdependency between economic sectors, households and government in a geographically defined region, using counties as the building blocks for the analysis. One of the most powerful aspects of IMPLAN is that the data sources behind the model are continually improved and updated. Rather than extrapolating regional data from national averages, IMPLAN measures economic impacts from data on actual local economies.

IMPLAN tracks all the available industry groups in every level of the regional data. This permits detailed impact breakdowns and helps ensure accuracy of inter-industry relationships. Some of the data sets used to support the modeling completed in this economic impact study for the North Dakota airports include:

- U.S. Bureau of Labor Statistics (BLS) Covered Employment and Wages (CEW) program
- U.S. Bureau of Economic Analysis (BEA) Regional Economic Information System (REA) program
- U.S. Bureau of Economic Analysis Benchmark I/O Accounts of the U.S.
- BEA Output estimates
- BLS Consumer Expenditure Survey

- U.S. Census Bureau County Business Patterns (CBP) program
- U.S. Census Bureau Decennial Census and Population Surveys
- U.S. Census Bureau Economic Censuses and Surveys
- U.S. Department of Agriculture Census

An input/output model estimates additional indirect impacts that result from all direct impacts related to employment, payroll, and output. Indirect impacts are estimated through the use of multipliers. Multipliers vary direct impact category, they can vary even within the same category, and they vary geographically through the state.

For example, if an airport has direct jobs in the airport tenant category and model shows that these 10 direct jobs support a total of 15 jobs within the state, the five additional jobs are indirect jobs and the IMPLAN multiplier in this category for this example 1.5. (10 direct jobs x 1.5 = 15 total jobs (five indirect jobs). The interpretation in this category would be that each direct job generates 1.5 jobs in total. It is just as likely that the employment multiplier could be 1.3, resulting in 10 direct, three indirect, and 13 total jobs. For this update to North Dakota's statewide aviation economic impact study, the focus was on direct impacts; a conservative approach was taken to estimate indirect impacts.

There are hundreds of multipliers in the IMPLAN model that were used to estimate indirect economic impacts for this analysis. Even within categories such as visitor spending and capital spending there are different multipliers. For instance in the visitor spending category, there is a higher economic return to local and state economies for money spent for hotels as opposed to retail. North Dakota hotels are likely purchasing a high percentage of the goods and services that they need to operate within the state. On the other hand, retail items purchased by visitors to North Dakota are most likely not made in North Dakota and often times not even in the U.S. Therefore, indirect impacts (multiplier in terms of money spent) are higher for spending on hotels rather than on spending on retail. In the process to estimate indirect economic impacts associated with visitor spending separate, model entries are made for hotels, food, retail, entertainment, and local transportation so that cumulative indirect impacts can be more accurately reflected. Direct output in the capital investment category was also segmented to better reflect economic activity within and beyond the state.

The remaining portions of this section present indirect economic impacts estimated using the IMPLAN model.

3.1.1 Indirect and Total Economic Impacts for Airport Management

Direct economic impacts for the airport management category for employment, payroll, and output were obtained directly from each public-use airport. Direct economic impacts for airport management were previously presented in **Table 2**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's annual economic impact that is related to indirect (multiplier) impacts.



For the airport management category, **Table 11 - Direct, Indirect, and Total Economic Impacts from Airport Management** presents each airport's direct, indirect, and total annual economic impacts for employment, payroll, and output.

3.1.2 Indirect Economic Impacts for Airport Tenants

Direct economic impacts for the airport tenant category for employment, payroll, and output were obtained directly from each tenant, public-use airport representatives, or third-party data sources (direct impacts for the airport tenant category were previously presented in **Table 3 - Direct Airport Tenant Employment and Output**). Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's annual economic impact that is related to indirect (multiplier) impacts.

For the airport tenant category, **Table 12 - Direct, Indirect, and Total Economic Impacts from Airport Tenants** presents each airport's direct, indirect, and total annual economic impacts for employment, payroll, and output.

Table 11 - Direct, Indirect, and Total Economic Impacts from Airport Management

City	Airport Name	Employment			Payroll			Output		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Bismarck	Bismarck Municipal Airport	24	16	40	\$1,923,650	\$774,790	\$2,698,440	\$6,966,207	\$6,269,586	\$13,235,793
Devils Lake	Devils Lake Regional Airport	6	2	8	\$361,818	\$53,084	\$414,902	\$265,197	\$180,334	\$445,531
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	7	5	12	\$481,999	\$287,858	\$769,857	\$7,383,348	\$4,060,841	\$11,444,189
Fargo	Hector International Airport	27	17	44	\$1,620,000	\$713,107	\$2,333,107	\$14,385,173	\$6,473,328	\$20,858,501
Grand Forks	Grand Forks International Airport	28	13	41	\$1,756,546	\$545,811	\$2,302,357	\$10,356,773	\$3,935,574	\$14,292,347
Jamestown	Jamestown Regional Airport	4	3	7	\$170,000	\$144,939	\$314,939	\$1,200,123	\$648,066	\$1,848,189
Minot	Minot International Airport	21	12	33	\$1,543,527	\$590,677	\$2,134,204	\$8,754,318	\$4,289,616	\$13,043,934
Williston	Sloulin Field International Airport	10	7	17	\$720,000	\$410,160	\$1,130,160	\$4,318,742	\$2,375,308	\$6,694,050
Total Commercial Airports Impacts		127	75	202	\$8,577,540	\$3,520,426	\$12,097,966	\$53,629,881	\$28,232,653	\$81,862,534
Arthur	Arthur Airport	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Ashley	Ashley Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Beach	Beach Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Beulah	Beulah Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Bottineau	Bottineau Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Bowbells	Bowbells Municipal Airport	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Bowman	Bowman Regional Airport	2	1	3	\$109,846	\$27,462	\$137,308	\$160,000	\$80,000	\$240,000
Cando	Cando Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Carrington	Carrington Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Casselton	Casselton Robert Miller Regional Airport	2	1	3	\$68,000	\$17,000	\$85,000	\$135,320	\$67,660	\$202,980
Cavalier	Cavalier Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Columbus	Columbus Municipal Airport	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Cooperstown	Cooperstown Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Crosby	Crosby Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Drayton	Drayton Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Dunseith	International Peace Garden	<1	0	<1	\$0	\$0	\$0	\$3,600	\$0	\$3,600
Edgeley	Edgeley Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Elgin	Elgin Municipal Airport	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Ellendale	Ellendale Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Enderlin	Sky Haven Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Fessenden	Fessenden-Streibel Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$600	\$0	\$600
Fort Yates	Standing Rock Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Gackle	Gackle Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$400	\$0	\$400
Garrison	Garrison Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200

Table 11 - Direct, Indirect, and Total Economic Impacts from Airport Management

		Employment			Payroll			Output		
Glen Ullin	Glen Ullin Regional Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Grafton	Hutson Field Airport	1	0	1	\$37,200	\$9,300	\$46,500	\$67,660	\$33,830	\$101,490
Gwinner	Gwinner-Roger Melroe Field	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Harvey	Harvey Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,930	\$101,590
Hazelton	Hazelton Municipal Airport	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Hazen	Mercer County Regional Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Hettinger	Hettinger Municipal Airport	0	0	0	\$0	\$0	\$0	\$25,000	\$0	\$25,000
Hillsboro	Hillsboro Regional Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Kenmare	Kenmare Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Killdeer	Dunn County Airport-Weydahl Field	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Kindred	Robert Odegaard Field	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Kulm	Kulm Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Lakota	Lakota Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
LaMoure	LaMoure Rott Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Langdon	Robertson Field Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Larimore	Larimore Municipal Airport	1	0	1	\$40,373	\$10,093	\$50,466	\$234,794	\$117,397	\$352,191
Leeds	Leeds Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Lidgerwood	Lidgerwood Municipal Airport	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Linton	Linton Municipal Airport	1	0	1	\$36,666	\$9,167	\$45,833	\$67,660	\$33,830	\$101,490
Lisbon	Lisbon Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Maddock	Maddock Municipal Airport	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Mandan	Mandan Municipal Airport	1	0	1	\$75,000	\$18,750	\$93,750	\$67,660	\$33,830	\$101,490
Mayville	Mayville Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
McClusky	McClusky Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$600	\$0	\$600
McVile	McVile Municipal Airport	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Milnor	Milnor Municipal Airport	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Minto	Minto Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Mohall	Mohall Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Mott	Mott Municipal Airport	1	0	1	\$40,400	\$10,100	\$50,500	\$67,660	\$33,830	\$101,490
Napoleon	Napoleon Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
New Rockford	Tomlinson Field Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
New Town	New Town Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Northwood	Northwood Municipal-Vince Field	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Oakes	Oakes Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200

Table 11 - Direct, Indirect, and Total Economic Impacts from Airport Management

		Employment			Payroll			Output		
Page	Page Regional Airport	0	0	0	\$0	\$0	\$0	\$282,160	\$28,216	\$310,376
Park River	Park River Airport-WC Skjerven Field	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Parshall	Parshall-Hankins Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Pembina	Pembina Municipal Airport	1	0	1	\$33,384	\$8,346	\$41,730	\$202,980	\$101,490	\$304,470
Plaza	Trulson Field Airport	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Richardton	Richardton Airport	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Riverdale	Garrison Dam Recreational Airpark	<1	0	<1	\$1,800	\$0	\$1,800	\$1,200	\$0	\$1,200
Rolette	Rolette Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Rolla	Rolla Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Rugby	Rugby Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
St. Thomas	St. Thomas Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Stanley	Stanley Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Tioga	Tioga Municipal Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Towner	Towner Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Turtle Lake	Turtle Lake Municipal Airport	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Valley City	Barnes County Municipal Airport	2	1	3	\$50,056	\$12,514	\$62,570	\$116,158	\$58,079	\$174,237
Wahpeton	Harry Stern Airport	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Walhalla	Walhalla Municipal Airport	0	0	0	\$0	\$0	\$0	\$5,500	\$0	\$5,500
Washburn	Washburn Municipal Airport	0	0	0	\$0	\$0	\$0	\$15,000	\$0	\$15,000
Watford City	Watford City Municipal Airport	1	0	1	\$46,800	\$11,700	\$58,500	\$67,660	\$33,830	\$101,490
West Fargo	West Fargo Municipal Airport	1	0	1	\$36,000	\$6,840	\$42,840	\$67,660	\$18,945	\$86,605
Westhope	Westhope Municipal Airport	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Wishek	Wishek Municipal Airport	0	0	0	\$0	\$0	\$0	\$30,000	\$0	\$30,000
Total General Aviation Airports Impacts		27	3	30	\$1,017,525	\$251,772	\$1,269,297	\$2,546,852	\$1,080,827	\$3,627,679
Total All Airports Impacts		154	78	232	\$9,595,065	\$3,772,198	\$13,367,263	\$56,176,733	\$29,313,480	\$85,490,213

Source: North Dakota Airport Management

Table 12 - Direct, Indirect, and Total Economic Impacts from Airport Tenants

City	Airport Name	Employment			Payroll			Output		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Bismarck	Bismarck Municipal Airport	403	379	782	\$22,968,345	\$18,587,940	\$41,556,285	\$76,502,687	\$49,726,747	\$126,229,434
Devils Lake	Devils Lake Regional Airport	21	6	27	\$992,327	\$298,320	\$1,290,647	\$2,259,737	\$1,536,621	\$3,796,358
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	96	69	165	\$5,538,240	\$3,690,317	\$9,228,557	\$19,943,660	\$10,769,576	\$30,713,236
Fargo	Hector International Airport	1,045	345	1,390	\$59,134,460	\$15,774,818	\$74,909,278	\$113,803,635	\$46,659,490	\$160,463,125
Grand Forks	Grand Forks International Airport	481	264	745	\$30,397,097	\$13,024,529	\$43,421,626	\$66,898,995	\$38,132,427	\$105,031,422
Jamestown	Jamestown Regional Airport	26	36	62	\$963,716	\$1,900,492	\$2,864,208	\$9,943,670	\$6,463,386	\$16,407,056
Minot	Minot International Airport	210	136	346	\$9,794,620	\$7,122,417	\$16,917,037	\$38,669,836	\$20,108,315	\$58,778,151
Williston	Slouin Field International Airport	187	133	320	\$9,557,485	\$6,963,758	\$16,521,243	\$49,078,021	\$26,011,351	\$75,089,372
Total Commercial Airports Impacts		2,469	1,368	3,837	\$139,346,290	\$67,362,591	\$206,708,881	\$377,100,241	\$199,407,913	\$576,508,154
Arthur	Arthur Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Ashley	Ashley Municipal Airport	10	3	13	\$432,060	\$216,030	\$648,090	\$1,089,030	\$653,418	\$1,742,448
Beach	Beach Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Beulah	Beulah Airport	9	3	12	\$388,854	\$194,427	\$583,281	\$980,127	\$588,076	\$1,568,203
Bottineau	Bottineau Municipal Airport	3	1	4	\$224,653	\$112,327	\$336,980	\$526,200	\$315,720	\$841,920
Bowbells	Bowbells Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Bowman	Bowman Regional Airport	3	1	4	\$139,300	\$69,650	\$208,950	\$326,709	\$196,025	\$522,734
Cando	Cando Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Carrington	Carrington Municipal Airport	5	2	7	\$159,104	\$79,552	\$238,656	\$544,515	\$326,709	\$871,224
Casselton	Casselton Robert Miller Regional Airport	25	18	43	\$850,520	\$884,541	\$1,735,061	\$2,722,575	\$1,633,545	\$4,356,120
Cavalier	Cavalier Municipal Airport	9	3	12	\$293,196	\$146,598	\$439,794	\$980,127	\$588,076	\$1,568,203
Columbus	Columbus Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Cooperstown	Cooperstown Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Crosby	Crosby Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Drayton	Drayton Municipal Airport	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Dunseith	International Peace Garden	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Edgeley	Edgeley Municipal Airport	3	1	4	\$134,415	\$67,208	\$201,623	\$326,709	\$196,025	\$522,734
Elgin	Elgin Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Ellendale	Ellendale Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Enderlin	Sky Haven Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Fessenden	Fessenden-Streibel Municipal Airport	5	2	7	\$224,025	\$112,013	\$336,038	\$544,515	\$326,709	\$871,224
Fort Yates	Standing Rock Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Gackle	Gackle Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0

Table 12 - Direct, Indirect, and Total Economic Impacts from Airport Tenants

		Employment			Payroll			Output		
Garrison	Garrison Municipal Airport	2	1	3	\$89,610	\$44,805	\$134,415	\$217,806	\$130,684	\$348,490
Glen Ullin	Glen Ullin Regional Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Grafton	Hutson Field Airport	6	2	8	\$259,236	\$129,618	\$388,854	\$653,418	\$392,051	\$1,045,469
Gwinner	Gwinner-Roger Melroe Field	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Harvey	Harvey Municipal Airport	3	1	4	\$129,618	\$64,809	\$194,427	\$326,709	\$196,025	\$522,734
Hazelton	Hazelton Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Hazen	Mercer County Regional Airport	2	1	3	\$86,412	\$21,603	\$108,015	\$217,806	\$108,903	\$326,709
Hettinger	Hettinger Municipal Airport	9	3	12	\$426,817	\$213,409	\$640,226	\$980,127	\$588,076	\$1,568,203
Hillsboro	Hillsboro Regional Airport	14	5	19	\$520,362	\$260,181	\$780,543	\$1,524,642	\$914,785	\$2,439,427
Kenmare	Kenmare Municipal Airport	8	3	11	\$345,648	\$172,824	\$518,472	\$871,224	\$522,734	\$1,393,958
Killdeer	Dunn County Airport-Weydahl Field	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Kindred	Robert Odegaard Field	7	2	9	\$227,178	\$113,589	\$340,767	\$2,231,592	\$1,338,955	\$3,570,547
Kulm	Kulm Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Lakota	Lakota Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
LaMoure	LaMoure Rott Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Langdon	Robertson Field Airport	3	1	4	\$76,656	\$38,328	\$114,984	\$326,709	\$196,025	\$522,734
Larimore	Larimore Municipal Airport	7	2	9	\$238,303	\$119,152	\$357,455	\$762,321	\$457,393	\$1,219,714
Leeds	Leeds Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Lidgerwood	Lidgerwood Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Linton	Linton Municipal Airport	4	1	5	\$143,683	\$71,842	\$215,525	\$435,612	\$261,367	\$696,979
Lisbon	Lisbon Municipal Airport	2	1	3	\$145,516	\$72,758	\$218,274	\$217,806	\$130,684	\$348,490
Maddock	Maddock Municipal Airport	5	2	7	\$653,844	\$326,922	\$980,766	\$810,924	\$486,554	\$1,297,478
Mandan	Mandan Municipal Airport	15	5	20	\$561,577	\$280,789	\$842,366	\$1,633,545	\$980,127	\$2,613,672
Mayville	Mayville Municipal Airport	4	1	5	\$179,220	\$89,610	\$268,830	\$435,612	\$261,367	\$696,979
McClusky	McClusky Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
McVille	McVille Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Milnor	Milnor Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Minto	Minto Municipal Airport	4	1	5	\$172,824	\$86,412	\$259,236	\$435,612	\$261,367	\$696,979
Mohall	Mohall Municipal Airport	6	2	8	\$259,236	\$129,618	\$388,854	\$653,418	\$392,051	\$1,045,469
Mott	Mott Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Napoleon	Napoleon Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
New Rockford	Tomlinson Field Airport	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
New Town	New Town Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Northwood	Northwood Municipal-Vince Field	4	1	5	\$144,684	\$72,342	\$217,026	\$435,612	\$261,367	\$696,979

Table 12 - Direct, Indirect, and Total Economic Impacts from Airport Tenants

		Employment			Payroll			Output		
Oakes	Oakes Municipal Airport	1	0	1	\$70,066	\$35,033	\$105,099	\$108,903	\$65,342	\$174,245
Page	Page Regional Airport	8	3	11	\$269,452	\$145,504	\$414,956	\$871,224	\$679,555	\$1,550,779
Park River	Park River Airport-WC Skjerven Field	6	2	8	\$259,236	\$129,618	\$388,854	\$653,418	\$392,051	\$1,045,469
Parshall	Parshall-Hankins Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Pembina	Pembina Municipal Airport	5	2	7	\$171,004	\$85,502	\$256,506	\$544,515	\$326,709	\$871,224
Plaza	Trulson Field Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Richardton	Richardton Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Riverdale	Garrison Dam Recreational Airpark	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Rolette	Rolette Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Rolla	Rolla Municipal Airport	6	2	8	\$200,085	\$100,043	\$300,128	\$653,418	\$392,051	\$1,045,469
Rugby	Rugby Municipal Airport	2	1	3	\$89,610	\$44,805	\$134,415	\$217,806	\$130,684	\$348,490
St. Thomas	St. Thomas Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Stanley	Stanley Municipal Airport	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Tioga	Tioga Municipal Airport	8	3	11	\$345,648	\$172,824	\$518,472	\$871,224	\$522,734	\$1,393,958
Towner	Towner Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Turtle Lake	Turtle Lake Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Valley City	Barnes County Municipal Airport	7	2	9	\$269,091	\$134,546	\$403,637	\$762,321	\$457,393	\$1,219,714
Wahpeton	Harry Stern Airport	18	6	24	\$700,564	\$350,282	\$1,050,846	\$1,960,254	\$1,176,152	\$3,136,406
Walhalla	Walhalla Municipal Airport	4	1	5	\$172,824	\$86,412	\$259,236	\$435,612	\$261,367	\$696,979
Washburn	Washburn Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Watford City	Watford City Municipal Airport	9	3	12	\$341,730	\$170,865	\$512,595	\$980,127	\$588,076	\$1,568,203
West Fargo	West Fargo Municipal Airport	4	2	6	\$125,744	\$67,902	\$193,646	\$435,612	\$339,777	\$775,389
Westhope	Westhope Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Wishek	Wishek Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Total General Aviation Airports Impacts		269	101	370	\$11,126,489	\$6,016,735	\$17,143,224	\$31,230,078	\$18,951,497	\$50,181,575
Total All Airports Impacts		2,738	1,469	4,207	\$150,472,779	\$73,379,326	\$223,852,105	\$408,330,319	\$218,359,410	\$626,689,729

Source: North Dakota Airport Tenants

3.1.3 Indirect Economic Impacts from Average Annual Capital Investment

Direct economic impacts for the capital investment category for employment, payroll, and output were obtained directly from NDAC, the FAA, airport sponsors, or third party private investment sources. Direct impacts for the capital investment category were previously presented in Table 5. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's annual economic impact that is related to indirect (multiplier) impacts. For this category of economic impact it is important to re-state that direct capital investment output is segregated into categories for modeling. For example, IMPLAN treats separately the economic benefit of investment for pavement, structures, lighting, equipment, and planning.

For the capital investment category, **Table 13 - Direct, Indirect, and Total Economic Impacts from Average Annual Capital Investment** presents each airport's direct, indirect, and total annual economic impacts for employment, payroll, and output. These results consider not only what has been invested in each airport on average over the past three years, the results also reflect what types of investments were made at each airport.

3.1.4 Indirect Economic Impacts from General Aviation Visitor Spending

Direct economic impacts for the general aviation visitor spending category for employment, payroll, and output were obtained from airport operators (with NDAC input as required) and study surveys. Direct impacts for general aviation visitor spending were previously presented in **Table 7**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's annual economic impact that is related to indirect (multiplier) impacts. For both general aviation and commercial visitor spending, direct visitor output (spending) was assigned to one or more of the following categories based on survey results: hotels, food, ground transportation, retail, and entertainment.

For the general aviation visitor spending category, **Table 14 - Direct, Indirect, and Total Economic Impacts from General Aviation Visitor Spending** presents each airport's direct, indirect, and total annual economic impacts for employment, payroll, and output.

3.1.5 Indirect Economic Impacts from Commercial Visitor Spending

Direct economic impacts for the commercial visitor spending category for employment, payroll, and output were obtained from study surveys and USDOT. Direct impacts for commercial visitor spending were previously presented in **Table 8**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's annual economic impact that is related to indirect (multiplier) impacts.

For the commercial visitor spending category, **Table 15 - Direct, Indirect, and Total Economic Impacts from Commercial Visitor Spending** presents each commercial airport's direct, indirect, and total annual economic impacts for employment, payroll, and output. Impacts in this category are associated with just the eight commercial airports in North Dakota.

Table 13 - Direct, Indirect, and Total Economic Impacts from Average Annual Capital Investment

City	Airport Name	Employment			Payroll			Output		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Bismarck	Bismarck Municipal Airport	62	73	135	\$4,102,808	\$2,789,909	\$6,892,717	\$11,094,850	\$9,097,777	\$20,192,627
Devils Lake	Devils Lake Regional Airport	18	16	34	\$1,095,865	\$657,519	\$1,753,384	\$3,174,557	\$2,095,208	\$5,269,765
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	11	12	23	\$990,641	\$505,227	\$1,495,868	\$2,242,152	\$1,614,349	\$3,856,501
Fargo	Hector International Airport	73	86	159	\$5,783,724	\$3,701,583	\$9,485,307	\$14,124,640	\$10,593,480	\$24,718,120
Grand Forks	Grand Forks International Airport	54	51	105	\$3,780,506	\$2,117,083	\$5,897,589	\$9,937,683	\$6,757,624	\$16,695,307
Jamestown	Jamestown Regional Airport	7	6	13	\$409,759	\$245,855	\$655,614	\$1,184,307	\$781,643	\$1,965,950
Minot	Minot International Airport	113	124	237	\$10,031,087	\$5,115,854	\$15,146,941	\$22,913,672	\$16,497,844	\$39,411,516
Williston	Sloulin Field International Airport	8	10	18	\$932,330	\$438,195	\$1,370,525	\$1,857,248	\$1,392,936	\$3,250,184
	Total Commercial Airports Impacts	346	378	724	\$27,126,720	\$15,571,225	\$42,697,945	\$66,529,109	\$48,830,861	\$115,359,970
Arthur	Arthur Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Ashley	Ashley Municipal Airport	2	1	3	\$70,973	\$45,423	\$116,396	\$286,380	\$220,513	\$506,893
Beach	Beach Airport	5	7	12	\$150,250	\$96,160	\$246,410	\$323,325	\$248,960	\$572,285
Beulah	Beulah Airport	0	0	0	\$0	\$0	\$0	\$6,580	\$0	\$6,580
Bottineau	Bottineau Municipal Airport	1	1	2	\$72,014	\$46,089	\$118,103	\$207,696	\$159,926	\$367,622
Bowbells	Bowbells Municipal Airport	0	0	0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
Bowman	Bowman Regional Airport	31	41	72	\$2,495,874	\$1,597,359	\$4,093,233	\$6,018,202	\$4,634,016	\$10,652,218
Cando	Cando Municipal Airport	6	8	14	\$273,616	\$175,114	\$448,730	\$1,008,156	\$775,280	\$1,783,436
Carrington	Carrington Municipal Airport	2	3	5	\$93,208	\$59,653	\$152,861	\$278,533	\$214,470	\$493,003
Casselton	Casselton Robert Miller Regional Airport	2	3	5	\$148,860	\$95,270	\$244,130	\$363,537	\$279,923	\$643,460
Cavalier	Cavalier Municipal Airport	1	1	2	\$81,385	\$52,086	\$133,471	\$194,669	\$149,895	\$344,564
Columbus	Columbus Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Cooperstown	Cooperstown Municipal Airport	0	0	0	\$0	\$0	\$0	\$54,320	\$0	\$54,320
Crosby	Crosby Municipal Airport	5	7	12	\$252,866	\$161,834	\$414,700	\$769,865	\$592,796	\$1,362,661
Drayton	Drayton Municipal Airport	0	0	0	\$0	\$0	\$0	\$7,333	\$0	\$7,333
Dunseith	International Peace Garden	0	0	0	\$0	\$0	\$0	\$58,353	\$0	\$58,353
Edgeley	Edgeley Municipal Airport	2	3	5	\$126,055	\$80,675	\$206,730	\$408,658	\$314,667	\$723,325
Elgin	Elgin Municipal Airport	0	0	0	\$0	\$0	\$0	\$425	\$0	\$425
Ellendale	Ellendale Municipal Airport	4	5	9	\$150,488	\$96,312	\$246,800	\$558,358	\$429,936	\$988,294
Enderlin	Sky Haven Airport	0	0	0	\$0	\$0	\$0	\$56,504	\$0	\$56,504
Fessenden	Fessenden-Streibel Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Fort Yates	Standing Rock Airport	0	0	0	\$0	\$0	\$0	\$3,333	\$0	\$3,333
Gackle	Gackle Municipal Airport	0	0	0	\$0	\$0	\$0	\$4,686	\$0	\$4,686

Table 13 - Direct, Indirect, and Total Economic Impacts from Average Annual Capital Investment

		Employment			Payroll			Output		
Garrison	Garrison Municipal Airport	1	1	2	\$79,360	\$50,790	\$130,150	\$201,323	\$155,019	\$356,342
Glen Ullin	Glen Ullin Regional Airport	1	1	2	\$75,129	\$48,083	\$123,212	\$190,500	\$146,685	\$337,185
Grafton	Hutson Field Airport	3	4	7	\$204,998	\$131,199	\$336,197	\$540,752	\$416,379	\$957,131
Gwinner	Gwinner-Roger Melroe Field	11	14	25	\$649,922	\$415,950	\$1,065,872	\$1,917,571	\$1,476,530	\$3,394,101
Harvey	Harvey Municipal Airport	0	0	0	\$0	\$0	\$0	\$59,398	\$0	\$59,398
Hazelton	Hazelton Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Hazen	Mercer County Regional Airport	0	0	0	\$0	\$0	\$0	\$58,241	\$0	\$58,241
Hettinger	Hettinger Municipal Airport	3	4	7	\$176,634	\$113,046	\$289,680	\$535,655	\$412,454	\$948,109
Hillsboro	Hillsboro Regional Airport	0	0	0	\$0	\$0	\$0	\$2,167	\$0	\$2,167
Kenmare	Kenmare Municipal Airport	4	5	9	\$369,288	\$236,344	\$605,632	\$614,576	\$473,224	\$1,087,800
Killdeer	Dunn County Airport-Weydahl Field	10	13	23	\$928,270	\$594,093	\$1,522,363	\$1,667,942	\$1,284,315	\$2,952,257
Kindred	Robert Odegaard Field	0	0	0	\$0	\$0	\$0	\$16,409	\$0	\$16,409
Kulm	Kulm Municipal Airport	1	1	2	\$65,666	\$42,026	\$107,692	\$93,973	\$72,359	\$166,332
Lakota	Lakota Municipal Airport	0	0	0	\$0	\$0	\$0	\$89,351	\$0	\$89,351
LaMoure	LaMoure Rott Municipal Airport	0	0	0	\$0	\$0	\$0	\$6,028	\$0	\$6,028
Langdon	Robertson Field Airport	2	3	5	\$106,416	\$68,106	\$174,522	\$290,650	\$223,801	\$514,451
Larimore	Larimore Municipal Airport	1	1	2	\$60,651	\$38,817	\$99,468	\$159,525	\$122,834	\$282,359
Leeds	Leeds Municipal Airport	1	1	2	\$43,110	\$27,590	\$70,700	\$113,725	\$87,568	\$201,293
Lidgerwood	Lidgerwood Municipal Airport	0	0	0	\$0	\$0	\$0	\$6,443	\$0	\$6,443
Linton	Linton Municipal Airport	1	1	2	\$75,580	\$48,371	\$123,951	\$225,877	\$173,925	\$399,802
Lisbon	Lisbon Municipal Airport	1	1	2	\$57,072	\$36,526	\$93,598	\$190,875	\$146,974	\$337,849
Maddock	Maddock Municipal Airport	2	3	5	\$152,361	\$97,511	\$249,872	\$401,936	\$309,491	\$711,427
Mandan	Mandan Municipal Airport	17	22	39	\$1,250,445	\$800,285	\$2,050,730	\$3,170,691	\$2,441,432	\$5,612,123
Mayville	Mayville Municipal Airport	6	8	14	\$287,697	\$184,126	\$471,823	\$923,705	\$711,253	\$1,634,958
McClusky	McClusky Municipal Airport	0	0	0	\$0	\$0	\$0	\$3,917	\$0	\$3,917
McVie	McVie Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Milnor	Milnor Municipal Airport	0	0	0	\$0	\$0	\$0	\$35,248	\$0	\$35,248
Minto	Minto Municipal Airport	0	0	0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
Mohall	Mohall Municipal Airport	4	5	9	\$99,389	\$63,609	\$162,998	\$515,524	\$396,953	\$912,477
Mott	Mott Municipal Airport	1	1	2	\$65,666	\$42,026	\$107,692	\$156,237	\$120,302	\$276,539
Napoleon	Napoleon Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
New Rockford	Tomlinson Field Airport	0	0	0	\$0	\$0	\$0	\$14,281	\$0	\$14,281
New Town	New Town Municipal Airport	9	12	21	\$779,492	\$498,875	\$1,278,367	\$1,764,343	\$1,358,544	\$3,122,887
Northwood	Northwood Municipal-Vince Field	0	0	0	\$0	\$0	\$0	\$47,406	\$0	\$47,406

