

CASE STUDY

DES MOINES, IOWA: AIR SERVICE AND ECONOMIC ACTIVITY RELATED TO FINANCE AND INSURANCE



Des Moines, Iowa is the capital of Iowa. The Des Moines-Ames-West Des Moines, IA Combined Statistical Area (CSA) consists of the Des Moines-West Des Moines Metropolitan Statistical Area (MSA), the Ames MSA, and two contiguous micropolitan statistical areas -- Oskaloosa and Pella. These multiple geographies (Greater Des Moines) are considered as a whole because they are most likely within the catchment area of the main commercial airport in the area, Des Moines International Airport (DSM).

Des Moines is a major center of the US insurance industry and has a sizable global financial services and publishing business base. It is included as a case study because of that consideration.

[Introduction to the Region and its Economy](#)

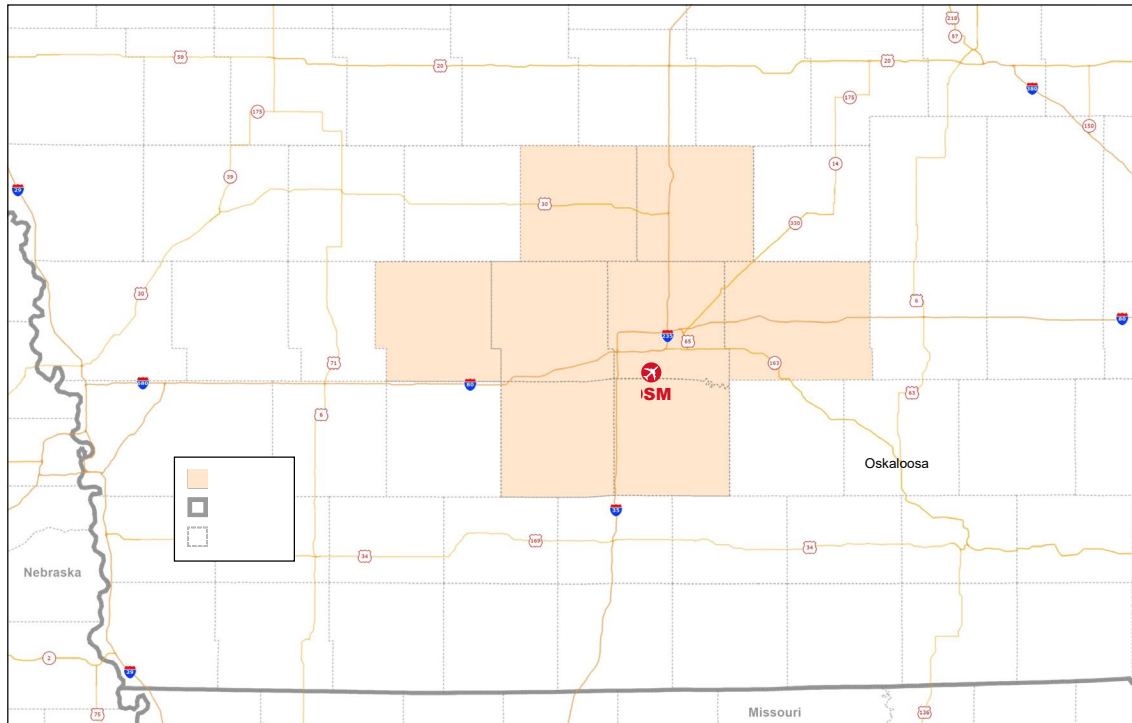
Des Moines is a major center of the U.S. insurance industry, with the highest concentration of insurance employment among metros in the U.S. The region is also known for its global financial services and publishing business base.

The Greater Des Moines region has a strong, diversified economy. Some of Des Moines key industries include advanced manufacturing, ag-bioscience, data centers, insurance and financial services, logistics and technology. The region's finance and insurance sector supports a \$4.8 billion annual payroll and contributed \$17 billion to the GDP in 2019.¹

¹ Greater Des Moines Partnership



Figure 1: The Greater Des Moines Region



According to the U.S. Bureau of Economic Analysis (BEA), in 2019, the Des Moines-West Des Moines MSA had a 2019 population of 699,200, making it the 83rd largest in the U.S. (out of 384 total MSAs). It produced \$52 billion in current-dollar total GDP, ranked 62nd among MSAs. It represents an increase in the region's national ranking from 2009, when it ranked 70th among MSAs.² The Ames MSA 2019 population was just under 125,000 (323rd largest). It produced nearly \$7 billion in current-dollar total GDP, ranked 291st among MSAs.

