



Air Service and Economic Impact Study for Commercial Airports



## Overview

Air service provides needed connectivity to get people and goods to their destination quickly and efficiently. It also plays a major role in quality of life and economic development in Iowa. Access to convenient and affordable air service is important to local communities and the State of Iowa.

This report provides a summary of findings and recommendations that are documented in the study's full technical report which contains all study data and findings. The full technical report for the Iowa Air Service Study is available on the Office of Aviation website at [www.iawings.com](http://www.iawings.com). A digital file of the study may also be obtained by calling the Office of Aviation at 515-239-1875.

In the past decade, commercial air service has experienced significant change. This change has resulted from financial problems with legacy air carriers, a build up of low cost carriers, higher operating costs for airlines, and the events of 9/11.

The number of air passengers served in Iowa has experienced a modest increase. Most commercial airports in Iowa have fares disparities with airports outside of the State. Iowa has also experienced air service reductions at airports around the State. Two airports lost commercial air service completely, and service has been reduced at six of the remaining eight commercial service airports in Iowa. As air service has changed, questions have been raised regarding what role the State of Iowa plays, or should play, in sustaining and improving air service for the citizens of Iowa. At the same time, communities need to know what air service opportunities exist at the local level.

To address these issues, the Iowa Department of Transportation's Office of Aviation commissioned a statewide study to examine commercial air service and air travel in Iowa. The study collected data important to recruiting improved air service. Also analyzed were historical and current air service levels and recommendations for sustaining and improving air service for residents, businesses, and visitors in Iowa.

## Key Findings

- Iowa generates roughly 2.5 million passenger enplanements each year.
- Iowa's future growth in passenger enplanements will be slow but steady, following projected rates of growth for population and employment in the State.
- Four of five Iowa-generated air travelers use a commercial airport in Iowa or an airport in a neighboring state that is closest to them.
- Each year, more than 500,000 Iowa travelers drive to less convenient airports, beyond Iowa, to start their airline trips.
- Commercial service airports pump an estimated \$1.3 billion into Iowa's economy each year and employ more than 14,000 people.
- Reliability of service and airfares are factors most influencing airport and air travel choices; drive times to departure airports, frequency of flights, and non-stop service options also impact airport choice.
- The airline industry has faced years of escalating costs and financial losses, making them risk averse when it comes to providing new or improved service.
- Ninety (90) percent of all commercial passengers in the U.S. are served at the 70 largest airports; the remaining 500 smaller commercial airports, including all in Iowa, compete for a limited number of new service opportunities.
- Airlines are increasingly relying on airports and communities to market air service and to provide incentives for new service; airlines will only enter new markets where it has been determined new service can be sustained in the long-term.
- Airlines determine levels of air service and airfares; however, opportunities do exist for airports and communities to enhance air service in Iowa.



## Opportunities

- Airports in Iowa do have opportunities for sustaining and improving air service, however, those opportunities will only be realized through creative programs and aggressive recruitment of passengers in their respective market areas.
- The best opportunity for airports to improve air service is to retain a higher percentage of air travel demand in their market area.
- Increasing passenger demand requires airports and communities to work with existing carriers on possible schedule adjustments, on-time arrivals and departures, competitive fares, and new service options.
- Better use of existing air service will lead to higher load factors that are critical to convincing airlines to provide

new or enhanced air service, such as increased flight frequencies, larger aircraft, and service to new non-stop destinations.

- Matching each market with origination and destination demand provides opportunities for new service; this service may require local incentives.

A key recommendation of the study is to capture travelers driving beyond their local airport to use other airports. Success in those efforts will result in direct financial benefits to airports, increased passengers to attract and support new or enhanced airline service, increased economic impact, and better air service options for Iowa air travelers.

# Economic Impact of Commercial Airports

Commercial airports and the air service they support are not only important to the traveling public, but the airports also play an important role in regional economies and economic development opportunities for the communities they serve. The airports themselves generate economic benefits through their daily operation. Businesses throughout Iowa report that commercial airports are essential to their operations. Without commercial airports and the airline service they support, Iowa's ability to attract and maintain many of the major employers in the State would be jeopardized.

While it is not possible to put a dollar value on the role commercial airports play in contributing to business efficiency, businesses themselves indicate that among all factors they consider related to their ability operate effectively in Iowa, proximity to a commercial service airport ranks in the top three.

This study concluded that total annual economic benefits linked to commercial airports are as follows:

<b>Jobs</b>	<b>14,209</b>
<b>Annual Payroll</b>	<b>\$514 million</b>
<b>Annual Economic Activity/Payroll</b>	<b>\$1.3 billion</b>



## Iowa Total Economic Impact by Airport

Airport	Associated City	Total Employment*	Total Payroll	Total Output
Southeast Iowa Regional Airport	Burlington	114	\$3,342,600	\$10,417,100
The Eastern Iowa Airport	Cedar Rapids	2,695	\$94,716,000	\$223,983,500
Des Moines International Airport	Des Moines	5,476	\$200,616,200	\$522,440,100
Dubuque Regional Airport	Dubuque	383	\$13,272,000	\$34,386,200
Fort Dodge Regional Airport	Fort Dodge	279	\$11,236,000	\$36,185,000
Mason City Municipal Airport	Mason City	140	\$4,668,800	\$11,344,600
Sioux Gateway Airport	Sioux City	1,570	\$64,039,700	\$218,603,500
Waterloo Regional Airport	Waterloo	533	\$14,723,100	\$64,267,000
Iowa Subtotal		11,190	\$406,614,400	\$1,121,627,000
Border Airport Subtotal**		3,019	\$108,355,300	\$215,287,800
<b>Totals</b>		<b>14,209</b>	<b>\$514,969,700</b>	<b>\$1,336,914,800</b>

Sources: Wilbur Smith Associates and IMPLAN multipliers

Notes: \* Full-time equivalent;

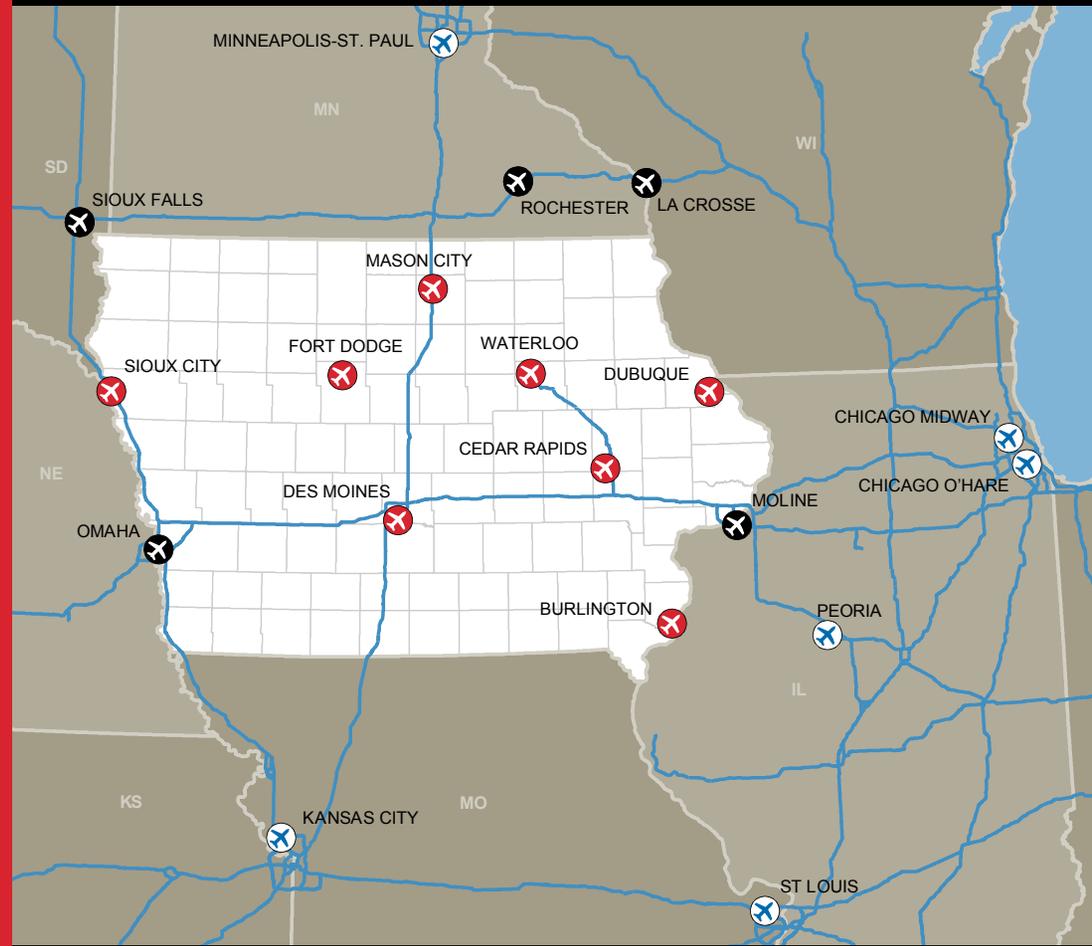
\*\* Includes only the benefits of these airports realized in Iowa

# Commercial Airports Serving Iowa

Commercial airports in Iowa are diverse in terms of the airline service they support. There are eight commercial airports in Iowa. Two of the airports, in Cedar Rapids and Des Moines, are served by multiple carriers. Three airports in Dubuque, Sioux City, and Waterloo have non-subsidized service and are served by one or two carriers. Finally, three of the airports are served by single carriers whose operating costs are offset by subsidies from the Essential Air Service (EAS) program sponsored by the U.S. DOT. EAS airports include those serving Burlington, Fort Dodge, and Mason City.

The Iowa Air Service Study examined the location of the eight commercial airports in Iowa in association with population centers, major employers, and areas projected to experience the most significant growth. This examination concluded the airports are well placed throughout the State. Most Iowa travelers are within 60 minutes or less drive time from at least one commercial airport. While drive times for some travelers may be somewhat longer, with the current commercial airline environment, there do not appear to be any other areas in Iowa that are candidates to support financially self-sustaining commercial airline service.

Other airports considered in the study were classified as Border or Outlying Hub Airports. The Border Airports are commercial airports in close proximity in neighboring states; the Border Airports, for example, include those serving Omaha, Moline, and Sioux Falls. Outlying Hub Airports, such as those in Chicago, Minneapolis, and Kansas City, are larger and more distant, but still close enough to influence where some of Iowa's commercial airline travel demand is served. Since demand for commercial airline travel does not recognize state boundaries, it is important to determine the role that Border and Outlying Hub Airports play in meeting Iowa's airline travel needs.



- Commercial Service Airports in Iowa
- Border Airports
- Outlying Hub Airports
- Interstate Highways

# Air Service Environment in Iowa

## Current Airline Service

The eight commercial airports in Iowa have varying levels of service. Information on the next page provides a ranking of the top 15 origination and destination markets for all Iowa travelers. As the accompanying table shows, 13 different airlines now provide at least some level of commercial airline service to the eight airports. Most of the airlines serving commercial airports in Iowa are legacy carriers or the regional code sharing partners of these carriers.

Only three airports, those in Des Moines, Cedar Rapids, and Sioux City, currently have more than one airline serving them. The five airports with a single carrier have limited service options and often experience airfare issues. Three of the commercial airports participate in federal Essential Air Service (EAS) program to maintain commercial air service.

Collectively, commercial airports in Iowa have non-stop service to more than 20 different airports, many of which are connecting hubs. From these connecting hubs, travelers to and from Iowa can reach other destinations throughout the U.S. and around the world.

The accompanying map shows non-stop service from Iowa. Thirteen (13) of the State's 15 top origination and destination markets have non-stop service. Information on the next page provides a ranking of the top 15 origination and destination markets for all Iowa travelers. Only San Francisco and Philadelphia currently do not have non-stop service.

## Current Airline Service

### Airline & Regional Partners

Departure Airport		Allegiant	American	Continental	Delta	Frontier	Great Lakes	Midwest	Northwest	Sun Country	United	US Airways
EAS Single Carrier Airports	Burlington (BRL)						X					
	Fort Dodge (FOD)								X			
	Mason City (MCW)								X			
One/Two Carrier Airports	Dubuque (DBQ)		X									
	Sioux City (SUX)					X			X			
	Waterloo (ALO)								X			
Multiple Carrier Airports	Des Moines (DSM)	X	X	X	X			X	X		X	X
	Cedar Rapids (CID)	X	X		X				X	X	X	





## Enplanements

Statewide and individual airport trends for passenger enplanements were examined as part of this study. An enplanement is defined as a boarding commercial airline passenger.

Over the past ten years, combined enplanements for commercial airports in Iowa increased from 1.56 million to 1.63 million, a 4 percent increase. During the same period, U.S. enplanements grew 26 percent. While four of the commercial airports in Iowa recorded growth over the past ten years, the four remaining airports reported a decline in passenger enplanements.

Growth in commercial air demand served by airports in Iowa has not kept pace with national trends. Higher rates of enplanement growth in the U.S. can be attributed to more robust growth in population and employment; but in addition, low cost carrier service has helped to fuel demand nationally. Enplanements at smaller commercial airports in Iowa have been impacted by improved service at other commercial airports both within and beyond the State. Enplanements at all eight commercial airports have to some extent been dampened by the build up of low cost carrier service at some Border and Outlying Hub Airports.



### Iowa's Top 15 O&D Markets

1. *Las Vegas*
2. *Orlando*
3. *Phoenix*
4. *New York*
5. *Chicago - O'Hare*
6. *Los Angeles*
7. *Washington D.C.*
8. *Dallas/Ft. Worth*
9. *Denver*
10. *San Francisco*
11. *Atlanta*
12. *Minneapolis*
13. *St. Louis*
14. *Detroit*
15. *Philadelphia*

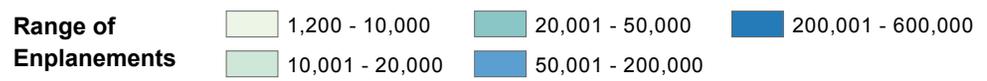
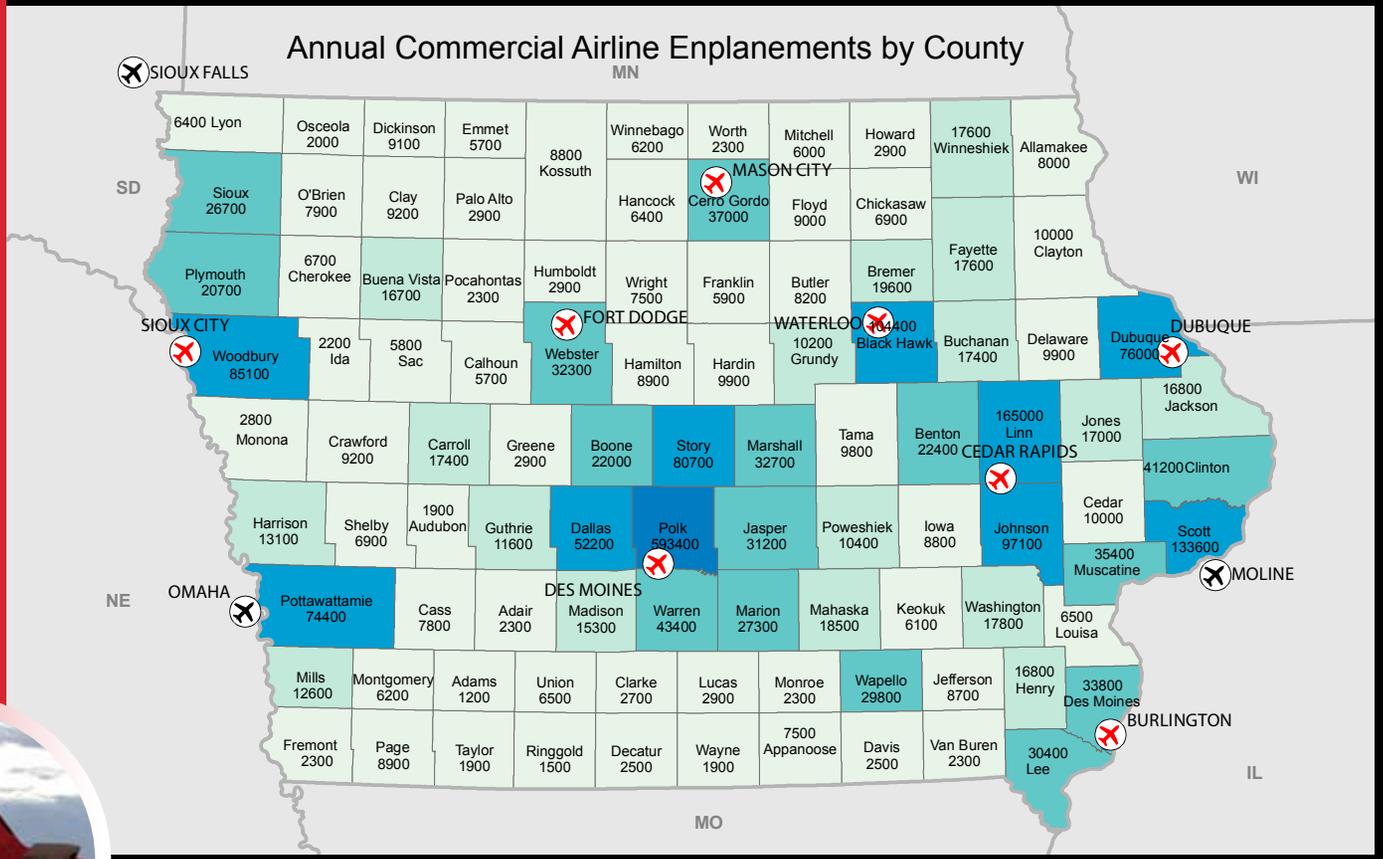
### Comparison of Enplaned Passengers

Comparison Airport	Enplaned Passengers					
	1996	1998	2000	2002	2004	2006
Burlington	21,720	20,879	16,602	8,777	7,385	7,756
Cedar Rapids	409,929	457,860	495,394	441,101	471,241	510,635
Des Moines	905,405	861,184	876,018	883,190	997,655	978,907
Dubuque	34,188	44,724	58,326	51,590	38,892	47,000
Fort Dodge	6,500	8,444	11,644	7,571	8,509	7,002
Mason City	15,850	15,559	12,360	13,961	15,685	12,204
Sioux City	101,713	90,715	85,837	56,199	41,179	33,551
Waterloo	67,410	66,825	54,111	54,686	41,138	32,899
<b>Total</b>	<b>1,562,715</b>	<b>1,566,190</b>	<b>1,610,292</b>	<b>1,517,075</b>	<b>1,621,684</b>	<b>1,629,954</b>

Source: Commercial airports in Iowa reporting to Iowa DOT

# Iowa's Annual Demand for Commercial Airline Travel

Total demand for commercial airline travel is tied to many factors, including total population, population age, total employment, type of employment, tourism, total income, and disposable personal income. These indicators were used to develop estimates of total annual airline travel demand for each of Iowa's 99 counties. Other inputs used to estimate each county's current commercial airline travel demand included current annual enplanements for each of the commercial airports, ratios of total commercial airline travel to total population in the U.S., and information from Border and Outlying Hub Airports on the number of Iowa related enplanements they attract each year. The results of this study's county-by-county demand analysis are shown on the accompanying map.



*The 99 counties in Iowa now generate annual demand for commercial airline travel that totals 2.5 million passenger enplanements.*

This study's analysis indicates there are an estimated 2.54 million annual commercial airline enplanements associated with all counties in Iowa. These enplanements represent both residents and visitors. Commercial airports in Iowa now serve an estimated 1.63 million of these enplanements.

A small number of enplanements served by commercial airports in Iowa are attracted from beyond the State; it is estimated that commercial airports in Iowa attract approximately 18,550 enplanements from other nearby states.

A much more significant finding of the study is that an estimated 905,400 Iowa related commercial airline travelers are now using Border and Outlying Hub Airports to initiate air travel. The accompanying table shows how this annual air travel demand is distributed among these other airports.

Information contained in the technical report shows all of the following:

- Which Iowa counties the commercial airports in Iowa now draw demand from and how much demand they attract from each county
- Total annual passenger demand (both resident and visitor) associated with each county
- Other airports (both within and beyond the State) that serve demand for each Iowa county
- Airports drawing enplanements from beyond the State



### Enplanements Entering and Exiting Iowa

Annual Enplanements Entering Iowa		Iowa Usage of Border and Outlying Hub Airports	
Airports in Iowa	Originations from Out-of-State	Border and Outlying Hub Airports	Originations from Iowa
Burlington	1,380	Moline, IL	283,940
Dubuque	7,550	Omaha, NE	308,170
Sioux City	9,620	Sioux Falls, SD	45,690
		Chicago, IL	47,390
		Kansas City, MO	66,350
		Peoria, IL	11,090
		St. Louis, MO	14,180
		Minnesota (Rochester/Minneapolis)	106,240
		Wisconsin (La Crosse/Madison)	22,320
<b>Total Annual Enplanements Attracted by Commercial Airports in Iowa</b>	<b>18,550</b>	<b>Iowa Associated Annual Enplanements Served at Border and Outlying Hub Airports</b>	<b>905,360</b>

Source: Wilbur Smith Associates

In many cases, Iowa related commercial air travel demand is actually closer to one of the Border Airports than it is to one of the commercial airports in Iowa. A geographic information system (GIS) was used to estimate what portion of the 905,400 annual enplanements leaving Iowa is closest to a Border Airport. Of the estimated 905,400 enplanements that now use an airport beyond the State, approximately 659,600 depart from one of the Border Airports, and the remaining 245,800 depart from one of the Outlying Hub Airports. Of the estimated 659,600 Iowa enplanements that use a Border Airport, 381,600 are closer to the Border Airport they use. There are an estimated 278,000 Iowa related enplanements using Border Airports and 245,800 enplanements using Outlying Hub Airports that are closer to a commercial airport in Iowa. Altogether, an estimated 523,800 enplanements now leaving Iowa are closer to one of the eight commercial airports in Iowa.

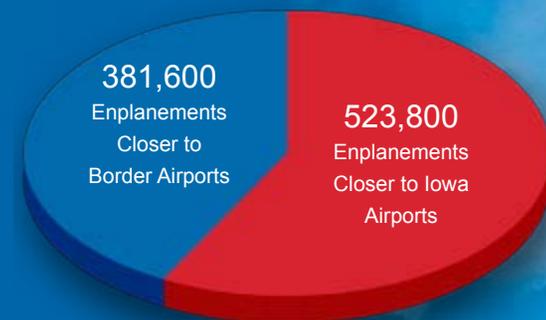
When passengers leave Iowa to use a more distant airport, commercial airports in Iowa have lost opportunities for revenues. Commercial airports receive entitlement grants from the FAA based on the number of enplaned passengers they serve. Enplaning passengers often pay a passenger facility charge (PFC) that airports can use to fund capital improvement projects. Airports also collect revenue from passengers for parking and for expenditures with terminal concessionaires. This study estimates potential revenue lost when the 523,800 enplanements leave Iowa to use a more distant airport to be almost \$19 million per year.

### Lost Annual Revenue

PFCs	\$1.4 million
Entitlements	3.5 million
Parking	10.7 million
Concessions	3.3 million
<b>Total</b>	<b>\$18.9 million</b>

### Total Iowa Generated Enplanements Served by Border and Outlying Hub Airports

#### 905,400 Total Enplanements



### Estimate of Iowa Generated Enplanements Using Border Airports

Airport	Iowa Enplanements Using Border Airports	Iowa Enplanements Closest to Border Airports	Iowa Enplanements Closest to an Iowa Airport
Moline	283,900	180,150	103,750
Omaha	308,200	142,100	166,100
Sioux Falls	45,700	30,850	14,850
Rochester	14,000	20,500	(6,500)
La Crosse	7,800	8,000	(200)
<b>Border Airports</b>	<b>659,600</b>	<b>381,600</b>	<b>278,000</b>

Source: Wilbur Smith Associates

*Of the 523,800 additional enplanements shown above that could be using a commercial airport in Iowa, 278,000 are now using more distant Border Airports and the remaining 245,800 are using even more distant Outlying Hub Airports.*

# Factors Influencing Passenger Diversion

Analysis in this study concluded there are 905,400 annual Iowa related passenger enplanements who select airports beyond Iowa for their commercial airline travel. Of those, 523,800 enplanements are actually closer to a commercial airport in Iowa. A continued focus of locally based air service initiatives for airports in Iowa should be on attracting a higher number of these enplanements.

To increase passenger demand, it is important to understand various factors passengers consider when making choices between departure airports and airlines. Individually, or in combination, the following factors, according to this study's surveys, affect passenger decisions when choosing an airport:

- Reliability of service
- Fare competitiveness
- Drive time to departure airports
- Frequency of flights
- Non-stop service options
- Availability of seats on desired flights



Most of these factors are controlled by airlines. Awareness of the role these factors play in passenger diversion can assist airports in working with airlines to influence decisions on air service. Analysis of factors influencing passenger diversion from market areas in Iowa follow.



### Reliability of Service

The percent of on-time arrivals and departures for commercial airports in Iowa is, for the most part, above average. In general, flight cancellations are within industry norms. However, limited flight frequencies from smaller commercial airports in Iowa result in the impact of delays or cancellations being magnified, creating an adverse travel experience.

### Fare Competitiveness

The availability of lower airfares can contribute to passenger diversion. Average one-way fares for commercial airports in Iowa, Border Airports, and Outlying Hub Airports in 1996 and 2006 follow:

	1996	2006
Iowa Airports	\$178	\$187
Border Airports	\$158	\$153
Outlying Hub Airports	\$174	\$157

Source: US DOT

The average fare from Border and Outlying Hub Airports decreased from 1996 to 2006, while average fares in Iowa increased. Average fare information for 2006 shows that for a roundtrip ticket, there is an approximate fare differential of \$60 between commercial airports in Iowa and Border and Outlying Hub Airports. Greater fare differentials for selected travel itineraries sometimes exist. Reasons for this can include the more limited number of available seats at some airports. Lack of competition among carriers at smaller airports also contributes to fares which exceed average. Both of these contributing factors can be magnified by the existence of low cost carriers at Border and Outlying Hub Airports.



### Drive Time to Departure Airports

Drive time to departure airports plays a significant role in a traveler's decision regarding airport and airline choice. Passengers typically weigh drive time with other factors such as air fares, total travel time, and convenience. Surveys conducted as part of this study concluded that Iowa passengers are, on average, willing to drive up to 110 minutes to save approximately \$150 on a round trip airfare. As part of an effort to reduce passenger diversion, marketing efforts by airports in Iowa have encouraged travelers to consider the true cost savings when convenience and the cost of driving to alternate airports are considered.

### Frequency of Flights

Limited flight frequencies sometimes fail to coincide with desired travel times or connecting flight schedules for passengers. In general, flight schedules in Iowa appear to be appropriately timed to meet banks of connecting flights at airline hubs.

### Non-Stop Service Options

A high percentage of Iowa's current commercial airline service is connecting service through the airline hub and spoke system. The availability of non-stop flights most likely influences some Iowa travelers to select alternative airports.

### Availability of Seats on Desired Flights

Availability of seats on desired flights varies between airports, destinations, and times of the year. On a statewide basis, available airline seats departing Iowa are 68 percent full. When all seats are sold on a desired flight, this may lead to diversion to another airport. Additionally, airfares can also be affected by the number of seats sold, since fares sometimes rise as the number of available seats decreases.



*In conclusion, diversion of Iowa passengers is most influenced by fares, non-stop service options, and the availability of seats on desired flights. While reliability and service frequency do play a role in passenger diversion, in most markets it is not the major reason for diversion. Convenient access and reasonable drive times to departure airports also play a role in airport selection.*

# Passenger and Business Surveys

As part of this study, surveys of both businesses and boarding passengers were undertaken. Major employers in Iowa were contacted via mail. Other information on travel patterns for Iowa commercial airline customers was obtained via parking lot license plate surveys at study airports.

Businesses and passengers participating in surveys report a relatively high level of satisfaction with commercial airports in Iowa, indicating commercial airports in Iowa are doing a good job.

## Type of Traveler

Results from passenger surveys indicate 59 percent of all travelers boarding flights at commercial airports in Iowa are residents and 41 percent are visitors.

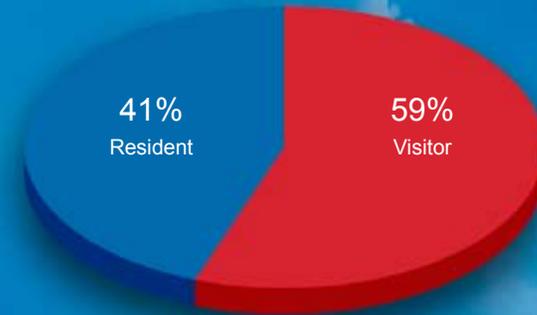
## Reason for Travel

Passenger surveys also provide insight into why passengers are traveling. A reported 51 percent were traveling for business, 28 percent for personal reasons, 19 percent for vacation, and the remaining 1 percent for other reasons. Iowa airline passengers that sometimes or always leave Iowa to use more distant Border and/or Outlying Hub Airports note lower fares as a primary reason for choosing alternate airports. Vacation and leisure travelers are more fare sensitive than business travelers. As a result, the lower reported percentage of vacation travelers using commercial airports in Iowa is almost certainly related to Iowa's more fare sensitive travelers using more distant airports.

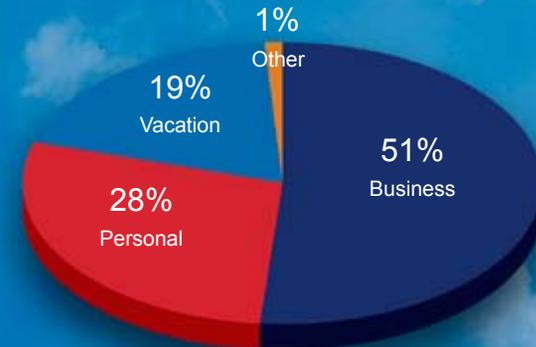
## Method of Ticket Purchase

A reported 47 percent of travelers are buying tickets on-line (32 percent through an airline website and 15 percent through other on-line travel sites). Only 8 percent of passengers report they call airlines directly to purchase their ticket. As airline charges for direct ticketing continue to climb, this percentage will almost certainly fall. The remaining 45 percent indicate that they obtain their airline tickets either through corporate travel (32 percent) or through a travel agent (13 percent). This is significant because airports still have the opportunity to work with corporate travel personnel or travel agents to help promote use of the local airport.

Type of Traveler



Reason for Travel



Method of Ticket Purchase



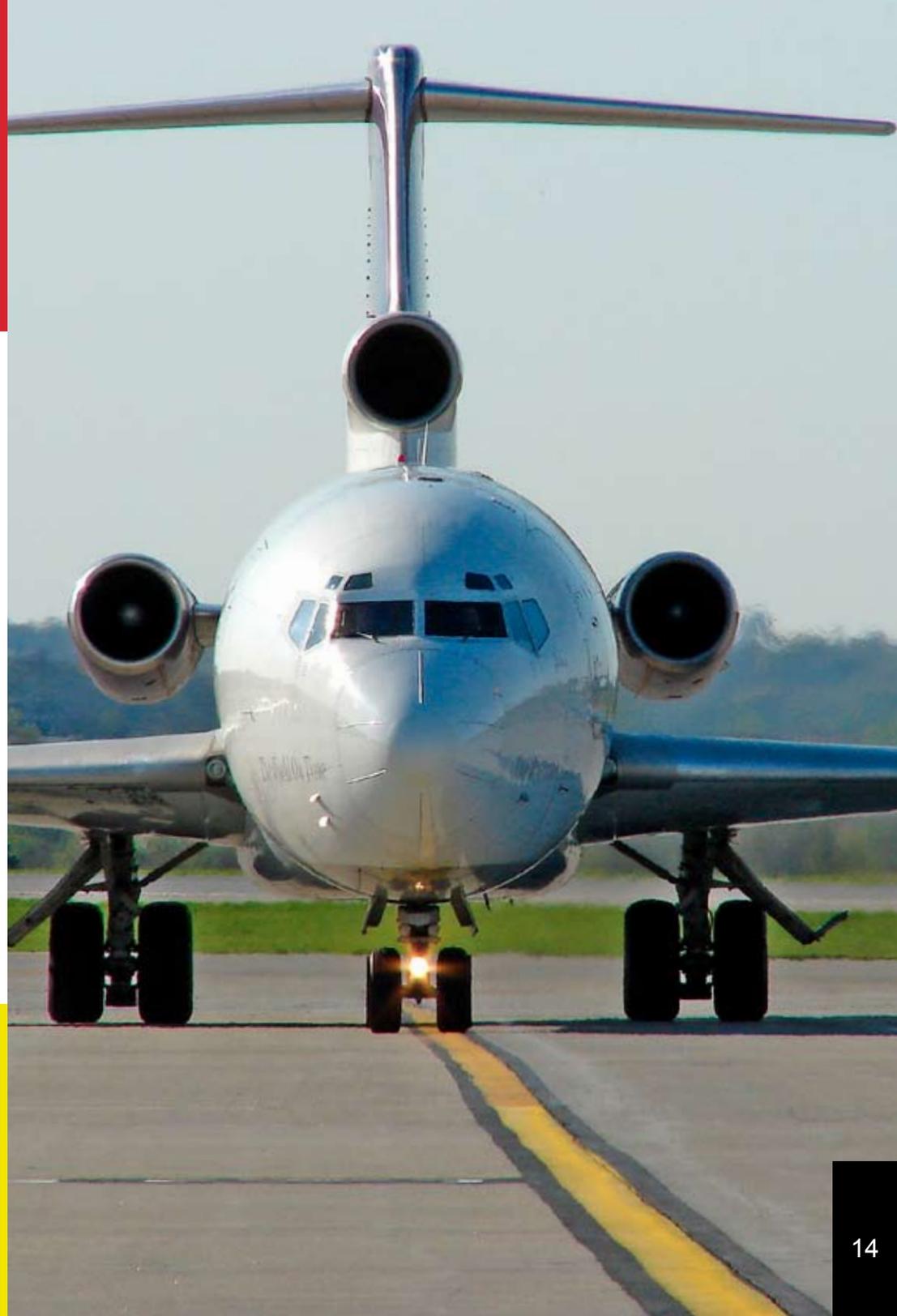
## Airport Choice

When passengers travel, they often consider several airports for their departure. The accompanying table shows how passengers and businesses participating in this study's surveys rank factors they consider when selecting a departure airport.

### Ranking of Factors Influencing Selection of a Departure Airport

Passengers Surveyed	Businesses Surveyed
1 Reliability of service	1 Reliability of service
2 Fares	1 Fares
3 Airport proximity to home/office	3 Frequency of flights
4 Non-stop service	4 Proximity to work
5 Frequency of service	5 Non-stop service
6 Choice of airline	6 Aircraft size
7 Faster security	7 Faster security
8 Airline's frequent flyer program	8 Passenger terminal
9 Aircraft size	9 Choice of airline
10 Passenger terminal	10 Airline's frequent flyer program
11 Cost of parking	11 Cost of parking

*This information is important to commercial airports in their efforts to attract additional passengers and enhance air service.*



# Airline Industry

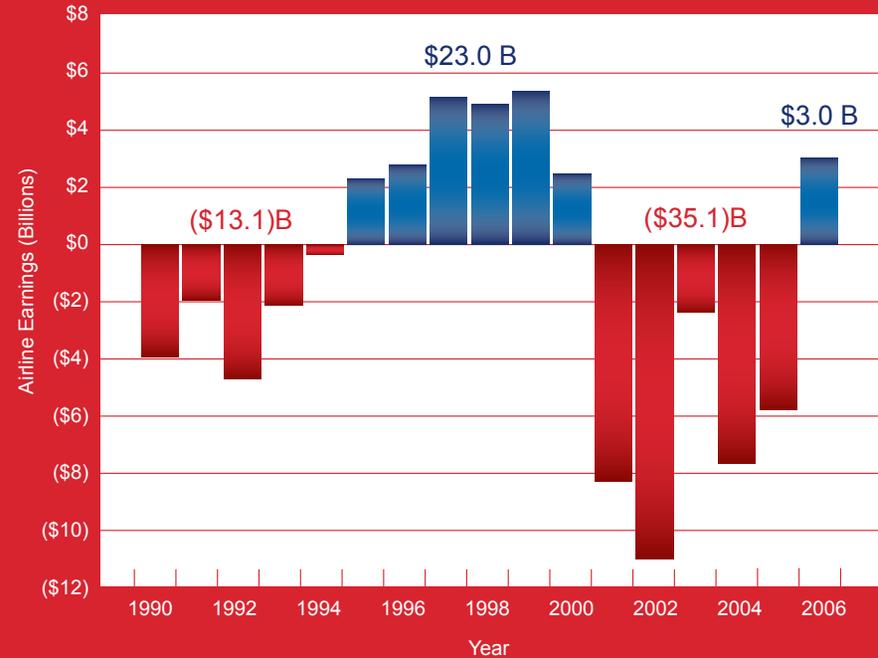
As commercial airports seek to maintain or improve their commercial airline service, it is important to have a general understanding of the environment within which these objectives are being pursued.

The accompanying exhibit provides information that shows graphically the collective operating profits and losses for domestic airlines. While 9/11 events had a significant adverse financial impact on airlines, they were on a path to record financial losses even prior to 9/11. Rising costs to operate and too many empty seats to too many locations were at the root of the problem.

Since their downward financial spiral started around 2000, airlines have made significant inroads into cutting costs. As a result of these efforts, most carriers are returning to profitability. Costs in most categories, with the exception of fuel, have fallen. Airlines need to fly with a high percentage of their seats filled just to break-even financially. As a result, airlines are very risk averse. The end result is that the airlines are less hesitant to cut service if it does not provide sufficient revenue, and they are even more hesitant to start new service.

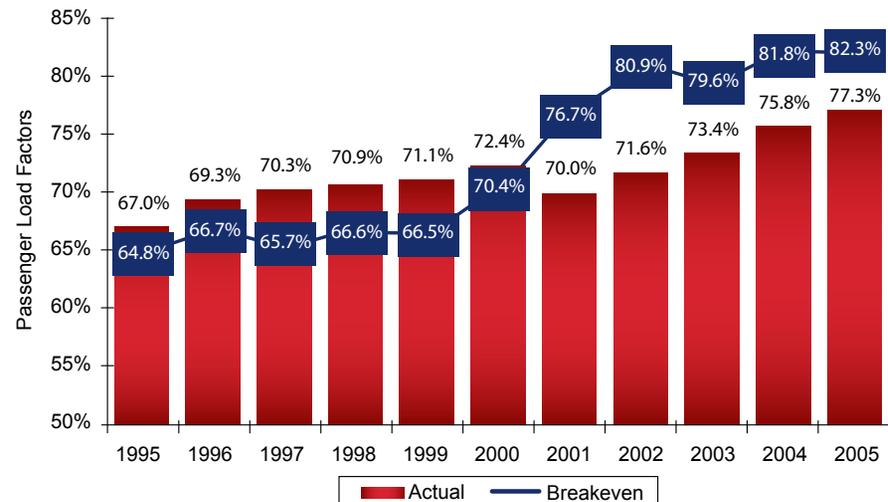
There are over 560 commercial airports in the U.S. USDOT information shows that fewer than 70 of these airports serve almost 90 percent of all commercial passengers. This leaves the other 490 commercial airports, including those in Iowa, to compete for a limited number of new service opportunities. While the largest markets have experienced an increase in point-to-point service, most commercial airports, including those in Iowa, are still very dependent on connecting service that flows through the major airline hubs. It is a highly competitive environment for commercial airports in Iowa seeking to maintain and improve current levels of scheduled airline service.

### US Airlines' Annual Net Profits



Source: Air Transport Association

### Actual and Breakeven Load Factors of Major US Carriers



Source: Air Transport Association

# Factors Influencing Iowa's Growth in Air Travel Demand

To better understand how demand for commercial airline travel in Iowa is expected to grow, a strengths, weaknesses, opportunities, and threats (SWOT) analysis was undertaken. The SWOT analysis considered statewide, airport market area, and airline factors that have the propensity to influence growth for commercial airline travel. The accompanying chart summarizes the statewide SWOT analysis.

## Iowa Statewide Factors

The factors most influencing growth in commercial airline travel include growing population and employment, attraction of employers who rely on airline service, and increased demand for goods and services. When these factors are considered, the statewide SWOT analysis shows Iowa can expect steady, but slow growth. Statewide enplanement levels will most likely grow at rates similar to those predicted for population and employment. Demand growth rates for individual commercial airports, however, may vary. In the deregulated marketplace, how much demand individual airports attract is influenced by airline service and fares along with the factors noted above.



## S.W.O.T. Summary Statewide Factors

Strengths/Opportunities		Weaknesses/Threats	
<b>Population</b>	<i>Iowa's fastest growing and most densely populated counties are in proximity to one of the 8 commercial airports.</i>	<b>Population</b>	<i>Iowa's historic and projected population growth rates are about half of the U.S. average.</i>
<b>Employment</b>	<i>Iowa's projected average annual rate of employment increase exceeds the State's historic average rate of growth for this indicator.</i>	<b>Employment</b>	<i>Iowa's average annual rate of growth for employment, both historic and projected, lags behind the U.S. average.</i>
<b>Employment Sectors</b>	<i>Iowa's manufacturing sector employment is 12.1% compared to 9.5% for the U.S.; the manufacturing sector typically has above average demand for commercial airline travel.</i>	<b>Employment Sectors</b>	<i>Iowa's farm/agricultural sector employment is 6.9% versus 3.2% for the U.S.; this sector has lower than average demand for commercial airline travel.</i>
<b>Major Employers</b>	<i>Iowa hosts eight Fortune 500 companies; the State's top 50 employers are for the most part all in employment sectors which generate above average demand for commercial service.</i>	<b>Per Capital Personal Income</b>	<i>Iowa's PCPI is lower than the U.S. average.</i>
<b>Per Capita Personal Income</b>	<i>Iowa's PCPI is growing at an average annual rate above the U.S. average.</i>	<b>Gross State Product vs. Gross Domestic Product</b>	<i>The GDP is growing at a rate faster than Iowa's GSP; Iowa's GSP as a percent of GDP is decreasing.</i>
<b>Gross State Product</b>	<i>Iowa's GSP is projected to increase from \$93.3 billion in 2005 to over \$103.1 billion in 2010.</i>		

## Airport/Market Area Factors

For commercial airports in Iowa, each airport's growth in passenger demand will be more influenced by each airport's ability to attract a higher percentage of demand associated with its individual market area. Each airport's ability to attract more demand will be less influenced by growth tied to various socio-economic and demographic factors in their respective market areas.

Capturing a higher percentage of market area air travel demand represents the best opportunity for commercial airports in Iowa to maintain or improve their commercial airline service. The accompanying table shows each airport's approximate current annual enplanements, all demand that is in the market area that each airport now attracts its passengers from, and all Iowa related demand that is closest to each of the commercial airports in Iowa.

As this chart shows, most of the commercial airports in Iowa that are served by one or two airlines capture relatively small percentages of total commercial air demand in the market area they serve. The commercial airports in Iowa with multiple carriers, Des Moines International Airport and The Eastern Iowa Airport, capture a higher percentage of the demand in market areas they serve.



### Demand Comparisons

	Airport	Approximate Current Annual Enplanements	* Existing Market Area Iowa Enplanements	Existing Enplanements as a % of Market Area	Closest Drive Time Iowa Enplanements
EAS Single Carrier Airports	Burlington	7,760	82,380	9%	92,000
	Fort Dodge	7,000	59,640	12%	104,900
	Mason City	12,160	80,310	14%	77,600
One/Two Carrier Airports	Dubuque	47,000	137,260	34%	136,850
	Sioux City	33,600	160,940	21%	146,300
	Waterloo	32,880	201,430	16%	193,750
Multiple Carrier Airports	Cedar Rapids	511,000	916,350	56%	375,400
	Des Moines	978,900	1,341,070	73%	1,008,600

*\* Several of the commercial airports in Iowa have overlapping market areas. Airline travel demand from some Iowa counties uses two or more commercial airports in Iowa. As a result, there is some inherent double counting of demand in the existing market area column.*

**Airline Factors**

As noted, socio-economic and demographic factors have a propensity to influence demand for commercial airline travel to and from Iowa. Additionally, there are airline factors that could impact the ability of airports to maintain or improve airline service in Iowa.

After years of very poor financial performance, airlines within the U.S. have become much more conservative and risk averse. The end result, at least for the foreseeable future, is fewer opportunities for new airline service and much more intense competition for those opportunities that are available.

Airlines have announced that 2008 will be a year of additional efforts to trim capacity or the number of seats available. The accompanying chart summarizes the study's airline related SWOT analysis.

Strengths/Opportunities		Weaknesses/Threats	
<b>Airline Costs</b>	<i>Cost per enplaned passenger at the commercial airports in Iowa are competitive.</i>	<b>Airline Bankruptcies</b>	<i>Bankruptcies have resulted in fleet reductions; fewer aircraft flying results in service cutbacks and fewer new service opportunities.</i>
<b>EAS</b>	<i>The Essential Air Service program provides a mechanism to help the smallest commercial airports in Iowa maintain their airline service.</i>	<b>Capacity at Large Hub Airports</b>	<i>As large hub airports that Iowa depends on for airline service become more congested, there are fewer opportunities for new service. As carriers focus on using larger planes to carry more passengers with fewer flights, smaller airports with demand matched to small aircraft could be impacted.</i>
<b>Facilities and Services</b>	<i>Commercial airports in Iowa generally have in place terminal, ramp, and airfield facilities required to meet the needs of potential carriers.</i>	<b>Increased Aircraft Size</b>	<i>Carriers are moving away from turboprop aircraft and 50-seat RJs are being replaced with 70 and 90-seat models. Some commercial airports in Iowa, including those subsidized by EAS, do not have sufficient demand to support larger aircraft. Fewer carriers are applying to provide EAS service and the number of aircraft with smaller seating capacities, matched to demand in EAS markets, is dwindling.</i>
<b>Incentives/ Risk Mitigation</b>	<i>To help secure improved air service, airlines are often seeking risk mitigation from communities. Airports in Iowa provide incentives such as: marketing, reduced fees, ground handling support, and financial assistance.</i>	<b>Low Cost Carriers</b>	<i>Additional low cost carrier service at Border and/or Outlying Hub airports could result in additional Iowa-related demand choosing to depart from one of these airports. Low cost carrier service in Iowa could result in passengers leaving one airport market area in favor of using another. Additional passenger leakage could put airline service at single carrier airports at risk.</i>
<b>Small Community Air Service Program</b>	<i>This federal program has been used and can be used by commercial airports in Iowa to support various types of air service initiatives.</i>	<b>Maturity of the Airline Industry</b>	<i>Commercial airline service in Iowa is heavily dependent upon the connecting hub and spoke system run by many legacy carriers. No new connecting hubs are opening, some hubs have been closed, and other hubs are being downsized. This results in fewer new service opportunities.</i>
<b>New Technology</b>	<i>New technologies associated with FAA's NextGen air traffic control system may help improve congestion and delays and allow for additional service between large hubs and Iowa airports. This program is several years away.</i>	<b>Poor Airline Performance</b>	<i>Poor financial performance has caused airlines to be risk averse; this has resulted in fewer opportunities for new service. Introducing new service costs money which carriers are often not willing to spend. Financial performance has also resulted in service being focused on only the most profitable markets. There is increased competition among the more than 500 commercial airports in the U.S. Carriers tend to favor service improvements at the largest airports.</i>

# Statewide Initiatives to Maintain or Improve Air Service

Air service initiatives are most successful if they are developed and supported locally. However, states can play a valuable role to assist communities. The Iowa DOT supports airports through funding programs and technical assistance. Iowa DOT also collects statewide air service data including:

- Airlines serving airports
- Daily departures
- Seat capacity
- Enplanements
- Airfare data
- Security checkpoint wait times

Data collection efforts are valuable to both DOT and to the commercial airports in Iowa. The DOT should continue its data collection efforts and these efforts should be expanded as appropriate.

While air service is driven at the local level, most states play a role in identifying air service needs, helping with passenger retention, and supporting initiatives to maintain or improve scheduled airline service. With the State of Iowa's participation, local efforts are leveraged and the likelihood of success for local air service initiatives increases.

There are additional actions that may be considered on a statewide level that can lend much needed support and assistance to local air service programs; a few of these are summarized in the accompanying bullet points.

- **Lend support for the Essential Air Service (EAS) program** – Three of the eight commercial airports in Iowa are now dependent on EAS. There are several aviation advocacy groups, including the National Association of State Aviation Officials (NASAO), that support EAS continuance. The State should support efforts to maintain funding levels and criteria for airport participation in this program.
- **Establish a statewide air service task force** – State tourism and economic development representatives should be included on the task force to ensure that all State funding sources are tapped to support air service initiatives. A statewide task force could provide a forum to discuss air service issues and needs with all constituents who depend on scheduled airline service.
- **Support a statewide air service development program** – Until 2003, the Iowa DOT administered a \$300,000 annual Commercial Air Service Marketing Program (CASMP). That program was eliminated when State aviation funding was cut. Recently, a revised Air Service Development (ASD) program provided \$150,000 to promote various air service development efforts at commercial airports throughout the State. Higher funding levels for a development program could be used

to: assist with airline incentives, help communities conduct air service studies, purchase MIDT data, match local funds for federal Small Community Air Service Development Grants, or develop marketing or educational programs geared toward extolling the benefits of using the “local” airport.

- **Create a statewide air service survey** – An online survey would allow the public to comment on air service in the State, with responses distributed directly to individual airports. Responses could prove more insight into passenger travel needs and travel patterns. The survey could be promoted on an on-going basis via press releases, airport and DOT websites, and signs in airport terminals.
- **Support funding for infrastructure needs** – Iowa DOT should continue playing a role to ensure adequate State and federal funding levels are in place to support vital infrastructure needs at commercial service airports.



# Airport and Community Initiatives to Maintain or Improve Air Service

The study reviewed six primary categories for opportunities for improved air service at each airport in Iowa. Categories for potential improvement included:

- Schedule adjustments
- Service reliability
- Fare variance
- Service frequency
- Larger aircraft on existing routes
- Service on new routes

Additionally, each airport was provided a target enplanement level. This target was based on demand in the market area for each airport and the level of improved service that each airport could potentially support. Results of the analysis are summarized on the next page.

On a statewide basis, the need for strong and active community involvement for air service initiatives was identified as being essential if local initiatives are to be successful. Promotion of air service, support from community leaders, and support from the traveling public, within an airport's market area, are at the core of sustaining and improving air service.

Passengers and businesses who participated in this study's surveys indicate that, relatively, commercial airports in Iowa do a good job in meeting their needs. Findings from this study also show each airport may have the potential to improve airline service.



***The best opportunity for commercial airports in Iowa to maintain and improve air service is to retain a higher percent of all air travel demand identified in the market area they serve.***

In order to capitalize on findings from this study, airports and communities should:

- Have a clear understanding of the local air service environment and industry trends that may impact their ability to maintain or improve their airline service.
- Develop marketing strategies that attract higher levels of passenger demand.
- Engage community and business leaders by creating an air service task force.
- Have an air service development program tailored to local circumstances; air service improvements begin with a well-organized community-supported air service enhancement program.
- Consider a passenger reward program to attract more demand associated with their market area.
- Consider offering incentives to airlines to help mitigate the risk associated with new air service.



The airlines, not airports, ultimately determine air service improvements, but airports and communities should be prepared to identify and support potential opportunities for maintaining and improving air service. Airlines are increasingly relying on airports and local communities to market air service they provide to keep the service sustainable. To support new service opportunities, airlines often require incentives. While they prefer cash incentives, this study identified other ways to incentivize airlines willing to provide new or expanded service.

Given the dynamic state of the airline industry, airlines are more cautious about expanding service or entering new markets. Each airport and the communities it serves should partner to form an air service task force; community, business, and economic development leaders should all play a prominent role on this task force. Meeting on a regular basis, this task force would have the opportunity to explore each community's ability to provide financial support for air service initiatives. The task force could also provide input and support for the local air service development program and general feedback on airport and air service issues.

Ultimately, the success of existing or new airline service for all commercial airports in Iowa is reliant upon that service being financially self-sustaining from the carrier's perspective. Everyone including communities, businesses, citizens, and airports plays an important role in helping maintain and improve airline service in Iowa.

## Initiatives for Air Service Improvements

Airport	Schedule Adjustments	Reliability Improvements	Fare Variances	Increased Frequencies	Larger Aircraft on Existing Routes	Service on New Routes	Current/Target Enplanements
<b>Southeast Iowa Regional Airport</b> <i>(Burlington)</i>	Support Great Lakes effort for code share agreement to access connecting flights	Historic reliability issues have tarnished perception. Monitor new carrier performance and publish improvements	Work with existing carrier to ensure fares via the Kansas City and St. Louis hubs are reasonable	Focus on goal to achieve 10,000 enplanements and then increasing demand levels to those needed for improved/unsubsidized service	Larger aircraft not a viable option at this time	Determine if Kansas City or St. Louis is preferred connecting point for travelers and work with Great Lakes to focus on one hub	Current: 7,760 Target: 14,820
<b>The Eastern Iowa Airport</b> <i>(Cedar Rapids)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	Monitor on-time performance, especially on routes with below average records and discuss solutions with carriers	Address notable fare imbalances with carriers that have service from both Moline and Cedar Rapids	Additional flights to East/Southeast appear viable based on current load factors; increased frequencies also possible on routes with two or fewer daily flights	Based on load factors, additional flight or larger aircraft needed to East/Southeast	Pursue new nonstop service to top Origin & Destination markets, airline connecting hub, and/or a Low Cost Carrier	Current: 510,980 Target: 617,130
<b>Des Moines International Airport</b> <i>(Des Moines)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	Monitor on-time performance, especially on routes with below average records and discuss solutions with carriers	Work with carriers that fly to the same destinations from Omaha and Kansas City to achieve fare parity on these routes	Based on load factors, additional flights needed to markets with two or fewer daily flights and additional flights needed to Southeast	Based on load factors, additional flights/larger aircraft needed to Southeast	Pursue new nonstop service to additional connecting hub or a Low Cost Carrier	Current: 978,970 Target: 1,084,730
<b>Dubuque Regional Airport</b> <i>(Dubuque)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	No action needed near term. Monitor monthly delays and cancellations	Work with current carrier to lower fares to top markets not served by Low Cost Carriers from either Cedar Rapids or Moline or top markets where service from both of these airports is connecting	Based on load factors, additional flights needed from its existing carrier to stem further passenger diversion to other airports	Based on load factors, additional flights/larger aircraft needed to stem passenger diversion	Pursue service to second connecting hub airport	Current: 47,000 Target: 82,490
<b>Fort Dodge Regional Airport</b> <i>(Fort Dodge)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	No actions needed near term. Monitor monthly delays and cancellations	Identify fare difference that causes business travelers to drive to alternate airports; work with carrier to lower fares to that level	Low loads and Essential Air Service guidelines limit opportunities for increased flights. Load factor would need to increase to 70% (without tag) to yield ridership sufficient for unsubsidized service	Larger aircraft not a viable option at this time	New routes not viable in near term. Focus on increasing ridership to support unsubsidized service	Current: 7,000 Target: 21,520
<b>Mason City Municipal Airport</b> <i>(Mason City)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	No actions needed near term. Monitor monthly delays and cancellations	Identify fare difference that causes business travelers to drive to alternate airports; work with carrier to lower fares to that level	Low loads and Essential Air Service guidelines limit opportunities for increased flights. Load factor would need to increase to 70% (without tag) to yield ridership sufficient for unsubsidized service	Larger aircraft not a viable option at this time	New routes not viable in near term. Focus on increasing ridership to support unsubsidized service	Current: 12,160 Target: 21,520
<b>Sioux Gateway Airport</b> <i>(Sioux City)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	No actions needed near term. Monitor monthly delays and cancellations	Identify fare difference that causes business travelers to drive to alternate airports; identify markets where lower fares could reduce diversion	Protect current schedule by increasing load factors to at least 70%, then pursue additional flights to Minneapolis	Improve load factors on existing service, pursue all regional jets to Minneapolis	Focus on supporting existing service; evaluate opportunities for Low Cost Carrier service to leisure markets or pursue service to a third hub	Current: 33,650 Target: 122,775
<b>Waterloo Regional Airport</b> <i>(Waterloo)</i>	Current flight schedule appears to be meeting connecting flight needs of customers	No actions needed near term. Monitor monthly delays and cancellations	Work with Northwest to achieve fare parity to top Origin-Destination points from Waterloo, Cedar Rapids, and Des Moines	Protect current schedule by increasing load factors to at least 70%, then pursue additional flights to Minneapolis	Improve load factor on existing service, pursue upgrade to all regional jets	Evaluate opportunities for service to an additional connecting hub	Current: 32,880 Target: 83,980

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