Table 13 - Direct, Indirect, and Total Economic Impacts from Average Annual Capital Investment

		Employment			Payroll			Output		
Oakes	Oakes Municipal Airport	8	10	18	\$324,386	\$207,607	\$531,993	\$1,203,579	\$926,756	\$2,130,335
Page	Page Regional Airport	1	1	2	\$51,014	\$32,649	\$83,663	\$124,583	\$93,437	\$218,020
Park River	Park River Airport-WC Skjerven Field	0	0	0	\$0	\$0	\$0	\$32,255	\$0	\$32,255
Parshall	Parshall-Hankins Airport	2	3	5	\$220,039	\$140,825	\$360,864	\$498,047	\$383,496	\$881,543
Pembina	Pembina Municipal Airport	1	1	2	\$65,666	\$42,026	\$107,692	\$108,262	\$83,361	\$191,623
Plaza	Trulson Field Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Richardton	Richardton Airport	0	0	0	\$0	\$0	\$0	\$3,033	\$0	\$3,033
Riverdale	Garrison Dam Recreational Airpark	0	0	0	\$0	\$0	\$0	\$12,456	\$0	\$12,456
Rolette	Rolette Airport	2	3	5	\$130,165	\$83,306	\$213,471	\$353,158	\$271,932	\$625,090
Rolla	Rolla Municipal Airport	5	7	12	\$322,311	\$206,279	\$528,590	\$874,482	\$673,351	\$1,547,833
Rugby	Rugby Municipal Airport	2	3	5	\$127,330	\$81,491	\$208,821	\$338,573	\$260,701	\$599,274
St. Thomas	St. Thomas Municipal Airport	0	0	0	\$0	\$0	\$0	\$5,635	\$0	\$5,635
Stanley	Stanley Municipal Airport	5	7	12	\$418,682	\$267,956	\$686,638	\$947,666	\$729,703	\$1,677,369
Tioga	Tioga Municipal Airport	3	4	7	\$277,474	\$177,583	\$455,057	\$553,064	\$425,859	\$978,923
Towner	Towner Municipal Airport	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Turtle Lake	Turtle Lake Municipal Airport	0	0	0	\$0	\$0	\$0	\$27,466	\$0	\$27,466
Valley City	Barnes County Municipal Airport	4	5	9	\$241,929	\$154,835	\$396,764	\$696,134	\$536,023	\$1,232,157
Wahpeton	Harry Stern Airport	3	4	7	\$166,607	\$106,628	\$273,235	\$451,737	\$347,837	\$799,574
Walhalla	Walhalla Municipal Airport	3	4	7	\$195,623	\$125,199	\$320,822	\$467,920	\$360,298	\$828,218
Washburn	Washburn Municipal Airport	0	0	0	\$0	\$0	\$0	\$94,629	\$0	\$94,629
Watford City	Watford City Municipal Airport	8	10	18	\$681,250	\$436,000	\$1,117,250	\$1,346,173	\$1,036,553	\$2,382,726
West Fargo	West Fargo Municipal Airport	1	1	2	\$39,608	\$25,349	\$64,957	\$96,728	\$72,546	\$169,274
Westhope	Westhope Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Wishek	Wishek Municipal Airport	0	0	0	\$0	\$0	\$0	\$22,009	\$0	\$22,009
Total General Aviation Airports Impacts		188	244	432	\$12,704,819	\$8,131,081	\$20,835,900	\$32,893,371	\$24,752,277	\$57,645,648
Total All Airports Impacts		534	622	1,156	\$39,831,539	\$23,702,306	\$63,533,845	\$99,422,480	\$73,583,138	\$173,005,618

Source: NDAC, FAA, Airports, Tenants, and IMPLAN

Table 14 - Direct, Indirect, and Total Economic Impacts from General Aviation Visitor Spending

City	Airport Name	Employment			Payroll			Output		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Bismarck	Bismarck Municipal Airport	48	21	69	\$1,186,848	\$926,070	\$2,112,918	\$4,385,640	\$2,806,810	\$7,192,450
Devils Lake	Devils Lake Regional Airport	7	3	10	\$150,731	\$109,318	\$260,049	\$807,576	\$411,864	\$1,219,440
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	39	14	53	\$1,064,700	\$642,900	\$1,707,600	\$3,772,814	\$2,112,776	\$5,885,590
Fargo	Hector International Airport	90	40	130	\$2,445,300	\$1,839,143	\$4,284,443	\$14,124,640	\$8,757,277	\$22,881,917
Grand Forks	Grand Forks International Airport	57	20	77	\$1,349,760	\$862,778	\$2,212,538	\$5,305,248	\$2,917,886	\$8,223,134
Jamestown	Jamestown Regional Airport	14	5	19	\$283,416	\$192,714	\$476,130	\$1,328,733	\$704,228	\$2,032,961
Minot	Minot International Airport	116	42	158	\$2,925,752	\$1,870,932	\$4,796,684	\$10,955,050	\$6,134,828	\$17,089,878
Williston	Sloulin Field International Airport	174	70	244	\$5,310,654	\$3,087,108	\$8,397,762	\$16,812,564	\$9,919,413	\$26,731,977
Total Commercial Airports Impacts		545	215	760	\$14,717,161	\$9,530,963	\$24,248,124	\$57,492,265	\$33,765,082	\$91,257,347
Arthur	Arthur Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Ashley	Ashley Municipal Airport	0	0	0	\$0	\$0	\$0	\$31,200	\$0	\$31,200
Beach	Beach Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$52,100	\$30,739	\$82,839
Beulah	Beulah Airport	0	0	0	\$0	\$0	\$0	\$31,850	\$0	\$31,850
Bottineau	Bottineau Municipal Airport	3	1	4	\$41,469	\$26,125	\$67,594	\$211,350	\$124,697	\$336,047
Bowbells	Bowbells Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Bowman	Bowman Regional Airport	4	1	5	\$65,484	\$41,255	\$106,739	\$292,130	\$172,357	\$464,487
Cando	Cando Municipal Airport	0	0	0	\$0	\$0	\$0	\$36,825	\$0	\$36,825
Carrington	Carrington Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$75,950	\$44,811	\$120,761
Casselton	Casselton Robert Miller Regional Airport	3	1	4	\$74,319	\$53,510	\$127,829	\$247,140	\$160,641	\$407,781
Cavalier	Cavalier Municipal Airport	0	0	0	\$0	\$0	\$0	\$19,110	\$0	\$19,110
Columbus	Columbus Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Cooperstown	Cooperstown Municipal Airport	0	0	0	\$0	\$0	\$0	\$27,525	\$0	\$27,525
Crosby	Crosby Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$68,821	\$40,604	\$109,425
Drayton	Drayton Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Dunseith	International Peace Garden	0	0	0	\$0	\$0	\$0	\$7,800	\$0	\$7,800
Edgeley	Edgeley Municipal Airport	0	0	0	\$0	\$0	\$0	\$14,625	\$0	\$14,625
Elgin	Elgin Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Ellendale	Ellendale Municipal Airport	0	0	0	\$0	\$0	\$0	\$41,700	\$0	\$41,700
Enderlin	Sky Haven Airport	0	0	0	\$0	\$0	\$0	\$15,188	\$0	\$15,188
Fessenden	Fessenden-Streibel Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Fort Yates	Standing Rock Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Gackle	Gackle Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600

Table 14 - Direct, Indirect, and Total Economic Impacts from General Aviation Visitor Spending

		Employment			Payroll			Output		
Garrison	Garrison Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$71,663	\$42,281	\$113,944
Glen Ullin	Glen Ullin Regional Airport	0	0	0	\$0	\$0	\$0	\$15,600	\$0	\$15,600
Grafton	Hutson Field Airport	2	1	3	\$45,940	\$28,942	\$74,882	\$146,510	\$86,441	\$232,951
Gwinner	Gwinner-Roger Melroe Field	1	0	1	\$22,970	\$14,471	\$37,441	\$82,810	\$48,858	\$131,668
Harvey	Harvey Municipal Airport	0	0	0	\$0	\$0	\$0	\$19,200	\$0	\$19,200
Hazelton	Hazelton Municipal Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Hazen	Mercer County Regional Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$107,640	\$63,508	\$171,148
Hettinger	Hettinger Municipal Airport	1	0	1	\$15,720	\$9,904	\$25,624	\$95,550	\$56,375	\$151,925
Hillsboro	Hillsboro Regional Airport	3	1	4	\$39,327	\$24,776	\$64,103	\$238,875	\$140,936	\$379,811
Kenmare	Kenmare Municipal Airport	4	1	5	\$90,684	\$44,435	\$135,119	\$308,884	\$142,087	\$450,971
Killdeer	Dunn County Airport-Weydahl Field	0	0	0	\$0	\$0	\$0	\$11,454	\$0	\$11,454
Kindred	Robert Odegaard Field	0	0	0	\$0	\$0	\$0	\$38,220	\$0	\$38,220
Kulm	Kulm Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Lakota	Lakota Municipal Airport	0	0	0	\$0	\$0	\$0	\$40,531	\$0	\$40,531
LaMoure	LaMoure Rott Municipal Airport	0	0	0	\$0	\$0	\$0	\$6,188	\$0	\$6,188
Langdon	Robertson Field Airport	0	0	0	\$0	\$0	\$0	\$14,625	\$0	\$14,625
Larimore	Larimore Municipal Airport	0	0	0	\$0	\$0	\$0	\$32,725	\$0	\$32,725
Leeds	Leeds Municipal Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Lidgerwood	Lidgerwood Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Linton	Linton Municipal Airport	3	1	4	\$75,580	\$47,615	\$123,195	\$246,127	\$145,215	\$391,342
Lisbon	Lisbon Municipal Airport	0	0	0	\$0	\$0	\$0	\$11,700	\$0	\$11,700
Maddock	Maddock Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Mandan	Mandan Municipal Airport	5	2	7	\$99,578	\$62,734	\$162,312	\$392,040	\$231,304	\$623,344
Mayville	Mayville Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$65,048	\$38,378	\$103,426
McClusky	McClusky Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
McVie	McVie Municipal Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Milnor	Milnor Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Minto	Minto Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Mohall	Mohall Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$76,440	\$45,100	\$121,540
Mott	Mott Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$72,816	\$42,961	\$115,777
Napoleon	Napoleon Municipal Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
New Rockford	Tomlinson Field Airport	0	0	0	\$0	\$0	\$0	\$28,050	\$0	\$28,050
New Town	New Town Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$58,500	\$34,515	\$93,015
Northwood	Northwood Municipal-Vince Field	1	0	1	\$22,970	\$14,471	\$37,441	\$82,875	\$48,896	\$131,771

Table 14 - Direct, Indirect, and Total Economic Impacts from General Aviation Visitor Spending

		Employment			Payroll			Output		
Oakes	Oakes Municipal Airport	0	0	0	\$0	\$0	\$0	\$31,850	\$0	\$31,850
Page	Page Regional Airport	0	0	0	\$0	\$0	\$0	\$6,500	\$0	\$6,500
Park River	Park River Airport-WC Skjerven Field	0	0	0	\$0	\$0	\$0	\$29,625	\$0	\$29,625
Parshall	Parshall-Hankins Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$77,580	\$45,772	\$123,352
Pembina	Pembina Municipal Airport	0	0	0	\$0	\$0	\$0	\$33,638	\$0	\$33,638
Plaza	Trulson Field Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Richardton	Richardton Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Riverdale	Garrison Dam Recreational Airpark	0	0	0	\$0	\$0	\$0	\$3,713	\$0	\$3,713
Rolette	Rolette Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Rolla	Rolla Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$53,900	\$31,801	\$85,701
Rugby	Rugby Municipal Airport	1	0	1	\$22,970	\$14,471	\$37,441	\$57,330	\$33,825	\$91,155
St. Thomas	St. Thomas Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Stanley	Stanley Municipal Airport	5	2	7	\$108,619	\$68,430	\$177,049	\$370,620	\$218,666	\$589,286
Tioga	Tioga Municipal Airport	11	4	15	\$292,260	\$184,124	\$476,384	\$882,900	\$520,911	\$1,403,811
Towner	Towner Municipal Airport	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Turtle Lake	Turtle Lake Municipal Airport	0	0	0	\$0	\$0	\$0	\$23,175	\$0	\$23,175
Valley City	Barnes County Municipal Airport	1	0	1	\$23,813	\$15,002	\$38,815	\$111,336	\$65,688	\$177,024
Wahpeton	Harry Stern Airport	3	1	4	\$48,777	\$30,730	\$79,507	\$226,135	\$133,420	\$359,555
Walhalla	Walhalla Municipal Airport	0	0	0	\$0	\$0	\$0	\$29,250	\$0	\$29,250
Washburn	Washburn Municipal Airport	0	0	0	\$0	\$0	\$0	\$28,800	\$0	\$28,800
Watford City	Watford City Municipal Airport	10	3	13	\$229,884	\$144,827	\$374,711	\$725,400	\$427,986	\$1,153,386
West Fargo	West Fargo Municipal Airport	2	1	3	\$42,221	\$30,399	\$72,620	\$140,400	\$91,260	\$231,660
Westhope	Westhope Municipal Airport	0	0	0	\$0	\$0	\$0	\$2,925	\$0	\$2,925
Wishek	Wishek Municipal Airport	0	0	0	\$0	\$0	\$0	\$33,250	\$0	\$33,250
Total General Aviation Airports Impacts		74	20	94	\$1,615,255	\$1,015,402	\$2,630,657	\$6,507,262	\$3,310,033	\$9,817,295
Total All Airports Impacts		619	235	854	\$16,332,416	\$10,546,365	\$26,878,781	\$63,999,527	\$37,075,115	\$101,074,642

Source: Airport Managers, Surveys, and IMPLAN

Table 15 - Direct, Indirect, and Total Economic Impacts from Commercial Visitor Spending

City	Airport Name	Employment			Payroll			Output		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Bismarck	Bismarck Municipal Airport	764	336	1,100	\$18,643,128	\$14,606,824	\$33,249,952	\$68,838,160	\$44,056,423	\$112,894,583
Devils Lake	Devils Lake Regional Airport	7	3	10	\$163,884	\$130,985	\$294,869	\$706,140	\$374,254	\$1,080,394
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	161	61	222	\$4,395,300	\$2,725,753	\$7,121,053	\$15,845,243	\$8,873,336	\$24,718,579
Fargo	Hector International Airport	1,156	474	1,630	\$29,473,376	\$21,680,826	\$51,154,202	\$96,087,225	\$62,456,696	\$158,543,921
Grand Forks	Grand Forks International Airport	527	174	701	\$12,045,639	\$7,742,647	\$19,788,286	\$35,112,077	\$20,013,884	\$55,125,961
Jamestown	Jamestown Regional Airport	14	5	19	\$292,194	\$194,373	\$486,567	\$1,419,312	\$752,235	\$2,171,547
Minot	Minot International Airport	897	314	1,211	\$21,717,267	\$13,966,694	\$35,683,961	\$80,945,371	\$45,329,408	\$126,274,779
Williston	Sloulin Field International Airport	625	250	875	\$18,704,375	\$11,132,250	\$29,836,625	\$61,963,315	\$35,319,090	\$97,282,405
Total Commercial Airports Impacts		4,151	1,617	5,768	\$105,435,163	\$72,180,352	\$177,615,515	\$360,916,843	\$217,175,326	\$578,092,169

Source: NDAC, USDOT, Surveys, and IMPLAN



4 Total Annual Economic Impacts for 89 North Dakota Airports

For each of the 89 North Dakota public-use airports, the airport's total annual economic impact is the sum of its impacts (as applicable) for airport management, airport tenants, average annual capital investment, general aviation visitor spending, and commercial visitor spending. **Table 16 - Total Annual Statewide Economic Impacts for Each Public-Use Airport** provides a summary of each airport's total annual economic impact as estimated by this analysis. **Table 16** presents total annual economic impacts (employment, payroll, and output) for each public-use airport resulting from each of the five economic activity centers considered in this report.

As discussed in Section 4, total airport specific economic impacts shown in **Table 16** were estimated using the state input/output model developed for this analysis. Impacts shown in **Table 16** reflect each airport's total impact on North Dakota's economy. As discussed earlier, each airport's impact on just its local economy may be less than its impact on the total state economy. Appendix A provides information that reflects each airport's impact on just its local economy.

Table 16 - Total Annual Statewide Economic Impacts for Each Public-Use Airport

City	Airport Name	Employment			Payroll			Output		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Bismarck	Bismarck Municipal Airport	1,301	825	2,126	\$48,824,779	\$37,685,533	\$86,510,312	\$167,787,544	\$111,957,343	\$279,744,887
Devils Lake	Devils Lake Regional Airport	59	30	89	\$2,764,625	\$1,249,226	\$4,013,851	\$7,213,207	\$4,598,281	\$11,811,488
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	314	161	475	\$12,470,880	\$7,852,055	\$20,322,935	\$49,187,217	\$27,430,878	\$76,618,095
Fargo	Hector International Airport	2,391	962	3,353	\$98,456,860	\$43,709,477	\$142,166,337	\$252,525,313	\$134,940,271	\$387,465,584
Grand Forks	Grand Forks International Airport	1,147	522	1,669	\$49,329,548	\$24,292,848	\$73,622,396	\$127,610,776	\$71,757,395	\$199,368,171
Jamestown	Jamestown Regional Airport	65	55	120	\$2,119,085	\$2,678,373	\$4,797,458	\$15,076,145	\$9,349,558	\$24,425,703
Minot	Minot International Airport	1,357	628	1,985	\$46,012,253	\$28,666,574	\$74,678,827	\$162,238,247	\$92,360,011	\$254,598,258
Williston	Sloulin Field International Airport	1,004	470	1,474	\$35,224,844	\$22,031,471	\$57,256,315	\$134,029,890	\$75,018,098	\$209,047,988
Total Commercial Airports Impacts		7,638	3,653	11,291	\$295,202,874	\$168,165,557	\$463,368,431	\$915,668,339	\$527,411,835	\$1,443,080,174
Arthur	Arthur Airport	0	0	0	\$0	\$0	\$0	\$23,250	\$0	\$23,250
Ashley	Ashley Municipal Airport	13	4	17	\$537,033	\$269,953	\$806,986	\$1,474,270	\$907,761	\$2,382,031
Beach	Beach Airport	6	7	13	\$173,220	\$110,631	\$283,851	\$376,625	\$279,699	\$656,324
Beulah	Beulah Airport	10	3	13	\$422,854	\$202,927	\$625,781	\$1,086,217	\$621,906	\$1,708,123
Bottineau	Bottineau Municipal Airport	7	3	10	\$338,136	\$184,541	\$522,677	\$946,446	\$600,343	\$1,546,789
Bowbells	Bowbells Municipal Airport	0	0	0	\$0	\$0	\$0	\$8,200	\$0	\$8,200
Bowman	Bowman Regional Airport	40	44	84	\$2,810,504	\$1,735,726	\$4,546,230	\$6,797,041	\$5,082,398	\$11,879,439
Cando	Cando Municipal Airport	6	8	14	\$273,616	\$175,114	\$448,730	\$1,046,181	\$775,280	\$1,821,461
Carrington	Carrington Municipal Airport	9	5	14	\$309,282	\$162,176	\$471,458	\$966,658	\$619,820	\$1,586,478
Casselton	Casselton Robert Miller Regional Airport	32	23	55	\$1,141,699	\$1,050,321	\$2,192,020	\$3,468,572	\$2,141,769	\$5,610,341
Cavalier	Cavalier Municipal Airport	10	4	14	\$374,581	\$198,684	\$573,265	\$1,195,106	\$737,971	\$1,933,077
Columbus	Columbus Municipal Airport	0	0	0	\$0	\$0	\$0	\$3,000	\$0	\$3,000
Cooperstown	Cooperstown Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$300,851	\$130,684	\$431,535
Crosby	Crosby Municipal Airport	6	7	13	\$275,836	\$176,305	\$452,141	\$839,886	\$633,400	\$1,473,286
Drayton	Drayton Municipal Airport	1	0	1	\$43,206	\$21,603	\$64,809	\$120,036	\$65,342	\$185,378
Dunseith	International Peace Garden	<1	0	<1	\$0	\$0	\$0	\$69,753	\$0	\$69,753
Edgeley	Edgeley Municipal Airport	5	4	9	\$260,470	\$147,883	\$408,353	\$751,192	\$510,692	\$1,261,884
Elgin	Elgin Municipal Airport	0	0	0	\$0	\$0	\$0	\$3,625	\$0	\$3,625
Ellendale	Ellendale Municipal Airport	4	5	9	\$150,488	\$96,312	\$246,800	\$601,258	\$429,936	\$1,031,194
Enderlin	Sky Haven Airport	0	0	0	\$0	\$0	\$0	\$72,892	\$0	\$72,892
Fessenden	Fessenden-Streibel Municipal Airport	5	2	7	\$224,025	\$112,013	\$336,038	\$547,715	\$326,709	\$874,424
Fort Yates	Standing Rock Airport	<1	0	<1	\$0	\$0	\$0	\$7,133	\$0	\$7,133
Gackle	Gackle Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$7,686	\$0	\$7,686

Table 16 - Total Annual Statewide Economic Impacts for Each Public-Use Airport

		Employment			Payroll			Output		
Garrison	Garrison Municipal Airport	4	2	6	\$191,940	\$110,066	\$302,006	\$491,992	\$327,984	\$819,976
Glen Ullin	Glen Ullin Regional Airport	1	1	2	\$75,129	\$48,083	\$123,212	\$207,300	\$146,685	\$353,985
Grafton	Hutson Field Airport	12	7	19	\$547,374	\$299,059	\$846,433	\$1,408,340	\$928,701	\$2,337,041
Gwinner	Gwinner-Roger Melroe Field	13	14	27	\$716,098	\$452,024	\$1,168,122	\$2,110,484	\$1,590,730	\$3,701,214
Harvey	Harvey Municipal Airport	4	1	5	\$163,618	\$73,309	\$236,927	\$472,967	\$229,955	\$702,922
Hazelton	Hazelton Municipal Airport	0	0	0	\$0	\$0	\$0	\$23,250	\$0	\$23,250
Hazen	Mercer County Regional Airport	3	1	4	\$109,382	\$36,074	\$145,456	\$384,887	\$172,411	\$557,298
Hettinger	Hettinger Municipal Airport	13	7	20	\$619,171	\$336,359	\$955,530	\$1,636,332	\$1,056,905	\$2,693,237
Hillsboro	Hillsboro Regional Airport	18	6	24	\$593,689	\$293,457	\$887,146	\$1,833,344	\$1,089,551	\$2,922,895
Kenmare	Kenmare Municipal Airport	17	9	26	\$839,620	\$462,103	\$1,301,723	\$1,862,344	\$1,171,875	\$3,034,219
Killdeer	Dunn County Airport-Weydahl Field	11	13	24	\$962,270	\$602,593	\$1,564,863	\$1,747,056	\$1,318,145	\$3,065,201
Kindred	Robert Odegaard Field	7	2	9	\$227,178	\$113,589	\$340,767	\$2,287,421	\$1,338,955	\$3,626,376
Kulm	Kulm Municipal Airport	2	1	3	\$99,666	\$50,526	\$150,192	\$164,233	\$106,189	\$270,422
Lakota	Lakota Municipal Airport	0	0	0	\$0	\$0	\$0	\$131,082	\$0	\$131,082
LaMoure	LaMoure Rott Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$231,222	\$130,684	\$361,906
Langdon	Robertson Field Airport	5	4	9	\$183,072	\$106,434	\$289,506	\$633,184	\$419,826	\$1,053,010
Larimore	Larimore Municipal Airport	9	3	12	\$339,327	\$168,062	\$507,389	\$1,189,365	\$697,624	\$1,886,989
Leeds	Leeds Municipal Airport	1	1	2	\$43,110	\$27,590	\$70,700	\$137,775	\$87,568	\$225,343
Lidgerwood	Lidgerwood Municipal Airport	0	0	0	\$0	\$0	\$0	\$9,443	\$0	\$9,443
Linton	Linton Municipal Airport	9	3	12	\$331,509	\$176,995	\$508,504	\$975,276	\$614,337	\$1,589,613
Lisbon	Lisbon Municipal Airport	3	2	5	\$202,588	\$109,284	\$311,872	\$421,581	\$277,658	\$699,239
Maddock	Maddock Municipal Airport	7	5	12	\$806,205	\$424,433	\$1,230,638	\$1,216,060	\$796,045	\$2,012,105
Mandan	Mandan Municipal Airport	38	29	67	\$1,986,600	\$1,162,558	\$3,149,158	\$5,263,936	\$3,686,693	\$8,950,629
Mayville	Mayville Municipal Airport	11	9	20	\$489,887	\$288,207	\$778,094	\$1,425,565	\$1,010,998	\$2,436,563
McClusky	McClusky Municipal Airport	<1	0	<1	\$0	\$0	\$0	\$7,117	\$0	\$7,117
McVille	McVille Municipal Airport	0	0	0	\$0	\$0	\$0	\$23,450	\$0	\$23,450
Milnor	Milnor Municipal Airport	0	0	0	\$0	\$0	\$0	\$38,448	\$0	\$38,448
Minto	Minto Municipal Airport	5	1	6	\$206,824	\$94,912	\$301,736	\$510,872	\$295,197	\$806,069
Mohall	Mohall Municipal Airport	12	7	19	\$415,595	\$216,198	\$631,793	\$1,313,042	\$867,934	\$2,180,976
Mott	Mott Municipal Airport	3	1	4	\$129,036	\$66,597	\$195,633	\$296,713	\$197,093	\$493,806
Napoleon	Napoleon Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$241,856	\$130,684	\$372,540
New Rockford	Tomlinson Field Airport	1	0	1	\$43,206	\$21,603	\$64,809	\$152,434	\$65,342	\$217,776
New Town	New Town Municipal Airport	10	12	22	\$802,462	\$513,346	\$1,315,808	\$1,824,043	\$1,393,059	\$3,217,102
Northwood	Northwood Municipal-Vince Field	5	1	6	\$167,654	\$86,813	\$254,467	\$567,093	\$310,263	\$877,356

Table 16 - Total Annual Statewide Economic Impacts for Each Public-Use Airport

		Employment			Payroll			Output		
Oakes	Oakes Municipal Airport	9	10	19	\$394,452	\$242,640	\$637,092	\$1,345,532	\$992,098	\$2,337,630
Page	Page Regional Airport	9	4	13	\$320,466	\$178,153	\$498,619	\$1,284,467	\$801,208	\$2,085,675
Park River	Park River Airport-WC Skjerven Field	6	2	8	\$259,236	\$129,618	\$388,854	\$716,498	\$392,051	\$1,108,549
Parshall	Parshall-Hankins Airport	4	3	7	\$277,009	\$163,796	\$440,805	\$643,287	\$463,098	\$1,106,385
Pembina	Pembina Municipal Airport	7	3	10	\$270,054	\$135,874	\$405,928	\$889,395	\$511,560	\$1,400,955
Plaza	Trulson Field Airport	0	0	0	\$0	\$0	\$0	\$3,000	\$0	\$3,000
Richardton	Richardton Airport	0	0	0	\$0	\$0	\$0	\$6,033	\$0	\$6,033
Riverdale	Garrison Dam Recreational Airpark	<1	0	<1	\$1,800	\$0	\$1,800	\$17,369	\$0	\$17,369
Rolette	Rolette Airport	2	3	5	\$130,165	\$83,306	\$213,471	\$377,208	\$271,932	\$649,140
Rolla	Rolla Municipal Airport	12	9	21	\$545,366	\$320,793	\$866,159	\$1,583,000	\$1,097,203	\$2,680,203
Rugby	Rugby Municipal Airport	5	4	9	\$239,910	\$140,767	\$380,677	\$614,909	\$425,210	\$1,040,119
St. Thomas	St. Thomas Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$227,241	\$130,684	\$357,925
Stanley	Stanley Municipal Airport	11	9	20	\$570,507	\$357,989	\$928,496	\$1,428,389	\$1,013,711	\$2,442,100
Tioga	Tioga Municipal Airport	23	11	34	\$949,382	\$543,031	\$1,492,413	\$2,374,848	\$1,503,334	\$3,878,182
Towner	Towner Municipal Airport	0	0	0	\$0	\$0	\$0	\$24,050	\$0	\$24,050
Turtle Lake	Turtle Lake Municipal Airport	0	0	0	\$0	\$0	\$0	\$51,241	\$0	\$51,241
Valley City	Barnes County Municipal Airport	14	8	22	\$584,889	\$316,897	\$901,786	\$1,685,949	\$1,117,183	\$2,803,132
Wahpeton	Harry Stern Airport	25	11	36	\$949,948	\$496,140	\$1,446,088	\$2,705,786	\$1,691,239	\$4,397,025
Walhalla	Walhalla Municipal Airport	7	5	12	\$368,447	\$211,611	\$580,058	\$938,282	\$621,665	\$1,559,947
Washburn	Washburn Municipal Airport	0	0	0	\$0	\$0	\$0	\$138,429	\$0	\$138,429
Watford City	Watford City Municipal Airport	28	16	44	\$1,299,664	\$763,392	\$2,063,056	\$3,119,360	\$2,086,445	\$5,205,805
West Fargo	West Fargo Municipal Airport	8	4	12	\$243,573	\$130,490	\$374,063	\$740,400	\$522,528	\$1,262,928
Westhope	Westhope Municipal Airport	2	1	3	\$86,412	\$43,206	\$129,618	\$224,531	\$130,684	\$355,215
Wishek	Wishek Municipal Airport	0	0	0	\$0	\$0	\$0	\$85,259	\$0	\$85,259
Total General Aviation Airports Impacts		558	368	926	\$26,464,088	\$15,414,990	\$41,879,078	\$73,177,563	\$48,094,634	\$121,272,197
Total All Airports Impacts		8,196	4,021	12,217	\$321,666,962	\$183,580,547	\$505,247,509	\$988,845,902	\$575,506,469	\$1,564,352,371

Source: Airport Managers, Tenants, Surveys, NDAC, USDOT, IMPLAN, Dun & Bradstreet, and Manta

5 Total Annual Statewide Economic Impacts

Annual direct, indirect, and total economic impacts have been estimated for each of the 89 North Dakota public-use airports. Summed, these airport specific impacts equal total statewide economic impacts for each of the five economic impact activity centers. Statewide annual economic impacts for all airports are summarized in **Tables 17, 18, 19, 20, and 21**.