The region's population and employment have grown moderately since 2008. Table 1 summarizes the changes in key socio-economic characteristics for the period. As shown, from 2008 through 2019:

- Total population rose by 117,000 (15 percent). Statewide, Iowa's population grew by 5 percent.
- Total employment increased by over 70,000 (13 percent). This growth rate is over twice that for Iowa, which rose by 5 percent.
- Average per capita income (nominal dollars) rose from about \$41,000 to \$53,200 (30 percent). Expressed in constant 2019 dollars, the increase was 6 percent. The region's per capita income was roughly 3 percent higher than the Iowa average (\$51,791).
- The number of establishments operating in the region also increased, rising by more than 7,000 (36 percent).³

² <https://apps.bea.gov/regional/bearfacts/action.cfm>

³ The BEA uses data from the U.S. Census Bureau on "establishments," which it defines as "An establishment is a single physical location at which business is conducted or services or industrial operations are performed. It is not necessarily identical with a company or enterprise, which may consist of one or more establishments. ... Establishment counts represent the number of locations with paid employees any time during the year." The count excludes government establishments except for certain situations, such as state-operated retail liquor stores, local

**Table 1: Summary of Changes in Major Socio-Economic Variables, Greater Des Moines, 2008-2019**

	2008	2015	2019	2008-15		2015-19		2008-19	
				Chg	%	Chg	%	Chg	%
Population	761	838	878	77	10%	40	5%	117	15%
Total Employment	533	570	604	38	7%	34	6%	71	13%
Private Non-farm Employment	449	486	518	36	8%	33	7%	69	15%
Public Sector Employment	74	75	76	1	1%	1	2%	2	3%
Income per Capita (\$)	\$40,919	\$47,903	\$53,249	\$6,984	17%	\$5,346	11%	\$12,330	30%
Number of Establishments	20	25	27	5	24%	2	10%	7.3	36%

Source: BEA

Note: All data in 1,000s except per capita income, which is shown in nominal dollars.

The region is a center for higher education. In Des Moines, there are six colleges and universities, including Drake University (2019 enrollment around 5,000). Ames is home to Iowa State University, the largest in Iowa, with an enrollment of nearly 32,000. The CSA's population is well-educated, with 38 percent of adults holding bachelor's degree or higher.

Regional Economic Strengths

The region's economy is anchored by several large employment sectors. As the capital of Iowa, the region has a significant public sector presence, including local, state, and federal employees. This also takes into account the large number of staff associated with education, especially because of the presence of Iowa State University in Ames. The other major sectors and changes in employment are illustrated in Table 2. The table shows only changes from 2015 to 2019 because employment subtotals for too many sectors for 2008 were suppressed to protect confidentiality.

Outside of accommodations, food service, and retail, the other large sectors (based on total employment in 2019) were finance and insurance; health care; manufacturing; construction; and professional, scientific, and technological (PST). Each of those comprised 5 percent or more of regional employment.

**Table 2: Changes in Employment by Major Sector 2008-2019**

Employment sector	2015	2019	Change	
			Chg	%
Government and government enterprises	74,960	76,151	1,191	2%
Finance and insurance	63,123	67,484	4,361	7%
Health care and social assistance	58,141	61,734	3,593	6%
Retail trade	60,404	60,546	142	0%
Accommodation and food services	36,960	40,202	3,242	9%
Manufacturing	36,429	40,166	3,737	10%
Construction	32,200	35,721	3,521	11%
Professional, scientific, and technical services	30,793	35,055	4,262	14%
Other services (except government and gov't enterprises)	29,996	30,556	560	2%
Administrative services	28,002	28,432	430	2%
Real estate and rental and leasing	21,178	25,317	4,139	20%
Wholesale trade	22,167	21,663	(504)	-2%
Arts, entertainment, and recreation	11,287	14,416	3,129	28%
Educational services	13,817	12,360	(1,457)	-11%
Management of companies and enterprises	9,304	9,936	632	7%
Information	9,081	9,709	628	7%
Farm employment	9,845	9,626	(219)	-2%
Total Employment	570,390	604,201	33,811	6%

Source: BEA

Note: Figures will not sum to total because sectors with small amounts of employment are excluded.

Economic Clusters

The U.S. Cluster Mapping Project's analysis of the Des Moines region also highlights its broad economic strength. A cluster is a concentration of related industries in a particular region. Clusters consist of companies, suppliers, and service providers, as well as government agencies and other institutions that provide specialized training and education, information, research, and technical support. *Traded clusters* are groups of related industries that serve markets beyond the region in which they are located and therefore require some form of transport connectivity. Examples include financial service or information technology. By contrast, *local clusters* consist of industries that serve the local market. Examples include local grocery stores or restaurants.⁴

The Cluster Mapping Project's analysis is based on MSAs or broad geographic "economic areas," with the economic strengths identified separately for each MSA.

The Des Moines MSA's economy features multiple tradeable clusters that are among the top performers in the country, and several are of notable strength. Those include Insurance, Financial Services, and Marketing.

⁴⁴ <https://www.clustermapping.us/about/clusters-101>



- The Insurance Services sector includes insurance for life, health and medical, property and casualty, title, and other. The region is ranked 14th nationally (out of 917) in its economic strength in insurance services. The region's LQ for this sector was 5.64.
- The Financial Services sector includes businesses in credit intermediation (e.g., Consumer lending; Financial Transactions Processing, Reserve, and Clearinghouse Activities; Sales financing); financial investment activities; and securities brokers, dealers, and exchanges. The region is ranked in the top 50 nationally in its economic strength in credit intermediation. The region's LQ for this sector was 1.89.
- The Marketing, Design, and Publishing includes internet publishing and broadcasting; web search portals; information services; marketing consulting services; advertising; and industrial, graphic, interior, and other specialty design services. The region is ranked in the top 50 nationally based on its strength in this sector. Its LQ for this sector was 1.11.

The analysis of the Ames MSA revealed economic strength in three other traded clusters:

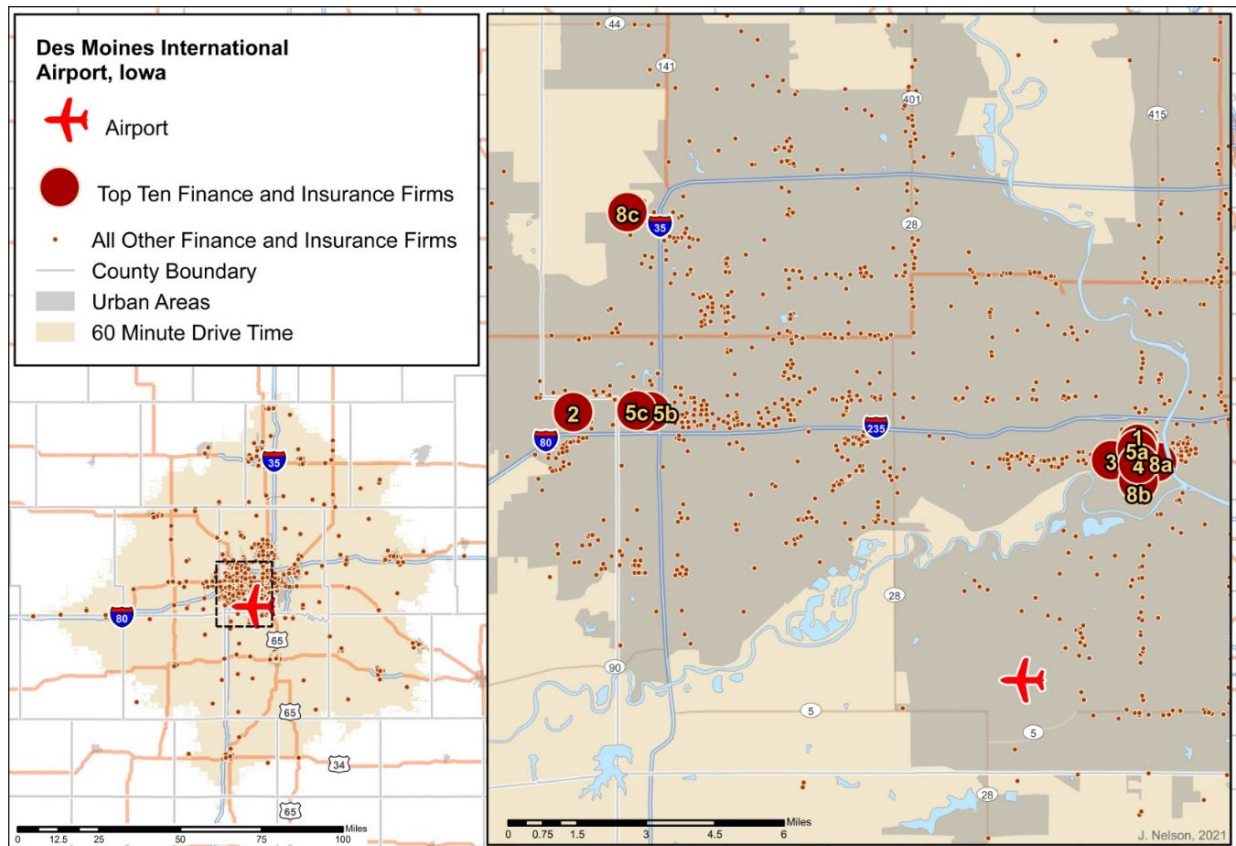
- Information Technology and analytical instruments, with an emphasis on software publishing. The MSA's LQ for this is 6.09.
- Printing services. The region's LQ for this is 13.86.
- Agricultural services. Businesses in this cluster included postharvest crop activities, support activities for animal production, and farm management services. The region's LQ for this is 17.51.

Drive Time Analysis

Another alternative for examining the region's economic base is to visualize business activity within a certain driving distance from the airport. Figure 2 illustrates a 60-minute drive time around DSM and the location of Finance and Insurance businesses within that area. The largest are all within the urban area.