Table 17 - Statewide Annual Economic Impacts from Airport Management

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
All Airports	154	78	232	\$9,595,065	\$3,772,198	\$13,367,263	\$56,176,733	\$29,313,480	\$85,490,213

Source: Airport Managers

Table 18 - Statewide Annual Economic Impacts from Airport Tenants

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
All Airports	2,738	1,469	4,207	\$150,472,779	\$73,379,326	\$223,852,105	\$408,330,319	\$218,359,410	\$626,689,729

Source: Airport Tenants

Table 19 - Statewide Annual Economic Impacts from Average Annual Capital Investment

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
All Airports	534	622	1,156	\$39,831,539	\$23,702,306	\$63,533,845	\$99,422,480	\$73,583,138	\$173,005,618

Source: Airport Managers, Tenants, NDAC, FAA, IMPLAN

Table 20 - Statewide Annual Economic Impacts from General Aviation Visitor Spending

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
All Airports	619	235	854	\$16,332,416	\$10,546,365	\$26,878,781	\$63,999,527	\$37,075,115	\$101,074,642

Source: Airport Managers, Surveys, and IMPLAN

Table 21 - Statewide Annual Economic Impacts from Commercial Visitor Spending

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
All Commercial Airports	4,151	1,617	5,768	\$105,435,163	\$72,180,352	\$177,615,515	\$360,916,843	\$217,175,326	\$578,092,169

Source: Surveys and IMPLAN

Tables 17-21 present total annual North Dakota statewide economic impacts for each of the five economic activity centers examined in this report. The sum of these five impact categories represents total annual economic impacts for the 89 commercial and general aviation airports included in this study. **Table 22 - Total Annual Statewide Economic Impacts for All North Dakota Airports** presents total annual employment, payroll and output for all public-use airports, as they were estimated in this study.

Table 22 - Total Annual Statewide Economic Impacts for All North Dakota Airports

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	154	78	232	\$9,595,065	\$3,772,198	\$13,367,263	\$56,176,733	\$29,313,480	\$85,490,213
Airport Tenants	2,738	1,469	4,207	\$150,472,779	\$73,379,326	\$223,852,105	\$408,330,319	\$218,359,410	\$626,689,729
Capital Investments	534	622	1,156	\$39,831,539	\$23,702,306	\$63,533,845	\$99,422,480	\$73,583,138	\$173,005,618
General Aviation Visitors	619	235	854	\$16,332,416	\$10,546,365	\$26,878,781	\$63,999,527	\$37,075,115	\$101,074,642
Commercial Visitors	4,151	1,617	5,768	\$105,435,163	\$72,180,352	\$177,615,515	\$360,916,843	\$217,175,326	\$578,092,169
Total	8,196	4,021	12,217	\$321,666,962	\$183,580,547	\$505,247,509	\$988,845,902	\$575,506,469	\$1,564,352,371

Source: Airport Managers, Tenants, Surveys, NDAC, USDOT, IMPLAN, Dun & Bradstreet, and Manta

As shown in **Table 22**, this update to North Dakota’s Statewide Aviation Economic Impact Study estimates the following statewide economic impacts for all public-use airports:

- Total Jobs: 12,217
- Total Annual Payroll: \$505.2 million
- Total Annual Output: \$1.56 billion

Figures 3, 4, and 5 help to summarize the information presented in **Table 22**. These figures show the percent contribution made by each of the five economic activity centers to total statewide employment, payroll, and output estimated by this study for all public-use airports.

Figure 3 - Percent of Total Statewide Airport Employment by Activity Center

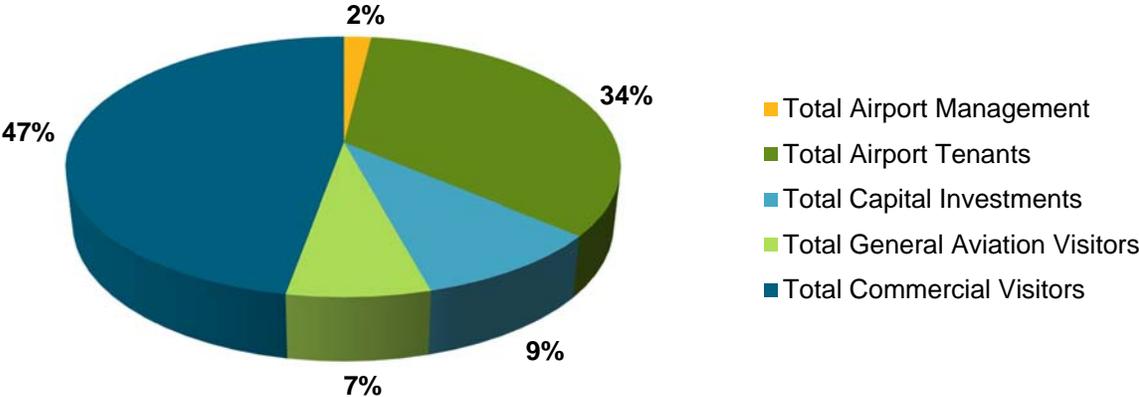


Figure 4 - Percent of Total Statewide Airport Payroll by Activity Center

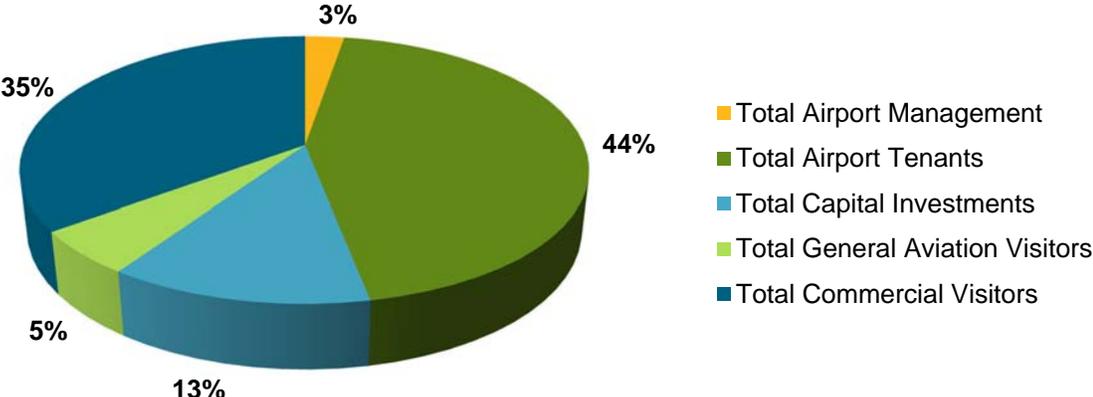
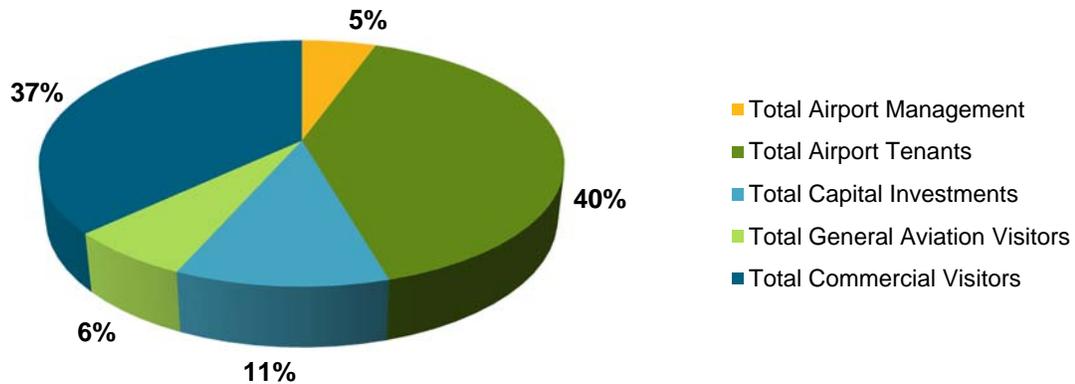


Figure 5 - Percent of Total Statewide Airport Output by Activity Center



The 2010 statewide economic impact study did not report separate impacts for airport management, airport tenants, and average annual capital investment. As a result, it is not possible to compare results from this study to results presented in the previous report. It is possible, however, to compare current and prior results in the visitor categories and for all statewide impacts.

With North Dakota’s economic growth, air visitor travel to the state since the 2010 study was published has experienced a notable increase. Visitors to North Dakota arriving on both commercial and general aviation aircraft have increased. This study estimates that currently 915,290 visitors are arriving annually in North Dakota by air. Surveys completed for this 2015 report show that visitors to North Dakota are staying longer and spending more. As a result, annual economic impacts related to North Dakota’s air visitors have experienced a notable increase. **Table 24 - Comparison of 2010 and 2015 Air Visitor-Related Annual Economic Impacts** provides a comparison of 2010 and 2015 visitor impacts. As shown in this table, total annual output (direct and indirect) from both general aviation and commercial visitor spending has increased from a reported \$198.2 million in the 2010 study to \$668.1 million in this 2015 study.

Table 23 - Total Statewide Economic Impacts (2010 and 2015) compares direct and indirect economic impacts from the 2010 and 2015 reports for all 89 North Dakota airports. **Table 25 - Comparison of 2010 and 2015 Total Annual Statewide Aviation Economic Impacts** compares total (direct and indirect) annual statewide economic impacts for employment, payroll, and output from all activity categories (management, tenants, capital spending, and visitors). Total statewide economic impacts between the 2010 and 2015 reporting periods changed as follows:

Table 23 - Total Statewide Economic Impacts (2010 and 2015)

	2010	2015
Employment	9,792	12,217
Payroll	\$365.9 million	\$505.2 million
Output	\$1.06 billion	\$1.56 billion



As shown in **Table 23**, total impacts have increased across the board, in all three measurement categories. A few points are noteworthy about the reported increases. The 2015 analysis took a conservative approach to estimating the percent of total impacts that are related to indirect impacts. As a result, the differences in the 2010 and 2015 statewide annual economic impacts for the 89 public-use airports are a result of increased “direct” impacts rather than higher “indirect” impacts.

Table 24 - Comparison of 2010 and 2015 Air Visitor-Related Annual Economic Impacts

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
2010 Total General Aviation Visitor Impacts	386	107	493	\$8,292,300	\$4,698,500	\$12,990,800	\$16,879,500	\$11,042,300	\$27,921,800
2015 Total General Aviation Visitor Impacts	619	235	844	\$16,332,416	\$10,546,365	\$26,878,781	\$63,999,527	\$37,075,115	\$101,074,641
2010 Total Commercial Visitor Impacts	2,033	684	2,717	\$43,506,200	\$24,810,200	\$68,316,400	\$104,954,600	\$65,320,000	\$170,274,600
2015 Total Commercial Visitor Impacts	4,151	1,617	5,768	\$105,435,163	\$72,180,352	\$177,615,515	\$360,916,843	\$218,175,326	\$578,092,170
2010 Total Visitor Impacts	2,419	791	3,210	\$51,798,500	\$29,508,700	\$81,307,200	\$121,834,100	\$76,362,300	\$198,196,400
2015 Total Visitor Impacts	4,770	1,852	6,612	\$121,767,579	\$82,726,717	\$204,494,296	\$424,916,370	\$255,250,441	\$679,166,811

2010 Data Source: North Dakota Economic Impact of Aviation, December 2010 (Wilbur Smith Associates)

2015 Data Source: North Dakota Economic Impact of Aviation, 2015 (Jviation)

Table 25 - Comparison of 2010 and 2015 Total Annual Statewide Aviation Economic Impacts

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
2010 Total Impacts	5,796	3,996	9,792	\$216,967,400	\$148,892,000	\$365,859,400	\$635,837,500	\$426,919,000	\$1,062,756,500
2015 Total Impacts	8,196	4,021	12,217	\$321,666,962	\$183,580,547	\$505,247,509	\$988,845,902	\$575,506,469	\$1,564,352,371

2010 Data Source: North Dakota Economic Impact of Aviation, December 2010 (Wilbur Smith Associates)

2015 Data Source: North Dakota Economic Impact of Aviation, 2015 (Jviation)

6 Statewide Aviation Tax Revenue Analysis

Aviation/airports in North Dakota contribute more than \$64.4 million in direct tax revenues to state and local governments. This section of the technical report estimates tax revenue generated for direct economic impacts associated with airports and the activity they support in North Dakota. As with other aspects of the economic impact analysis, multiple rounds of spending occur that also generate additional indirect tax revenue. However, for purposes here, estimates of tax revenues come from “direct” aviation activity only.

The analysis provides:

- An overview of how and where aviation activity becomes a taxable event
- What specific taxes are relevant and who is taxed
- Estimates of tax revenues statewide and for individual airports

6.1 Taxable Aviation Activity

Tax revenues come from a wide variety of sources. For example, when a pilot purchases fuel for an aircraft, the fuel is subject to an aviation fuel tax. There are other aviation-related taxes as well. On-airport businesses collect sales taxes for goods sold directly to customers. This type of tax collection includes retail concessions, restaurants, or rental car companies. (Goods purchased by the businesses for resale are exempt from sales tax.)

The economic impact study tracked purchases of goods and services by air visitors; the majority of these purchases occur off-airport. Visitor expenditures are the largest source of aviation-related tax revenue, representing approximately \$29 million of all revenue for state and local taxing authorities. Taxable activities related to air visitors include lodging, restaurants, entertainment, local transportation, and retail sales. Because of oil and gas production in the state, both the number of air passengers and visitor expenditures grew tremendously since the last analysis of airport economic impacts in 2010.

In addition to direct taxable transactions, employees associated with both on-airport businesses and establishments that cater to visitors are another source of tax revenue. Employees use wages to purchase goods subject to state and local sales tax.

Figure 6 - Aviation Activities with Tax Impacts summarizes the most important aviation activities that contribute to tax revenues included in this analysis.

Figure 6 - Aviation Activities with Tax Impacts



Source: KRAMER aerotek inc.

6.2 Relevant Taxes

The tax analysis addresses taxes that come into play with aviation and visitor transactions. The most consequential¹ taxes for aviation include:

- Aviation Fuel Taxes
- Airline Property Tax
- Aircraft Excise
- State and Local Sales and Use Taxes for:
 - Retail Sales
 - Lodging
 - Lodging and Restaurant
 - Motor Vehicle Rental

The next sections discuss each tax and their contribution to tax revenues.

6.3 Aviation Fuel Taxes

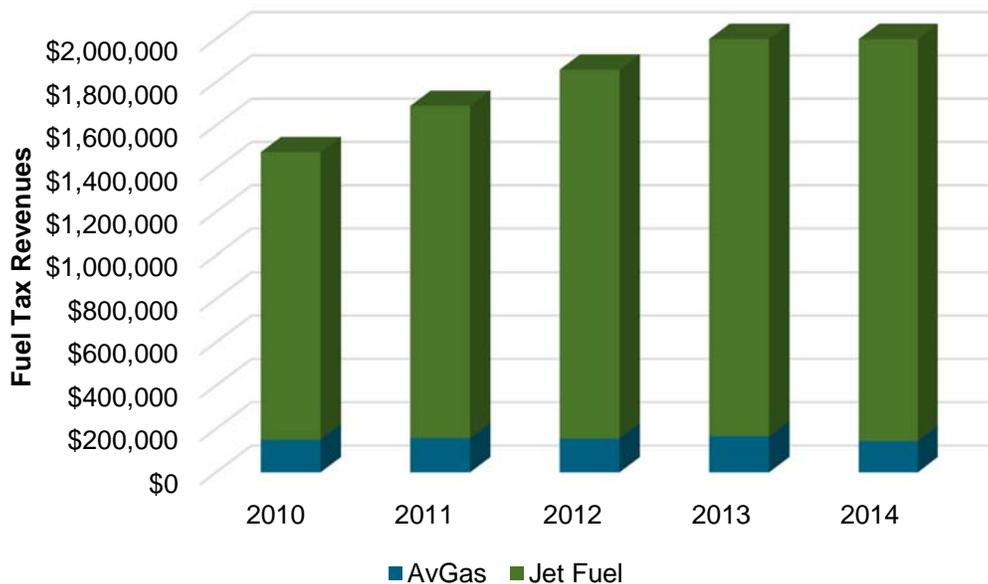
The State of North Dakota imposes an \$.08 per gallon tax on both aviation gas (AvGas) and jet fuel. By federal law, taxes collected for aviation fuel must be used to support airports in the state.

Figure 7 - Gross Fuel Tax Receipts for AvGas and Jet Fuel, CY 2010-2014 and **Table 26 - Aviation Fuel Tax Receipts** show gross tax receipts for aviation fuel from 2010-2014. The 2010 economic impact study reported \$1.2 million for aviation fuel taxes in 2009. Fuel tax receipts grew to over \$2.1 million in 2014. Growth coincided with accelerated oil and gas activity in the state and increased aircraft operations.

¹ Corporate taxes, property taxes paid by employees, and income taxes were not included in this statewide analysis although they would add to total tax revenues resulting from aviation activity in the state.

Tax revenues related to aviation fuel are a direct reflection of the number of gallons of AvGas and jet fuel sold in North Dakota on an annual basis. Information from the State Tax Commissioner’s office shows that the number of gallons of AvGas sold in North Dakota between 2010 and 2014 decreased by 7.6%, falling from 1,883,183 gallons sold to 1,739,939 gallons sold. Sales of jet fuel, on the other hand, increased significantly. In 2010, 16,725,628 gallons of jet fuel were sold; in 2014, 24,061,088 gallons of jet fuel were sold. This represents a 44% increase; the increase in the number of gallons of jet fuel sold has driven increased tax revenues in this category. Much of the increase in the number of gallons of jet fuel sold in North Dakota is attributed to increased scheduled airline service. More general aviation business jets using North Dakota airports also helped to boost jet fuel sales.

Figure 7 - Gross Fuel Tax Receipts for AvGas and Jet Fuel, CY 2010-2014



Source: North Dakota Office of State Tax Commissioner

Table 26 - Aviation Fuel Tax Receipts

	2010	2011	2012	2013	2014	% Change 2010-14
AvGas	\$151,095	\$158,047	\$155,907	\$166,926	\$144,618	-4.3%
Jet Fuel	\$1,325,611	\$1,532,518	\$1,702,458	\$1,866,702	\$1,907,703	43.9%
Total	\$1,476,706	\$1,690,565	\$1,858,365	\$2,033,628	\$2,052,321	39.0%

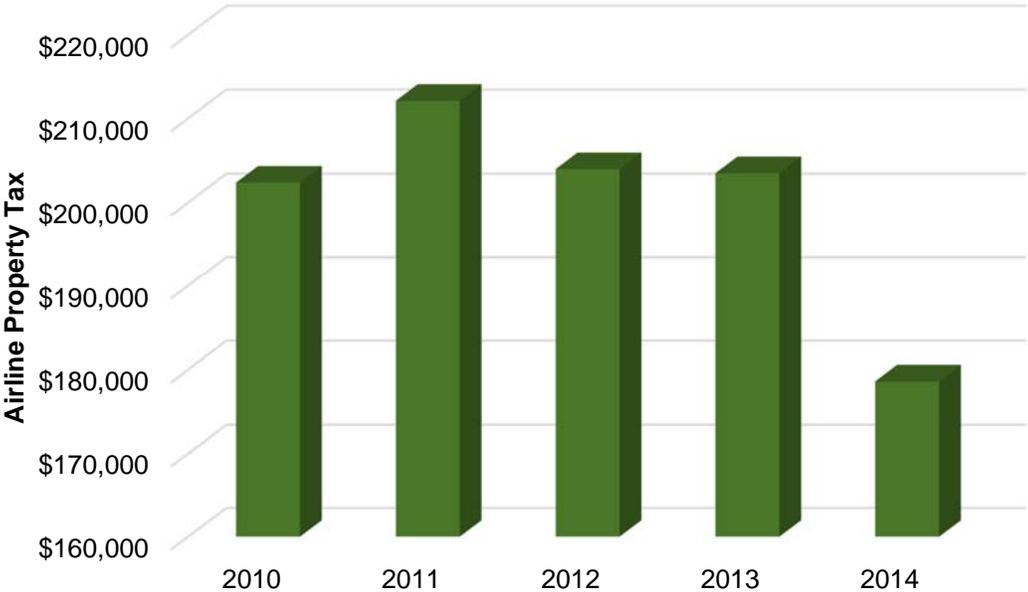
Source: North Dakota Office of State Tax Commissioner

6.4 Airline Property Tax

All real property, unless specifically exempted, is subject to property tax. Counties assess most property, collect the tax, and distribute the revenue to the county, cities, townships, school districts, and other taxing districts. There are a few exceptions. The State Board of Equalization values railroads, investor-owned public utilities, pipelines, and airlines for property tax purposes. In the instance of airline property taxes, the State Tax Commissioner collects airline taxes and distributes them to the airports where the airlines make regularly scheduled landings.

Annual airline property tax receipts average around \$200,000. Beginning in Biennial 2011-2013, the State Legislature passed property tax relief. **Figure 8 - Airline Property Taxes, 2010-2014** shows airline property taxes collected for the last five years. These are cash-basis collections without regard to which year's property tax assessment is paid. Lower airline property tax collections in more recent years are a direct result of mill rate reductions from the Legislative tax relief program.

Figure 8 - Airline Property Taxes, 2010-2014



Source: North Dakota Office of State Tax Commissioner

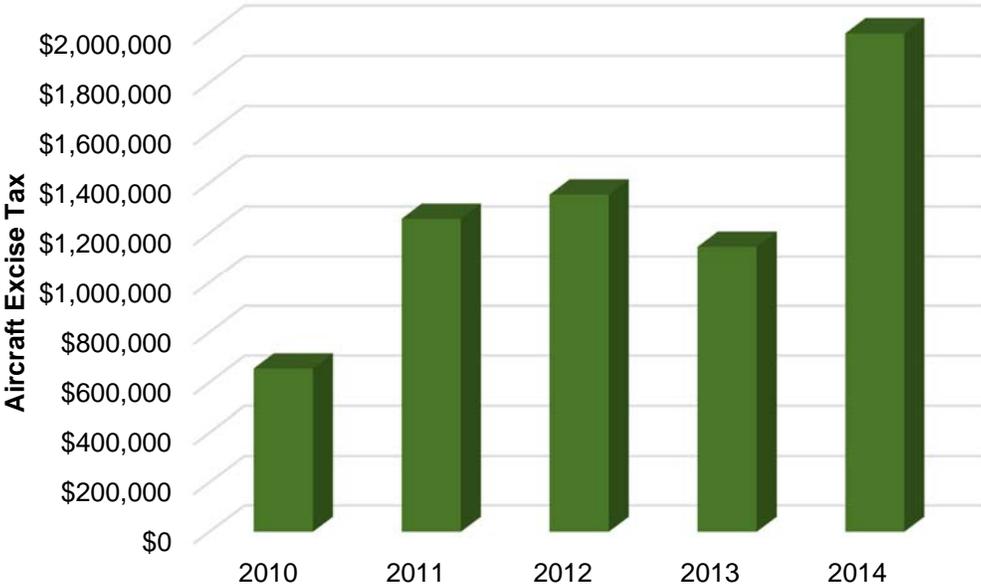
6.5 Aircraft Excise Tax

North Dakota also levies a 5% excise tax on aircraft purchased in the state. Agricultural aircraft are subject to a 3% excise tax.² The buyer is responsible for payment of the tax at the time when the aircraft is registered. Excise tax is levied on every purchase (with a trade-in allowance allowed).

Similar to aviation fuel taxes and airline taxes, aircraft excise taxes are collected by the state tax commissioner and reported in the aggregate without local detail.

Figure 9 - Aircraft Excise Tax, 2010-2014 shows substantial growth of aircraft excise taxes from \$655,544 in 2010 to \$1,996,629 in 2014. Information presented in **Figure 9** shows that the number of general aviation aircraft being sold is increasing in the state and/or the value of the general aviation being purchased is increasing. High-performance business jets are the fastest growing segment of the general aviation industry, according to the FAA. There is not enough data in North Dakota records to determine if the tax increase is from more units being sold, units being sold at higher costs, or a combination of both. The trend is noteworthy because in most other areas of the United States, active general aviation aircraft and operations declined over the same period.³

Figure 9 - Aircraft Excise Tax, 2010-2014



Source: North Dakota Office of State Tax Commissioner

² There are a few exemptions for the excise tax for disabled veterans, government owned aircraft, transfers within a family, and aircraft acquired by non-profit schools. Transfers between lessors and lessees also follow separate taxing protocols.

³ See FAA Survey of General Aviation Aircraft Owners

6.6 State and Local Sales Taxes

Sales tax is the most important component of tax revenue collected. Sales tax is associated with expenditures made by visitors, airport tenants, airport construction contractors, and employees that work for each of these establishments.

Sales taxes are levied at the state, county and local level. In North Dakota, the extent of taxing authority depends on the type of local government. Municipalities may be governed under the general law or under a home rule charter. There are 53 counties; eight operate under a home rule charter. Of the 357 municipalities in North Dakota, 130 are home rule cities. From a tax perspective, home rule cities and counties can enact additional sales and use taxes as summarized in **Table 27 - Taxes on Sales Transactions**.

Table 27 - Taxes on Sales Transactions

State Taxes	Rate
Sales	5%
Use	5%
Aircraft Excise	5%
Local Options	
County Sales and Use	Home Rule
City Sales and Use	Home Rule
City Lodging	Available to all Cities
City Lodging and Restaurant	Available to all Cities

Source: North Dakota Office of State Tax Commissioner

For transactions subject to a sales tax, the total tax paid is the sum of the applicable sales taxes for the jurisdiction where the purchase takes place. For example, in Bismarck the retail sales tax is the sum of the state tax (5%) plus a county tax (0.5%) plus a city tax (1%) for a total tax of 6.5%.

Table 28 - State and Local Sales Tax Rates as of April 2015 lists the aggregate sales tax rates for cities associated with North Dakota airports. All transactions, whether for retail, lodging, restaurant, or car rental activity, are subject to the State's sales tax of 5%. If the tax in **Table 28** shows a higher rate, the City or County has exercised its local option to levy an additional sales tax. As the table shows, the local option introduces variability from one area to another in total sales tax paid.

Table 28 - State and Local Sales Tax Rates as of April 2015

City	Airport Name	Retail	Restaurant	Lodging
Commercial Airports				
Bismarck	Bismarck Municipal Airport	6.5%	7.5%	9.5%
Devils Lake	Devils Lake Regional Airport	7.0%	8.0%	9.0%
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	6.5%	7.5%	9.5%
Fargo	Hector International Airport	7.5%	8.5%	10.5%
Grand Forks	Grand Forks International Airport	6.8%	7.0%	7.0%
Jamestown	Jamestown Regional Airport	6.0%	7.0%	9.0%
Minot	Minot International Airport	7.5%	7.5%	10.5%

Table 28 - State and Local Sales Tax Rates as of April 2015

City	Airport Name	Retail	Restaurant	Lodging
Williston	Sloulin Field International Airport	8.0%	9.0%	11.0%
General Aviation Airports				
Arthur	Arthur Airport	5.0%	5.0%	5.0%
Ashley	Ashley Municipal Airport	6.0%	5.0%	8.0%
Beach	Beach Airport	6.0%	5.0%	8.0%
Beulah	Beulah Airport	7.0%	8.0%	10.0%
Bottineau	Bottineau Municipal Airport	7.0%	8.0%	10.0%
Bowbells	Bowbells Municipal Airport	5.0%	5.0%	5.0%
Bowman	Bowman Regional Airport	6.0%	7.0%	9.0%
Cando	Cando Municipal Airport	7.0%	7.0%	7.0%
Carrington	Carrington Municipal Airport	7.0%	7.0%	9.0%
Casselton	Casselton Robert Miller Regional Airport	6.5%	6.5%	6.5%
Cavalier	Cavalier Municipal Airport	7.0%	7.0%	7.0%
Columbus	Columbus Municipal Airport	5.0%	5.0%	5.0%
Cooperstown	Cooperstown Municipal Airport	6.5%	6.5%	7.5%
Crosby	Crosby Municipal Airport	8.0%	8.0%	9.0%
Drayton	Drayton Municipal Airport	6.5%	7.5%	9.5%
Dunseith	International Peace Garden	6.0%	6.0%	6.0%
Edgeley	Edgeley Municipal	7.0%	8.0%	8.0%
Elgin	Elgin Municipal Airport	6.0%	6.0%	6.0%
Ellendale	Ellendale Municipal Airport	6.0%	7.0%	9.0%
Enderlin	Sky Haven Airport	7.0%	7.0%	7.0%
Fessenden	Fessenden-Streibel Municipal Airport	5.0%	5.0%	5.0%
Fort Yates	Standing Rock Airport	5.0%	5.0%	5.0%
Gackle	Gackle Municipal Airport	6.0%	6.0%	6.0%
Garrison	Garrison Municipal Airport	7.0%	7.0%	9.0%
Glen Ullin	Glen Ullin Regional Airport	6.5%	7.5%	9.5%
Grafton	Hutson Field	7.8%	7.8%	9.8%
Gwinner	Gwinner-Roger Melroe Field	6.0%	6.0%	6.0%
Harvey	Harvey Municipal Airport	7.0%	7.0%	9.0%
Hazelton	Hazelton Municipal Airport	7.0%	7.0%	7.0%
Hazen	Mercer County Regional Airport	6.5%	7.5%	9.5%
Hettinger	Hettinger Municipal Airport	6.5%	6.5%	8.5%
Hillsboro	Hillsboro Regional Airport	7.0%	7.0%	7.0%
Kenmare	Kenmare Municipal Airport	7.5%	7.5%	7.5%
Killdeer	Dunn County Airport-Weydahl Field Airport	7.0%	7.0%	9.0%
Kindred	Robert Odegaard Field	7.5%	7.5%	7.5%
Kulm	Kulm Municipal Airport	7.0%	7.0%	7.0%
Lakota	Lakota Municipal Airport	6.0%	6.0%	9.0%
LaMoure	LaMoure Rott Municipal Airport	7.0%	7.0%	7.0%
Langdon	Robertson Field Airport	7.0%	7.0%	9.0%
Larimore	Larimore Municipal Airport	6.0%	6.0%	6.0%
Leeds	Leeds Municipal Airport	7.0%	7.0%	7.0%

Table 28 - State and Local Sales Tax Rates as of April 2015

City	Airport Name	Retail	Restaurant	Lodging
Lidgerwood	Lidgerwood Municipal Airport	7.0%	7.0%	7.0%
Linton	Linton Municipal Airport	7.0%	7.0%	7.0%
Lisbon	Lisbon Municipal Airport	7.0%	8.0%	10.0%
Maddock	Maddock Municipal Airport	7.0%	7.0%	7.0%
Mandan	Mandan Municipal Airport	6.5%	7.5%	9.5%
Mayville	Mayville Municipal Airport	7.0%	7.0%	7.0%
McClusky	McClusky Municipal Airport	6.0%	6.0%	6.0%
McVile	McVile Municipal Airport	7.0%	8.0%	10.0%
Milnor	Milnor Municipal Field	6.5%	6.5%	6.5%
Minto	Minto Municipal Airport	6.3%	6.3%	6.3%
Mohall	Mohall Municipal Airport	6.0%	6.0%	6.0%
Mott	Mott Municipal Airport	7.0%	7.0%	7.0%
Napoleon	Napoleon Municipal Airport	7.0%	7.0%	7.0%
New Rockford	Tomlinson Field Airport	7.0%	7.0%	7.0%
New Town	New Town Municipal Airport	5.0%	5.0%	6.0%
Northwood	Northwood Municipal-Vince Field	6.5%	6.5%	6.5%
Oakes	Oakes Municipal Airport	7.0%	7.0%	9.0%
Page	Page Regional Airport	6.5%	6.5%	6.5%
Park River	Park River Airport-WC Skjerven Field	7.3%	7.3%	7.3%
Parshall	Parshall - Hankins Airport	5.0%	6.0%	7.0%
Pembina	Pembina Municipal Airport	7.5%	7.5%	7.5%
Plaza	Trulson Field Airport	5.0%	5.0%	5.0%
Richardton	Richardton Airport	7.0%	7.0%	7.0%
Riverdale	Garrison Dam Recreational Airpark	5.0%	6.0%	7.0%
Rolette	Rolette Airport	7.0%	7.0%	7.0%
Rolla	Rolla Municipal Airport	7.0%	7.0%	7.0%
Rugby	Rugby Municipal Airport	7.0%	8.0%	10.0%
St. Thomas	St. Thomas Municipal Airport	5.0%	5.0%	5.0%
Stanley	Stanley Municipal Airport	6.5%	6.5%	6.5%
Tioga	Tioga Municipal Airport	8.5%	8.5%	10.5%
Towner	Towner Municipal Airport	6.0%	6.0%	6.0%
Turtle Lake	Turtle Lake Municipal Airport	7.0%	7.0%	7.0%
Valley City	Barnes County Municipal Airport	7.5%	8.5%	7.5%
Wahpeton	Harry Stern Airport	7.0%	5.0%	7.0%
Walhalla	Walhalla Municipal Airport	7.0%	7.0%	8.0%
Washburn	Washburn Municipal Airport	7.0%	7.0%	7.0%
Watford City	Watford City Municipal Airport	6.5%	7.5%	9.5%
West Fargo	West Fargo Municipal Airport	7.5%	8.5%	9.5%
Westhope	Westhope Municipal Airport	6.0%	6.0%	6.0%
Wishek	Wishek Municipal Airport	6.5%	6.5%	8.5%

Source: North Dakota Office of State Tax Commissioner

6.7 Aviation Tax Impacts

In addition to statewide collection of aviation fuel taxes, airline property tax, and aircraft excise tax, it is possible to estimate sales tax revenues associated with the different components of airport or visitor activity including:

- Airport management
- Tenants at the airport
- Capital investment at the airport
- Visitors that arrive by general aviation aircraft
- Visitors that arrive by commercial service aircraft

In the previous sections of the technical report, the contribution of each group to statewide and airport specific economic impact was expressed in terms of jobs, payroll, and output. Many of these impacts also generate tax revenue. For example, based on survey data, air visitors spend approximately \$185 million on lodging and generated \$17 million in lodging taxes. Airport tenants and construction companies purchase items to conduct business, such as office supplies or sell services to customers such as rental cars. Each of these examples are taxable events. In addition to direct sales transactions with customers, employees working at an airport, a hotel or restaurant spend a portion of their wages that also are subject to sales or use taxes.

6.7.1 Methodology to Estimate Sales Taxes

The approach used to estimate sales tax receipts for aviation activity is similar to the 2010 statewide economic impact study, utilizing a bottom-up methodology starting with each North Dakota airport and direct economic impacts for employment, payroll, and output.

6.7.1.1 Sales Taxes Generated by On-Airport Tenants and Capital Investment Activity

To estimate sales taxes paid by on-airport tenants, each airport's direct payroll was subtracted from its direct output to obtain an estimate of taxable expenditures attributable to that airport. For purposes of this analysis, all taxable expenditures were assigned to the airport's local tax district. The applicable sales tax rate (see **Table 28**) was then applied to estimated expenditures, assuming that expenditures also included taxes paid. Estimates used the following generalized formula:

- Taxable Expenditures = Direct Output - Direct Payroll
- Sales Taxes = (Taxable Expenditures x Sales Tax Rate)/(1+Sales Tax Rate)

6.7.1.2 Sales Taxes Paid by Visitors

Considerable effort went into surveying visitors arriving at North Dakota airports to track expenditure patterns for lodging, transportation, restaurants, retail purchases, and rental cars. This information was key to estimating taxes paid by visitors because sales tax rates for each of

these categories vary, even within a specific taxing jurisdiction. For example, in Williston local sales taxes for lodging are 11%, 9% for restaurants, 8% for rental cars, and 8% for retail purchases. The calculation of sales tax is represented in the following formula:

- Sales Taxes = (Visitor Expenditures per Category x Sales Tax Rate)/(1+Sales Tax Rate)

6.7.1.3 Sales Taxes Paid by Airport/Aviation Related Employees

The Internal Revenue Service (IRS) has correlated sales taxes paid with income levels. Using the IRS Sales Tax Deduction Calculator, sales taxes paid by employees working either at an airport, on a construction project, or in visitor support establishments were calculated for each airport and for income ranges.

- Average income = Total Direct Payroll/Number of Direct Employees
- Sales Taxes Paid per Employee per Income Category = Lookup on IRS Sales Tax Calculator to determine annual sales tax.
- Individual Sales Taxes Paid X Number of Direct Employees in Income Category
- Sales Taxes per Airport = Sum of Total Sales Taxes Paid for Employees at Airport

Estimates of sales tax were built for every North Dakota airport based on average income per employee.

6.7.2 Statewide Findings

Table 29 - Estimated Statewide Tax Revenues for Direct Airport and Visitor Activity, CY 2014 shows a summary of statewide tax revenues including sales taxes, aviation fuel tax, airline property tax, and aircraft excise tax.

Table 29 - Estimated Statewide Tax Revenues for Direct Airport and Visitor Activity, CY 2014

Source	Estimated Tax
Sales Tax Airport Tenants	\$17,092,646
Sales Tax Airport Investment	\$3,859,913
Sales Tax Airport Management (Tax Exempt)	\$0
Commercial Service Visitor Sales Tax	
Lodging	\$14,183,864
Retail	\$1,776,995
Restaurant	\$6,765,268
Rental Car	\$4,962,799
Entertainment	\$1,661,716
Subtotal	\$29,350,643
General Aviation Visitor Sales Tax	
Lodging	\$2,716,040
Retail	\$199,248
Restaurant	\$1,027,631
Rental Car	\$1,000,180

Table 29 - Estimated Statewide Tax Revenues for Direct Airport and Visitor Activity, CY 2014

Source	Estimated Tax
Entertainment	\$285,958
Subtotal	\$5,229,057
Employee Sales Taxes	
Airport Administration Employees	\$114,037
Airport Tenant Employees	\$1,897,301
Airport Construction Employees	\$424,489
Employees Supporting Commercial Visitors	\$1,927,454
Employees Supporting General Aviation Visitors	\$298,730
Subtotal	\$4,662,011
All Sales Taxes	\$60,194,269
Aviation Fuel Tax	\$2,029,251
Airline Property Tax	\$178,594
Aircraft Excise Taxes	\$1,996,629
All Taxes	\$64,398,743

Sources: North Dakota Office of State Tax Commissioner and KRAMER aerotek inc.

Tax revenue can be looked at from different perspectives. For example:

- What are the relative contributions of sales tax from commercial and general aviation airports?
- Which types of aviation activity generate the most sales tax?
- Which visitor expenditures contribute the most to sales tax revenue?

Each of these questions are addressed in the next sections.

6.7.2.1 Sales Taxes Generated by Commercial Service and General Aviation Airports

Table 30 breaks out estimates of sales taxes by commercial and general aviation airports. The eight commercial airports account for 94% of the sales tax generated by airport and visitor activity.

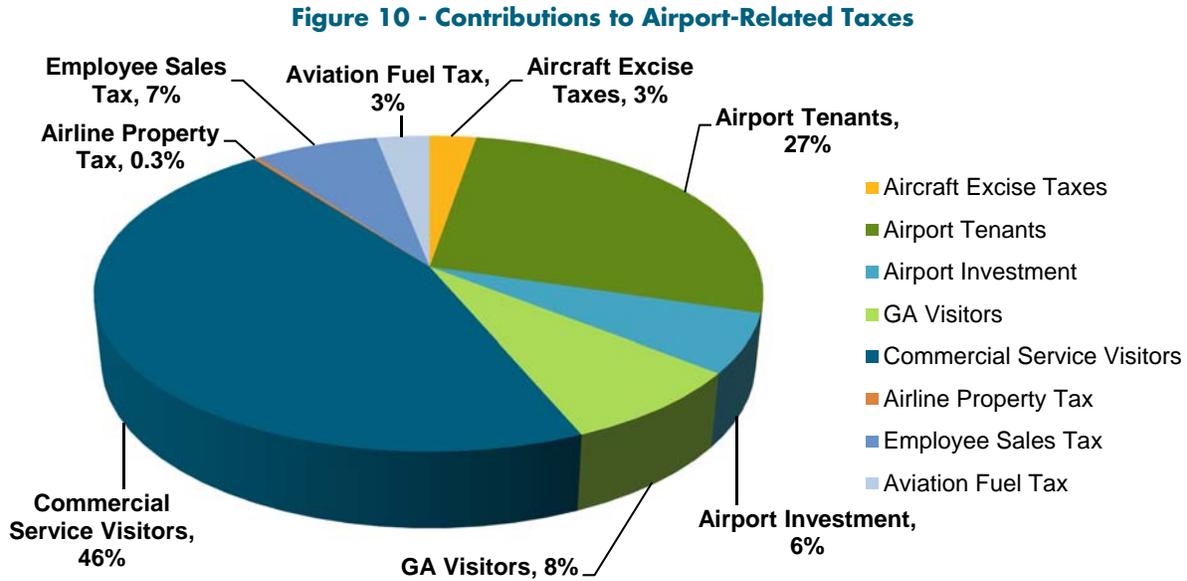
Table 30 - Sales Taxes Generated by Activity at Commercial and General Aviation Airports

Sales Taxes Generated by:	Airports		
	Commercial	General Aviation	All Airports
Airport Tenants	\$15,801,980	\$1,290,665	\$17,092,646
Airport Investment	\$2,621,511	\$1,238,402	\$3,859,913
Commercial Service Visitors	\$29,350,643	\$0	\$29,350,643
General Aviation Visitors	\$4,752,741	\$476,316	\$5,229,057
Airport, Construction, & Visitor Employees	\$4,334,866	\$327,145	\$4,662,011
Total	\$56,861,740	\$3,332,528	\$60,194,269
Percent	94%	6%	100%

Sources: Data developed by Jviation and KRAMER aerotek inc.

6.7.2.2 Taxes Generated by Different Airport Activities

Figure 10 - Contributions to Airport-Related Taxes shows the relative contribution of each type of taxable transaction to overall taxes associated with aviation activity. The largest contributors to tax revenues are airport tenants and visitors that arrive by commercial aircraft, accounting for 73% of tax revenue.

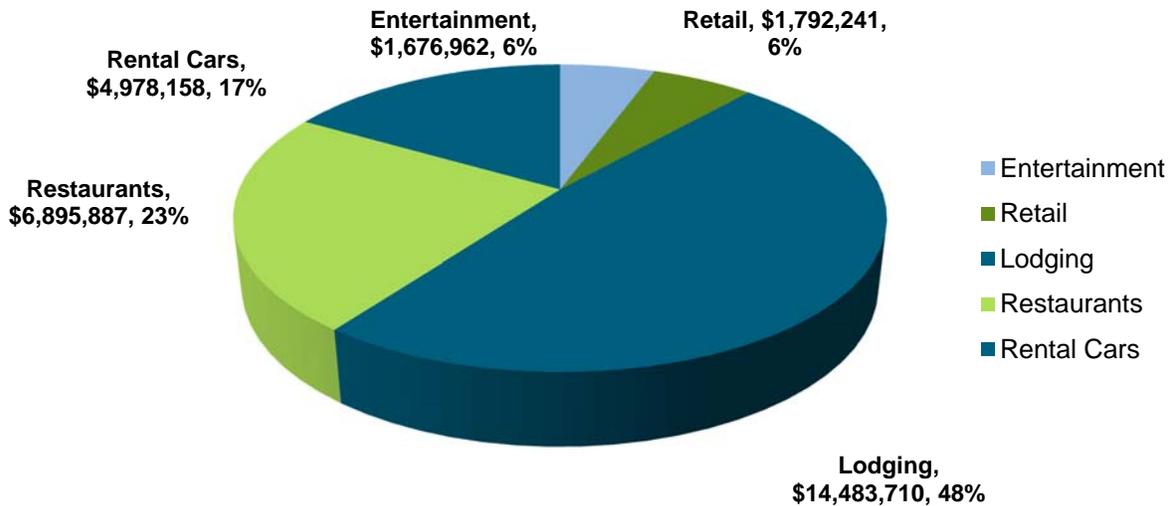


Sources: North Dakota Office of State Tax Commissioner and KRAMER aerotek inc.

6.7.2.3 Taxes Generated by Different Visitor Expenditures

Figure 11 - Breakout of Visitor Sales Taxes by Type of Expenditure details sales tax revenues from expenditures made visitors arriving at general aviation or commercial airports. Visitors account for \$425 million in spending and \$35 million in taxes. The largest expenditures occur at hotels and restaurants.

Figure 11 - Breakout of Visitor Sales Taxes by Type of Expenditure



Sources: Data developed by Aviation and KRAMER aerotek inc.

6.7.3 Individual Airport Estimates

Tables 31, 32, and 33 detail estimated local and state sales taxes generated by each of the 89 North Dakota public-use airports.

6.8 Conclusions

The tax analysis focused primarily on sales taxes collected in connection with aviation activity in the state. Total taxes including aviation fuel taxes, excise tax on aircraft, and airline property tax contribute approximately \$64.4 million to state and local taxing authorities. North Dakota and its counties and municipalities each benefit from taxes levied on aviation activity and transactions. Visitor spending and businesses located at airports are the largest contributors to aviation tax revenues. In addition, capital investment at each airport and purchases by direct employees also contribute to the tax base in significant ways.

Table 31 - Estimated Direct Local and State Sales Taxes Paid by Companies and Visitors, 2014

City	Airport Name	Companies		Visitors	
		Airport Tenants	Construction	Commercial	General Aviation
Bismarck	Bismarck Municipal Airport	\$3,267,354	\$426,744	\$5,409,827	\$350,456
Devils Lake	Devils Lake Regional Airport	\$82,915	\$135,989	\$53,120	\$61,730
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	\$879,204	\$76,383	\$1,235,537	\$292,670
Fargo	Hector International Airport	\$3,814,128	\$581,924	\$8,183,511	\$1,188,350
Grand Forks	Grand Forks International Airport	\$2,308,083	\$389,330	\$2,349,232	\$366,719
Jamestown	Jamestown Regional Airport	\$508,299	\$43,842	\$102,346	\$98,538
Minot	Minot International Airport	\$2,014,550	\$898,785	\$6,675,735	\$915,530
Williston	Sloulin Field International Airport	\$2,927,447	\$68,512	\$5,341,334	\$1,478,748
Total Commercial Airports Tax Contribution		\$15,801,980	\$2,621,511	\$29,350,643	\$4,752,741
Arthur	Arthur Airport	\$0	\$0		\$1,088
Ashley	Ashley Municipal Airport	\$37,187	\$12,193		\$2,047
Beach	Beach Airport	\$0	\$9,797		\$3,391
Beulah	Beulah Airport	\$38,681	\$430		\$2,675
Bottineau	Bottineau Municipal Airport	\$19,727	\$8,876		\$17,752
Bowbells	Bowbells Municipal Airport	\$0	\$238		\$124
Bowman	Bowman Regional Airport	\$10,608	\$199,377		\$21,836
Cando	Cando Municipal Airport	\$0	\$48,054		\$2,409
Carrington	Carrington Municipal Airport	\$25,214	\$12,124		\$5,789
Casselton	Casselton Robert Miller Regional Airport	\$114,257	\$13,102		\$15,245
Cavalier	Cavalier Municipal Airport	\$44,939	\$7,411		\$1,253
Columbus	Columbus Municipal Airport	\$0	\$0		\$124
Cooperstown	Cooperstown Municipal Airport	\$8,019	\$3,315		\$1,843
Crosby	Crosby Municipal Airport	\$0	\$38,296		\$5,460
Drayton	Drayton Municipal Airport	\$4,010	\$448		\$203
Dunseith	International Peace Garden	\$0	\$3,303		\$442
Edgeley	Edgeley Municipal Airport	\$12,580	\$18,488		\$1,083
Elgin	Elgin Municipal Airport	\$0	\$24		\$147
Ellendale	Ellendale Municipal Airport	\$0	\$23,087		\$3,214
Enderlin	Sky Haven Airport	\$0	\$3,697		\$994
Fessenden	Fessenden-Streibel Municipal Airport	\$15,261	\$0		\$124
Fort Yates	Standing Rock Airport	\$0	\$159		\$124
Gackle	Gackle Municipal Airport	\$0	\$265		\$147
Garrison	Garrison Municipal Airport	\$8,387	\$7,979		\$5,463

Table 31 - Estimated Direct Local and State Sales Taxes Paid by Companies and Visitors, 2014

City	Airport Name	Companies		Visitors	
		Airport Tenants	Construction	Commercial	General Aviation
Glen Ullin	Glen Ullin Regional Airport	\$0	\$7,041		\$1,269
Grafton	Hutson Field Airport	\$28,352	\$24,149		\$12,080
Gwinner	Gwinner-Roger Melroe Field	\$3,719	\$71,754		\$4,716
Harvey	Harvey Municipal Airport	\$12,894	\$3,886		\$1,480
Hazelton	Hazelton Municipal Airport	\$0	\$0		\$1,495
Hazen	Mercer County Regional Airport	\$8,019	\$3,555		\$8,481
Hettinger	Hettinger Municipal Airport	\$33,770	\$21,912		\$6,882
Hillsboro	Hillsboro Regional Airport	\$65,701	\$142		\$15,669
Kenmare	Kenmare Municipal Airport	\$36,668	\$17,113		\$21,577
Killdeer	Dunn County Airport-Weydahl Field	\$0	\$48,390		\$873
Kindred	Robert Odegaard Field	\$139,843	\$1,145		\$2,670
Kulm	Kulm Municipal Airport	\$0	\$1,852		\$170
Lakota	Lakota Municipal Airport	\$0	\$5,058		\$3,010
LaMoure	LaMoure Rott Municipal Airport	\$8,596	\$394		\$405
Langdon	Robertson Field Airport	\$16,359	\$12,053		\$1,127
Larimore	Larimore Municipal Airport	\$29,661	\$5,597		\$1,852
Leeds	Leeds Municipal Airport	\$0	\$4,620		\$1,495
Lidgerwood	Lidgerwood Municipal Airport	\$0	\$422		\$170
Linton	Linton Municipal Airport	\$19,098	\$9,833		\$16,144
Lisbon	Lisbon Municipal Airport	\$4,729	\$8,753		\$1,001
Maddock	Maddock Municipal Airport	\$10,276	\$16,327		\$170
Mandan	Mandan Municipal Airport	\$65,425	\$117,198		\$30,890
Mayville	Mayville Municipal Airport	\$16,773	\$41,608		\$4,267
McClusky	McClusky Municipal Airport	\$0	\$222		\$147
McVile	McVile Municipal Airport	\$0	\$0		\$1,885
Milnor	Milnor Municipal Airport	\$0	\$2,151		\$159
Minto	Minto Municipal Airport	\$15,458	\$294		\$153
Mohall	Mohall Municipal Airport	\$22,312	\$23,555		\$4,354
Mott	Mott Municipal Airport	\$0	\$5,925		\$4,776
Napoleon	Napoleon Municipal Airport	\$8,596	\$0		\$1,495
New Rockford	Tomlinson Field Airport	\$4,298	\$934		\$1,835
New Town	New Town Municipal Airport	\$0	\$46,898		\$3,143
Northwood	Northwood Municipal-Vince Field	\$17,756	\$2,893		\$5,058

Table 31 - Estimated Direct Local and State Sales Taxes Paid by Companies and Visitors, 2014

City	Airport Name	Companies		Visitors	
		Airport Tenants	Construction	Commercial	General Aviation
Oakes	Oakes Municipal Airport	\$2,541	\$57,517		\$2,428
Page	Page Regional Airport	\$36,728	\$4,490		\$397
Park River	Park River Airport-WC Skjerven Field	\$26,646	\$2,180		\$2,003
Parshall	Parshall-Hankins Airport	\$0	\$13,238		\$4,801
Pembina	Pembina Municipal Airport	\$26,059	\$2,972		\$2,347
Plaza	Trulson Field Airport	\$0	\$0		\$124
Richardton	Richardton Airport	\$0	\$198		\$170
Riverdale	Garrison Dam Recreational Airpark	\$0	\$593		\$232
Rolette	Rolette Airport	\$0	\$14,588		\$1,495
Rolla	Rolla Municipal Airport	\$29,657	\$36,123		\$3,535
Rugby	Rugby Municipal Airport	\$8,387	\$13,820		\$4,815
St. Thomas	St. Thomas Municipal Airport	\$6,257	\$268		\$124
Stanley	Stanley Municipal Airport	\$4,010	\$32,285		\$22,862
Tioga	Tioga Municipal Airport	\$41,174	\$21,590		\$77,374
Towner	Towner Municipal Airport	\$0	\$0		\$1,293
Turtle Lake	Turtle Lake Municipal Airport	\$0	\$1,797		\$1,516
Valley City	Barnes County Municipal Airport	\$34,411	\$31,689		\$8,064
Wahpeton	Harry Stern Airport	\$82,410	\$18,653		\$13,625
Walhalla	Walhalla Municipal Airport	\$17,192	\$17,814		\$2,086
Washburn	Washburn Municipal Airport	\$0	\$6,191		\$1,884
Watford City	Watford City Municipal Airport	\$38,963	\$40,582		\$57,157
West Fargo	West Fargo Municipal Airport	\$21,619	\$3,985		\$11,522
Westhope	Westhope Municipal Airport	\$7,437	\$147		\$166
Wishek	Wishek Municipal Airport	\$0	\$1,343		\$2,421
Total General Aviation Tax Contribution		\$1,290,665	\$1,238,402	\$0	\$476,316
All Airports Tax Contribution		\$17,092,646	\$3,859,913	\$29,350,643	\$5,229,057

Source: Estimates prepared by KRAMER aerotek inc., 2015

Table 32 - Estimated Direct Local and State Sales Taxes Paid by Employees at Aviation or Visitor Establishments

City	Airport Name	Airport Employees		Company Employees		Visitor Establishment Employees	
		Administration	Airport Tenants	Construction	Commercial	General Aviation	
Bismarck	Bismarck Municipal Airport	\$18,456	\$246,878	\$41,416	\$0	\$19,392	
Devils Lake	Devils Lake Regional Airport	\$4,578	\$13,209	\$13,734	\$3,465	\$3,234	
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	\$4,956	\$62,400	\$9,504	\$0	\$16,731	
Fargo	Hector International Airport	\$22,086	\$783,750	\$64,386	\$0	\$44,550	
Grand Forks	Grand Forks International Airport	\$20,608	\$353,896	\$42,876	\$0	\$25,422	
Jamestown	Jamestown Regional Airport	\$2,516	\$14,352	\$4,900	\$0	\$6,468	
Minot	Minot International Airport	\$18,522	\$141,540	\$106,446	\$444,015	\$57,420	
Williston	Sloulin Field International Airport	\$8,230	\$130,900	\$8,008	\$288,750	\$96,048	
Total Commercial Airports Tax Contribution		\$99,952	\$1,746,925	\$291,270	\$736,230	\$269,265	
Arthur	Arthur Airport	\$0	\$0	\$0		\$0	
Ashley	Ashley Municipal Airport	\$473	\$5,390	\$946		\$0	
Beach	Beach Airport	\$0	\$0	\$2,365		\$396	
Beulah	Beulah Airport	\$473	\$4,851	\$0		\$0	
Bottineau	Bottineau Municipal Airport	\$0	\$1,764	\$588		\$630	
Bowbells	Bowbells Municipal Airport	\$0	\$0	\$0		\$0	
Bowman	Bowman Regional Airport	\$1,200	\$1,617	\$23,374		\$1,008	
Cando	Cando Municipal Airport	\$0	\$0	\$3,774		\$0	
Carrington	Carrington Municipal Airport	\$532	\$2,660	\$1,212		\$446	
Casselton	Casselton Robert Miller Regional Airport	\$1,024	\$12,800	\$1,528		\$1,287	
Cavalier	Cavalier Municipal Airport	\$0	\$4,968	\$942		\$0	
Columbus	Columbus Municipal Airport	\$0	\$0	\$0		\$0	
Cooperstown	Cooperstown Municipal Airport	\$0	\$1,168	\$0		\$0	
Crosby	Crosby Municipal Airport	\$0	\$0	\$4,000		\$528	
Drayton	Drayton Municipal Airport	\$0	\$584	\$0		\$0	
Dunseith	International Peace Garden	\$0	\$0	\$0		\$0	
Edgeley	Edgeley Municipal Airport	\$0	\$1,887	\$1,526		\$0	
Elgin	Elgin Municipal Airport	\$0	\$0	\$0		\$0	
Ellendale	Ellendale Municipal Airport	\$0	\$0	\$1,892		\$0	
Enderlin	Sky Haven Airport	\$0	\$0	\$0		\$0	
Fessenden	Fessenden-Streibel Municipal Airport	\$0	\$2,245	\$0		\$0	
Fort Yates	Standing Rock Airport	\$0	\$0	\$0		\$0	

Table 32 - Estimated Direct Local and State Sales Taxes Paid by Employees at Aviation or Visitor Establishments

City	Airport Name	Airport Employees	Company Employees		Visitor Establishment Employees	
		Administration	Airport Tenants	Construction	Commercial	General Aviation
Gackle	Gackle Municipal Airport	\$0	\$0	\$0		\$0
Garrison	Garrison Municipal Airport	\$0	\$1,258	\$823		\$462
Glen Ullin	Glen Ullin Regional Airport	\$0	\$0	\$720		\$0
Grafton	Hutson Field Airport	\$492	\$3,366	\$2,043		\$824
Gwinner	Gwinner-Roger Melroe Field	\$0	\$539	\$6,600		\$396
Harvey	Harvey Municipal Airport	\$473	\$1,617	\$0		\$0
Hazelton	Hazelton Municipal Airport	\$0	\$0	\$0		\$0
Hazen	Mercer County Regional Airport	\$0	\$1,168	\$0		\$429
Hettinger	Hettinger Municipal Airport	\$0	\$5,256	\$1,950		\$294
Hillsboro	Hillsboro Regional Airport	\$552	\$7,728	\$0		\$882
Kenmare	Kenmare Municipal Airport	\$591	\$5,392	\$3,992		\$1,980
Killdeer	Dunn County Airport-Weydahl Field	\$394	\$0	\$8,640		\$0
Kindred	Robert Odegaard Field	\$0	\$3,864	\$0		\$0
Kulm	Kulm Municipal Airport	\$552	\$0	\$763		\$0
Lakota	Lakota Municipal Airport	\$0	\$0	\$0		\$0
LaMoure	LaMoure Rott Municipal Airport	\$0	\$1,258	\$0		\$0
Langdon	Robertson Field Airport	\$0	\$1,386	\$1,400		\$0
Larimore	Larimore Municipal Airport	\$539	\$3,311	\$654		\$0
Leeds	Leeds Municipal Airport	\$0	\$0	\$494		\$0
Lidgerwood	Lidgerwood Municipal Airport	\$0	\$0	\$0		\$0
Linton	Linton Municipal Airport	\$552	\$2,208	\$723		\$1,386
Lisbon	Lisbon Municipal Airport	\$0	\$1,646	\$700		\$0
Maddock	Maddock Municipal Airport	\$0	\$3,905	\$1,176		\$0
Mandan	Mandan Municipal Airport	\$720	\$7,245	\$12,240		\$1,285
Mayville	Mayville Municipal Airport	\$0	\$2,516	\$3,774		\$462
McClusky	McClusky Municipal Airport	\$0	\$0	\$0		\$0
McVille	McVille Municipal Airport	\$0	\$0	\$0		\$0
Milnor	Milnor Municipal Airport	\$0	\$0	\$0		\$0
Minto	Minto Municipal Airport	\$492	\$2,244	\$0		\$0
Mohall	Mohall Municipal Airport	\$394	\$3,234	\$1,584		\$396
Mott	Mott Municipal Airport	\$629	\$0	\$763		\$462

Table 32 - Estimated Direct Local and State Sales Taxes Paid by Employees at Aviation or Visitor Establishments