Figure 2: Spatial Distribution of Finance and Insurance Firms (NAICS 52) in the DSM Airport One-Hour Drive Time Trade Area



Key highlights of socio-economic activity *within the 60-minute drive of the airport*:

- The total estimated 2019 population was 850,000. Of that, about 530,000 (62 percent) were considered “working age” (between the ages of 18 and 64).
- The region supported over 28,000 businesses employing nearly 460,000. In terms of major industry sectors (defined by NAICS codes), the largest based on total employment was Finance, Insurance, and Real Estate (“FIRE”) with nearly 56,000, followed by Manufacturing (over 26,000 employees) and Professional, Scientific, and Technical Services (PST), with nearly 26,000.
- A large percentage of the total population is relatively highly educated. Of the total, 25.7 percent held a Bachelor’s degree and another 12.5 percent held a Graduate or Professional degree.

Overview of the Airport and its Services

The Des Moines International Airport (DSM) is the largest airport in Iowa and located in the capital city. The Des Moines Airport Authority is a public authority independent entity that oversees the operations and maintenance of DSM and works to improve the quality of air service while making air travel to and from Des Moines more convenient and pleasurable. Since opening in 1933, the DSM campus footprint



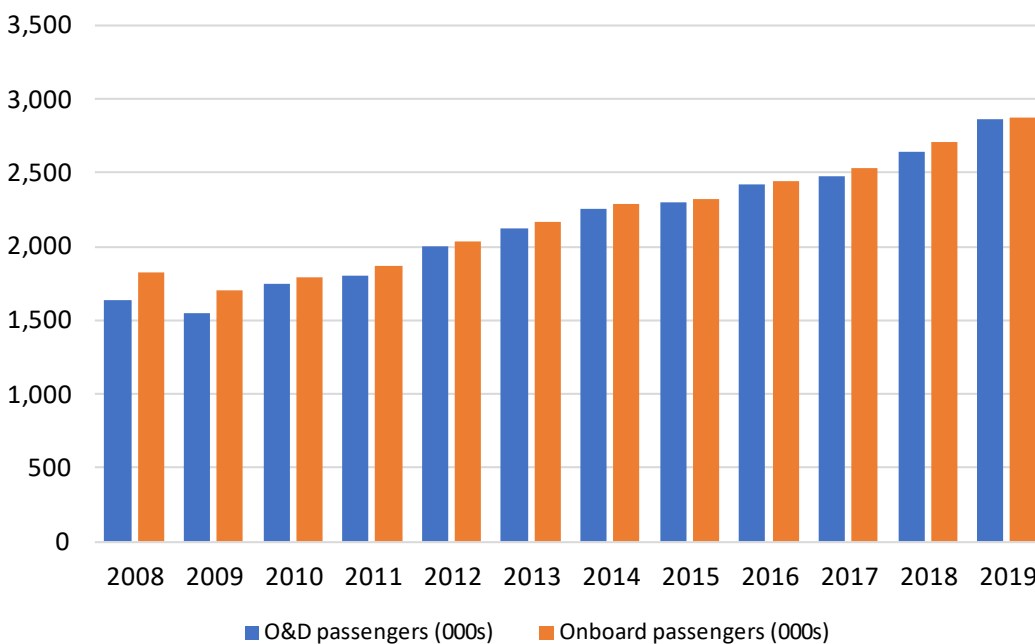
has expanded from 160-acres to 2,600 acres. In 2019, the airport set a new annual passenger record: 2.9 million people traveled through the airport.⁵

DSM's air service goals focus on underserved markets. While the strategy varies by carrier, the focus for larger carriers is upgauging and increasing frequencies on existing routes. The business and leisure traveler mix is split at 50 percent each. With a number of international companies' sales teams traveling to and from the area, an airport official indicated that the community needs service to San Francisco and New York. (Delta Air Lines served DSM-LaGuardia Airport until the second quarter of 2020 and ceased operations due to the pandemic.)

In 2018, DSM conducted a leakage study focused on a catchment area with a 90-mile radius that estimated a population base of 3.4 million annual passengers. DSM loses traffic to Minneapolis-St. Paul International Airport (MSP) directly north 3 hours, Kansas City International Airport (MCI) directly south 3 hours, and Omaha Eppley Airfield (OMA) 2 hours away. If a passenger is flying internationally, they will typically drive the 3 hours. DSM believes its international capture rate is strong when they have nonstop service. Conversely, DSM may "win" passengers from other regional airports, especially Eastern Iowa Airport in Cedar Rapids (120 miles east) and Sioux City (Sioux Gateway Airport), about 200 miles to the northwest.

Figure 3 shows the change in total passenger and Origin & Destination (O&D) passenger activity. The O&D traffic represents the majority of total traffic, given the airport is primarily a facility that serves local traffic.