City	Airport Name	Airport Employees	Company Employees		Visitor Establishment Employees	
		Administration	Airport Tenants	Construction	Commercial	General Aviation
Napoleon	Napoleon Municipal Airport	\$0	\$1,258	\$0		\$0
New Rockford	Tomlinson Field Airport	\$0	\$629	\$0		\$0
New Town	New Town Municipal Airport	\$0	\$0	\$5,652		\$330
Northwood	Northwood Municipal-Vince Field	\$0	\$2,048	\$0		\$429
Oakes	Oakes Municipal Airport	\$0	\$823	\$5,032		\$0
Page	Page Regional Airport	\$0	\$4,096	\$650		\$0
Park River	Park River Airport-WC Skjerven Field	\$0	\$3,906	\$0		\$0
Parshall	Parshall-Hankins Airport	\$394	\$0	\$1,430		\$330
Pembina	Pembina Municipal Airport	\$591	\$2,955	\$818		\$0
Plaza	Trulson Field Airport	\$0	\$0	\$0		\$0
Richardton	Richardton Airport	\$0	\$0	\$0		\$0
Riverdale	Garrison Dam Recreational Airpark	\$0	\$0	\$0		\$0
Rolette	Rolette Airport	\$0	\$0	\$1,526		\$0
Rolla	Rolla Municipal Airport	\$0	\$3,312	\$3,815		\$462
Rugby	Rugby Municipal Airport	\$0	\$1,258	\$1,526		\$462
St. Thomas	St. Thomas Municipal Airport	\$0	\$898	\$0		\$0
Stanley	Stanley Municipal Airport	\$0	\$584	\$4,080		\$2,145
Tioga	Tioga Municipal Airport	\$394	\$5,392	\$2,994		\$5,445
Towner	Towner Municipal Airport	\$0	\$0	\$0		\$0
Turtle Lake	Turtle Lake Municipal Airport	\$0	\$0	\$0		\$0
Valley City	Barnes County Municipal Airport	\$990	\$4,137	\$3,272		\$495
Wahpeton	Harry Stern Airport	\$552	\$9,936	\$2,100		\$882
Walhalla	Walhalla Municipal Airport	\$0	\$2,516	\$2,454		\$0
Washburn	Washburn Municipal Airport	\$0	\$0	\$0		\$0
Watford City	Watford City Municipal Airport	\$550	\$4,347	\$6,152		\$4,040
West Fargo	West Fargo Municipal Airport	\$532	\$2,128	\$532		\$892
Westhope	Westhope Municipal Airport	\$0	\$1,078	\$0		\$0
Wishek	Wishek Municipal Airport	\$0	\$0	\$0		\$0
Total General Aviation Tax Contribution		\$14,085	\$150,376	\$133,219	\$0	\$29,465
All Airports Tax Contribution		\$114,037	\$1,897,301	\$424,489	\$736,230	\$298,730

Source: Estimates prepared by KRAMER aerotek inc., 2015

Table 33 - Summary of Estimated Sales Taxes Generated by Companies, Visitors, and Employees

City	Airport Name	Sales Taxes Generated From:			Total Sales Tax
		Company Transactions	Visitor Expenditures	Employee Spending	
Bismarck	Bismarck Municipal Airport	\$3,694,099	\$5,760,284	\$634,798	\$10,089,180
Devils Lake	Devils Lake Regional Airport	\$218,904	\$114,850	\$37,989	\$371,743
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	\$955,587	\$1,528,206	\$162,660	\$2,646,454
Fargo	Hector International Airport	\$4,396,053	\$9,371,862	\$1,486,992	\$15,254,906
Grand Forks	Grand Forks International Airport	\$2,697,412	\$2,715,951	\$677,844	\$6,091,207
Jamestown	Jamestown Regional Airport	\$552,142	\$200,884	\$34,704	\$787,730
Minot	Minot International Airport	\$2,913,335	\$7,591,265	\$767,943	\$11,272,543
Williston	Sloulin Field International Airport	\$2,995,960	\$6,820,082	\$531,936	\$10,347,977
Total Commercial Airport Sales Taxes		\$18,423,491	\$34,103,384	\$4,334,866	\$56,861,740
Arthur	Arthur Airport	\$0	\$1,088	\$0	\$1,088
Ashley	Ashley Municipal Airport	\$49,380	\$2,047	\$6,809	\$58,236
Beach	Beach Airport	\$9,797	\$3,391	\$2,761	\$15,949
Beulah	Beulah Airport	\$39,112	\$2,675	\$5,324	\$47,111
Bottineau	Bottineau Municipal Airport	\$28,604	\$17,752	\$2,982	\$49,338
Bowbells	Bowbells Municipal Airport	\$238	\$124	\$0	\$362
Bowman	Bowman Regional Airport	\$209,985	\$21,836	\$27,199	\$259,020
Cando	Cando Municipal Airport	\$48,054	\$2,409	\$3,774	\$54,237
Carrington	Carrington Municipal Airport	\$37,338	\$5,789	\$4,850	\$47,977
Casselton	Casselton Robert Miller Regional Airport	\$127,359	\$15,245	\$16,639	\$159,243
Cavalier	Cavalier Municipal Airport	\$52,351	\$1,253	\$5,910	\$59,514
Columbus	Columbus Municipal Airport	\$0	\$124	\$0	\$124
Cooperstown	Cooperstown Municipal Airport	\$11,335	\$1,843	\$1,168	\$14,346
Crosby	Crosby Municipal Airport	\$38,296	\$5,460	\$4,528	\$48,285
Drayton	Drayton Municipal Airport	\$4,457	\$203	\$584	\$5,245
Dunseith	International Peace Garden	\$3,303	\$442	\$0	\$3,745
Edgeley	Edgeley Municipal Airport	\$31,068	\$1,083	\$3,413	\$35,564
Elgin	Elgin Municipal Airport	\$24	\$147	\$0	\$171
Ellendale	Ellendale Municipal Airport	\$23,087	\$3,214	\$1,892	\$28,193
Enderlin	Sky Haven Airport	\$3,697	\$994	\$0	\$4,690
Fessenden	Fessenden-Streibel Municipal Airport	\$15,261	\$124	\$2,245	\$17,630
Fort Yates	Standing Rock Airport	\$159	\$124	\$0	\$283
Gackle	Gackle Municipal Airport	\$265	\$147	\$0	\$412

Table 33 - Summary of Estimated Sales Taxes Generated by Companies, Visitors, and Employees

City	Airport Name	Sales Taxes Generated From:			Total Sales Tax
		Company Transactions	Visitor Expenditures	Employee Spending	
Garrison	Garrison Municipal Airport	\$16,366	\$5,463	\$2,543	\$24,371
Glen Ullin	Glen Ullin Regional Airport	\$7,041	\$1,269	\$720	\$9,030
Grafton	Hutson Field Airport	\$52,501	\$12,080	\$6,725	\$71,307
Gwinner	Gwinner-Roger Melroe Field	\$75,472	\$4,716	\$7,535	\$87,724
Harvey	Harvey Municipal Airport	\$16,780	\$1,480	\$2,090	\$20,350
Hazleton	Hazleton Municipal Airport	\$0	\$1,495	\$0	\$1,495
Hazen	Mercer County Regional Airport	\$11,574	\$8,481	\$1,597	\$21,652
Hettinger	Hettinger Municipal Airport	\$55,682	\$6,882	\$7,500	\$70,064
Hillsboro	Hillsboro Regional Airport	\$65,842	\$15,669	\$9,162	\$90,673
Kenmare	Kenmare Municipal Airport	\$53,781	\$21,577	\$11,955	\$87,313
Killdeer	Dunn County Airport-Weydahl Field	\$48,390	\$873	\$9,034	\$58,297
Kindred	Robert Odegaard Field	\$140,988	\$2,670	\$3,864	\$147,521
Kulm	Kulm Municipal Airport	\$1,852	\$170	\$1,315	\$3,337
Lakota	Lakota Municipal Airport	\$5,058	\$3,010	\$0	\$8,067
LaMoure	LaMoure Rott Municipal Airport	\$8,990	\$405	\$1,258	\$10,653
Langdon	Robertson Field Airport	\$28,411	\$1,127	\$2,786	\$32,325
Larimore	Larimore Municipal Airport	\$35,258	\$1,852	\$4,504	\$41,614
Leeds	Leeds Municipal Airport	\$4,620	\$1,495	\$494	\$6,609
Lidgerwood	Lidgerwood Municipal Airport	\$422	\$170	\$0	\$592
Linton	Linton Municipal Airport	\$28,931	\$16,144	\$4,869	\$49,944
Lisbon	Lisbon Municipal Airport	\$13,483	\$1,001	\$2,346	\$16,829
Maddock	Maddock Municipal Airport	\$26,604	\$170	\$5,081	\$31,855
Mandan	Mandan Municipal Airport	\$182,623	\$30,890	\$21,490	\$235,004
Mayville	Mayville Municipal Airport	\$58,381	\$4,267	\$6,752	\$69,400
McClusky	McClusky Municipal Airport	\$222	\$147	\$0	\$369
McVile	McVile Municipal Airport	\$0	\$1,885	\$0	\$1,885
Milnor	Milnor Municipal Airport	\$2,151	\$159	\$0	\$2,310
Minto	Minto Municipal Airport	\$15,752	\$153	\$2,736	\$18,641
Mohall	Mohall Municipal Airport	\$45,867	\$4,354	\$5,608	\$55,829
Mott	Mott Municipal Airport	\$5,925	\$4,776	\$1,854	\$12,555
Napoleon	Napoleon Municipal Airport	\$8,596	\$1,495	\$1,258	\$11,349
New Rockford	Tomlinson Field Airport	\$5,232	\$1,835	\$629	\$7,696

Table 33 - Summary of Estimated Sales Taxes Generated by Companies, Visitors, and Employees

City	Airport Name	Sales Taxes Generated From:			Total Sales Tax
		Company Transactions	Visitor Expenditures	Employee Spending	
New Town	New Town Municipal Airport	\$46,898	\$3,143	\$5,982	\$56,023
Northwood	Northwood Municipal-Vince Field	\$20,649	\$5,058	\$2,477	\$28,185
Oakes	Oakes Municipal Airport	\$60,058	\$2,428	\$5,855	\$68,341
Page	Page Regional Airport	\$41,218	\$397	\$4,746	\$46,361
Park River	Park River Airport-WC Skjerven Field	\$28,827	\$2,003	\$3,906	\$34,735
Parshall	Parshall-Hankins Airport	\$13,238	\$4,801	\$2,154	\$20,193
Pembina	Pembina Municipal Airport	\$29,031	\$2,347	\$4,364	\$35,742
Plaza	Trulson Field Airport	\$0	\$124	\$0	\$124
Richardton	Richardton Airport	\$198	\$170	\$0	\$369
Riverdale	Garrison Dam Recreational Airpark	\$593	\$232	\$0	\$826
Rolette	Rolette Airport	\$14,588	\$1,495	\$1,526	\$17,609
Rolla	Rolla Municipal Airport	\$65,781	\$3,535	\$7,589	\$76,905
Rugby	Rugby Municipal Airport	\$22,206	\$4,815	\$3,246	\$30,268
St. Thomas	St. Thomas Municipal Airport	\$6,525	\$124	\$898	\$7,547
Stanley	Stanley Municipal Airport	\$36,295	\$22,862	\$6,809	\$65,966
Tioga	Tioga Municipal Airport	\$62,764	\$77,374	\$14,225	\$154,363
Towner	Towner Municipal Airport	\$0	\$1,293	\$0	\$1,293
Turtle Lake	Turtle Lake Municipal Airport	\$1,797	\$1,516	\$0	\$3,313
Valley City	Barnes County Municipal Airport	\$66,100	\$8,064	\$8,894	\$83,058
Wahpeton	Harry Stern Airport	\$101,063	\$13,625	\$13,470	\$128,158
Walhalla	Walhalla Municipal Airport	\$35,006	\$2,086	\$4,970	\$42,061
Washburn	Washburn Municipal Airport	\$6,191	\$1,884	\$0	\$8,075
Watford City	Watford City Municipal Airport	\$79,545	\$57,157	\$15,089	\$151,791
West Fargo	West Fargo Municipal Airport	\$25,604	\$11,522	\$4,084	\$41,210
Westhope	Westhope Municipal Airport	\$7,585	\$166	\$1,078	\$8,828
Wishek	Wishek Municipal Airport	\$1,343	\$2,421	\$0	\$3,764
Total General Aviation Airport Sales Taxes		\$2,529,067	\$476,316	\$327,145	\$3,332,528
All Airport Sales Taxes		\$20,952,558	\$34,579,699	\$4,662,011	\$60,194,269

Source: Estimates prepared by KRAMER aerotek inc., 2015

7 Comparative Economic Impacts by Airport Role

Airports in the North Dakota system are assigned to various functional roles. Roles for North Dakota's 89 public-use airports have been previously assigned as part of the North Dakota State Airport System Plan (NDSASP). For informational purposes, an exercise was undertaken to determine average annual economic impacts by airport role. **Table 34 - North Dakota Airports by State Role** and **Figure 12 - NDSASP Airport Classifications** show current role assignments for each of the North Dakota airports in the state system.

Table 34 - North Dakota Airports by State Role

City	Airport Name	NDSASP Classification	NPIAS Classification
Primary Commercial Service			
Bismarck	Bismarck Municipal Airport	Primary Commercial Service	Non-hub
Dickinson	Dickinson-Theodore Roosevelt Regional Airport	Primary Commercial Service	Non-hub
Fargo	Hector International Airport	Primary Commercial Service	Small-hub
Grand Forks	Grand Forks International Airport	Primary Commercial Service	Non-hub
Minot	Minot International Airport	Primary Commercial Service	Non-hub
Williston	Sloulin Field International Airport	Primary Commercial Service	Non-hub
Non-Primary Commercial Service			
Jamestown	Jamestown Regional Airport	Non-Primary Commercial Service*****	Regional
Devils Lake	Devils Lake Regional Airport	Non-Primary Commercial Service****	Local
Local			
Bottineau	Bottineau Municipal Airport	Local	Local
Bowman	Bowman Regional Airport	Local	Local
Casselton	Casselton Robert Miller Regional Airport	Local	Local
Cavalier	Cavalier Municipal Airport	Local	Local
Cooperstown	Cooperstown Municipal Airport	Local	Local
Garrison	Garrison Municipal Airport	Local	Local
Grafton	Hutson Field Airport	Local	Local
Hettinger	Hettinger Municipal Airport	Local	Local
Hillsboro	Hillsboro Regional Airport	Local	Local
Kenmare	Kenmare Municipal Airport	Local	Local
Kindred	Robert Odegaard Field	Local	Local
Linton	Linton Municipal Airport	Local	Local
Mandan	Mandan Municipal Airport	Local	Local
Mohall	Mohall Municipal Airport	Local	Local
Oakes	Oakes Municipal Airport	Local	Local
Tioga	Tioga Municipal Airport	Local	Local
Valley City	Barnes County Municipal Airport	Local	Local
Wahpeton	Harry Stern Airport	Local	Local
Watford City	Watford City Municipal Airport	Local	Local
Basic			
Beach	Beach Airport	Basic	Basic
Cando	Cando Municipal Airport	Basic	Basic
Carrington	Carrington Municipal Airport	Basic	Basic
Crosby	Crosby Municipal Airport	Basic	Basic
Dunseith	International Peace Garden	Basic	Basic
Edgeley	Edgeley Municipal Airport	Basic	Basic

City	Airport Name	NDSASP Classification	NPIAS Classification
Ellendale	Ellendale Municipal Airport	Basic	Basic
Fort Yates	Standing Rock Airport	Basic	Basic
Glen Ullin	Glen Ullin Regional Airport	Basic	Basic
Gwinner	Gwinner-Roger Melroe Field	Basic	Basic
Harvey	Harvey Municipal Airport	Basic	Basic
Hazen	Mercer County Regional Airport	Basic	Basic
Lakota	Lakota Municipal Airport	Basic	Basic
Langdon	Robertson Field Airport	Basic	Basic
Lisbon	Lisbon Municipal Airport	Basic	Basic
Mott	Mott Municipal Airport	Basic	Basic
Northwood	Northwood Municipal-Vince Field	Basic	Basic
Park River	Park River Airport-WC Skjerven Field	Basic	Basic
Parshall	Parshall-Hankins Airport	Basic	Basic
Pembina	Pembina Municipal Airport	Basic	Basic
Rolla	Rolla Municipal Airport	Basic	Basic
Rugby	Rugby Municipal Airport	Basic	Basic
Stanley	Stanley Municipal Airport	Basic	Basic
Walhalla	Walhalla Municipal Airport	Basic	Basic
Washburn	Washburn Municipal Airport	Basic	Basic
Ashley	Ashley Municipal Airport	Basic*	Non-NPIAS
Beulah	Beulah Airport	Basic*	Non-NPIAS
Enderlin	Sky Haven Airport	Basic*	Non-NPIAS
Killdeer	Dunn County Airport-Weydahl Field	Basic*	Non-NPIAS
Larimore	Larimore Municipal Airport	Basic*	Non-NPIAS
Napoleon	Napoleon Municipal Airport	Basic*	Non-NPIAS
Page	Page Regional Airport	Basic*	Non-NPIAS
West Fargo	West Fargo Municipal Airport	Basic*	Non-NPIAS
Westhope	Westhope Municipal Airport	Basic*	Non-NPIAS
Wishek	Wishek Municipal Airport	Basic*	Non-NPIAS
Community Paved			
Minto	Minto Municipal Airport	Community Paved***	Non-NPIAS
LaMoure	LaMoure Rott Municipal Airport	Community Paved**	Unclassified
Drayton	Drayton Municipal Airport	Community Paved	Non-NPIAS
Leeds	Leeds Municipal Airport	Community Paved	Non-NPIAS
Maddock	Maddock Municipal Airport	Community Paved	Non-NPIAS
Mayville	Mayville Municipal Airport	Community Paved	Non-NPIAS
New Rockford	Tomlinson Field Airport	Community Paved	Non-NPIAS
New Town	New Town Municipal Airport	Community Paved	Non-NPIAS
Rolette	Rolette Airport	Community Paved	Non-NPIAS
St. Thomas	St. Thomas Municipal Airport	Community Paved	Non-NPIAS
Community Turf			
Arthur	Arthur Airport	Community Turf	Non-NPIAS
Bowbells	Bowbells Municipal Airport	Community Turf	Non-NPIAS
Columbus	Columbus Municipal Airport	Community Turf	Non-NPIAS
Elgin	Elgin Municipal Airport	Community Turf	Non-NPIAS
Fessenden	Fessenden-Streibel Municipal Airport	Community Turf	Non-NPIAS
Gackle	Gackle Municipal Airport	Community Turf	Non-NPIAS
Hazelton	Hazelton Municipal Airport	Community Turf	Non-NPIAS
Kulm	Kulm Municipal Airport	Community Turf	Non-NPIAS
Lidgerwood	Lidgerwood Municipal Airport	Community Turf	Non-NPIAS
McClusky	McClusky Municipal Airport	Community Turf	Non-NPIAS
McVile	McVile Municipal Airport	Community Turf	Non-NPIAS

City	Airport Name	NDSASP Classification	NPIAS Classification
Milnor	Milnor Municipal Airport	Community Turf	Non-NPIAS
Plaza	Trulson Field Airport	Community Turf	Non-NPIAS
Richardton	Richardton Airport	Community Turf	Non-NPIAS
Riverdale	Garrison Dam Recreational Airpark	Community Turf	Non-NPIAS
Towner	Towner Municipal Airport	Community Turf	Non-NPIAS
Turtle Lake	Turtle Lake Municipal Airport	Community Turf	Non-NPIAS

Source: North Dakota State Airport System Plan

*Not included in the NPIAS but classified by ASSET criteria

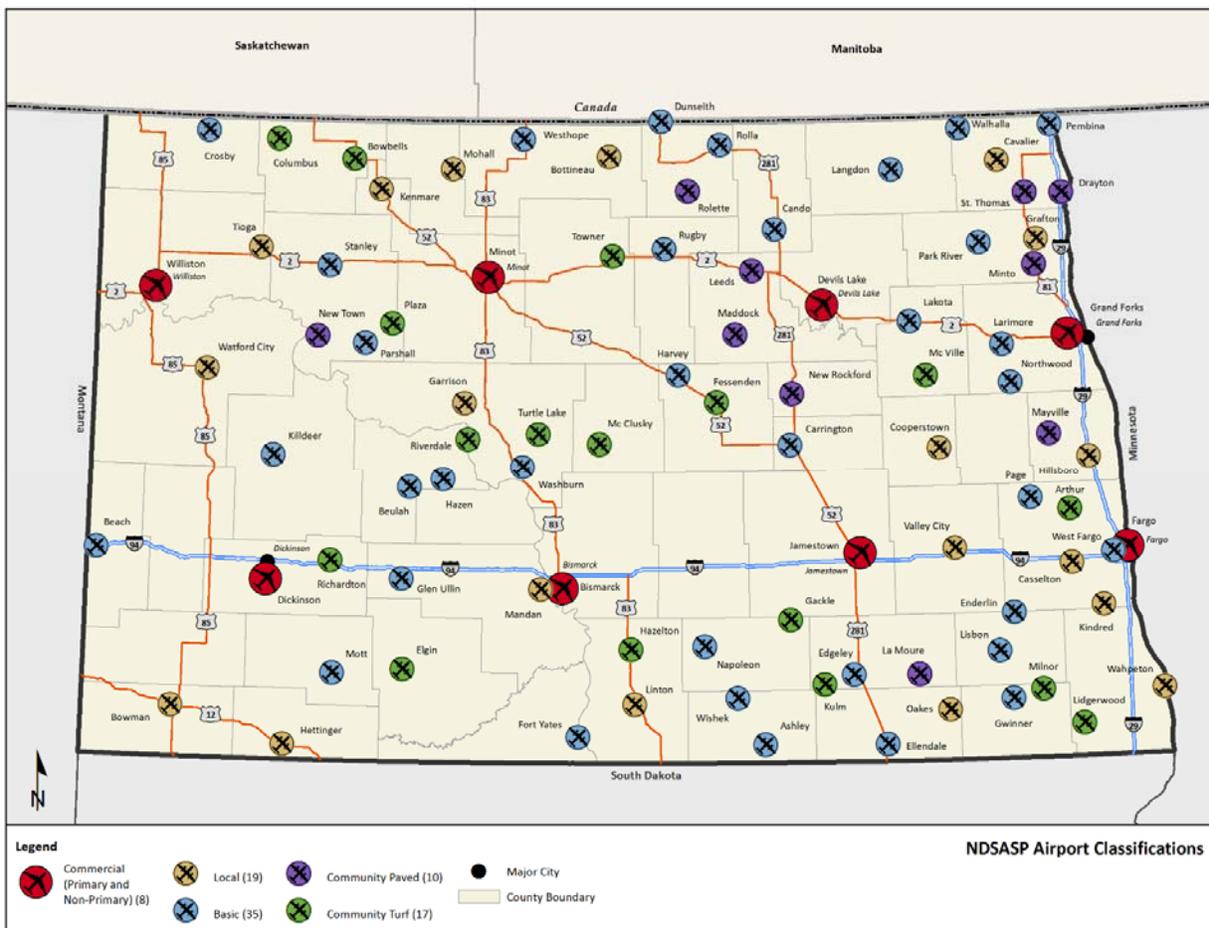
**Included in the NPIAS, but unclassified in the FAA's ASSET Study - therefore classified as Community Paved.

***Paved runway is non-standard with a width of 20'. A total width of 100' exists when including the turf area of the runway.

**** Also classified as Local in the FAA's ASSET Study

***** Also classified as Regional in the FAA's ASSET Study

Figure 12 - NDSASP Airport Classifications



Source: North Dakota State Airport System Plan

Using total annual economic impacts for airports in each of the state roles, **Table 35 - Average Annual Economic Impact Per Airport by SASP Role** presents the results of analysis



completed to establish an average annual economic impact for each of the six North Dakota airport roles. As would be expected, the Primary Commercial Service Airports have the highest average annual economic impact, and airports in the Community Turf category have the lowest.

Table 36 - Percent of Total Statewide Economic Impact by SASP Role shows each role's percent of the total statewide economic impact estimated for all system airports. While **Table 36** shows that Community Turf Airports account for 0% of total statewide economic impact, in fact these airports do in fact contribute, but the contribution is far less than one half one percent.

North Dakota airports included in the National Plan for Integrated Airport Systems (NPIAS) also have a federally assigned role. Role for non-primary commercial airports are assigned as FAA's ASSET II study. In addition to estimating an average annual economic impact for NDSASP assigned airport roles, **Table 37 - Average Annual Economic Impact Per Airport by NPIAS ASSET Role** provides similar average annual economic impacts for NPIAS-only public-use airports as their role is assigned in ASSET II.

In addition estimating annual economic impacts per airport by airport role, analysis was also undertaken to estimate annual tax revenues per airport by airport role. The tax revenue analysis estimated some taxes only on a statewide basis; these tax revenues were not distributed to the individual airport level. Average annual state and local tax revenues per airport by airport role, shown in **Table 38 - Average Tax Revenue Per Airport by SASP Role**, reflect only sales tax revenues. Sales tax revenues, however, account for more than \$60 million of the \$64 million in annual aviation/airport related tax revenues for North Dakota estimated in this study. **Table 39 - Average Tax Revenue Per Airport by NPIAS ASSET Role** provides similar information by ASSET II role.

Table 35 - Average Annual Economic Impact Per Airport by SASP Role

Airport Role	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Primary Commercial Service Airports (6)	1,252	595	1,847	\$48,386,527	\$27,372,993	\$75,759,520	\$148,896,498	\$85,577,333	\$234,473,831
Non-Primary Commercial Service Airports (2)	62	43	105	\$2,441,855	\$1,963,800	\$4,405,655	\$11,144,676	\$6,973,920	\$18,118,596
Local Airports (19)	17	11	28	\$772,755	\$460,261	\$1,233,016	\$2,158,501	\$1,429,810	\$3,588,311
Basic Airports (35)	6	4	10	\$249,096	\$141,316	\$390,413	\$713,785	\$464,242	\$1,178,028
Community Paved Airports (10)	4	3	8	\$273,789	\$156,141	\$429,930	\$622,246	\$424,685	\$1,046,931
Community Turf Airports (17)	1	0	1	\$19,147	\$9,561	\$28,708	\$56,536	\$25,465	\$82,000

Source: Airport Managers, Tenants, Surveys, NDAC, USDOT, IMPLAN, Dun & Bradstreet, and Manta

Table 36 - Percent of Total Statewide Economic Impact by SASP Role

Airport Role	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Primary Commercial Service Airports (6)	92%	89%	91%	90%	89%	90%	90%	89%	90%
Non-Primary Commercial Service Airports (2)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Local Airports (19)	4%	5%	4%	5%	5%	5%	4%	5%	4%
Basic Airports (35)	2%	3%	3%	3%	3%	3%	3%	3%	3%
Community Paved Airports (10)	1%	1%	1%	1%	1%	1%	1%	1%	1%
Community Turf Airports (17)	0%	0%	0%	0%	0%	0%	0%	0%	0%

Source: Airport Managers, Tenants, Surveys, NDAC, USDOT, IMPLAN, Dun & Bradstreet, and Manta

Table 37 - Average Annual Economic Impact Per Airport by NPIAS ASSET Role

Airport Role	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Small-hub (1)	2,391	962	3,353	\$98,456,860	\$43,709,477	\$142,166,337	\$252,525,313	\$134,940,271	\$387,465,584
Non-hub (5)	1,025	521	1,546	\$38,372,461	\$24,105,696	\$62,478,157	\$128,170,735	\$75,704,745	\$203,875,480
Regional (1)	65	55	120	\$2,119,085	\$2,678,373	\$4,797,458	\$15,076,145	\$9,349,558	\$24,425,703
Local (20)	19	12	31	\$872,348	\$499,709	\$1,372,058	\$2,411,236	\$1,588,234	\$3,999,470
Basic (25)	5	4	9	\$228,801	\$132,299	\$361,100	\$673,447	\$444,718	\$1,118,164
Unclassified (1)	2	1	3	\$86,412	\$43,206	\$129,618	\$231,222	\$130,684	\$361,906

Source: Aviation Analysis

Table 38 - Average Tax Revenue Per Airport by SASP Role

Airport Role	Average Sales Tax by Role
Primary Commercial Service Airports (6)	\$9,283,711
Non-Primary Commercial Service Airports (2)	\$579,737
Local Airports (19)	\$103,116
Basic Airports (35)	\$31,610
Community Paved Airports (10)	\$23,128
Community Turf Airports (17)	\$2,100

Source: Estimates prepared by KRAMER aerotek inc., 2015

Table 39 - Average Tax Revenue Per Airport by NPIAS ASSET Role

Airport Role	Average Sales Tax by Role
Small-hub (1)	\$15,254,906
Non-hub (5)	\$8,809,472
Regional (1)	\$787,730
Local (20)	\$116,547
Basic (25)	\$31,396
Unclassified (1)	\$10,653

Source: Estimates prepared by KRAMER aerotek inc., 2015

8 Other Economic Benefits of Aviation/Aerospace in North Dakota

Aside from the annual economic impacts associated with the commercial service and general aviation airports in North Dakota, there are other economic benefits that North Dakota’s economy realizes from aviation and aerospace activities. These additional sources of economic benefit are associated with off-airport locations. Additional economic impacts are realized from the following:

- Grand Forks and Minot Air Force Base
- Off-Airport Aviation and Aerospace Businesses, Including Off-Airport Aerial Applicators
- Jobs with Increase Efficiency from Aviation Use
- UAS/UAV Activities

Each of these centers of additional economic benefit is discussed in the following sections.

8.1 Economic Impacts of Minot and Grand Forks Air Force Bases

Aside from the 89 public-use civilian airports included in NDAC’s economic impact study, North Dakota is home to the 319th Air Base Wing in Grand Forks and Minot Air Force Base in Minot. These major military installations provide additional economic impact for the state and the communities they serve. Specific economic impacts for both facilities were obtained from each Base; economic impacts presented for these two facilities were not estimated/calculated as part of NDAC’s research project, but were incorporated from secondary data sources.

Impacts for Minot AFB, shown here, were prepared in 2013, and impacts for Grand Forks AFB were prepared in 2012. As shown in **Table 40 - Employment Impacts for Minot AFB and Grand Forks AFB**, the two AFBs have direct military and civilian employment that exceeds 9,800. Further, using military computations, there are an additional 3,000 indirect jobs supported by military activities and spending, bringing total employment supported by the two military installations in North Dakota to 12,800.

Table 40 - Employment Impacts for Minot AFB and Grand Forks AFB

	Minot AFB: Direct Employment	Grand Forks AFB: Direct Employment
Military	6,053	1,615
Civilian	550	256
Homeland Security	0	50
Other Civilian/Contract	635	644
Sub-Total	7,238	2,565
Additional Indirect Employment	2,124	876
Total Employment	9,362	3,341

Sources: 319 CPTS/FMA , *Grand Forks AFB, Economic Impact Analysis*, 2013 and Budget Office 5th Bomb Wind Comptroller, *5th Bomb Wind 91st Missile Wing, Economic Impact Analysis*, 2012

Military economic impact studies have a similar, but different, methodology than the approach used to estimate annual economic impacts for North Dakota’s 89 civilian public-use airports. For military facilities, total annual economic impact is the sum of direct annual payroll, direct annual

output (spending to operate each facility), and additional indirect payroll associated with indirect jobs (shown in **Table 25**) for each AFB.

Based on this approach, the total annual economic impact for the 319th Air Base Wing and Minot AFB are shown in **Table 41 - Total Annual Economic Impact for Minot AFB**. As shown, the annual economic impact from the two military installations in North Dakota exceeds \$717 million on an annual basis. It is important to note that these impacts are in addition to those estimated for the 89 public-use airports.

Table 41 - Total Annual Economic Impact for Minot AFB and Grand Forks AFB

	Direct Payroll	Direct Output	Indirect Payroll	Total Annual Economic Impact
Minot AFB	\$321,044,796	\$114,827,147	\$86,601,680	\$513,473,623
Grand Forks AFB	\$105,186,741	\$64,705,638	\$33,799,585	\$203,691,963
Total	\$426,231,537	\$179,532,785	\$120,401,265	\$717,165,586

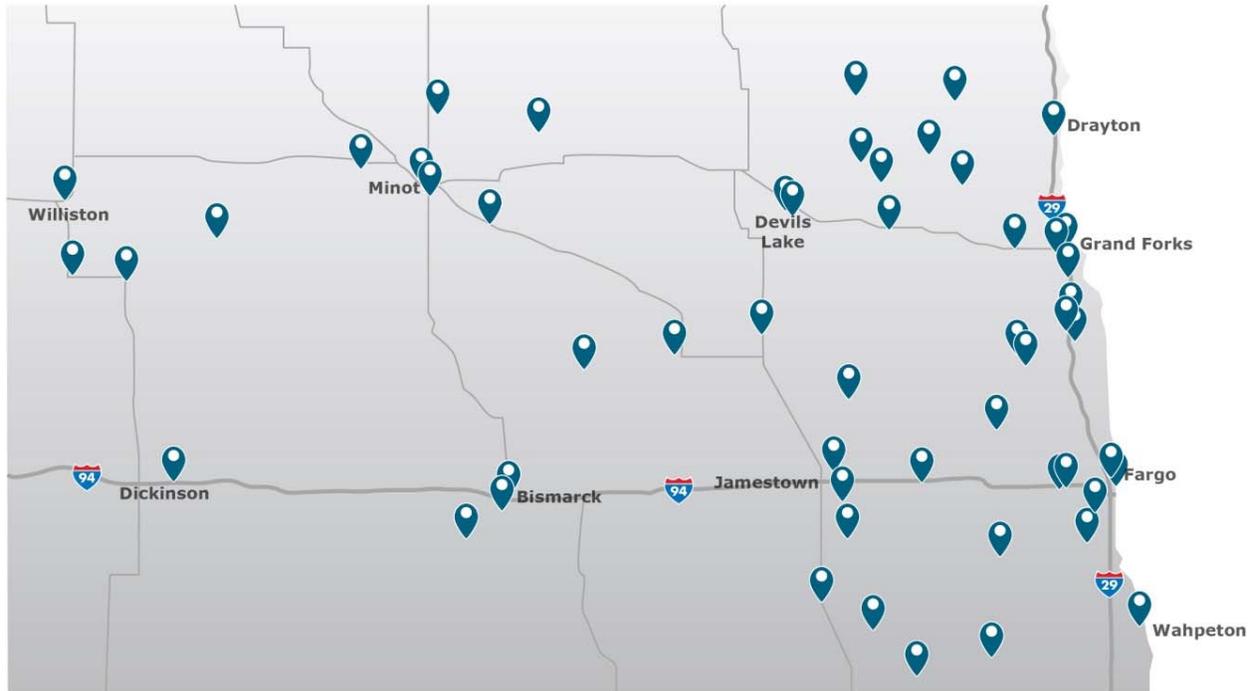
Sources: 319 CPTS/FMA , *Grand Forks AFB, Economic Impact Analysis*, 2013 and Budget Office 5th Bomb Wing Comptroller, *5th Bomb Wing 91st Missile Wing, Economic Impact Analysis*, 2012

8.2 Aviation/Aerospace Companies (Off-Airport Locations)

North Dakota is a pro-aviation and aerospace state. As a result, many aviation and aerospace businesses are located within the state. This section provides information on aviation/aerospace businesses in North Dakota not located at one of the 89 public-use airports. Research conducted for this NDAC project indicates that there are approximately 95 aviation/aerospace companies doing business in North Dakota that are a not located on a public-use airport.

Figure 13 - Location of Off-Airport Aviation and Aerospace Businesses reflects the approximate location of these companies. Businesses shown on this map include large employers such as United Technology Systems in Jamestown with an estimated 600 employees to UAI International in Grand Forks with an estimated four employees. Off-airport business locations shown on **Figure 13** also reflect aerial applicators that are not located at one of the 89 public-use airports.

Figure 13 - Location of Off-Airport Aviation and Aerospace Businesses



Sources: Dun and Bradstreet and Manta

In total, it is estimated that the approximately 95 off-airport aviation/aerospace businesses support 2,145 additional direct jobs in North Dakota. Of this total, an estimated 85 of these direct jobs are reported to be associated with off-airport businesses engaged in providing and supporting agricultural services. The remaining 2,060 jobs are in other categories, primarily manufacturing of aviation and aerospace related products.

These aviation and aerospace related jobs in North Dakota, similar to the on-airport jobs in this study, have associated direct annual payroll and output. Direct impacts in this category also create indirect impacts. **Table 42 - Economic Impacts of Off-Airport Aerial Applicators** and **Table 43 - Economic Impacts of Off-Airport Aviation and Aerospace Business** provide information that summarizes additional direct and indirect economic benefits that North Dakota's economy realizes from off-airport aviation and aerospace companies.

Table 42 provides information on additional statewide economic impacts that North Dakota's economy realizes from off-airport aerial applicators. These benefits are in addition to economic benefits realized from aerial applicators that are based at one of the 89 public-use airports.

Table 42 - Economic Impacts of Off-Airport Aerial Applicators

	Employment	Payroll	Output
Direct	85	\$3,207,000	\$8,925,000
Indirect	71	\$2,411,890	\$6,659,210
Total	156	\$5,619,790	\$15,584,210

Source: Dun and Bradstreet, Manta and ND Airport Managers

It is important to note that the output for off-airport aerial applicators shown in **Table 42** has been adjusted to deduct the cost of their chemical purchases.

Table 43 - Economic Impacts of Off-Airport Aviation and Aerospace Business

	Employment	Payroll	Output
Direct	2,060	\$133,900,000	\$329,600,000
Indirect	2,419	\$93,203,670	\$167,358,630
Total	4,479	\$227,103,670	\$469,958,630

Sources: Dun and Bradstreet and Manta

These tables show, that when all direct and indirect impacts in this category are considered, there are 4,635 jobs (direct and indirect) in North Dakota supported by off-airport aviation and aerospace companies. These jobs have an estimated total annual payroll (direct and indirect) of \$232.7 million and the businesses in this category account for approximately \$485.5 million in total (direct and indirect) annual output.

Profiles of just a few of the off-airport aviation and aerospace businesses that account for these impacts follow:

- **Minot – Boeing Company**

Boeing is the world's largest aerospace company. As a leading manufacturer of commercial jetliners and defense, space and security systems it provides solutions that included design, production, modification and support. The Boeing Company works with businesses in North Dakota creating jobs and supporting economic opportunity associated with aircraft manufacturing. Boeing posts \$10 million to \$20 million a year in sales, and employs 35 persons in addition to their work with 16 supplier/vendor locations.

Boeing leverages their resources by partnering with higher educational institutions. These partnerships result in direct impacts on the lives of those they employ as well as in the areas of education, environmental issues, and diverse engagement programs. Boeing is an integral part of the Unmanned Aircraft Systems (UAS) degree program curriculum at the University of North Dakota (UND). The program utilizes the Boeing/Insitu Scan Eagle engaging students in over 75 hours of flight time in its simulator. Experience in the simulators provides students with the ability to become connected with future work environments and reflects Boeings customer focus. Involvement from innovative leaders like Boeing makes North Dakota a leader in emergency UAS technology and applications.

- **Fargo – Appareo Systems Innovation**

The North Dakota State University Research and Technology Park in Fargo is home to Appareo Systems. Appareo affects North Dakota predominately through the aerospace and agricultural industry. They develop technologies to help growers get data quickly and conveniently. Original large equipment manufacturers (OEMs) integrate equipment

with Appareo technologies allowing farmers and operators to connect with their machines.

More than 160 individuals are employed by the company. In 2015 a new building was dedicated which doubles the size of the electronics and software design company's headquarters and manufacturing facility. The company has annual sales estimated at \$26.1 million.

Appareo is an industry leader in the custom development and manufacturing of low-cost innovative avionic solutions. Their services range from product conceptualization to final product certification. Appareo is an accredited FAA Parts Manufacturing facility and develops devices used by entities such as the United State Forest Service and Air Methods. Air Methods is the global leader in the air medical helicopter industry. Appareo technology is used to support Air Methods training through systems like their Flight Data Monitoring (FDM) which provides meaningful, manageable information for daily operations and long-term planning. They offer operational oversight, risk identification and mitigation, safety and training resources, and collaborative custom engineering.

- **Wahpeton – ComDel Innovation**

ComDel Innovation (CDI) supports overall product design, plastic and metal component design, injection molding and metal stamping tool design, as well as automation design for production operations. Their services and precision equipment components are used in the manufacture of unmanned aerial systems (UAS) and components. Designers work directly with customers and engineers to create the most effective solution for product performance and manufacturing efficiency. CDI personnel utilize a 240,000-square-foot facility in Wahpeton for their business. Work from the Wahpeton facility joins public and private research to further develop aviation, with a focus on UAS. The integrated approach practiced at CDI is key to achieving cost efficient performance results while retaining competitive products.

The Harry Stern Airport is within ten minutes of CDI and provides accessibility for clients and supports the transportation of \$16.9 million in annual sale goods. CDI employs 150 people; their pioneering in manufacturing benefits aviation, North Dakota, and surrounding states.

- **Cavalier – Bae Systems**

Bae Systems is a privately held company that works at the forefront of defense, aerospace, and security technology. They deliver a comprehensive range of products and services for current and future military and civilian systems. Complex systems produced by Bae in North Dakota are integrated into aircraft used in the civil and defense aerospace industries. Bae Systems also applies their expertise through the technical governance and certification of the aircraft that they own and operate.

The company has annual sales between \$50 and \$100 million. Bae Systems employs 175 people in North Dakota. The company's location, 14 miles from Canada, plays a

large role in international security and information systems for the United States intelligence community. With expertise in search detection and navigation instruments, Bae Systems is a leading business in advanced information technology and geospatial exploitation software.

8.3 Businesses Improving Efficiency Through the Use of Aviation

Many businesses in North Dakota improve their efficiency by using aviation. Business efficiency is improved by using general aviation, commercial aviation, and air cargo/air freight. Several research and outreach efforts were undertaken to help quantify the number of additional jobs in North Dakota that have improved efficiency from using aviation.

Companies in North Dakota benefit when employees have reduced travel times to reach both domestic and international destinations. North Dakota now benefits from the best scheduled airline service the state has had since airline Deregulation. All of the eight commercial airports now have scheduled service provided on jet aircraft, and the number of non-stop destinations served has expanded. Not that many years ago, North Dakota's scheduled airline service was highly dependent on connecting service provided almost exclusively through Minneapolis. Improved air service throughout the state has added improved efficiency to employees whose jobs involve travel to and from the state.

Through the use of general aviation, employees can fly directly to locations not served by commercial airlines; general aviation enables employees to fly on their own timetable, avoiding additional travel time for security and airline connections. Many jobs in North Dakota also benefit from shipping by air. There are many jobs in the state that have improved efficiency as a result of overnight and just-in-time shipping. Some manufacturing companies in North Dakota use air cargo/freight to either ship the goods they manufacture in the state or to receive supplies that go into their products. These jobs benefit from aviation. Off-airport companies that are engaged in freight forwarding or travel agents also benefit from aviation in North Dakota.

This section provides an estimate of jobs in North Dakota that have improved efficiency on a regular basis because they rely on and benefit from commercial aviation, general aviation, and/or air shipping. In addition, the impacts estimated in this section include those associated with aviation-reliant businesses and activities. This could include, for example, freight forwards who are not located on an airport, and travel agents. In the case of North Dakota, this would also include impacts associated with UND's aerospace program that are on-campus and not at the airport.

Additional analysis supported by the IMPLAN model was undertaken to identify jobs throughout the state included in all industry sectors that have improved efficiency from using aviation. Jobs identified in this effort include those that have improved efficiency from using general aviation, commercial aviation, and air cargo/air freight. It is important to note that adjustments to modeling results were made to adjust for jobs in industry sectors such as hospitality, retail, entertainment, and transportation. These adjustments were made to avoid double counting.

Benefits in these sectors are already considered in this analysis in the economic impacts identified for airport and visitor supported economic activities.

Table 44 - Economic Impacts of Improved Job Efficiency Through Aviation Use provides information on direct and indirect jobs in North Dakota that have improved efficiency as a result of aviation. **Table 44** also shows the payroll and the output associated with jobs in North Dakota that have improved efficiency as a result of their reliance on aviation. As shown in **Table 44**, there are an estimated 5,513 North Dakota jobs that have improved efficiency because they rely on and benefit from aviation. These jobs have a total annual estimated payroll of \$217.8 million and total annual output estimated at \$882.7 million.

Table 44 - Economic Impacts of Improved Job Efficiency Through Aviation Use

	Employment	Payroll	Output
Direct	3,397	\$155,861,414	\$535,087,370
Indirect	2,112	\$115,937,469	\$347,576,486
Total	5,513	\$217,798,890	\$882,663,857

Source: IMPLAN and Study Survey

As part of the update to North Dakota’s Statewide Aviation Economic Impact Study, outreach to businesses and business-related groups in the state was undertaken to gather information to drill down into how companies use aviation to improve their efficiency. This outreach included the development of an online business survey. A press release, which provided study background and the online survey link, was distributed to newspapers and media outlets throughout North Dakota. In addition, chambers of commerce and economic development groups were also provided a similar package to share with their membership. The goal of this outreach was to enable any company or employer in North Dakota to provide input on how they use and benefit from North Dakota airports. The online business survey was available for six months between the end of 2014 through mid-2015.

The online business survey sought information on how North Dakota businesses benefit from commercial airline service, general aviation, and air cargo/freight. Results from the online business survey are summarized as follows:

- 66% of survey respondents indicate that their business relies on scheduled commercial airline service.
- 44% of survey respondents report gains in efficiency from using general aviation.
- 9% of responding businesses indicate they own general aviation aircraft that are based at a North Dakota airport.
- 6% of responding businesses indicate their company owns a general aviation aircraft, but that the plane(s) is based in another state; these planes are frequently flown to North Dakota by branch offices and headquarter locations.
- 3% of responding businesses indicate they own a share of a general aviation aircraft through fractional ownership.

- 6% of the respondents indicate that they use the services of companies such as NetJets to improve their efficiency.
- 56% of responding businesses indicate they have customers or suppliers who use general aviation aircraft to visit them in North Dakota.
- 9% of responding businesses report they rent or charter general aviation aircraft to improve their efficiency.
- 81% of responding businesses indicate they rely on overnight shipping at least once a month.

These results help to substantiate how businesses in North Dakota rely on aviation to improve their efficiency and the efficiency of their employees.

The survey also asked businesses to provide information on how important proximity to an airport or aviation services is to their successful operation or to the potential expansion of their company in North Dakota. While proximity to an airport or to aviation services is seldom the number one factor that attracts a business to a specific location, as survey results show, airports are important to attracting and then retaining employment in North Dakota. Responding businesses ranked factors from 10 (most important) to one (least important) as they relate the location of their business in North Dakota.

As part of the business survey, respondents were asked to rank 13 different factors from most to least important as it relates to their location in North Dakota. **Figure 14 - Factors Influencing Business Locations in North Dakota** summarizes the results of the “locational” question from the business survey. The factors shown in **Figure 14** are those typically users by economic development groups when they are screening candidates for locating in a particular area.

Figure 14 - Factors Influencing Business Locations in North Dakota



Source: Study Survey

As recent growth in the state has shown, many businesses are dependent on aviation. This has resulted in the need to expand and even re-build many of North Dakota's commercial and general aviation airports. As demand at airports increases, the economic benefit that communities in North Dakota and the state realize from the airports also increases.

8.4 Unmanned Aircraft Systems (UAS)

Unmanned Aircraft Systems (UAS) is an emerging sector within the aviation industry. In 2014, the FAA announced the North Dakota Department of Commerce as one of six test sites for UAS flight research. Test sites are currently authorized to operate into 2017. Per the FAA, the test sites "will allow the agency (FAA) to develop research findings and operational experiences to help ensure the safe integration of UAS into the nation's airspace." UAS research also allows businesses to determine how to apply this technology to everyday situations.

North Dakota's test site is known as the Northern Plains UAS Test Site; the operations are based out of Grand Forks. The site allow for policies, safety procedures, and the technology itself to be developed and tested before the FAA integrates UAS into the National Airspace System (NAS). There are many factors that need to be considered as they relate to integrating UAS into airspace utilized by civilian and military aircraft. The FAA took into account factors such as geography, climate, research needs, airspace use, and aviation environment when selecting locations for the test sites. North Dakota was a prime candidate for a test site because of UAS industry support, existing manned and unmanned aircraft research centers, its outstanding aviation safety record, uncongested airspace, changing climate, and open terrain.

The Northern Plains Test Site was the first to conduct flights with unmanned aircraft. The first flights occurred in early May 2014. The Northern Plains Test Site is currently overseen by the Northern Plains Unmanned Systems Authority. This six-member commission is chaired by North Dakota's Lieutenant Governor, Drew Wrigley, and includes some of North Dakota's most educated UAS professionals from the state's general aviation industry, University of North Dakota Aerospace Program, North Dakota Aeronautics Commission, North Dakota Department of Commerce, and the Office of the Adjutant General. The combination of UAS expertise and its prime location, give the Northern Plains Test Site unlimited possibilities for the future growth for UAS applications.

The Grand Forks Air Force Base (AFB) is leading a project with aviation companies such as Rockwell Collins, General Atomics, and Northrop Grumman. Grand Sky Air Force Park is located just off the Grand Forks AFB and has runway access from its location. Northrop Grumman is the first company to break ground at Grand Sky on a new hangar which will house research and development along with their current UAS, the Global Hawk. Within the next few years, the UAS industry will utilize Grand Sky to support the growth of the UAS industry.

UAS technology will allow people and corporations to save time and money, supporting everyday business applications. For example, UAS will be used for aerial inspections of oil pipelines in North Dakota. Currently, inspections are done on the ground by walking the length of the pipeline to inspect for leaks and possible damage. The cost and time to complete pipeline

inspections will be greatly reduced by UAS. Efficiencies gained through the use of UAS will enable oil companies to conduct more safety checks within their allotted budget.

Other potential UAS applications may improve railroad safety by having UAS inspect tracks for possible dangers. UAS may also benefit North Dakota's agricultural community by enabling farmers to pinpoint their strategies for spraying to improve crop production.

The collaboration between the State of North Dakota, the University of North Dakota, and businesses within the UAS industry will impact the future of UAS within the state. UAS research lead by public and private partnerships in North Dakota will also influence UAS applications within the U.S. On the high side some estimates that as many as 3,000 direct and indirect jobs may be supported in North Dakota by the UAS industry.

Another study, *The Economic Impact of Unmanned Aircraft Systems Integration in the United States*, prepared by the Association for Unmanned Vehicle Systems Integration (AUVSI), has a much more conservative projection of possible benefits from UAS technology in North Dakota. The AUVSI study identifies the following potential applications for UAS:

- Wildfire Mapping
- Agricultural Monitoring
- Disaster Management
- Powerline Surveys
- Law Enforcement
- Telecommunications
- Weather Monitoring
- Aerial Mapping
- Television Coverage
- Movie Making
- Environmental Monitoring
- Oil and Gas Exploration
- Freight Transport

Nationally, the AUVSI study indicates that by 2025, the UAS industry will support an estimated 100,000 new jobs. The AUVSI study, released in 2013, projected at that time that roughly 100 of these jobs will be in North Dakota. The UAS study was prepared before North Dakota was selected as one of the six UAS test sites. The AUVSI study also pre-dated the development of Grand Sky which is the first of its kind UAS site in the United States. The AUVSI study used statewide economic activity or Public Safety and Agriculture to predict jobs and total annual economic activity associated with UAS in each of the 50 states.

As North Dakota continues to gain traction in the UAS industry through efforts in Grand Forks such as Grand Sky, it is possible that the state may realize a higher percentage of the benefits from the emerging UAS industry than the AUVSI study identified between now and 2025. At this point, it is not possible to predict with any certainty how many new jobs could be supported in North Dakota by the emerging UAS industry. One thing is certain: UAS activity and investment

in North Dakota is growing. When this study is updated in the future, there should be a much better idea of how UAS companies and this new technology will benefit North Dakota.

8.5 Summary of Economic Impacts from Airports, Aviation, and Aerospace Activities in North Dakota

The preceding sections provide information that show the economic impact of other aviation and aerospace activities in North Dakota. **Table 45 - All Economic Impacts from Airports, Aviation, and Aerospace in North Dakota** summarizes these additional impacts, along with those previously calculated for the 89 public-use airports.

Table 45 - All Economic Impacts from Airports, Aviation, and Aerospace in North Dakota

	Employment	Payroll	Output
Grand Forks AFB	2,565	\$105.2 million	\$203.7 million
Minot AFB	7,283	\$321 million	\$513.5 million
Off-Airport Aerial Applicators	156	\$5.6 million	\$15.6 million
Off-Airport Aviation Businesses	4,479	\$227.1 million	\$497.0 million
Aviation Supported Jobs	5,513	\$271.8 million	\$882.7 million
Sub-Total	19,996	\$930.7 million	\$2.1 billion
Total for 89 Public-Use Airports	12,217	\$505.2 million	\$1.56 billion
Total for All Aviation/Aerospace Impacts	32,213	\$1.44 billion	\$3.66 billion

As **Table 45** indicates, when economic impacts are considered, airport and off-airport aviation and aerospace, total direct and indirect impacts include approximately 32,210 jobs, \$1.44 billion in annual payroll, and \$3.66 billion in annual economic output. The 32,210 aviation-related jobs account for almost 8% of North Dakota’s total employment which was estimated at 413,000 in 2014. The \$3.66 billion in total aviation-related economic activity account for 7.6% of North Dakota’s Real Gross State Product, estimated at \$48.2 billion in 2014. As shown, airports, aviation, and aerospace provide significant annual economic benefit to North Dakota’s economy and to the economies of communities throughout the state.

Bismarck Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	24	16	40	\$1,923,650	\$774,790	\$2,698,440	\$6,966,207	\$6,269,586	\$13,235,793
Airport Tenants	403	379	782	\$22,968,345	\$18,587,940	\$41,556,285	\$76,502,687	\$49,726,747	\$126,229,434
Capital Investment	62	73	135	\$4,102,808	\$2,789,909	\$6,892,717	\$11,094,850	\$9,097,777	\$20,192,627
GA Visitor Spending	48	21	69	\$1,186,848	\$926,070	\$2,112,918	\$4,385,640	\$2,806,810	\$7,192,450
Commercial Visitor Spending	764	336	1,100	\$18,643,128	\$14,606,824	\$33,249,952	\$68,838,160	\$44,056,423	\$112,894,583
Total Impacts	1,301	825	2,126	\$48,824,779	\$37,685,533	\$86,510,312	\$167,787,544	\$111,957,343	\$279,744,887

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	24	9	32	\$1,923,650	\$446,170	\$2,369,820	\$6,966,207	\$3,622,428	\$10,588,635
Airport Tenants	403	294	697	\$22,968,345	\$15,760,052	\$38,728,397	\$76,502,687	\$48,196,693	\$124,699,380
Capital Investment	62	58	120	\$4,102,808	\$2,338,601	\$6,441,409	\$11,094,850	\$7,544,498	\$18,639,349
GA Visitor Spending	48	17	63	\$1,186,848	\$766,679	\$1,953,527	\$4,385,640	\$2,412,102	\$6,797,742
Commercial Visitor Spending	764	267	1,031	\$18,643,128	\$11,937,806	\$30,580,934	\$68,838,160	\$38,549,370	\$107,387,530
Total Impacts	1,301	645	1,946	\$48,824,779	\$31,249,307	\$80,074,086	\$167,787,544	\$100,325,090	\$268,112,635

Devils Lake Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	6	2	8	\$361,818	\$53,084	\$414,902	\$265,197	\$180,334	\$445,531
Airport Tenants	21	6	27	\$992,327	\$298,320	\$1,290,647	\$2,259,737	\$1,536,621	\$3,796,358
Capital Investment	18	16	34	\$1,095,865	\$657,519	\$1,753,384	\$3,174,557	\$2,095,208	\$5,269,765
GA Visitor Spending	7	3	10	\$150,731	\$109,318	\$260,049	\$807,576	\$411,864	\$1,219,440
Commercial Visitor Spending	7	3	10	\$163,884	\$130,985	\$294,869	\$706,140	\$374,254	\$1,080,394
Total Impacts	59	30	89	\$2,764,625	\$1,249,226	\$4,013,851	\$7,213,207	\$4,598,281	\$11,811,488

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	6	2	8	\$361,818	\$48,271	\$410,089	\$264,962	\$166,926	\$431,888
Airport Tenants	21	7	27	\$992,327	\$271,264	\$1,263,591	\$2,259,737	\$1,423,634	\$3,683,372
Capital Investment	18	16	34	\$1,095,865	\$547,933	\$1,643,798	\$3,174,557	\$1,872,989	\$5,047,546
GA Visitor Spending	7	2	9	\$10,731	\$98,119	\$248,850	\$807,576	\$444,167	\$1,251,743
Commercial Visitor Spending	7	2	9	\$163,884	\$87,253	\$251,137	\$706,140	\$388,377	\$1,094,517
Total Impacts	59	29	88	\$2,764,625	\$1,052,839	\$3,817,465	\$7,212,972	\$4,296,093	\$11,509,065

Dickinson-Theodore Roosevelt Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	7	5	12	\$481,999	\$287,858	\$769,857	\$7,383,348	\$4,060,841	\$11,444,189
Airport Tenants	96	69	165	\$5,538,240	\$3,690,317	\$9,228,557	\$19,943,660	\$10,769,576	\$30,713,236
Capital Investment	11	12	23	\$990,641	\$505,227	\$1,495,868	\$2,242,152	\$1,614,349	\$3,856,501
GA Visitor Spending	39	14	53	\$1,064,700	\$642,900	\$1,707,600	\$3,772,814	\$2,112,776	\$5,885,590
Commercial Visitor Spending	161	61	222	\$4,395,300	\$2,725,753	\$7,121,053	\$15,845,243	\$8,873,336	\$24,718,579
Total Impacts	314	161	475	\$12,470,880	\$7,852,055	\$20,322,935	\$49,187,217	\$27,430,878	\$76,618,095

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	7	3	10	\$481,999	\$178,352	\$660,351	\$7,383,348	\$3,248,673	\$10,632,021
Airport Tenants	96	45	141	\$5,538,240	\$2,423,440	\$7,961,680	\$19,943,660	\$8,575,774	\$28,519,434
Capital Investment	11	8	19	\$990,641	\$336,818	\$1,327,459	\$2,242,152	\$1,121,076	\$3,363,227
GA Visitor Spending	39	9	48	\$1,018,992	\$384,598	\$1,403,590	\$3,772,814	\$1,358,213	\$5,131,027
Commercial Visitor Spending	161	37	198	\$4,395,300	\$1,572,331	\$5,967,631	\$15,845,243	\$5,545,835	\$21,391,078
Total Impacts	314	103	417	\$12,425,172	\$4,895,539	\$17,320,711	\$49,187,217	\$19,849,571	\$69,036,787

Hector International Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	27	17	44	\$1,620,000	\$713,107	\$2,333,107	\$14,385,173	\$6,473,328	\$20,858,501
Airport Tenants	1,045	345	1,390	\$59,134,460	\$15,774,818	\$74,909,278	\$113,803,635	\$46,659,490	\$160,463,125
Capital Investment	73	86	159	\$5,783,724	\$3,701,583	\$9,485,307	\$14,124,640	\$10,593,480	\$24,718,120
GA Visitor Spending	90	40	130	\$2,445,300	\$1,839,143	\$4,284,443	\$14,124,640	\$8,757,277	\$22,881,917
Commercial Visitor Spending	1,156	474	1,630	\$29,473,376	\$21,680,826	\$51,154,202	\$96,087,225	\$62,456,696	\$158,543,921
Total Impacts	2,391	962	3,353	\$98,456,860	\$43,709,477	\$142,166,337	\$252,525,313	\$134,940,271	\$387,465,584

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	27	14	41	\$1,620,000	\$589,758	\$2,209,758	\$14,385,173	\$5,610,217	\$19,995,390
Airport Tenants	1,045	324	1,369	\$59,134,460	\$14,358,112	\$73,492,572	\$113,803,635	\$54,625,745	\$168,429,380
Capital Investment	73	75	148	\$5,783,724	\$3,065,374	\$8,849,098	\$14,124,640	\$9,887,248	\$24,011,887
GA Visitor Spending	90	34	124	\$2,445,300	\$1,517,249	\$3,962,549	\$14,124,640	\$7,909,798	\$12,034,438
Commercial Visitor Spending	1,156	405	1,561	\$29,473,376	\$17,932,681	\$47,406,057	\$96,087,225	\$56,691,463	\$152,778,688
Total Impacts	2,391	852	3,243	\$98,456,860	\$37,463,174	\$135,920,034	\$252,525,313	\$134,724,471	\$387,249,784