Figure 3: Growth in Total and O&D Passenger Activity 2008-2019



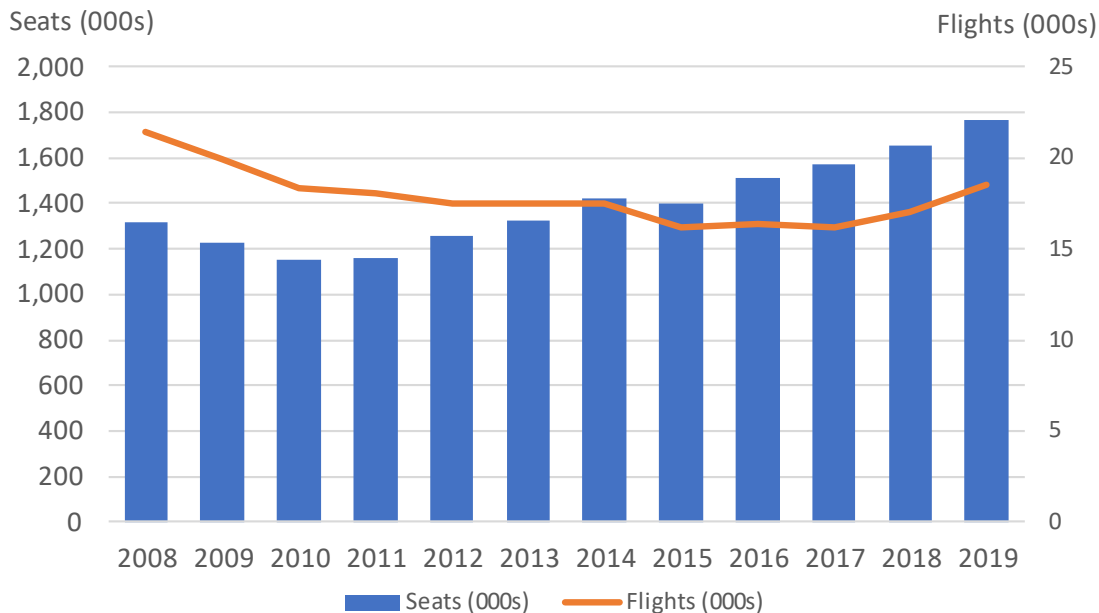
Source: Schedule data from Diio Mi from Cirium.

⁵ www.flydsm.com



Figure 4 shows the growth in the amount of capacity offered at DSM, in terms of both total flights and seats available for sale. From 2008 to 2019, the number of available seats rose by 452,862 (34 percent), equivalent to an extra 1,200 seats per day. The number of flights declined by 2,857 (13 percent), or a loss of nearly 8 flights per day. Average aircraft size (seats per departure) rose from 61 to 95.

Figure 4: Changes in Capacity Offered 2008-2019



Source: Schedule data from Diio Mi from Cirium.

The number of nonstop markets served declined from 2008 to 2019 as did the number of flights to major markets. In 2009, DSM had service (defined as 50 flights in a year or more) to 33 destinations. In 2019, it had service to 23. It gained service to Charlotte (over 1,000 flights) and service Philadelphia International Airport (PHL). The airport does not currently have international service. The number of flights to major markets are mixed, with some declining and some increasing between 2008 to 2019:

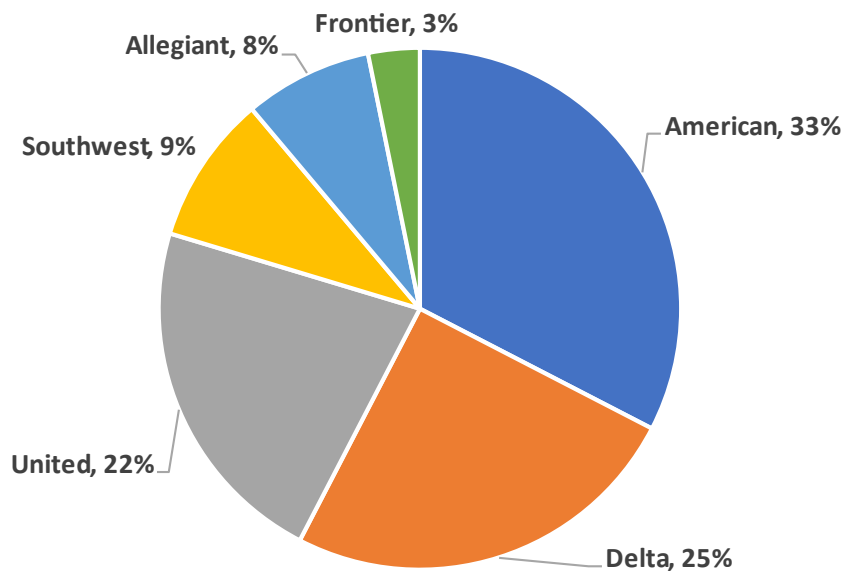
- Atlanta: (54)
- Charlotte: +1,054
- Chicago O'Hare: (530)
- Dallas/Fort Worth: (838)
- Denver: +166
- Detroit: (143)
- Houston Intercontinental: +238
- Las Vegas: +315
- Minneapolis-St. Paul: (709)
- New York La Guardia: (135)
- Philadelphia: +595



- Phoenix: +170
- Salt Lake City: +344
- St. Louis: (589)
- Washington National: +224

Figure 5 highlights the relative balance of the passenger market share among carriers based on 2019 passenger traffic. American was the largest carrier with one-third of the total. Delta held 25 percent of the total, followed by United at 21 percent and Southwest at 9 percent. Allegiant and Frontier make up the remaining 11 percent.

Figure 5: Passenger Market Share 2019



Source: US DOT O&D Summary Report

DSM accounts for 50 percent of the state air cargo, carrying 74 million pounds in 2019.

Connectivity

High quality transportation – of all modes – is a prerequisite for sustained economic growth and competitiveness for a region. Specifically, these factors of economic development are driven by productivity growth which is underpinned by trade, foreign investment, and innovative activity – all of which are facilitated by connectivity. “Connectivity” generally means the ability to reach a wide range of places in a short amount of time. Connectivity is not simply a matter of the number of routes or number of frequencies operated. Connectivity is fundamentally about access to markets and regions.

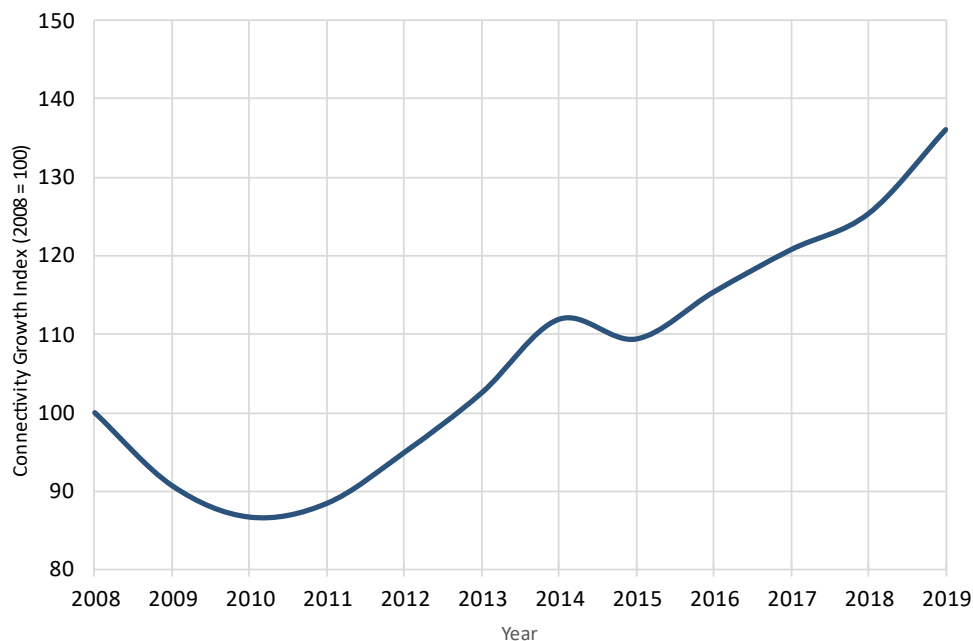
Connectivity can be quantitatively measured in a variety of ways; the figure below summarizes the growth in connectivity at DSM between 2008 and 2019 using a method developed by the International Air Transport Association (IATA). The IATA connectivity index estimates the quality of air service at an airport based on the degree of service to other airports with the largest and most diverse route



networks, as a proxy for how accessible the local economy is to the rest of the world.⁶ The change in DSM's connectivity index or score is charted below, by indexing the score against 2008 levels for comparison.

Although the count of nonstop markets from DSM declined between 2008 and 2019, the continued growth in capacity – specifically to major national hubs – has enabled continued improvement in air connectivity over the same timeframe. Between 2008 and 2019, connectivity has grown a total of 36% (or an annual average rate of 2.8%) at the airport. DSM was not immune to the impacts of the Great Recession – which caused an industry-wide consolidation of air service and mass reductions in air connectivity overall – but it returned to pre-recession levels of connectivity by 2013, then sustained continued growth in most years through 2019. The trend in connectivity at DSM is highly correlated with overall growth in total seat capacity, but beyond that is the fact that DSM has grown its air service (or replaced lost service) to large national hubs like Charlotte and Philadelphia which in turn facilitated onward connections to a larger number of markets and regions.

Figure 6: DSM Connectivity Growth Index (2008=100)



Note: Chart shows the IATA Connectivity Index for DSM, indexed against 2008 (2008 = 100).
Source: InterVISTAS analysis of Innovata schedule data from Diio Mi.

⁶ The IATA connectivity index measures the number and size of destinations served, as well as the frequency of service to each destination and the number of onward connections available from those destinations. Service to airports with the highest total seat capacity (e.g. ATL) receive the highest weighting. Thus, the index recognises that connections to major global gateways provide greater global connectivity than connections to the same number of spoke ends.