Grand Forks International Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	28	13	41	\$1,756,546	\$545,811	\$2,302,357	\$10,356,773	\$3,935,574	\$14,292,347
Airport Tenants	481	264	745	\$30,397,097	\$13,024,529	\$43,421,626	\$66,898,995	\$38,132,427	\$105,031,422
Capital Investment	54	51	105	\$3,780,506	\$2,117,083	\$5,897,589	\$9,937,683	\$6,757,624	\$16,695,307
GA Visitor Spending	57	20	77	\$1,349,760	\$862,778	\$2,212,538	\$5,305,248	\$2,917,886	\$8,223,134
Commercial Visitor Spending	527	174	701	\$12,045,639	\$7,742,647	\$19,788,286	\$35,112,077	\$20,013,884	\$55,125,961
Total Impacts	1,147	522	1,669	\$49,329,548	\$24,292,848	\$73,622,396	\$127,610,776	\$71,757,395	\$199,368,171

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	28	13	41	\$1,756,546	\$499,511	\$2,256,057	\$10,350,745	\$3,622,761	\$13,973,506
Airport Tenants	481	202	682	\$30,397,097	\$8,258,469	\$38,655,566	\$66,898,995	\$19,400,709	\$86,299,704
Capital Investment	54	56	110	\$3,780,506	\$2,041,473	\$5,821,979	\$9,937,683	\$6,161,363	\$16,099,046
GA Visitor Spending	57	18	75	\$1,349,760	\$685,278	\$2,035,038	\$5,305,248	\$2,334,309	\$7,639,557
Commercial Visitor Spending	527	142	669	\$12,045,639	\$5,399,763	\$17,445,402	\$35,112,077	\$16,502,676	\$51,614,753
Total Impacts	1,147	431	1,577	\$49,329,548	\$16,884,494	\$66,214,043	\$127,604,748	\$48,021,818	\$175,626,566

Jamestown Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	4	3	7	\$170,000	\$144,939	\$314,939	\$1,200,123	\$648,066	\$1,848,189
Airport Tenants	26	36	62	\$963,716	\$1,900,492	\$2,864,208	\$9,943,670	\$6,463,386	\$16,407,056
Capital Investment	7	6	13	\$409,759	\$245,855	\$655,614	\$1,184,307	\$781,643	\$1,965,950
GA Visitor Spending	14	5	19	\$283,416	\$192,714	\$476,130	\$1,328,733	\$704,228	\$2,032,961
Commercial Visitor Spending	14	5	19	\$292,194	\$194,373	\$486,567	\$1,419,312	\$752,235	\$2,171,547
Total Impacts	65	55	120	\$2,119,085	\$2,678,373	\$4,797,458	\$15,076,145	\$9,349,558	\$24,425,703

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	4	2	6	\$170,000	\$127,417	\$297,417	\$1,200,123	\$252,026	\$1,452,149
Airport Tenants	26	22	48	\$963,716	\$1,098,282	\$2,061,998	\$9,943,670	\$3,181,974	\$13,125,644
Capital Investment	7	6	13	\$409,759	\$204,880	\$614,639	\$1,184,307	\$675,055	\$1,859,362
GA Visitor Spending	14	4	18	\$283,416	\$126,989	\$410,405	\$1,328,733	\$584,643	\$1,913,376
Commercial Visitor Spending	14	4	18	\$292,194	\$127,937	\$420,131	\$1,419,312	\$638,690	\$2,058,002
Total Impacts	65	38	103	\$2,119,085	\$1,685,504	\$3,804,589	\$15,076,145	\$5,332,388	\$20,408,533

Minot International Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	21	12	33	\$1,543,527	\$590,677	\$2,134,204	\$8,754,318	\$4,289,616	\$13,043,934
Airport Tenants	210	136	346	\$9,794,620	\$7,122,417	\$16,917,037	\$38,669,836	\$20,108,315	\$58,778,151
Capital Investment	113	124	237	\$10,031,087	\$5,115,854	\$15,146,941	\$22,913,672	\$16,497,844	\$39,411,516
GA Visitor Spending	116	42	158	\$2,925,752	\$1,870,932	\$4,796,684	\$10,955,050	\$6,134,828	\$17,089,878
Commercial Visitor Spending	897	314	1,211	\$21,717,267	\$13,966,694	\$35,683,961	\$80,945,371	\$45,329,408	\$126,274,779
Total Impacts	1,357	628	1,985	\$46,012,253	\$28,666,574	\$74,678,827	\$162,238,247	\$92,360,011	\$254,598,258

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	21	9	30	\$1,543,527	\$420,605	\$1,964,132	\$8,751,963	\$2,363,030	\$11,114,993
Airport Tenants	210	100	310	\$9,794,620	\$4,855,595	\$14,650,215	\$38,669,836	\$10,440,856	\$49,110,692
Capital Investment	113	113	226	\$10,031,087	\$4,513,989	\$14,545,076	\$22,913,672	\$13,748,203	\$36,661,875
GA Visitor Spending	116	35	151	\$2,925,752	\$1,471,066	\$4,396,818	\$10,955,050	\$4,820,222	\$15,775,272
Commercial Visitor Spending	897	260	1,157	\$21,717,267	\$10,845,340	\$32,562,607	\$80,945,371	\$36,425,417	\$117,370,788
Total Impacts	1,356	518	1,874	\$46,012,253	\$22,106,594	\$68,118,847	\$162,235,892	\$67,797,728	\$230,033,620

Sloulin Field International Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	10	7	17	\$720,000	\$410,160	\$1,130,160	\$4,318,742	\$2,375,308	\$6,694,050
Airport Tenants	187	133	320	\$9,557,485	\$6,963,758	\$16,521,243	\$49,078,021	\$26,011,351	\$75,089,372
Capital Investment	8	10	18	\$932,330	\$438,195	\$1,370,525	\$1,857,248	\$1,392,936	\$3,250,184
GA Visitor Spending	174	70	244	\$5,310,654	\$3,087,108	\$8,397,762	\$16,812,564	\$9,919,413	\$26,731,977
Commercial Visitor Spending	625	250	875	\$18,704,375	\$11,132,250	\$29,836,625	\$61,963,315	\$35,319,090	\$97,282,405
Total Impacts	1,004	470	1,474	\$35,224,844	\$22,031,471	\$57,256,315	\$134,029,890	\$75,018,098	\$209,047,988

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	10	6	16	\$720,000	\$358,787	\$1,078,787	\$4,318,742	\$1,381,997	\$5,700,739
Airport Tenants	187	99	286	\$9,557,485	\$6,268,542	\$15,826,028	\$49,078,021	\$15,214,187	\$64,292,208
Capital Investment	8	4	12	\$932,330	\$223,759	\$1,156,089	\$1,857,248	\$612,892	\$2,470,140
GA Visitor Spending	174	33	207	\$5,310,654	\$1,688,473	\$6,999,127	\$16,812,564	\$4,707,518	\$21,520,082
Commercial Visitor Spending	625	119	744	\$18,704,375	\$6,080,119	\$24,784,494	\$61,963,315	\$17,349,728	\$79,313,043
Total Impacts	1,004	261	1,264	\$35,224,844	\$14,619,680	\$49,844,524	\$134,029,890	\$39,266,322	\$173,296,212

Arthur Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$23,250	\$0	\$23,250

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$23,250	\$0	\$23,250

Ashley Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	10	3	13	\$432,060	\$216,030	\$648,090	\$1,089,030	\$653,418	\$1,742,448
Capital Investment	2	1	3	\$70,973	\$45,423	\$116,396	\$286,380	\$220,513	\$506,893
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$31,200	\$0	\$31,200
Total Impacts	13	4	17	\$537,033	\$269,953	\$806,986	\$1,474,270	\$907,761	\$2,382,031

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	10	2	12	\$432,060	\$120,977	\$553,037	\$1,089,030	\$370,270	\$1,459,300
Capital Investment	2	1	3	\$70,973	\$19,872	\$90,845	\$286,380	\$100,233	\$386,613
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$31,200	\$0	\$31,200
Total Impacts	13	3	16	\$537,033	\$147,309	\$684,342	\$1,474,270	\$489,448	\$1,963,718

Beach Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	5	7	12	\$150,250	\$96,160	\$246,410	\$323,325	\$248,960	\$572,285
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$52,100	\$30,739	\$82,839
Total Impacts	6	7	13	\$173,220	\$110,631	\$283,851	\$376,625	\$279,699	\$656,324

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	5	2	7	\$150,250	\$58,598	\$208,848	\$323,325	\$87,298	\$410,623
GA Visitor Spending	1	0	1	\$22,970	\$9,647	\$32,617	\$52,100	\$17,714	\$69,814
Total Impacts	6	2	8	\$173,220	\$68,245	\$241,465	\$376,625	\$105,012	\$481,637

Beulah Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	9	3	12	\$388,854	\$194,427	\$583,281	\$980,127	\$588,076	\$1,568,203
Capital Investment	0	0	0	\$0	\$0	\$0	\$6,580	\$0	\$6,580
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$31,850	\$0	\$31,850
Total Impacts	10	3	13	\$422,854	\$202,927	\$625,781	\$1,086,217	\$621,906	\$1,708,123

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	9	2	11	\$388,854	\$108,879	\$497,733	\$980,127	\$333,243	\$1,313,370
Capital Investment	0	0	0	\$0	\$0	\$0	\$6,580	\$0	\$6,580
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$31,850	\$0	\$31,850
Total Impacts	10	2	12	\$422,854	\$115,339	\$538,193	\$1,086,217	\$352,188	\$1,438,405

Bottineau Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	3	1	4	\$224,653	\$112,327	\$336,980	\$526,200	\$315,720	\$841,920
Capital Investment	1	1	2	\$72,014	\$46,089	\$118,103	\$207,696	\$159,926	\$367,622
GA Visitor Spending	3	1	4	\$41,469	\$26,125	\$67,594	\$211,350	\$124,697	\$336,047
Total Impacts	7	3	10	\$338,136	\$184,541	\$522,677	\$946,446	\$600,343	\$1,546,789

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	3	1	4	\$224,653	\$35,944	\$260,597	\$526,200	\$136,812	\$663,012
Capital Investment	1	1	2	\$72,014	\$25,205	\$97,219	\$207,696	\$89,309	\$297,005
GA Visitor Spending	3	1	4	\$41,469	\$15,344	\$56,813	\$211,350	\$65,519	\$276,869
Total Impacts	7	2	9	\$338,136	\$76,493	\$414,629	\$946,446	\$291,640	\$1,238,086

Bowbells Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$8,200	\$0	\$8,200

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$8,200	\$0	\$8,200

Bowman Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	2	1	3	\$109,846	\$27,462	\$137,308	\$160,000	\$80,000	\$240,000
Airport Tenants	3	1	4	\$139,300	\$69,650	\$208,950	\$326,709	\$196,025	\$522,734
Capital Investment	31	41	72	\$2,495,874	\$1,597,359	\$4,093,233	\$6,018,202	\$4,634,016	\$10,652,218
GA Visitor Spending	4	1	5	\$65,484	\$41,255	\$106,739	\$292,130	\$172,357	\$464,487
Total Impacts	40	44	84	\$2,810,504	\$1,735,726	\$4,546,230	\$6,797,041	\$5,082,398	\$11,879,439

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	2	1	3	\$109,846	\$21,969	\$131,815	\$160,000	\$83,200	\$243,200
Airport Tenants	3	1	4	\$139,300	\$26,467	\$165,767	\$326,709	\$120,882	\$447,591
Capital Investment	31	22	53	\$2,495,874	\$698,845	\$3,194,719	\$6,018,202	\$2,467,463	\$8,485,665
GA Visitor Spending	4	1	5	\$65,484	\$57,626	\$123,110	\$292,130	\$87,639	\$379,769
Total Impacts	40	25	65	\$2,810,504	\$804,907	\$3,615,411	\$6,797,041	\$2,759,184	\$9,556,225

Cando Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	6	8	14	\$273,616	\$175,114	\$448,730	\$1,008,156	\$775,280	\$1,783,436
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$36,825	\$0	\$36,825
Total Impacts	6	8	14	\$273,616	\$175,114	\$448,730	\$1,046,181	\$775,280	\$1,821,461

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	6	2	10	\$273,616	\$46,336	\$340,572	\$1,008,156	\$223,937	\$1,328,848
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$36,825	\$0	\$36,825
Total Impacts	6	2	10	\$273,616	\$46,336	\$340,572	\$1,046,181	\$223,937	\$1,366,873

Carrington Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	5	2	7	\$159,104	\$79,552	\$238,656	\$544,515	\$326,709	\$871,224
Capital Investment	2	3	5	\$93,208	\$59,653	\$152,861	\$278,533	\$214,470	\$493,003
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$75,950	\$44,811	\$120,761
Total Impacts	9	5	14	\$309,282	\$162,176	\$471,458	\$966,658	\$619,820	\$1,586,478

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	5	1	6	\$159,104	\$19,092	\$178,196	\$544,515	\$152,464	\$696,979
Capital Investment	2	1	3	\$93,208	\$28,894	\$122,102	\$278,533	\$103,057	\$381,590
GA Visitor Spending	1	0	1	\$22,970	\$8,499	\$31,469	\$75,950	\$23,545	\$99,495
Total Impacts	9	2	11	\$309,282	\$62,946	\$372,228	\$966,658	\$298,011	\$1,264,669

Casselton Robert Miller Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	2	1	3	\$68,000	\$17,000	\$85,000	\$135,320	\$67,660	\$202,980
Airport Tenants	25	18	43	\$850,520	\$884,541	\$1,735,061	\$2,722,575	\$1,633,545	\$4,356,120
Capital Investment	2	3	5	\$148,860	\$95,270	\$244,130	\$363,537	\$279,923	\$643,460
GA Visitor Spending	3	1	4	\$74,319	\$53,510	\$127,829	\$247,140	\$160,641	\$407,781
Total Impacts	32	23	55	\$1,141,699	\$1,050,321	\$2,192,020	\$3,468,572	\$2,141,769	\$5,610,341

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	2	0	2	\$68,000	\$12,920	\$80,920	\$135,320	\$37,890	\$173,210
Airport Tenants	25	5	30	\$850,520	\$238,146	\$1,088,666	\$2,722,575	\$980,127	\$3,702,702
Capital Investment	2	2	4	\$148,860	\$95,270	\$244,130	\$363,537	\$272,653	\$636,190
GA Visitor Spending	3	1	4	\$74,319	\$46,821	\$121,140	\$247,140	\$145,813	\$392,953
Total Impacts	32	9	41	\$1,141,699	\$393,157	\$1,534,856	\$3,468,572	\$1,436,482	\$4,905,054

Cavalier Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	9	3	12	\$293,196	\$146,598	\$439,794	\$980,127	\$588,076	\$1,568,203
Capital Investment	1	1	2	\$81,385	\$52,086	\$133,471	\$194,669	\$149,895	\$344,564
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$19,110	\$0	\$19,110
Total Impacts	10	4	14	\$374,581	\$198,684	\$573,265	\$1,195,106	\$737,971	\$1,933,077

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	9	1	10	\$293,196	\$23,456	\$316,651	\$980,127	\$196,025	\$1,176,152
Capital Investment	1	1	2	\$81,385	\$14,649	\$96,034	\$194,669	\$60,347	\$255,016
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$19,110	\$0	\$19,110
Total Impacts	10	1	11	\$374,581	\$38,105	\$412,686	\$1,195,106	\$256,373	\$1,451,479

Columbus Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$3,000	\$0	\$3,000

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$3,000	\$0	\$3,000

Cooperstown Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Capital Investment	0	0	0	\$0	\$0	\$0	\$54,320	\$0	\$54,320
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$27,525	\$0	\$27,525
Total Impacts	2	1	3	\$86,412	\$43,206	\$129,618	\$300,851	\$130,684	\$431,535

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$86,412	\$24,195	\$110,607	\$217,806	\$74,054	\$291,860
Capital Investment	0	0	0	\$0	\$0	\$0	\$54,320	\$0	\$54,320
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$27,525	\$0	\$27,525
Total Impacts	2	0	2	\$86,412	\$24,195	\$110,607	\$300,851	\$74,054	\$374,905

Crosby Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	5	7	12	\$252,866	\$161,834	\$414,700	\$769,865	\$592,796	\$1,362,661
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$68,821	\$40,604	\$109,425
Total Impacts	6	7	13	\$275,836	\$176,305	\$452,141	\$839,886	\$633,400	\$1,473,286

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	5	2	7	\$252,866	\$65,745	\$318,611	\$769,865	\$292,549	\$1,062,414
GA Visitor Spending	1	0	1	\$22,970	\$9,647	\$32,617	\$68,821	\$23,399	\$92,220
Total Impacts	6	2	8	\$275,836	\$75,393	\$351,229	\$839,886	\$315,948	\$1,155,834

Drayton Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Capital Investment	0	0	0	\$0	\$0	\$0	\$7,333	\$0	\$7,333
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	1	0	1	\$43,206	\$21,603	\$64,809	\$120,036	\$65,342	\$185,378

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$12,098	\$55,304	\$108,903	\$37,027	\$145,930
Capital Investment	0	0	0	\$0	\$0	\$0	\$7,333	\$0	\$7,333
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	1	0	1	\$43,206	\$12,098	\$55,304	\$120,036	\$37,027	\$157,063

International Peace Garden

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$3,600	\$0	\$3,600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$58,353	\$0	\$58,353
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$7,800	\$0	\$7,800
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$69,753	\$0	\$69,753

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$3,600	\$0	\$3,600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$58,353	\$0	\$58,353
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$7,800	\$0	\$7,800
Total Impacts	1	0	1	\$0	\$0	\$0	\$69,753	\$0	\$69,753

Edgeley Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	3	1	4	\$134,415	\$67,208	\$201,623	\$326,709	\$196,025	\$522,734
Capital Investment	2	3	5	\$126,055	\$80,675	\$206,730	\$408,658	\$314,667	\$723,325
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$14,625	\$0	\$14,625
Total Impacts	5	4	9	\$260,470	\$147,883	\$408,353	\$751,192	\$510,692	\$1,261,884

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	3	1	4	\$134,415	\$37,636	\$172,051	\$326,709	\$111,081	\$437,790
Capital Investment	2	1	3	\$126,055	\$40,338	\$166,393	\$408,658	\$147,117	\$555,775
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$14,625	\$0	\$14,625
Total Impacts	5	2	7	\$260,470	\$77,974	\$338,444	\$751,192	\$258,198	\$1,009,390

Elgin Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$425	\$0	\$425
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$3,625	\$0	\$3,625

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$425	\$0	\$425
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$3,625	\$0	\$3,625

Ellendale Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	4	5	9	\$150,488	\$96,312	\$246,800	\$558,358	\$429,936	\$988,294
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$41,700	\$0	\$41,700
Total Impacts	4	5	9	\$150,488	\$96,312	\$246,800	\$601,258	\$429,936	\$1,031,194

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	4	2	6	\$150,488	\$61,700	\$212,188	\$558,358	\$206,592	\$764,950
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$41,700	\$0	\$41,700
Total Impacts	4	2	6	\$150,488	\$61,700	\$212,188	\$601,258	\$206,592	\$807,850

Sky Haven Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$56,504	\$0	\$56,504
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$15,188	\$0	\$15,188
Total Impacts	0	0	0	\$0	\$0	\$0	\$72,892	\$0	\$72,892

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$56,504	\$0	\$56,504
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$15,188	\$0	\$15,188
Total Impacts	0	0	0	\$0	\$0	\$0	\$72,892	\$0	\$72,892

Fessenden – Streibel Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	5	2	7	\$224,025	\$112,013	\$336,038	\$544,515	\$326,709	\$871,224
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	5	2	7	\$224,025	\$112,013	\$336,038	\$547,715	\$326,709	\$874,424

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	5	1	6	\$224,025	\$62,727	\$286,752	\$544,515	\$185,135	\$729,650
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	5	1	6	\$224,025	\$62,727	\$286,752	\$547,715	\$185,135	\$732,850

Standing Rock Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$3,333	\$0	\$3,333
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$7,133	\$0	\$7,133

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$3,333	\$0	\$3,333
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$7,133	\$0	\$7,133

Gackle Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$4,686	\$0	\$4,686
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$7,686	\$0	\$7,686

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$4,686	\$0	\$4,686
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$7,686	\$0	\$7,686

Garrison Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$89,610	\$44,805	\$134,415	\$217,806	\$130,684	\$348,490
Capital Investment	1	1	2	\$79,360	\$50,790	\$130,150	\$201,323	\$155,019	\$356,342
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$71,663	\$42,281	\$113,944
Total Impacts	4	2	6	\$191,940	\$110,066	\$302,006	\$491,992	\$327,984	\$819,976

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$89,610	\$25,091	\$114,701	\$217,806	\$74,054	\$291,860
Capital Investment	1	1	2	\$79,360	\$18,253	\$97,613	\$201,323	\$64,423	\$265,746
GA Visitor Spending	1	0	1	\$22,970	\$9,647	\$32,617	\$71,663	\$24,365	\$96,028.42
Total Impacts	4	0	5	\$191,940	\$52,991	\$244,931	\$491,992	\$162,843	\$654,835

Glen Ullin Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	1	2	\$75,129	\$48,083	\$123,212	\$190,500	\$146,685	\$337,185
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$15,600	\$0	\$15,600
Total Impacts	1	1	2	\$75,129	\$48,083	\$123,212	\$207,300	\$146,685	\$353,985

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	0	2	\$75,129	\$12,891	\$97,086	\$190,500	\$43,690	\$269,465
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$15,600	\$0	\$15,600
Total Impacts	1	0	2	\$75,129	\$12,891	\$97,086	\$207,300	\$43,690	\$286,265

Hutson Field Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$37,200	\$9,300	\$46,500	\$67,660	\$33,830	\$101,490
Airport Tenants	6	2	8	\$259,236	\$129,618	\$388,854	\$653,418	\$392,051	\$1,045,469
Capital Investment	3	4	7	\$204,998	\$131,199	\$336,197	\$540,752	\$416,379	\$957,131
GA Visitor Spending	2	1	3	\$45,940	\$28,942	\$74,882	\$146,510	\$86,441	\$232,951
Total Impacts	12	7	19	\$547,374	\$299,059	\$846,433	\$1,408,340	\$928,701	\$2,337,041

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$37,200	\$7,068	\$44,268	\$67,660	\$18,945	\$86,605
Airport Tenants	6	1	7	\$259,236	\$72,586	\$331,822	\$653,418	\$222,162	\$875,580
Capital Investment	3	2	5	\$204,998	\$63,549	\$268,547	\$540,752	\$227,116	\$767,868
GA Visitor Spending	2	0	2	\$45,940	\$22,511	\$68,451	\$146,510	\$43,953	\$190,463
Total Impacts	12	4	16	\$547,374	\$165,714	\$713,088	\$1,408,340	\$512,176	\$1,920,516

Gwinner - Roger Melroe Field

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Capital Investment	11	14	25	\$649,922	\$415,950	\$1,065,872	\$1,917,571	\$1,476,530	\$3,394,101
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$82,810	\$48,858	\$131,668
Total Impacts	13	14	27	\$716,098	\$452,024	\$1,168,122	\$2,110,484	\$1,590,730	\$3,701,214

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$12,098	\$55,304	\$108,903	\$37,027	\$145,930
Capital Investment	11	4	15	\$649,922	\$110,487	\$760,409	\$1,917,571	\$421,866	\$2,339,437
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$82,810	\$24,843	\$107,653
Total Impacts	13	4	17	\$716,098	\$133,840	\$849,938	\$2,110,484	\$483,736	\$2,594,220

Harvey Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,930	\$101,590
Airport Tenants	3	1	4	\$129,618	\$64,809	\$194,427	\$326,709	\$196,025	\$522,734
Capital Investment	0	0	0	\$0	\$0	\$0	\$59,398	\$0	\$59,398
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$19,200	\$0	\$19,200
Total Impacts	4	1	5	\$163,618	\$73,309	\$236,927	\$472,967	\$229,955	\$702,922

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	3	1	4	\$129,618	\$36,293	\$165,911	\$326,709	\$111,081	\$437,790
Capital Investment	0	0	0	\$0	\$0	\$0	\$59,398	\$0	\$59,398
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$19,200	\$0	\$19,200
Total Impacts	4	1	5	\$163,618	\$42,753	\$206,371	\$472,967	\$130,026	\$602,993

Hazelton Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$23,250	\$0	\$23,250

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$23,250	\$0	\$23,250

Mercer County Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$86,412	\$21,603	\$108,015	\$217,806	\$108,903	\$326,709
Capital Investment	0	0	0	\$0	\$0	\$0	\$58,241	\$0	\$58,241
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$107,640	\$63,508	\$171,148
Total Impacts	3	1	4	\$109,382	\$36,074	\$145,456	\$384,887	\$172,411	\$557,298

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$86,412	\$16,418	\$102,830	\$217,806	\$60,986	\$278,792
Capital Investment	0	0	0	\$0	\$0	\$0	\$58,241	\$0	\$58,241
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$107,640	\$32,292	\$139,932
Total Impacts	3	0	3	\$109,382	\$27,674	\$137,056	\$384,887	\$93,278	\$478,165

Hettinger Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$25,000	\$0	\$25,000
Airport Tenants	9	3	12	\$426,817	\$213,409	\$640,226	\$980,127	\$588,076	\$1,568,203
Capital Investment	3	4	7	\$176,634	\$113,046	\$289,680	\$535,655	\$412,454	\$948,109
GA Visitor Spending	1	0	1	\$15,720	\$9,904	\$25,624	\$95,550	\$56,375	\$151,925
Total Impacts	13	7	20	\$619,171	\$336,359	\$955,530	\$1,636,332	\$1,056,905	\$2,693,237

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$25,000	\$0	\$25,000
Airport Tenants	9	2	11	\$426,817	\$81,095	\$507,912	\$980,127	\$352,846	\$1,332,973
Capital Investment	3	2	5	\$176,634	\$68,887	\$245,521	\$535,655	\$214,262	\$749,917
GA Visitor Spending	1	0	1	\$15,720	\$6,288	\$22,008	\$95,550	\$24,843	\$120,393
Total Impacts	13	4	17	\$619,171	\$156,270	\$775,441	\$1,636,332	\$591,951	\$2,228,283

Hillsboro Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	14	5	19	\$520,362	\$260,181	\$780,543	\$1,524,642	\$914,785	\$2,439,427
Capital Investment	0	0	0	\$0	\$0	\$0	\$2,167	\$0	\$2,167
GA Visitor Spending	3	1	4	\$39,327	\$24,776	\$64,103	\$238,875	\$140,936	\$379,811
Total Impacts	18	6	24	\$593,689	\$293,457	\$887,146	\$1,833,344	\$1,089,551	\$2,922,895

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	14	2	16	\$520,362	\$62,443	\$582,805	\$1,524,642	\$426,900	\$1,951,542
Capital Investment	0	0	0	\$0	\$0	\$0	\$2,167	\$0	\$2,167
GA Visitor Spending	3	0	3	\$39,327	\$13,764	\$53,091	\$238,875	\$54,941	\$293,816
Total Impacts	18	2	20	\$593,689	\$82,668	\$676,357	\$1,833,344	\$500,786	\$2,334,129

Kenmare Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	8	3	11	\$345,648	\$172,824	\$518,472	\$871,224	\$522,734	\$1,393,958
Capital Investment	4	5	9	\$369,288	\$236,344	\$605,632	\$614,576	\$473,224	\$1,087,800
GA Visitor Spending	4	1	5	\$90,684	\$44,435	\$135,119	\$308,884	\$142,087	\$450,971
Total Impacts	17	9	26	\$839,620	\$462,103	\$1,301,723	\$1,862,344	\$1,171,875	\$3,034,219

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	8	2	10	\$345,648	\$96,781	\$442,429	\$871,224	\$296,216	\$1,167,440
Capital Investment	4	4	8	\$369,288	\$166,180	\$535,468	\$614,576	\$374,891	\$989,467
GA Visitor Spending	4	1	5	\$90,684	\$44,435	\$135,119	\$308,884	\$142,087	\$450,971
Total Impacts	17	7	24	\$839,620	\$313,856	\$1,153,476	\$1,862,344	\$832,139	\$2,694,483

Dunn County Airport – Weydahl Field

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	10	13	23	\$928,270	\$594,093	\$1,522,363	\$1,667,942	\$1,284,315	\$2,952,257
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$11,454	\$0	\$11,454
Total Impacts	11	13	24	\$962,270	\$602,593	\$1,564,863	\$1,747,056	\$1,318,145	\$3,065,201

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	10	3	13	\$928,270	\$111,392	\$1,039,662	\$1,667,942	\$316,909	\$1,984,851
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$11,454	\$0	\$11,454
Total Impacts	11	3	14	\$962,270	\$117,852	\$1,080,122	\$1,747,056	\$335,854	\$2,082,910

Robert Odegaard Field

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	7	2	9	\$227,178	\$113,589	\$340,767	\$2,231,592	\$1,338,955	\$3,570,547
Capital Investment	0	0	0	\$0	\$0	\$0	\$16,409	\$0	\$16,409
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$38,220	\$0	\$38,220
Total Impacts	7	2	9	\$227,178	\$113,589	\$340,767	\$2,287,421	\$1,338,955	\$3,626,376

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	7	5	12	\$227,178	\$249,896	\$477,074	\$2,231,592	\$803,373	\$3,034,965
Capital Investment	0	0	0	\$0	\$0	\$0	\$16,409	\$0	\$16,409
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$38,220	\$0	\$38,220
Total Impacts	7	5	12	\$227,178	\$249,896	\$477,074	\$2,287,421	\$803,373	\$3,090,794

Kulm Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	1	2	\$65,666	\$42,026	\$107,692	\$93,973	\$72,359	\$166,332
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	2	1	3	\$99,666	\$50,526	\$150,192	\$164,233	\$106,189	\$270,422

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	1	2	\$65,666	\$21,013	\$86,679	\$93,973	\$33,830	\$127,803
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	2	1	3	\$99,666	\$27,473	\$127,139	\$164,233	\$52,775	\$217,008

Lakota Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$89,351	\$0	\$89,351
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$40,531	\$0	\$40,531
Total Impacts	0	0	0	\$0	\$0	\$0	\$131,082	\$0	\$131,082

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$89,351	\$0	\$89,351
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$40,531	\$0	\$40,531
Total Impacts	0	0	0	\$0	\$0	\$0	\$131,082	\$0	\$131,082

LaMoure Rott Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Capital Investment	0	0	0	\$0	\$0	\$0	\$6,028	\$0	\$6,028
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$6,188	\$0	\$6,188
Total Impacts	2	1	3	\$86,412	\$43,206	\$129,618	\$231,222	\$130,684	\$361,906

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$86,412	\$24,195	\$110,607	\$217,806	\$74,054	\$291,860
Capital Investment	0	0	0	\$0	\$0	\$0	\$6,028	\$0	\$6,028
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$6,188	\$0	\$6,188
Total Impacts	2	0	2	\$86,412	\$24,195	\$110,607	\$231,222	\$74,054	\$305,276

Robertson Field Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	3	1	4	\$76,656	\$38,328	\$114,984	\$326,709	\$196,025	\$522,734
Capital Investment	2	3	5	\$106,416	\$68,106	\$174,522	\$290,650	\$223,801	\$514,451
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$14,625	\$0	\$14,625
Total Impacts	5	4	9	\$183,072	\$106,434	\$289,506	\$633,184	\$419,826	\$1,053,010

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	3	1	4	\$76,656	\$16,864	\$93,520	\$326,709	\$114,348	\$441,057
Capital Investment	2	1	3	\$106,416	\$27,668	\$134,084	\$290,650	\$104,634	\$395,284
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$14,625	\$0	\$14,625
Total Impacts	5	2	7	\$183,072	\$44,532	\$227,604	\$618,559	\$218,982	\$837,541

Larimore Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$40,373	\$10,093	\$50,466	\$234,794	\$117,397	\$352,191
Airport Tenants	7	2	9	\$238,303	\$119,152	\$357,455	\$762,321	\$457,393	\$1,219,714
Capital Investment	1	1	2	\$60,651	\$38,817	\$99,468	\$159,525	\$122,834	\$282,359
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$32,725	\$0	\$32,725
Total Impacts	9	3	12	\$339,327	\$168,062	\$507,389	\$1,189,365	\$697,624	\$1,886,989

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$40,373	\$10,901	\$51,274	\$234,794	\$133,833	\$368,627
Airport Tenants	7	1	8	\$238,303	\$50,044	\$288,347	\$762,321	\$350,668	\$1,112,989
Capital Investment	1	1	2	\$60,651	\$32,752	\$93,403	\$159,525	\$98,906	\$258,431
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$32,725	\$0	\$32,725
Total Impacts	9	3	12	\$339,327	\$93,696	\$433,023	\$1,189,365	\$583,406	\$1,772,771

Leeds Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	1	2	\$43,110	\$27,590	\$70,700	\$113,725	\$87,568	\$201,293
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	1	1	2	\$43,110	\$27,590	\$70,700	\$137,775	\$87,568	\$225,343

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	0	1	\$43,110	\$7,329	\$50,439	\$113,725	\$26,157	\$139,882
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	1	0	1	\$43,110	\$7,329	\$50,439	\$137,775	\$26,157	\$163,932

Lidgerwood Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$6,443	\$0	\$6,443
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$9,443	\$0	\$9,443

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$6,443	\$0	\$6,443
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$9,443	\$0	\$9,443

Linton Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$36,666	\$9,167	\$45,833	\$67,660	\$33,830	\$101,490
Airport Tenants	4	1	5	\$143,683	\$71,842	\$215,525	\$435,612	\$261,367	\$696,979
Capital Investment	1	1	2	\$75,580	\$48,371	\$123,951	\$225,877	\$173,925	\$399,802
GA Visitor Spending	3	1	4	\$75,580	\$47,615	\$123,195	\$246,127	\$145,215	\$391,342
Total Impacts	9	3	12	\$331,509	\$176,995	\$508,504	\$975,276	\$614,337	\$1,589,613

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$36,666	\$6,967	\$43,633	\$67,660	\$18,945	\$86,605
Airport Tenants	4	0	4	\$143,683	\$14,368	\$158,051	\$435,612	\$104,547	\$540,159
Capital Investment	1	0	1	\$75,580	\$18,895	\$94,475	\$225,877	\$67,763	\$293,640
GA Visitor Spending	3	1	4	\$75,580	\$18,895	\$94,475	\$246,127	\$73,838	\$319,965
Total Impacts	9	2	11	\$331,509	\$59,125	\$390,634	\$975,276	\$265,093	\$1,240,369

Lisbon Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$145,516	\$72,758	\$218,274	\$217,806	\$130,684	\$348,490
Capital Investment	1	1	2	\$57,072	\$36,526	\$93,598	\$190,875	\$146,974	\$337,849
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$11,700	\$0	\$11,700
Total Impacts	3	2	5	\$202,588	\$109,284	\$311,872	\$421,581	\$277,658	\$699,239

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$145,516	\$20,372	\$165,888	\$217,806	\$65,342	\$283,148
Capital Investment	1	1	2	\$57,072	\$14,839	\$71,911	\$190,875	\$62,989	\$253,864
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$11,700	\$0	\$11,700
Total Impacts	3	1	4	\$202,588	\$35,211	\$237,799	\$421,581	\$128,331	\$549,912

Maddock Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	5	2	7	\$653,844	\$326,922	\$980,766	\$810,924	\$486,554	\$1,297,478
Capital Investment	2	3	5	\$152,361	\$97,511	\$249,872	\$401,936	\$309,491	\$711,427
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	7	5	12	\$806,205	\$424,433	\$1,230,638	\$1,216,060	\$796,045	\$2,012,105

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	5	1	6	\$653,844	\$32,692	\$686,536	\$810,924	\$162,185	\$973,109
Capital Investment	2	1	3	\$152,361	\$25,901	\$178,262	\$401,936	\$92,445	\$494,381
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	7	2	9	\$806,205	\$58,594	\$864,799	\$1,216,060	\$254,630	\$1,470,690

Mandan Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$75,000	\$18,750	\$93,750	\$67,660	\$33,830	\$101,490
Airport Tenants	15	5	20	\$561,577	\$280,789	\$842,366	\$1,633,545	\$980,127	\$2,613,672
Capital Investment	17	22	39	\$1,250,445	\$800,285	\$2,050,730	\$3,170,691	\$2,441,432	\$5,612,123
GA Visitor Spending	5	2	7	\$99,578	\$62,734	\$162,312	\$392,040	\$231,304	\$623,344
Total Impacts	38	29	67	\$1,986,600	\$1,162,558	\$3,149,158	\$5,263,936	\$3,686,693	\$8,950,629

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$75,000	\$14,250	\$89,250	\$67,660	\$18,945	\$86,605
Airport Tenants	15	2	17	\$561,577	\$73,005	\$634,582	\$1,633,545	\$571,741	\$2,205,286
Capital Investment	17	10	27	\$1,250,445	\$362,629	\$1,613,074	\$3,170,691	\$1,299,983	\$4,470,674
GA Visitor Spending	5	1	6	\$99,578	\$32,861	\$132,439	\$392,040	\$129,373	\$521,413
Total Impacts	38	13	51	\$1,986,600	\$482,745	\$2,469,345	\$5,263,936	\$2,020,042	\$7,283,978

Mayville Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	4	1	5	\$179,220	\$89,610	\$268,830	\$435,612	\$261,367	\$696,979
Capital Investment	6	8	14	\$287,697	\$184,126	\$471,823	\$923,705	\$711,253	\$1,634,958
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$65,048	\$38,378	\$103,426
Total Impacts	11	9	20	\$489,887	\$288,207	\$778,094	\$1,425,565	\$1,010,998	\$2,436,563

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	4	1	5	\$179,220	\$50,182	\$229,402	\$435,612	\$148,108	\$583,720
Capital Investment	6	3	9	\$287,697	\$89,186	\$376,883	\$923,705	\$314,060	\$1,237,765
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$65,048	\$19,514	\$84,562
Total Impacts	11	4	15	\$489,887	\$150,623	\$640,510	\$1,425,565	\$481,682	\$1,907,247

McClusky Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$3,917	\$0	\$3,917
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$7,117	\$0	\$7,117

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$3,917	\$0	\$3,917
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	<1	0	<1	\$0	\$0	\$0	\$7,117	\$0	\$7,117

McVille Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$23,450	\$0	\$23,450

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$23,450	\$0	\$23,450

Milnor Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$35,248	\$0	\$35,248
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$38,448	\$0	\$38,448

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$35,248	\$0	\$35,248
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$38,448	\$0	\$38,448

Minto Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	4	1	5	\$172,824	\$86,412	\$259,236	\$435,612	\$261,367	\$696,979
Capital Investment	0	0	0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	5	1	6	\$206,824	\$94,912	\$301,736	\$510,872	\$295,197	\$806,069

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	4	1	5	\$172,824	\$48,391	\$221,215	\$435,612	\$148,108	\$583,720
Capital Investment	0	0	0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	5	1	6	\$206,824	\$54,851	\$261,675	\$510,872	\$167,053	\$677,925

Mohall Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	6	2	8	\$259,236	\$129,618	\$388,854	\$653,418	\$392,051	\$1,045,469
Capital Investment	4	5	9	\$99,389	\$63,609	\$162,998	\$515,524	\$396,953	\$912,477
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$76,440	\$45,100	\$121,540
Total Impacts	12	7	19	\$415,595	\$216,198	\$631,793	\$1,313,042	\$867,934	\$2,180,976

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	6	1	7	\$259,236	\$72,586	\$331,822	\$653,418	\$222,162	\$875,580
Capital Investment	4	1	5	\$99,389	\$29,817	\$129,206	\$515,524	\$139,191	\$654,715
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$76,440	\$22,932	\$99,372
Total Impacts	12	3	15	\$415,595	\$120,118	\$535,713	\$1,313,042	\$403,230	\$1,716,272

Mott Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$40,400	\$10,100	\$50,500	\$67,660	\$33,830	\$101,490
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	1	2	\$65,666	\$42,026	\$107,692	\$156,237	\$120,302	\$276,539
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$72,816	\$42,961	\$115,777
Total Impacts	3	1	4	\$129,036	\$66,597	\$195,633	\$296,713	\$197,093	\$493,806

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$40,400	\$7,676	\$48,076	\$67,660	\$18,945	\$86,605
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	1	1	2	\$65,666	\$19,700	\$85,366	\$156,237	\$62,495	\$218,731
GA Visitor Spending	1	0	1	\$22,970	\$9,647	\$32,617	\$72,816	\$24,757	\$97,573.44
Total Impacts	3	1	4	\$129,036	\$37,023	\$166,059	\$296,713	\$106,197	\$402,910

Napoleon Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	2	1	3	\$86,412	\$43,206	\$129,618	\$241,856	\$130,684	\$372,540

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$86,412	\$24,195	\$110,607	\$217,806	\$74,054	\$291,860
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	2	0	2	\$86,412	\$24,195	\$110,607	\$241,856	\$74,054	\$315,910

Tomlinson Field Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Capital Investment	0	0	0	\$0	\$0	\$0	\$14,281	\$0	\$14,281
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$28,050	\$0	\$28,050
Total Impacts	1	0	1	\$43,206	\$21,603	\$64,809	\$152,434	\$65,342	\$217,776

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$12,098	\$55,304	\$108,903	\$37,027	\$145,930
Capital Investment	0	0	0	\$0	\$0	\$0	\$14,281	\$0	\$14,281
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$28,050	\$0	\$28,050
Total Impacts	1	0	1	\$43,206	\$12,098	\$55,304	\$152,434	\$37,027	\$189,461

New Town Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	9	12	21	\$779,492	\$498,875	\$1,278,367	\$1,764,343	\$1,358,544	\$3,122,887
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$58,500	\$34,515	\$93,015
Total Impacts	10	12	22	\$802,462	\$513,346	\$1,315,808	\$1,824,043	\$1,393,059	\$3,217,102

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	9	3	12	\$779,492	\$124,719	\$904,211	\$1,764,343	\$388,155	\$2,152,498
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$58,500	\$17,550	\$76,050
Total Impacts	10	3	13	\$802,462	\$135,974	\$938,436	\$1,824,043	\$405,705	\$2,229,748

Northwood Municipal-Vince Field

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	4	1	5	\$144,684	\$72,342	\$217,026	\$435,612	\$261,367	\$696,979
Capital Investment	0	0	0	\$0	\$0	\$0	\$47,406	\$0	\$47,406
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$82,875	\$48,896	\$131,771
Total Impacts	5	1	6	\$167,654	\$86,813	\$254,467	\$567,093	\$310,263	\$877,356

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	4	1	5	\$144,684	\$30,384	\$175,068	\$435,612	\$200,382	\$635,994
Capital Investment	0	0	0	\$0	\$0	\$0	\$47,406	\$0	\$47,406
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$82,875	\$24,863	\$107,738
Total Impacts	5	1	6	\$167,654	\$41,639	\$209,293	\$567,093	\$225,244	\$792,337

Oakes Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$70,066	\$35,033	\$105,099	\$108,903	\$65,342	\$174,245
Capital Investment	8	10	18	\$324,386	\$207,607	\$531,993	\$1,203,579	\$926,756	\$2,130,335
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$31,850	\$0	\$31,850
Total Impacts	9	10	19	\$394,452	\$242,640	\$637,092	\$1,345,532	\$992,098	\$2,337,630

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$70,066	\$8,408	\$78,474	\$108,903	\$32,671	\$141,574
Capital Investment	8	4	12	\$324,386	\$132,998	\$457,384	\$1,203,579	\$445,324	\$1,648,903
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$31,850	\$0	\$31,850
Total Impacts	9	5	14	\$394,452	\$141,406	\$535,858	\$1,345,532	\$477,995	\$1,823,527

Page Regional Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$282,160	\$28,216	\$310,376
Airport Tenants	8	3	11	\$269,452	\$145,504	\$414,956	\$871,224	\$679,555	\$1,550,779
Capital Investment	1	1	2	\$51,014	\$32,649	\$83,663	\$124,583	\$93,437	\$218,020
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$6,500	\$0	\$6,500
Total Impacts	9	4	13	\$320,466	\$178,153	\$498,619	\$1,284,467	\$801,208	\$2,085,675

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$282,160	\$141,080	\$423,240
Airport Tenants	8	3	11	\$269,452	\$134,726	\$404,178	\$871,224	\$522,734	\$1,393,958
Capital Investment	1	1	2	\$51,014	\$32,649	\$83,663	\$124,583	\$95,929	\$220,512
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$6,500	\$0	\$6,500
Total Impacts	9	4	13	\$320,466	\$167,375	\$487,841	\$1,284,467	\$759,743	\$2,044,210

Park River Airport - WC Skjerven Field

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	6	2	8	\$259,236	\$129,618	\$388,854	\$653,418	\$392,051	\$1,045,469
Capital Investment	0	0	0	\$0	\$0	\$0	\$32,255	\$0	\$32,255
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$29,625	\$0	\$29,625
Total Impacts	6	2	8	\$259,236	\$129,618	\$388,854	\$716,498	\$392,051	\$1,108,549

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	6	1	7	\$259,236	\$72,586	\$331,822	\$653,418	\$222,162	\$875,580
Capital Investment	0	0	0	\$0	\$0	\$0	\$32,255	\$0	\$32,255
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$29,625	\$0	\$29,625
Total Impacts	6	1	7	\$259,236	\$72,586	\$331,822	\$716,498	\$222,162	\$938,660

Parshall-Hankins Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	2	3	5	\$220,039	\$140,825	\$360,864	\$498,047	\$383,496	\$881,543
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$77,580	\$45,772	\$123,352
Total Impacts	4	3	7	\$277,009	\$163,796	\$440,805	\$643,287	\$463,098	\$1,106,385

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	2	1	3	\$220,039	\$35,206	\$255,245	\$498,047	\$109,570	\$607,617
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$77,580	\$23,274	\$100,854
Total Impacts	4	1	5	\$277,009	\$52,922	\$329,931	\$643,287	\$151,789	\$795,076

Pembina Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$33,384	\$8,346	\$41,730	\$202,980	\$101,490	\$304,470
Airport Tenants	5	2	7	\$171,004	\$85,502	\$256,506	\$544,515	\$326,709	\$871,224
Capital Investment	1	1	2	\$65,666	\$42,026	\$107,692	\$108,262	\$83,361	\$191,623
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$33,638	\$0	\$33,638
Total Impacts	7	3	10	\$270,054	\$135,874	\$405,928	\$889,395	\$511,560	\$1,400,955

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$33,384	\$6,343	\$39,727	\$202,980	\$56,834	\$259,814
Airport Tenants	5	0	5	\$171,004	\$13,680	\$184,684	\$544,515	\$108,903	\$653,418
Capital Investment	1	1	2	\$65,666	\$20,356	\$86,022	\$108,262	\$41,139	\$149,401
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$33,638	\$0	\$33,638
Total Impacts	7	1	8	\$270,054	\$40,380	\$310,434	\$889,395	\$206,877	\$1,096,272

Trulson Field Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$3,000	\$0	\$3,000

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$3,000	\$0	\$3,000

Richardton Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$3,033	\$0	\$3,033
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$6,033	\$0	\$6,033

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$400	\$0	\$400
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$3,033	\$0	\$3,033
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	0	0	0	\$0	\$0	\$0	\$6,033	\$0	\$6,033

Garrison Dam Recreational Airpark

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$1,800	\$0	\$1,800	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$12,456	\$0	\$12,456
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$3,713	\$0	\$3,713
Total Impacts	<1	0	<1	\$1,800	\$0	\$1,800	\$17,369	\$0	\$17,369

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$1,800	\$0	\$1,800	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$12,456	\$0	\$12,456
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$3,713	\$0	\$3,713
Total Impacts	<1	0	<1	\$1,800	\$0	\$1,800	\$17,369	\$0	\$17,369

Rolette Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	2	3	5	\$130,165	\$83,306	\$213,471	\$353,158	\$271,932	\$625,090
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	2	3	5	\$130,165	\$83,306	\$213,471	\$377,208	\$271,932	\$649,140

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	2	1	3	\$130,165	\$26,033	\$156,198	\$353,158	\$98,884	\$452,042
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	2	1	3	\$130,165	\$26,033	\$156,198	\$377,208	\$98,884	\$476,092

Rolla Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	6	2	8	\$200,085	\$100,043	\$300,128	\$653,418	\$392,051	\$1,045,469
Capital Investment	5	7	12	\$322,311	\$206,279	\$528,590	\$874,482	\$673,351	\$1,547,833
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$53,900	\$31,801	\$85,701
Total Impacts	12	9	21	\$545,366	\$320,793	\$866,159	\$1,583,000	\$1,097,203	\$2,680,203

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	6	1	7	\$200,085	\$20,009	\$220,094	\$653,418	\$156,820	\$810,238
Capital Investment	5	2	7	\$322,311	\$64,462	\$386,773	\$874,482	\$244,855	\$1,119,337
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$53,900	\$16,170	\$70,070
Total Impacts	12	3	15	\$545,366	\$95,726	\$641,092	\$1,583,000	\$417,845	\$2,000,845

Rugby Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$89,610	\$44,805	\$134,415	\$217,806	\$130,684	\$348,490
Capital Investment	2	3	5	\$127,330	\$81,491	\$208,821	\$338,573	\$260,701	\$599,274
GA Visitor Spending	1	0	1	\$22,970	\$14,471	\$37,441	\$57,330	\$33,825	\$91,155
Total Impacts	5	4	9	\$239,910	\$140,767	\$380,677	\$614,909	\$425,210	\$1,040,119

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$89,610	\$25,091	\$114,701	\$217,806	\$74,054	\$291,860
Capital Investment	2	1	3	\$127,330	\$33,106	\$160,436	\$338,573	\$132,043	\$470,616
GA Visitor Spending	1	0	1	\$22,970	\$11,255	\$34,225	\$57,330	\$17,199	\$74,529
Total Impacts	5	2	7	\$239,910	\$69,452	\$309,362	\$614,909	\$223,297	\$838,206

St. Thomas Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Capital Investment	0	0	0	\$0	\$0	\$0	\$5,635	\$0	\$5,635
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	2	1	3	\$86,412	\$43,206	\$129,618	\$227,241	\$130,684	\$357,925

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$86,412	\$24,195	\$110,607	\$217,806	\$74,054	\$291,860
Capital Investment	0	0	0	\$0	\$0	\$0	\$5,635	\$0	\$5,635
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
Total Impacts	2	0	2	\$86,412	\$24,195	\$110,607	\$227,241	\$74,054	\$301,295

Stanley Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	<1	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$21,603	\$64,809	\$108,903	\$65,342	\$174,245
Capital Investment	5	7	12	\$418,682	\$267,956	\$686,638	\$947,666	\$729,703	\$1,677,369
GA Visitor Spending	5	2	7	\$108,619	\$68,430	\$177,049	\$370,620	\$218,666	\$589,286
Total Impacts	11	9	20	\$570,507	\$357,989	\$928,496	\$1,428,389	\$1,013,711	\$2,442,100

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	<1	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	1	0	1	\$43,206	\$12,098	\$55,304	\$108,903	\$37,027	\$145,930
Capital Investment	5	2	7	\$418,682	\$66,989	\$485,671	\$947,666	\$208,487	\$1,156,153
GA Visitor Spending	5	1	6	\$108,619	\$24,982	\$133,601	\$370,620	\$85,243	\$455,863
Total Impacts	11	2	13	\$570,507	\$104,069	\$674,576	\$1,428,389	\$330,756	\$1,759,145

Tioga Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	8	3	11	\$345,648	\$172,824	\$518,472	\$871,224	\$522,734	\$1,393,958
Capital Investment	3	4	7	\$277,474	\$177,583	\$455,057	\$553,064	\$425,859	\$978,923
GA Visitor Spending	11	4	15	\$292,260	\$184,124	\$476,384	\$882,900	\$520,911	\$1,403,811
Total Impacts	23	11	34	\$949,382	\$543,031	\$1,492,413	\$2,374,848	\$1,503,334	\$3,878,182

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	8	2	10	\$345,648	\$96,781	\$442,429	\$871,224	\$296,216	\$1,167,440
Capital Investment	3	3	6	\$277,474	\$66,594	\$344,068	\$553,064	\$182,511	\$735,575
GA Visitor Spending	11	2	13	\$292,260	\$81,833	\$374,093	\$882,900	\$256,041	\$1,138,941
Total Impacts	23	7	30	\$949,382	\$251,668	\$1,201,050	\$2,374,848	\$753,713	\$3,128,561

Towner Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$24,050	\$0	\$24,050

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$22,850	\$0	\$22,850
Total Impacts	0	0	0	\$0	\$0	\$0	\$24,050	\$0	\$24,050

Turtle Lake Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$27,466	\$0	\$27,466
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$23,175	\$0	\$23,175
Total Impacts	0	0	0	\$0	\$0	\$0	\$51,241	\$0	\$51,241

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$600	\$0	\$600
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$27,466	\$0	\$27,466
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$23,175	\$0	\$23,175
Total Impacts	0	0	0	\$0	\$0	\$0	\$51,241	\$0	\$51,241

Barnes County Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	2	1	3	\$50,056	\$12,514	\$62,570	\$116,158	\$58,079	\$174,237
Airport Tenants	7	2	9	\$269,091	\$134,546	\$403,637	\$762,321	\$457,393	\$1,219,714
Capital Investment	4	5	9	\$241,929	\$154,835	\$396,764	\$696,134	\$536,023	\$1,232,157
GA Visitor Spending	1	0	1	\$23,813	\$15,002	\$38,815	\$111,336	\$65,688	\$177,024
Total Impacts	14	8	22	\$584,889	\$316,897	\$901,786	\$1,685,949	\$1,117,183	\$2,803,132

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	2	0	2	\$50,056	\$9,511	\$59,567	\$116,158	\$32,524	\$148,682
Airport Tenants	7	1	8	\$269,091	\$75,345	\$344,436	\$762,321	\$259,189	\$1,021,510
Capital Investment	4	3	7	\$241,929	\$74,998	\$316,927	\$696,134	\$264,531	\$960,665
GA Visitor Spending	1	0	1	\$23,813	\$10,001	\$33,814	\$111,336	\$37,854	\$149,190
Total Impacts	14	4	18	\$584,889	\$169,856	\$754,745	\$1,685,949	\$594,099	\$2,280,048

Harry Stern Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$8,500	\$42,500	\$67,660	\$33,830	\$101,490
Airport Tenants	18	6	24	\$700,564	\$350,282	\$1,050,846	\$1,960,254	\$1,176,152	\$3,136,406
Capital Investment	3	4	7	\$166,607	\$106,628	\$273,235	\$451,737	\$347,837	\$799,574
GA Visitor Spending	3	1	4	\$48,777	\$30,730	\$79,507	\$226,135	\$133,420	\$359,555
Total Impacts	25	11	36	\$949,948	\$496,140	\$1,446,088	\$2,705,786	\$1,691,239	\$4,397,025

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$34,000	\$6,460	\$40,460	\$67,660	\$18,945	\$86,605
Airport Tenants	18	2	20	\$700,564	\$77,062	\$777,626	\$1,960,254	\$529,269	\$2,489,523
Capital Investment	3	2	5	\$166,607	\$38,320	\$204,927	\$451,737	\$153,591	\$605,328
GA Visitor Spending	3	0	3	\$48,777	\$14,145	\$62,922	\$226,135	\$58,795	\$284,930
Total Impacts	25	4	29	\$949,948	\$135,987	\$1,085,935	\$2,705,786	\$760,599	\$3,466,385

Walhalla Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$5,500	\$0	\$5,500
Airport Tenants	4	1	5	\$172,824	\$86,412	\$259,236	\$435,612	\$261,367	\$696,979
Capital Investment	3	4	7	\$195,623	\$125,199	\$320,822	\$467,920	\$360,298	\$828,218
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$29,250	\$0	\$29,250
Total Impacts	7	5	12	\$368,447	\$211,611	\$580,058	\$938,282	\$621,665	\$1,559,947

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$5,500	\$0	\$5,500
Airport Tenants	4	1	5	\$172,824	\$48,391	\$221,215	\$435,612	\$148,108	\$583,720
Capital Investment	3	2	5	\$195,623	\$35,212	\$230,835	\$467,920	\$145,055	\$612,975
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$29,250	\$0	\$29,250
Total Impacts	7	3	10	\$368,447	\$83,603	\$452,050	\$938,282	\$293,163	\$1,231,445

Washburn Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$15,000	\$0	\$15,000
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$94,629	\$0	\$94,629
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$28,800	\$0	\$28,800
Total Impacts	0	0	0	\$0	\$0	\$0	\$138,429	\$0	\$138,429

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$5,500	\$0	\$5,500
Airport Tenants	4	1	5	\$172,824	\$48,391	\$221,215	\$435,612	\$148,108	\$583,720
Capital Investment	3	2	5	\$195,623	\$35,212	\$230,835	\$467,920	\$145,055	\$612,975
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$29,250	\$0	\$29,250
Total Impacts	7	3	10	\$368,447	\$83,603	\$452,050	\$938,282	\$293,163	\$1,231,445

Watford City Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$46,800	\$11,700	\$58,500	\$67,660	\$33,830	\$101,490
Airport Tenants	9	3	12	\$341,730	\$170,865	\$512,595	\$980,127	\$588,076	\$1,568,203
Capital Investment	8	10	18	\$681,250	\$436,000	\$1,117,250	\$1,346,173	\$1,036,553	\$2,382,726
GA Visitor Spending	10	3	13	\$229,884	\$144,827	\$374,711	\$725,400	\$427,986	\$1,153,386
Total Impacts	28	16	44	\$1,299,664	\$763,392	\$2,063,056	\$3,119,360	\$2,086,445	\$5,205,805

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$46,800	\$8,892	\$55,692	\$67,660	\$18,945	\$86,605
Airport Tenants	9	2	11	\$341,730	\$95,684	\$437,414	\$980,127	\$333,243	\$1,313,370
Capital Investment	8	2	10	\$681,250	\$88,562	\$769,813	\$1,346,173	\$255,773	\$1,601,946
GA Visitor Spending	10	1	11	\$229,884	\$39,080	\$268,964	\$725,400	\$130,572	\$855,972
Total Impacts	28	5	33	\$1,299,664	\$232,219	\$1,531,883	\$3,119,360	\$738,533	\$3,857,893

West Fargo Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$36,000	\$6,840	\$42,840	\$67,660	\$18,945	\$86,605
Airport Tenants	4	2	6	\$125,744	\$67,902	\$193,646	\$435,612	\$339,777	\$775,389
Capital Investment	1	1	2	\$39,608	\$25,349	\$64,957	\$96,728	\$72,546	\$169,274
GA Visitor Spending	2	1	3	\$42,221	\$30,399	\$72,620	\$140,400	\$91,260	\$231,660
Total Impacts	8	4	12	\$243,573	\$130,490	\$374,063	\$740,400	\$522,528	\$1,262,928

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	1	0	1	\$36,000	\$9,000	\$45,000	\$67,660	\$33,830	\$101,490
Airport Tenants	4	1	5	\$125,744	\$62,872	\$188,616	\$435,612	\$261,367	\$696,979
Capital Investment	1	1	2	\$39,608	\$25,349	\$64,957	\$96,728	\$74,481	\$171,209
GA Visitor Spending	2	1	3	\$42,221	\$26,599	\$68,820	\$140,400	\$82,836	\$223,236
Total Impacts	8	4	12	\$243,573	\$123,820	\$367,393	\$740,400	\$452,514	\$1,192,914

Westhope Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	1	3	\$86,412	\$43,206	\$129,618	\$217,806	\$130,684	\$348,490
Capital Investment	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,925	\$0	\$2,925
Total Impacts	2	1	3	\$86,412	\$43,206	\$129,618	\$224,531	\$130,684	\$355,215

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
Airport Tenants	2	0	2	\$86,412	\$24,195	\$110,607	\$217,806	\$74,054	\$291,860
Capital Investment	0	0	0	\$0	\$0	\$0	\$2,600	\$0	\$2,600
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$2,925	\$0	\$2,925
Total Impacts	2	0	2	\$86,412	\$24,195	\$110,607	\$224,531	\$74,054	\$298,585

Wishek Municipal Airport

Airport Specific Total Annual Statewide Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$30,000	\$0	\$30,000
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$22,009	\$0	\$22,009
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$33,250	\$0	\$33,250
Total Impacts	0	0	0	\$0	\$0	\$0	\$85,259	\$0	\$85,259

Airport Specific Total Annual Local Economic Impacts (2015)

	Employment			Payroll			Output		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Airport Management	0	0	0	\$0	\$0	\$0	\$30,000	\$0	\$30,000
Airport Tenants	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Investment	0	0	0	\$0	\$0	\$0	\$22,009	\$0	\$22,009
GA Visitor Spending	0	0	0	\$0	\$0	\$0	\$33,250	\$0	\$33,250
Total Impacts	0	0	0	\$0	\$0	\$0	\$85,259	\$0	\$85,259