The formula for the index is calculated as follows:

$$\frac{[\text{Number of destinations} \times \text{Weekly Frequency} \times \text{Seats per flight}] \times \text{Weighted by the Size of the Destination Airport}}{\text{Scalar factor of 1000}}$$



Analysis of Changes in Employment and Air Service

DSM's O&D traffic is highly correlated with total local employment. Figure 7 summarizes how changes in total O&D traffic correspond with changes in regional employment. The line summarizes the relationship between the two. As total employment increases, total O&D increases. The correlation coefficient between the two is 0.945. The chart does not demonstrate causation; that is, it is not evident whether rising total employment levels leads to more air traffic, or whether more air traffic leads to more total employment.

Figure 7: Relationship between Regional Employment and Total O&D Traffic

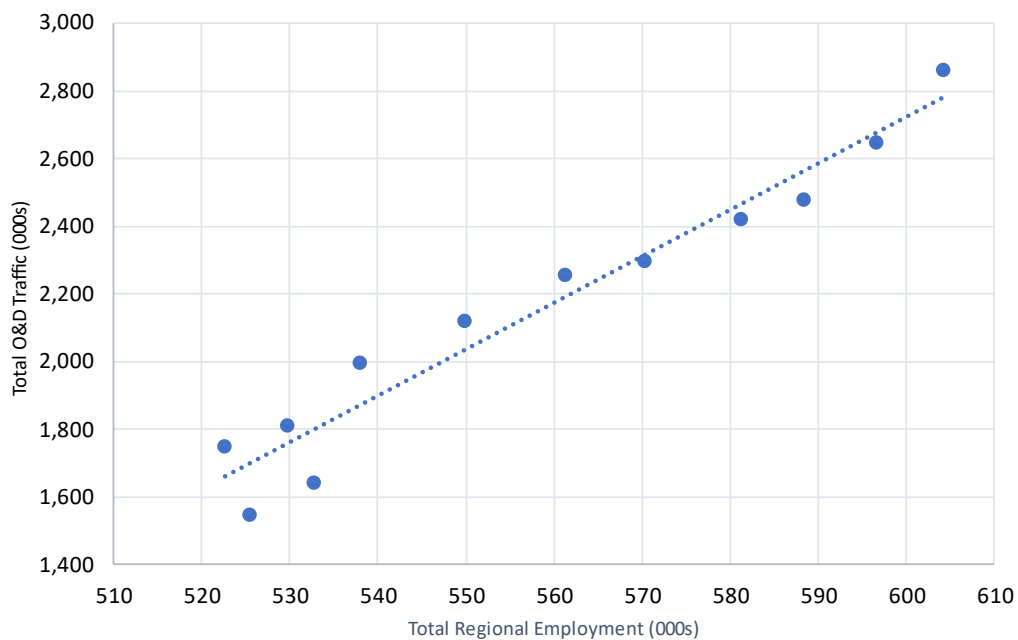
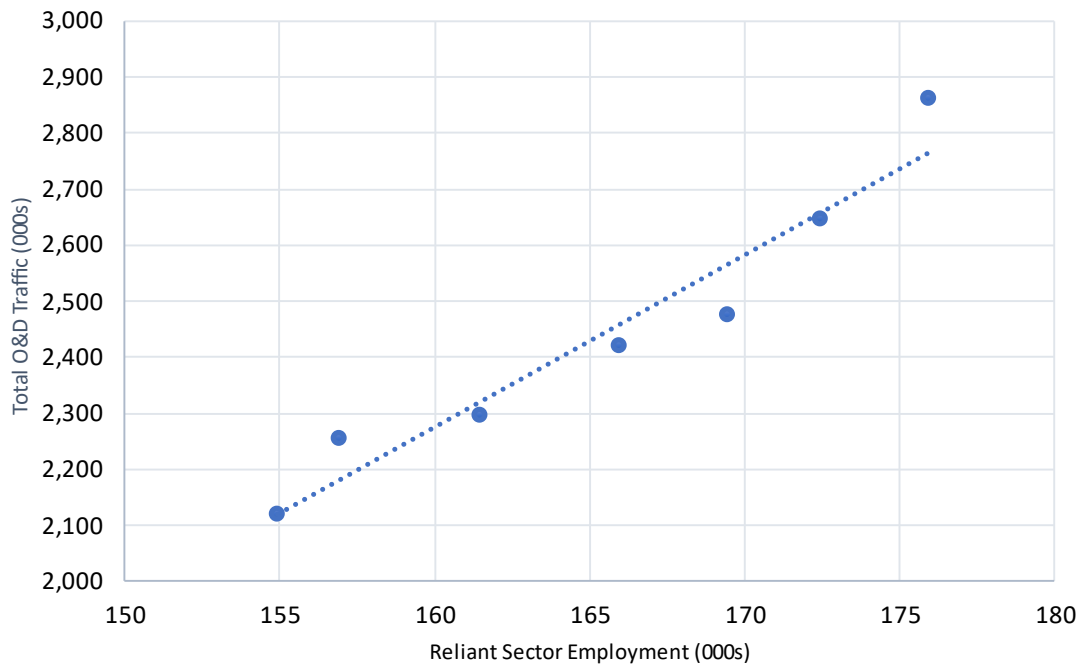


Figure 8 isolates changes in O&D traffic against changes in employment in industry sectors that have a relatively higher propensity to fly than others. Those sectors include information technology; finance, insurance, and real estate; PST; management of companies, and administrative services. As with the analysis of air traffic and total employment, the correlation of changes in air service and these “aviation-reliant” industries is also very high: 0.93. Data are available only for the years 2013-2019 because those for prior years was suppressed to protect confidentiality. Again, the two variables move together: Increases in one correspond with increases in the other. No causality is proven.



Figure 8: Relationship Between Air Traffic and Employment in Aviation-Reliant Sectors



Communicating the Airport's Economic Impact

DSM conducted an economic impact in 2013/2014 and there is a new state study in progress. The 2014 economic impact study concluded that DSM contributed significantly to the state's economy, supporting 7,156 jobs, \$271 million in annual payroll, and \$644 million in annual economic output. These impacts did not include the additional economic benefits associated with the increased productivity realized by non-aviation businesses and government entities in the Des Moines region that rely on the Des Moines International Airport to improve their efficiency. DSM is considering conducting one in the near future, however, has been hesitant to move forward given the large monetary investment. They do like the idea of a tool that is created to help airports boil down to their own airport. Airlines also have access to enplanement data but want to also see if an economy is flourishing and economic impact studies can indicate that. In the past DSM has used economic impact studies to build support for the airport itself. It allows them to share infrastructure projects and shares the value and impact an airport brings. DSM works with stakeholders to help build their story and leverage relationships to broaden their ASD case. The information in an economic impact analysis is reliable, but not always understandable. The investment must be made in the study to ensure it is understandable and communicated in a meaningful way to the community and to airlines.

The airport and regional stakeholders raised some questions and concerns when talking about how to persuade stakeholders about the airports value to the regional economy. The first was the amount of time an economic impact study takes, and whether there might be a more efficient way to capture information and better understand it. Another concern involved the potential impact associated with a new route (e.g., service to a new hub). The airport believes that type of information and insight could be useful.



The more people that travel the more routes can be pitched. As more destinations are served, more competition across carriers and airfare affordability. First, data is reviewed, and they look at whether a market is underserved or unserved. Then, they look at anecdotal insights from the business industry where certain routes can be prioritized over others. While San Francisco (SFO) is a target market, it may not be the first you ask for due to the airport's slot restrictions. As the region becomes more tech-focused, there are opportunities for investors and other companies relocating. A stronger story can be told when linkages and insights from business community are uncovered.

Stakeholders Perspectives on Contributions of Air Service

One key stakeholder that represents the interests of the business community and economic development in the region is the Greater Des Moines Partnership (the Partnership). This organization works to grow the region's economic and community development through collaborative partnerships, while working to recruit and assist new and expanding businesses and cultivate a talented and educated workforce. The Partnership covers business and economic activities in a 10-county region, with the City of Des Moines roughly in the center, in Polk County.

As a mid-size community in mid-size region, the Partnership believes that good air service is crucial for business. Its efforts to recruit companies and people to work and live in Des Moines relies in part on the range of nonstop flights available at DSM. There is substantial business travel within the finance and technology sector, and accessibility is of the utmost importance. A few of the top industry sectors in the region include insurance, finance, manufacturing, and agriculture. The Iowa economy produces products and goods that serve the globe. Most of the international activity is freight-related or private, but both bioscience and agricultural sectors have international markets. With over 80 entities alone in the insurance field, connectivity is very important for business operations.

While DSM does not now offer nonstop international service, it has connectivity options through major hubs such as Chicago (ORD), Atlanta (ATL), Dallas (DFW), Denver (DEN), and Philadelphia (PHL). The Partnership recognizes that growth in air service metrics (passengers, nonstop flights) gives them strong talking points on regional growth and personal travel. The Partnership would like to see further additions to the number of markets served. It believes that the region needs nonstop service to San Francisco or Los Angeles. The Partnership works closely with DSM airport in supporting their air service development efforts.

Regional economic goals are developed and by engaging frequently with industry partners and other stakeholders. They work with chambers of commerce, counties, and cities in addition to public sector and private sector influencers to advance initiatives and develop goals that serve the community. In terms of the region's economic structure, health and vitality, goals are measured by capital investment, job creation, and new business growth.

The regional economic development goals are not necessarily tied in any manner to aviation and transportation, though some strategy has focused on targeting companies specifically where there is direct airport connectivity. Their ability to have meaningful conversations is directly enhanced by having a nonstop flight. It is critical to have sufficient connectivity for companies to be able to get to markets to meet with decision makers. Showcasing DSM's connectivity is a useful marketing tool to entice companies to locate in the region. Other considerations for marketing the destination include the cost-

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of-living and how the school systems contribute to the quality of life. Improving area amenities, placemaking and downtown revitalization efforts are also important for attracting companies and talent.

Photos provided by DSM:

