FINAL TECHNICAL REPORT
April 26, 2001

Prepared for
Johnson County Airport Commission

Feasibility of Attracting Scheduled Air Service
NEW CENTURY AIRCENTER

Prepared by
Edwards and Kelcey, Inc.
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EXECUTIVE SUMMARY

A. Objectives

The New Century AirCenter, operated by the Johnson County Airport Commission, is an important asset to Johnson County and the Greater Kansas City Area. As one of the fastest growing counties in the nation, Johnson County’s growth poses important questions to the commission regarding the role of New Century AirCenter. It has been suggested that the most appropriate role for the AirCenter might be to support scheduled air services.

Both the feasibility of attracting scheduled air services to New Century and the attendant costs and benefits to the community, are therefore important concerns for the Commission to consider. Timing, especially in a community as dynamic as Johnson County, is also an issue; what may be infeasible today could become a future necessity.

The question of air services originates in the rapid population growth of Johnson County and its increasing commercial importance. The County requires a growing infrastructure. It may become appropriate for facilities owned by and located within the County to supplant or supplement those functions offered by Greater Kansas City as a whole. Rapid growth also forces the community to address long-term issues of land use and taxation, so as to protect future options.

The interest in scheduled services at New Century comes from the size and sophistication of the Johnson County market, and the travel time from Johnson County to the Kansas City International Airport. To assist it in resolving these concerns, the Johnson County Airport Commission hired the consulting firm of Edwards and Kelcey, Inc (EK) to assess the feasibility and advisability of seeking scheduled air services at New Century.

Should the Johnson County Airport Commission seek scheduled air services at the New Century AirCenter?

The answer, and EK’s recommendation to the Commission, is based on research of the following questions:
Executive Summary
Feasibility of Attracting Scheduled Air Service

- What are the benefits to obtaining scheduled services at New Century?
- What are the prospects for realizing these benefits, based on the probability for a successful campaign to attract services?
- What are the associated costs of attracting services?
- What risks would the Commission face in launching a campaign for scheduled air services?

These questions, in turn, define a new set of practical issues, which were the focus of EK's research for the Commission.

- To what extent does the Johnson County community perceive a need for scheduled air services at the New Century AirCenter? Is this an important issue?
- Is Johnson County adequately served by scheduled flights at the Kansas City International Airport?
- Does the lack of scheduled air services pose a constraint to the County's economic development?
- In what ways and to what extent do current trends in the airline industry favor or discourage scheduled air services to New Century?
- What benefits would result from services to New Century? What costs?
- How large is the Johnson County market?
- What scheduled services (carriers, destinations, aircraft types and frequencies) would or might be feasible?
- Would the County patronize scheduled services at New Century?
- How does the airline industry view New Century's prospects of obtaining scheduled services?
- If scheduled air services are not presently feasible, what changes to the community or the industry would be necessary for them to become so?

B. Conclusions and Recommendations

Recommendation 1: The Commission should not pursue scheduled air services at the New Century AirCenter in the foreseeable future.
1. **Scheduled Air Services at New Century are Not a Major Issue in the Community**

EK’s interviews with local travel agents and businesses did not reveal any great sense of urgency for air services at New Century. Several respondents said that they would use any available services, but most were totally indifferent. (See Chapter IV-B of Technical Report.)

2. **Johnson County is Already Well Served by the Kansas City International Airport**

EK’s research has shown that the Kansas City International Airport enjoys high quality air services and outstanding fares. The combination of low fare airlines and nonstop links to major hubs has given Kansas City some of the lowest fares in the country. The community has not suffered from the lack of a hubbing operation at Kansas City. Interviews have shown that the community appreciates the services at Kansas City and wishes to see them strengthened. (See Chapter IV-C of Technical Report.)

3. **Scheduled Air Services at New Century Would Provide Modest, if Any, Time Savings for Johnson County Residents and Visitors**

EK examined travel times from selected areas of Johnson County to destinations around the country, based on current services from Kansas City International and ambitious projections for flights from New Century. This analysis showed that timesavings via New Century would be only modest for all but a few areas of Johnson County. (See Chapter IV-D of Technical Report.)

4. **Scheduled Air Service at Johnson County Would be More Expensive than Current Services from Kansas City International for the Same Destinations**

Any services to New Century would likely use either a turboprop aircraft or a regional jet. These aircraft impose higher costs per available seat-mile than the larger aircraft flying from Kansas City International Airport. Our review of aircraft operating costs suggests that passengers boarding at New Century would have to pay a premium of 14% (EK estimate) in relation to flights from Kansas City International. Our opinion, strongly supported by our interviews, is that the community would not pay this premium. (See Chapter IV-E of Technical Report.)

5. **Current Airline Industry Trends Would Indicate Against Scheduled Air Services**

Virtually all airline industry trends oppose a fragmentation of services between multiple airports serving the same market. Opening a new station can involve large fixed costs for an airline. The airline industry is deeply concerned about a weakening economy, higher fuel costs, recent or
proposed mergers and labor issues. Airlines are reluctant to add new stations, especially when they compete with existing services. (See Chapter II-B of Technical Report.)

6. The New Century AirCenter is too Close to Kansas City International
The 20-35 mile distance from Johnson County to Kansas City International Airport, while inconvenient for some County residents, is not unduly large when compared to distances many people drive to access commercial air services. Low fare carriers often attract passengers from 100 or mile away, because passengers will drive long distances to benefit from lower fares. (See Chapter IV-D of Technical Report.)

7. There are Only a Few Metropolitan Areas with Multiple Airports
Only the very largest metropolitan areas such as Chicago, New York and Los Angeles can support more than one airport with scheduled air services. Metropolitan Kansas City has a considerably smaller population than those areas with multiple airports. Metropolitan Kansas City currently has a population of about 1.7 million people. (See Chapter II-C of Technical Report.)

8. The Airlines Most Likely to Serve New Century Pose the Largest Risks
The most likely airline to serve the New Century AirCenter would be a small startup airline, with limited operating capital, seeking to avoid entrenched competition at Kansas City International. Such airlines have had a poor record of success or survival. A startup service at New Century could fail, through no fault of the Commission or the community, because of the startup airline’s inherent weaknesses. Failure of the startup airline could discredit the Commission’s air services initiatives. Furthermore, it is likely that this scenario would require a significant capital investment by the Commission that it might not be able to recoup should the startup airline fail. (See Chapter II-B of Technical Report.)

9. The Airlines are Skeptical of the Need for Scheduled Services at New Century
As part of the research process, EK had preliminary discussions with some of the target airlines. All were skeptical of the viability of scheduled services to New Century. These discussions indicated that an intensive and persistent marketing effort would be necessary, and even then, it is unlikely to succeed given the current market conditions. (See Chapter IV-F of Technical Report.)
10. An Initiative to Attract Air Services Would be Expensive and Could Entail Significant Risks

Attracting scheduled air services to New Century will require an aggressive and well-funded effort, ideally with a full-time marketing employee. A suitable passenger terminal will also be required to attract air services. The marketing efforts and the required capital improvements are large expenses, which could only be recouped if the effort succeeds. Furthermore, a campaign for air services at New Century could be perceived as divisive and parochial. It might undermine future efforts at bi-state cooperation. (See Chapter V-C of Technical Report.)

Recommendation 2: The Commission should only re-open the issue of scheduled services if circumstances change materially.

The recommendation against pursuing air services is based on the current circumstances of Johnson County and the airline industry. The issue should be revisited if circumstances change materially. Such changes could include:

- Continuing growth in the County’s population beyond foreseen levels, particularly to the southwest;
- Clear and unsolicited airline interest in serving New Century;
- Growth of traffic at Kansas City International Airport, to the extent that it faces saturation; and
- Unanticipated changes in aviation technology or airline competitive practices that favor scheduled services to secondary airports in metropolitan areas.

Recommendation 3: The Commission should be receptive to other aviation uses for the New Century AirCenter, such as a cargo facility.

The Terms of Reference for this study included a review only of scheduled passenger services. The research therefore does not support, nor does it oppose recommendations on pursuing cargo services. However, New Century poses advantages to cargo carriers, and might be a candidate for services. Other airports have developed as industrial aviation or all-cargo facilities. The Commission should explore these opportunities with the all-cargo airlines as appropriate. This would involve direct discussions with key carriers.
Recommendation 4: The Commission should protect the future of the New Century AirCenter by preventing land use conflicts.

The New Century AirCenter is an important asset to Johnson County. A recommendation against immediate pursuit of scheduled services in no way relegates the AirCenter to a secondary role in the community. Rather, it can play a critical part in the aviation system of Greater Kansas City. The future could bring many important, and, for today, hard to anticipate roles for the AirCenter. It is imperative that New Century remain able to fulfill a broad range of aviation mandates in the future.

The Commission should continue to protect the future of New Century. It must ensure that the land use conflicts affecting other nearby airports do not disqualify the AirCenter from pursuing a wide range of roles in the future. Since its decommissioning as a military airfield, New Century, in the shadow of Kansas City International, has played a modest and secondary aviation role. However, growing airspace and airport congestion make the capacity offered by New Century an increasingly scarce resource. Its location in the center of the nation, and in a prosperous and fast growing community, allow the AirCenter to excel at many aviation functions. Therefore, proactive zoning and land acquisition policies are necessary to allow New Century to fulfill its future potential.
I. INTRODUCTION

A. Background

Johnson County, Kansas is one of the fastest growing counties in the United States. Located within the Kansas City Metropolitan area, the County supports a population of over 450,000. Major cities in the County include Olathe, Overland Park, Lenexa, Leawood, Prairie Village, Shawnee, and Gardner. The County consistently ranks among the highest in the country in quality of life indicators, which include low levels of crime, limited traffic congestion, affordable housing and high quality of schools. Economically, the county boasts low unemployment rates, high average incomes and one of the greatest concentrations of highly skilled and educated workers in the country. Several national businesses have chosen to locate their headquarters in the area, most notably Sprint, Yellow Freight, and Black & Veatch. In addition, to the high quality of life necessary to attract quality employees, firms locate in Johnson County because of its central location in the United States. Kansas City is the nation’s only major metropolitan area within 250 miles of the geographic, population, and production centers of the United States.

Johnson County is served by several general aviation airports, including Executive County Airport and New Century AirCenter (Exhibit I-1). Executive County Airport, which is located on 151st Street between Overland Park and Olathe, serves primarily corporate general aviation with over 93,000 operations in 2000. Its ability to expand service is limited due to confined infrastructure and the significant encroachment of local neighborhoods.

Exhibit I-1 shows a map of Johnson County, its two airports, and its major municipalities and population centers.

New Century, at present, does not offer commercial air services but is certified by the FAA to do so, and has had air services in the past. The airport has a 7,339 feet long main runway that can accommodate small commercial size jets. Location wise, the airport is immediately adjacent to I-35, the major north-south artery through the Kansas City metro area, which allows for easy access to the facility.
With a total population of 1.7 million, the Greater Kansas City Region consists of an extensive area encompassing parts of the two states along the Missouri River, Missouri and Kansas. The Kansas City International Airport (MCI)\(^1\) is the region's primary scheduled commercial service airport. Although not a major hub, it has a wide array of services from several national carriers, as well as from low cost carriers, such as Southwest Airlines and Vanguard Airlines. Average fare levels at MCI are among the lowest in the entire country.

A perceived growing issue is the travel time and congestion to MCI. Distances from different sections of the region can be extensive, most notably during rush hour. This is especially true for travelers in parts of Johnson County wanting to catch flights at MCI. The airport is located in Platte County, MO 35 miles north of Overland Park and driving times can exceed an hour during peak traffic periods.

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\(^1\) The Kansas City International Airport is known colloquially as "KCI." However, the airport's official aviation designator is MCI, which is used in this Study.
To address the issue of extensive commuter time and distance to MCI, and the increasing demand for air service by the population in general and rapidly growing businesses located in Johnson County, the feasibility of attracting scheduled commercial air service at New Century AirCentury warrants additional examination. Potential demand, combined with excellent aviation infrastructure at New Century, comprises sufficient justification for further study.

B. Study Objectives

In order to investigate this opportunity further in a systematic and analytical manner, the Johnson County Airport Commission selected Edwards and Kelcey Inc. (EK) to conduct an air service development study to determine the feasibility, the benefit, and likelihood of attracting scheduled commercial air service to New Century AirCenter. This report documents the approach used in the feasibility analysis and offers findings and recommendations.

C. Study Approach

Three main factors are key to assessing the feasibility of air services at New Century AirCenter. The first factor is current and future airline industry trends relevant to Johnson County. Current industry trends and resultant airline priorities are a key factor in assessing potential for air service. An important industry trend included in this analysis is the role of small airports as complementary to a large airport within one metropolitan region and the requisites for being a "two airport town".

The second factor is the true demand for air services among Johnson County residents, which is discussed in detail in Chapter III. Included in this analysis is not only the total demand for services, but also an inventory of top destinations and markets and an assessment of the market potential of specific routes.

The third factor is the competition that existing air services in the region pose, and an assessment of how well they actually serve the Johnson County community. MCI is a large and successful airport that is supported by both the communities in Missouri and Kansas. The extent to which MCI services will compete with potential new service at New Century AirCenter is investigated in Chapter IV. Issues such as differential driving times, airport facilities, level of services and public perception are discussed in detail in this chapter. The price premium that air services at New
Century would have to incur to be competitive with the profitability of current services at MCI and the willingness of County residents to pay this premium is examined in detail.

Chapter V summarizes the findings and presents recommendations on how the Johnson County Airport Commission should proceed.

Exhibit I-2 portrays a schematic diagram of the approach used in this Study.
II. AIRLINE INDUSTRY TRENDS

A. Introduction

Although Johnson County's opportunity for attracting commercial air service to New Century relies heavily on the underlying economic and demographic fundamentals of the County and the Greater Kansas City region, general trends in civil aviation will also impact the success of any air service endeavors. Civil aviation is a fast paced industry that continuously reinvents itself due to technological innovation, government policy, and new business practices. This chapter gives a review of past, present, and future trends that are relevant to Johnson County and discusses the impacts of these trends to the Airport.

B. General Trends Relevant to New Century AirCenter

Before the Deregulation of the airline industry in 1978, regional airlines offered services to smaller communities. Each airline was allocated a specific region, and flew passengers between small communities and large gateway airports. Passengers traveling long distances connected with major airlines, using the multilateral interlining mechanisms required by the Civil Aeronautics Board (CAB). CAB was the former U.S. government regulatory agency of civil aviation in the United States. The agency was disbanded in 1984 and most of its functions were transferred to the FAA and the Department of Transportation. The regional carriers competed with major airlines on only a few routes allowed by the CAB. A third tier, commuter airlines using small aircraft, were exempt from CAB regulation.

1. Regional Airlines

Deregulation saw the rapid expansion of the major airlines into nationwide giants. Regional airlines were either absorbed by the majors or, as in the case of Allegheny Airlines and Piedmont, themselves expanded into large operators. Each major airline established one or more affiliated carriers to serve smaller communities. The affiliated carriers were different from their regional airline predecessors in several ways:

- The regional affiliates were viewed strictly as surrogates of the major airlines. They were usually named after the large airline, shared a common logo and, most important, were displayed in the computer reservation system under the two-letter codes of the large airlines. The partners made every effort to portray their services as a single, seamless product.
Each such airline exchanged traffic only with its major partner, or airlines aligned with the major partner. Interline connections with "hostile" airlines, while theoretically possible, became expensive and inefficient.

The regional airlines operated on routes and schedules specified by their major partners. Flights were usually coordinated with the "banks" of the major partner. Their marketing autonomy was often minimal.

The regional carrier had its own collective labor agreements, giving it a cost advantage on short, low volume services.

The regional carriers operated mostly turboprop air services on short, low volume routes to small communities. The small aircraft allowed them to offer high frequencies. This was in contrast to the era before Deregulation, when most regional routes were operated with low frequencies and by large jet aircraft, such as the DC-9 or Boeing 737.

These changes have had important implications for communities seeking regional air services. Communities such as Johnson County must consider the following new industry trends when seeking scheduled air services:

- Because of the decline in multi-airline interlining, a service to a small community may be marketable only if it is operated by a carrier having a close relationship, preferably involving codesharing, to a major airline. Without such a relationship, it would be difficult, expensive and awkward for passengers to connect between the local route and other services. The shift to online connections has therefore greatly reduced the number of airlines which could be candidates to serve a particular market. This is especially a problem for New Century as all major carriers already have connections to their hubs via MCI.

- The new regional service pattern relies on commuter turboprops flying simple out-and-back routes from the major hubs. As a result, for most communities, the only practical air service
option has become nonstop access to a major hub. A particular community’s options are now limited to the number of hubs within flying distance for commuter aircraft.

2. Regional Jets

In the early 1990’s, a new class of airliner, the “regional jet”, appeared. This aircraft offers jet-style comfort with a 50-seat capacity. The first such aircraft was the Canadair CL-65, derived from a corporate design. Embraer, Dornier and British Aerospace/Avro also manufacture regional jets. The manufacturers have developed many variations. Capacities now range from 30 to 70 seats, and designs envision 120-seat regional jets. The manufacturers of “large” aircraft have recently targeted the 90-100-seat category, and will now compete with producers of the largest regional jets. The result will be a continuum of jet aircraft, ranging from small 30-seat regional jets to large 500-seat transcontinental aircraft.

Market acceptance of regional jets was originally slow. However, they eventually obtained strong passenger acceptance; reducing the perceived disparity in the quality of major and local services. By the year 2000, all large regional airlines were purchasing regional jets in large numbers. Several operators were well advanced in plans to replace all turboprop equipment with regional jets. The industry now regards regional jet services as a prerequisite for being competitive, and regional jets have become part of the paradigm of airline management. Regional jets now offer many communities significant opportunities for new service.

The regional jets have succeeded in several missions. Sometimes, they replaced turboprop equipment 1-for-1. Alternatively, the regional jet replaced larger aircraft on low volume routes, allowing the airlines to increase frequencies.

However, the most important application has proven to be extending the reach of hub-and-spoke systems to distant, low volume destinations. The effective range of turboprop aircraft in a hub-and-spoke system is about 300 miles. This limit usually allows an outbound flight from a particular hub bank to land at the spoke airport, get turned around, and arrive back at the hub on schedule for the next bank. It also reflects the sharply increasing passenger discomfort and higher operating costs with longer distances on turboprop aircraft.
The 300-mile limit of turboprop aircraft prevented the airlines from serving distant but low volume markets. Beyond this threshold, the only feasible aircraft were conventional jets with capacities of more than 100 passengers, too large for many destinations. Markets unable to justify this capacity remained unserved. Now, regional jets can serve many low volume routes in the 300-800 mile range. They have been especially important at medium-sized communities. The limited economic range of turboprop aircraft had forced these cities to rely only on the very nearest hubs. Regional jets now allow such cities to be served nonstop from more distant hubs by 35-70 seat aircraft. Most regional jet services therefore connect medium-sized communities to new and more distant hubs.

Regional jets have significantly impacted the conditions under which small communities seek new air services. They have both positive and negative implications for secondary communities, some of which include:

**Positive**

- The regional jets allow communities to obtain nonstop services to more distant hubs. The 300-800 mile envelope becomes feasible, if the community can generate sufficient traffic for a 35-70 seat aircraft. This increases the number of airlines and routes that an airport could consider as candidates. In the case of New Century this opens up opportunities to potential hubs such as Delta at Atlanta and American at Dallas Fort Worth.

- The regional jets help overcome the aversion of many passengers to turboprop aircraft. They therefore popularize regional and low volume services.

- The regional jets will displace turboprop aircraft from some routes. The turboprop aircraft may be available to serve altogether new routes through a "trickle-down" process.

**Negative**

- Regional jets have been used entirely at markets that have already demonstrated their ability to support high quality turboprop services. They have been used to upgrade these services, and offer otherwise infeasible nonstop services to new hubs. **There have been virtually no instances of a community that had no services, but obtained its first route as a regional jet destination.**

- Because of their turboprop equipment, the regional affiliates of the mainline carriers are viewed as having a lower level of service than their major partners. Most carriers are
combating this image through greater use of regional jets, and some plan to remove all turboprop equipment from service. The regional jets are larger and more expensive than the aircraft they replace. Those communities unable to support the larger equipment may lose scheduled services altogether.

Regional jets have relatively high operating costs per seat-mile. They depend on high yield passengers to be profitable. They will therefore tend to charge higher fares than services operated by larger aircraft. A regional jet service is unlikely to offer the very low fares needed to attract many leisure passengers. Airports served by regional jets will continue to experience a substantial loss of passengers because of fare differentials, especially if they are located close to airports served by larger jets.

As a general trend, regional jets do not benefit small airports (less than 75,000 enplaned/deplaned passengers). These markets are unlikely to generate the quantity of fare mix of passengers needed to support regional jets.

3. Decline of Independent Commuter Airlines and Tighter Control of Major Carriers

Commuter airlines benefit from low pay scales, flexible work rules and their strong identification with particular regions to serve cities neglected by the large airlines. While the pre-Deregulation system of multilateral interlining was swiftly declining, the smallest carriers could still initiate routes autonomously and offer attractive connecting fares with the large airlines.

However, the 1990's proved especially hostile to the small, independent airline. The mainline carriers developed their own code-sharing feeder carriers to serve small communities, and forsook the independents. They increasingly dictated what routes their feeder airlines could serve. Those airlines that could not attract a major affiliate were usually forced to abandon services.

In the early 1980's, the major airlines abandoned services to most small communities. These routes were transferred to small airlines to operate as surrogates. Their major partner provided the global product identification, while the small airline offered an ability to operate 19-50 seat aircraft economically.
Through the 1980's and 1990's, these arrangements allowed the major airlines to obtain lucrative traffic feed from communities they could not serve economically. The feeder networks proved highly profitable, and became an integral part of the major airlines’ services. This meant, however, that major carriers now had to rely on the regional affiliates to meet company standards and protect their broader images. Quality control is very important to the airline industry. However, it is extraordinarily difficult to implement in any service environment, in which the production processes are decentralized and under weak supervision.

To enforce a single, network-wide quality standard, the major airlines have been increasing their control over the regional affiliates. They have taken over most local route planning responsibilities, and have made their contracts with regional feeder airlines more comprehensive. Regional airlines unable to meet increasingly stringent requirements were replaced. Some airlines have acquired their commuter operators outright, and now manage them as wholly-owned subsidiaries. In 1999, Delta Airlines acquired Comair and Atlantic Southeast, while American folded its commuter carriers into one corporate division.

This trend means that the routing and scheduling decisions are made increasingly by the major partners. Where regional airline managers living and working in the immediate area once allocated resources among their portfolio of destinations, the corporate offices of the large airlines now manage nation-wide networks. At several hubs, some large airlines have more than one commuter partner. This has given airports a greater choice in seeking new carriers. However, the more centralized decision making has narrowed the number of candidates and intensified the competition for carrier resources.

4. Decreased Use of 19-Seat Aircraft

Since Deregulation in 1978, the twin-engined 19-seat turboprop aircraft has been a fixture at many local airports. The Beech 19, Swearingen Metro, and similar aircraft provided the only air services at many communities. Many communities with no services received their first scheduled services because these aircraft could economically support small initial traffic numbers until the market proved itself. These aircraft and other turboprops were occasionally criticized for their noise levels and cramped interiors. During the interview process with local Johnson County business leaders much of the fact was made that local passengers do not favor these small aircraft. And would not patronize a service to New Century using this equipment.
However, the 19-seat aircraft does offer economic advantages over larger 35 and 50 seat aircraft when very small traffic numbers are involved. The 19-seat design is not required by the FAA to have flight attendants. Larger aircraft, more comfortable and more spacious, however, require a much larger traffic base to be profitable.

During the 1990's the economics of the 19-seat aircraft deteriorated. The market for pilots became increasingly tight, and salaries escalated. As the regional affiliates became more closely integrated with their major partners, the pay scales at regional airlines escalated. Some cost elements, such as maintenance, are subject to economies of scale and heavily favor large aircraft. The small aircraft complicated any efforts to spread a large-jet ambiance to regional services.

Throughout the United States, there is a strong trend away from 19-seat commuter aircraft. Many regional airlines fly no aircraft with fewer than 30 seats, and some have adopted an all-jet fleet plan. Those routes once operated by 19-seat aircraft have either been promoted to 35-seat aircraft or abandoned altogether. This has caused many communities to lose all air services. In the spring of 2000, Trans State Airlines, an affiliate of TWA retired its fleet of 19-seat aircraft and could not justify larger equipment to several of its previous markets. This, for example, may remove from New Century, one potential service option to TWA's hub at St Louis.

With the decline of smaller 19-seat aircraft, communities must now meet higher traffic thresholds to support successful air services. A 19-seat aircraft can operate and be profitable with less than 10 persons per flight. A larger 35 or 50 seat jet needs two or three times the passenger numbers to succeed. Over the course of a year and several thousand operations this adds up to several thousand passengers, a sizeable sum for a small regional airport trying to establish itself.

In the year 2001, any inaugural service to New Century would likely involve an aircraft of at least 30 seats, with correspondingly higher operating costs. Thus the equipment trends of commuter airlines have considerably "raised the bar" for air services to New Century AirCenter.

5. The Growth of Southwest Airlines
One of the most important trends in the airline industry has been the growth of low fare airlines. These airlines have had a dramatic impact on passenger behavior, and pose a fresh set of
challenges to communities seeking scheduled air services. They are of particular importance to Johnson County and Metropolitan Kansas City.

The low fare carriers originally arose before Deregulation. Pacific Southwest Airlines flew solely on routes within California, and therefore did not come under the jurisdiction of the Civil Aeronautics Board. Southwest Airlines subsequently inaugurated intra-Texas services. After Deregulation, the low fare airlines readily extended their formula; no-frills and low fares on short, high volume routes, to interstate routes. They prospered because of their low fares, low costs, and their focus on many otherwise neglected short haul routes.

Southwest Airlines, as the oldest and most successful low fare airline, is in a class by itself. It is among the most profitable and fastest growing airlines in the world, and has been emulated by startups in Europe, Australia and Canada. It follows several operating principles:

- It usually serves short, high volume point-to-point markets able to support high frequencies.
- Most of its destinations have a population of 800,000 persons or more. These communities can support fifteen daily departures or more.
- At those airports it serves, it operates a large number of frequencies, and benefits from the resulting high levels of staff and equipment utilization.
- It serves mostly uncongested, low delay airports. This permits it to operate aircraft at very high levels of utilization.
- Unlike the network carriers, it does not “bank” its schedules. Rather, aircraft arrive and depart uniformly throughout the day, allowing it to turn aircraft quickly and use its ground staff most effectively. It does not face the enormous fixed costs of a hub.
- It has developed unique aircraft and passenger handling procedures, which allow it to turn aircraft quickly. This benefits equipment utilization.
- The airline usually avoids serving large, congested hubs, but will initiate services to secondary airports in large metropolitan regions. For example, it serves Chicago's Midway Airport, Hobby Airport in Houston and Dallas' Love Airport.
- The airline offers much lower fares than the network carriers.
- It always seeks simplicity. It does not interline passengers at all and flies only 737's. It does not serve foreign markets. Its product pricing is far simpler than most airlines.
Southwest’s management is arguably the best in the industry. Its success results partly from very tight control of costs, unexcelled market planning, and a ruthless devotion to its proven strengths. However, the airline’s fortunes were largely the result of fortuitous timing. Southwest Airlines initiated services in Texas in 1973; in what in retrospect was a pre-Deregulation “window of opportunity.” As an intrastate carrier, it did not face regulation by the CAB, but still benefited from the protective Federal umbrella which complicated the entry process for competitors.

While other airlines emulate many of Southwest’s strengths, it is improbable that any could match the timing of Southwest’s birth, and the unique advantages these gave to its subsequent growth. It is significant that the two “non-traditional” airlines rising before Deregulation, Southwest and Pacific Southwest, both grew rapidly and successfully. In contrast, most of those airlines starting after Deregulation have failed, and none have found survival easy. It seems that Deregulation, intended to lower the barriers to entry has, paradoxically, raised them.

When Southwest begins serving a market, traffic usually expands quickly. This process is so common and so well documented that it has been dubbed by the Department of Transportation as “The Southwest Effect.” The DOT study estimated that the low fare carriers collectively saved consumers $6.3 billion in 1995. At Providence, Rhode Island, total traffic more than doubled after Southwest inaugurated services in 1996. The increase came both from Southwest's new services and counter-moves by incumbents.

Much of this increase results from the effect of lower fares. However, Southwest Airlines also can dramatically expand the catchment area of an airport. Many passengers now drive distances of well over 150 miles to benefit from the lower fares. More than half of the vehicles in the parking lots at the Providence Airport, once only the gateway to Rhode Island, come from outside of the state.

Southwest Airlines has proven the nemesis of many small airports throughout the nation. Its high quality of services and low fares flights can draw traffic from a huge catchment area, often at the expense of small airports. The turboprop or even regional jet services at small airports, feeding traditional airlines at their hubs, have high operating costs and limited capacity. Their operators

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4 Federal Aviation Administration (United States Department of Transportation), The Low Cost Airline Service Revolution, (Washington 1996)
cannot profitably offer fares as low as those of Southwest. Thus, many small airports located close to Southwest strongholds have suffered a steady erosion of traffic. **Southwest Airlines is one of the largest obstacles to air services at New Century AirCenter. It has extensive services at MCI.**

This is by no means an indictment of Southwest. This innovative and superbly managed airline is a very important counterbalance to the bland, expensive and increasingly concentrated network airlines. Its services have given Kansas City Metro residents new travel options, and made the region more accessible to outsiders. However, even the most beneficial change has its downside. **Southwest Airlines’ services at Kansas City have made it considerably more difficult for many airports in Kansas, Missouri, Nebraska and Iowa to obtain or maintain scheduled services.**

C. **Two Airport Cities**

If an airline were to start services at New Century AirCenter, the Kansas City Region would become one of the few metropolitan statistical areas (MSA) in the country with more than one scheduled commercial airport. Several large cities have attempted to operate more than one airport and have failed. These have included Detroit, Cleveland and Montreal. The Mid America Airport, east of St. Louis, has invested in a terminal with jetways, and has spent years trying to attract an airline. In 2000, it attracted a modest service by startup airline Pan American. In each of these cases, the primary airport was always able to support local traffic demand and passengers gravitated to the preferred facility limiting the success of secondary airports. In addition, carriers do not wish to split their operations among several local airports. This raises costs, creates inefficiencies and usually does not reward the airline sufficiently in terms of added revenue. Because of recent increases in the price of fuel, and growing concern over escalating salaries, carriers are increasingly reluctant to incur any additional costs.

However, some large cities do require more than one airfield to meet their demand for air service for various reasons. A discussion of the necessary but not sufficient criterion for a multi-airport system follows. Exhibit II-1 shows current U.S. MSAs with multiple airports. Exhibit II-1 highlights important statistics that indicate why these urban areas have been able to sustain more than one airport. A discussion of key characteristics follows.

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6 Source: Rhode Island Airport Corporation internal study
### Exhibit II-1. Multi-Airport Region Characteristics

<table>
<thead>
<tr>
<th>Metro Region</th>
<th>Airports (Primary Airport in Bold)</th>
<th>1999 Population</th>
<th>*Domestic O&amp;D</th>
<th>Average Fare of Primary Airport</th>
<th>Capacity Constraints at Airports</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>LGA, JFK, EWR, ISP, HPN, SWF</td>
<td>20,436,735</td>
<td>14,252,040</td>
<td>$188</td>
<td>Yes</td>
</tr>
<tr>
<td>Chicago</td>
<td>ORD, MDW, GYY</td>
<td>8,885,919</td>
<td>10,224,440</td>
<td>$207</td>
<td>Yes</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>LAX, LGB, SNA, SBA, PSP, OHT</td>
<td>16,036,587</td>
<td>12,983,990</td>
<td>$183</td>
<td>Yes</td>
</tr>
<tr>
<td>Houston</td>
<td>IAH, EFD, HOU</td>
<td>4,493,741</td>
<td>4,584,700</td>
<td>$211</td>
<td>No</td>
</tr>
<tr>
<td>San Francisco</td>
<td>SFO, OAK, SJC</td>
<td>6,873,645</td>
<td>11,885,440</td>
<td>$225</td>
<td>Yes</td>
</tr>
<tr>
<td>Dallas Fort Worth</td>
<td>DFW, DAL</td>
<td>4,909,523</td>
<td>6,768,440</td>
<td>$227</td>
<td>Yes</td>
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<tr>
<td>Boston</td>
<td>BOS, MHT</td>
<td>6,031,520</td>
<td>5,927,260</td>
<td>$206</td>
<td>Yes</td>
</tr>
<tr>
<td>Washington</td>
<td>DCA, IAD</td>
<td>4,739,999</td>
<td>5,045,730</td>
<td>$187</td>
<td>Yes</td>
</tr>
<tr>
<td>Kansas City</td>
<td>MCI, New Century</td>
<td>1,755,899</td>
<td>2,500,840</td>
<td>$148</td>
<td>No</td>
</tr>
</tbody>
</table>

*3rd Quarter 2000

**Large Population Base**

An urban area must have a very high population base to sustain the traffic base needed for more than one airport. All eight MSAs in the United States with multiple airports meet this criterion. All of them have populations of at least 4 million persons. **Kansas City has less than half the population of any multi-airport MSA.**

**Infrastructure Constraints**

Most U.S. airfields were built more than 50 years ago. Since that time, suburban cities have sprung up, basically encircling these airports with both residential and industrial neighborhoods. The problem of land acquisition and ever increasing stringent new environmental laws make it exceedingly difficult for most airports to expand capacity through the construction of new runways. Given the rapid growth of traffic since Deregulation in 1978, airports have been unable to physically accommodate new traffic. Boston Logan, Chicago O'Hare, New York LaGuardia, and Washington National are all extremely limited by a lack of available space. They are unable to accommodate all demands, and traffic has spilled to other airports. **MCI is a relatively new facility and one of the few major U.S. airports without serious land limitations.**

**Legal Constraints**

Three airports, Chicago O'Hare, New York LaGuardia, and Washington National have had legislative constraints imposed on them by federal law. Congress passed laws limiting the number
of hourly operations at each of these airports through the use of “slots”. A slot is a permit for an airline to either land or takeoff at an airport. Furthermore, flights in and out of Washington National were subject to a “Perimeter Rule.” No flight greater than a distance of 1,200 miles was allowed. The prima facie reason for these limitations was a fear that increased air space congestion would be a safety hazard given the air traffic control infrastructure at the time. Slot controls were eventually lifted at Chicago O’Hare and New York LaGuardia, although controls have been reinstated at LaGuardia due to severe delay problems in New York’s air space.

A secondary consequence of the slot controls was the opportunity it allowed for smaller less established airports to gain footholds in the region. Although not the only reason for their emergence, Chicago Midway, Washington Dulles, and Newark benefited from these artificial capacity constraints. **MCI has no legal limitations constraining its growth.**

**Large Geographical Area**

A few MSAs are so large in land area that it is very difficult for any one airport to satisfy the needs of all of its population. This is especially the case when ground access bottlenecks and highway congestion makes the trip to the airport unbearably long. **MCI is less than an hour drive time from downtown Overland Park.**

**Opportunities for Niche Carriers**

Secondary airports sometimes develop because of a deliberate strategy by an aggressive and innovative carrier. These airlines decided to champion the secondary facilities and to make long term commitments. These niche carriers have usually picked the secondary airport to avoid a direct confrontation with a more established carrier at the primary airport. Today Southwest Airlines has major operations at Chicago Midway and Continental Airlines operates one of the largest hubs on the East Coast at Newark.

Although the airline industry is dominated by industry giants such American or United Airlines, new airlines are free to start services. Former airline executives, investors and entrepreneurs are continuously attempting to start up new carriers. Many startup carriers are marketed as low fare carriers that can save consumers much money. Large urban areas with capacity constrained airports tend to suffer from high fares. Thus, many new entrants see a niche opportunity to operate to these large cities. Much of the time they choose the region’s secondary airport. For example, to
avoid competing head-to-head with the major airlines, Pan American serves Chicago through the Gary Airport; St. Louis via Mid America and Boston through the airport at Portsmouth, New Hampshire. **MCI has services from every major U.S. carrier including Southwest Airlines and two other “Low Fare” carriers. MCI has low average fares.**

Even if an urban area has most of these characteristics the secondary facility must also meet certain expectations. A secondary airport usually has a very specific appeal, such as a convenient location for a sizeable portion of the metro region’s population base, long runways or a lack of ground access congestion.

**D. Summary**

No individual airport is immune from the larger aviation trends that continuously alter the economic landscape from which airports and airline must operate. These trends tend to generally be outside the control of airport and must taken into account in any air service study. Not all aviation trends affect all airports equally and must be examined as they relate specifically to New Century AirCenter. Important trends are as follows:

- **Rise of Regional Jets**
  Regional Jets consist of small 35 to 70 seat aircraft that are popular with passengers and have a greater service range and level of comfort than smaller turboprop planes. Their existence may open up opportunities for medium size communities that have the traffic base for these jets but not for larger 100 seat jets.

- **Decline of Small Turboprop Aircraft**
  Air travelers for the most part dislike small turboprop aircraft. They will fly them if only completely necessary. Thus, in order to gain a competitive advantage many affiliates of the mainline carriers have begun to discard small 19-seat aircraft in replace them with regional jets. Thus, the number of air carriers that fly turboprops is declining. This has potential for airports attempting to attract their first air services as 19-seat aircraft are reassigned to smaller markets. Many times these aircraft are the only possibilities for new services as jet aircraft are too large and the initial traffic is to small too support these aircraft. Turboprops are usually the first step in air service development.
• Decline of Small Independent Airlines

This trend has resulted in a smaller pool of potential airline candidates to inaugurate services at small airports. Control of these services has gradually shifted from the regional offices of the small carrier to the corporate office of the large mainline carriers. Whereas small independent operators were looking for niche opportunities to connect smaller communities the mainline carriers focus is on enhancing their vast networks and use their aircraft accordingly. The number of non-traditional, independent carriers that potentially could begin services at New Century is much more limited than in the past.

• Rise of Southwest Airlines

Low fare carriers, most notably Southwest Airlines, alter the dynamic of any air service market. They offer quality air services at low prices. This not only increases competition and forces other carriers to follow their example, but also increases the size of an airports catchment area. People are much more willing to drive longer distance for better fares. This has the negative affect of damaging the air service potential of small, high cost airports in the expanded catchment area. Since New Century is in the catchment area of MCI and its low fare carriers, this poses a major impediment to any potential new air services initiative.

• Two Airport Regions

Airport trends include the location of more than one airfield in large metropolitan areas that meet certain prerequisites. These include:

• a large population base of greater than 4 million persons;
• capacity constraints due to facility or legal impediments that limit the growth of the region’s primary airport;
• the existence of niche carriers that compete on price or service that prefer the less congested secondary airfields to avoid the dominant hub airlines; and
• a large geographical area that makes a secondary airfield necessary due to excess ground access times.

The Kansas City Region meets none of the prerequisites. Its population base is less than 2 million persons, its primary airfield, MCI has more than adequate capacity and will continue to have sufficient capacity in the future, ground access times while inconvenient are manageable, and MCI has an excellent combination of low fare, traditional network, & high service airlines, and no dominant carrier.
III. ANALYSIS OF POTENTIAL TRAFFIC DEMAND

A. Introduction

This chapter examines the potential demand for scheduled air services in Johnson County, and specifically at New Century AirCenter. Two methodologies were used to estimate the potential demand of Johnson County as a stand alone entity: (1) a statistical analysis of data obtained from local travel agents, including passenger destinations, routings, choice of carrier and actual air fares; and (2) an analysis of airline networks and potential routes that might be attractive to Johnson County residents.

B. Johnson County and the Greater Kansas City Region

Johnson County with 451,000 persons (Census 2000), is the second largest county in the Greater Kansas City Region. Jackson County, MO is the largest county in the Region with over 650,000 persons and includes the Region's major city Kansas City, MO. Other counties include Leavenworth, Wyandotte and Miami counties in Kansas and Platte, Clinton, Ray, Lafayette, Cass, and Clay counties in Missouri. Kansas City International Airport is located in Platte County. The total population of the Greater Kansas City area exceeds 1.7 million persons. Exhibit III-1 shows the relative positions of the counties to each other.

Exhibit III-1 illustrates the central location of Jackson County, Missouri within the Greater Kansas City Region. It also shows that the northern portions of Johnson County, Kansas are at the center of the Greater Kansas City Region. The four major airports within Greater Kansas City relevant to Johnson County are also shown.

Kansas City’s central U.S. location has been pivotal to its development as a transportation and economic core. Greater Kansas City is located at the juncture of three major interstate highways: I-29, I-35 and I-70. I-35 has become an important north-south trade route, as goods are increasingly being moved by truck between the United States, Canada and Mexico. The interstate is now nicknamed the "NAFTA Corridor." In addition, the area is the second largest railroad center in the country, second only to Chicago. Several important industries within the Greater Kansas
City region, including railroads, automotive, meat packing, and manufacturing have developed as a direct result of the area's centralized U.S. location.

Greater Kansas City has benefited from the opportunities created by the "new economy" of the 21st Century and Johnson County has led the Region's latest economic transformation. Since 1990 Johnson County's population has grown over 27% from 355,000 to 451,000 and at the same time added over 100,000 new jobs. As a percentage of the total Greater Kansas City Region, Johnson County's population has increased from 18% in 1980 to over 25% in 2000 and is expected to increase to 28% by 2010.

The Sprint Corporation, which employs approximately 15,000 persons in Overland Park and over 20,000 in Greater Kansas City has been a major economic growth engine for the area. Sprint has 1,700 employees located at the New Century Industrial Park. Other large companies in Greater Kansas City include Black & Veatch, Yellow Corporation, and Ash Grove Cement. Johnson
 County's growth has also been energized thousands of small enterprises. The County has added over 3,500 new businesses since 1990. Over 200 insurance firms are located in the County and the area is being dubbed as the "seminar capital of the world" as several professional seminar/training businesses have located in the County.

Most of business growth has been internally generated by local startups but more and more national corporations are choosing to locate their headquarters in Johnson County because of the high quality of life the County can offer their employees, excellent schools, the highly educated and industrious workforce, and its central U.S. location.

C. Air Traffic Data Sources

Several U.S. Department of Transportation published data sources contributed to this Study. Several analyses use MCI data from these sources to complement data collected by Edwards and Kelcey. They provide important regional traffic characteristics not available from local sources. The databases are comprehensive, accurate and set the industry standard. A brief explanation of the following databases is below:

- Database 1B, the United States Department of Transportation Origin-Destination survey for major carriers;
- The 298-C Commuter Airline Report;
- Form 41 Financial and Traffic Database, and
- The DOT's T-100 enplaned-deplaned air services database.

The DOT's quarterly origin-destination survey, or Database 1B, tracks quarterly passenger flows between domestic and international city-pairs. The major scheduled carriers submit a 10% sample of ticket coupons from which inferences can be derived for the total population of passengers. The sample of tickets is produced by the carriers' revenue accounting systems. It includes a comprehensive description of traffic between different city-pairs according to the routing, carriers used and fares paid. Foreign airlines and some small commuter carriers do not report traffic to the Survey.
The 298-C commuter report displays quarterly passenger loads by origin and destination for small airlines that only operate aircraft with less than 56 seats. This database complements Database 1B, filling any data gaps of small carriers that are not required to report Database 1B.

The DOT requires all major airlines that operate aircraft greater than 55 seats to report financial and traffic statistics. The financial data shows airline quarterly balance sheets and revenue and cost streams. It also gives valuable operating cost data for specific aircraft by each airline. The data is not route-specific thus it has its limitations when used in an analysis of potential flights. The data does offer excellent operating cost comparisons between different aircraft types and airlines. The traffic statistics report passenger and cargo activity by aircraft as measured in revenue passenger miles and available seat miles.

The DOT collects and distributes statistics on passenger and cargo loads by month, airline and flight segment on the “T-100” reports. These databases show the number of passengers on each flight segment or on each city-pair flown by a through flight. All large certified carriers, included major commuter airlines such as Trans States, contribute data. The T-100 data is generated from the computer systems that monitor the loads of individual flights.

D. The Passenger Size of the Johnson County Market

A key element to an air service study is the understanding and assessment of the air service market within the study area. This understanding and assessment is typically based on existing airport passenger traffic, operations data, and market characteristics. The local airport authority and the U.S. Department of Transportation are two common sources for these data. In the case of Johnson County, however, these traditional data sources will not provide the needed information because there is no air service at New Century AirCenter. Therefore, two alternative methodologies were developed in order to derive estimates for the Johnson County’s demand for air service. These include a cross sectional regression analysis of similar communities across the country and a license plate survey at MCI.

1. Cross Sectional Regression Analysis

The inherent air service demand of any community is based on both demographic factors (i.e. population and income) and the general price level of flights. In order to measure the relationship
between these factors and local traffic demand, a statistical modeling technique called regression analysis is used. The final outcome of the analysis is a model that estimates a mathematical relationship between the origin and destination (O&D) air traffic of a region and local demographic and airfare variables.

Data was collected for a cross-section of 167 airports with commercial air services, located throughout the nation. For each airport, the total domestic O&D traffic was collected from Database 1B. The following explanatory variables of the model were collected for each airport catchment area:

- Population of adjoining areas;
- Per-capita income;
- Average fares;
- The market share of low fare air services from nearby airports as measured by number of available seats. This variable is a proxy for the relative low level of airfares in a market. Low fare carriers tend generate large amounts of traffic due to price pressures on air fares.

Population and income data were collected from the U.S. Census Bureau, while low fare market share data was collected from the Official Airline Guide.

Several model specifications were analyzed and it was determined that the double log form\(^6\) was the best fit. Exhibit III-2 shows the results of the regression analysis.

<table>
<thead>
<tr>
<th>General Model</th>
<th>Explained Variables</th>
<th>Coefficient</th>
<th>t-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explained Variable: O&amp;D Traffic</td>
<td>Intercept</td>
<td>-2.56</td>
<td>-6.5</td>
</tr>
<tr>
<td>R-Square: 0.81</td>
<td>Population</td>
<td>0.9</td>
<td>21.6</td>
</tr>
<tr>
<td>Airport Observations: 167</td>
<td>Income</td>
<td>2.4</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Low Fare Market Share</td>
<td>2.0</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Exhibit III-2. Cross Sectional Analysis Regression Results\(^7\)

\(^6\) A "double log" specification is used in many studies to model demands. It assumes a constant relationship between percentage changes in population and income and percentage changes in traffic.

\(^7\) The r-square statistic is a general model goodness of fit. The greater the r-square the more accurate the model because the explanatory variables due a better job of predicting the explained variable. The r-square value always ranges from 0 to 1, with a high value showing a more satisfactory fit. The value of .81 represents a solid performance, especially for a cross-sectional model.
The air service demand for Johnson County can be estimated by "plugging in" the various parameters for the County into the overall structural model. Given Johnson County’s population base, high income levels and proximity to low fare carrier at MCI it is estimated that county generates over 5.5 million annual passengers.

Exhibit III-3 depicts the relationship between population and airport traffic for the 167 airports in the regression sample. The chart portrays a four-variable relationship with only two dimensions. This accounts for the occasionally large deviation of the observations about the black line. However, it is clearly evident that Johnson County is above the black line indicating that its high income levels and access to low fare carriers allow it to generate traffic well above what its population would suggest. The chart also shows the air traffic demand that Johnson County would generate without the presence of low fare carriers at MCI estimated at 2.74 million annual passengers. This figure still indicates that Johnson County produces a high amount of traffic per capita.

**Exhibit III-3. Cross Sectional Analysis of Johnson County Market**

The coefficients of the explanatory variables are mathematical estimates of the relationship between these variables and the explained variable. All the variables show a positive correlation (i.e. as population or income rise so does air traffic.) The t-stat is a statistic that measures the significance of an explanatory variable. A general rule of thumb is that any t-stat greater than two indicates that the variable is important to the model.

*Edwards and Kelcey, Inc.*
License Plate Survey

A second method of estimating the size of the Johnson County market is to complete a license plate survey at MCI. It involves estimating the proportion of MCI passengers generated by Johnson County, and applying this coefficient to total airport traffic. A license plate survey consists of recording the license plate origin of a sample of vehicles parked at the airport parking lot. The state of Kansas marks the county from which a vehicle is registered on the license plate. Thus the total number of vehicles from Johnson County can be counted as portion of the total vehicles in the parking lot. The percentage of Johnson County plates can then be multiplied by the total MCI traffic figures to derive an air traffic figure. To be effective, the process requires formal statistical methodologies to obtain an unbiased sample, and to draw valid and relevant inferences from the data. The traffic estimates produced by this can refute or validate the findings developed in the cross sectional analysis.

Two license plate surveys were used in this analysis and the results of the two were averaged to estimate the Johnson County portion of MCI traffic. The first survey showed that 58% of all vehicles in MCI parking lots had Johnson County plates.

The second survey conducted by Edwards and Kelcey in the winter of 2001, showed that only 49.5% of vehicles at MCI had Johnson County plates. The license plate data was collected randomly at different parking lots at the airport during different times of the day. The large sample size and the statistical controls applied in the EK methodology provide a credible and robust estimate of the proportion of the users of MCI who originate in Johnson County. Using this procedure, a 95% level of confidence can be achieved. It was estimated that Johnson County accounts for more than 44.173% and less than 50.667% of MCI’s traffic.

The study combined the EK sample and an earlier study. It used the average of the two samples, 53.8% to estimate the size of the Johnson County Market. Choosing this slightly higher value might lead to a somewhat high estimate of the County’s air traffic, and would tend to create a modest bias towards recommending scheduled air services for the New Century AirCenter.
In 1999, MCI had a total of 10,025,288 O&D passengers as reported by the U.S. Department of Transportation’s Database 1B. 53.8% of that figures totals to 5,390,980 passengers as an estimate for Johnson County traffic. This traffic estimate of 5.4 million corroborates the cross section estimate of 5.5 million.

E. Ticket Lift

It is not enough to know the total market size of the County to determine if Johnson County can support air service. It is also important to understand what markets Johnson County residents travel to or from the most. Database 1B provides an excellent data sample which reports the largest O&D markets for the Kansas City region. However, the data does not differentiate among individual counties of the Kansas City region. A data sample closer to the source of customers is needed. Thus, a “ticket lift” was completed for Johnson County. A ticket lift consists of collecting ticket information from local travel agencies. Travel agencies are a valuable source of information as they continue to issue over 70% of all airline tickets in the United States today.

The ticket lift assembles traffic data through research at the actual point of sale; the travel agencies of Johnson County. This overcomes the inherent weaknesses in public data sources; the difference between the true origin and the point where the passenger boards the flight. Each travel agency retains copies of airline tickets recently issued for accounting and external audit purposes. Since travel agents write most airline tickets, and since each agency serves mostly its surrounding district, a sample of locally issued coupons provides an accurate estimate of locally originating traffic.

A ticket lift involves collecting a random sample of several thousand-airline ticket coupons issued by local travel agents. From the coupons, a database is assembled that provides a detailed cross-section of regional travel patterns. It includes the destination, airline and fare paid. Three Johnson County travel agencies agreed to participate in the ticket lift. The travel agencies were able to collect and distribute their data in electronic form, thus the ticket lift has very large sample consisting of 63,120 roundtrips.

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8 Airlines and airports used several definitions for reporting traffic. An “Origin-Destination” or “OD” passenger consists of one person-trip in either direction between a particular pair of cities.
Although the ticket survey is the only cost-effective means to evaluate Johnson County traffic, it suffers from inherent limitations:

- Not all Johnson County travel agents agreed to participate.
- The travel agencies in the ticket lift sell tickets to passengers in other counties. Thus the travel patterns of some Jackson County residents will be mixed in with the results.
- The sample excluded travel agents of adjacent counties. Their clientele are potential users of a scheduled service from New Century AirCenter.
- Some large employers, especially branch plants of large corporations, do not use local travel agents. Rather, they use a single supplier, located elsewhere, for all corporate travel.
- Most importantly, the ticket survey excludes visitors to the area. These travelers could purchase their tickets from literally any travel agent in the world. It is very difficult even to detect such persons, let alone quantify their travel patterns.
- The ticket lift does not include potential users of air travel. These persons may presently use private vehicles, Amtrak, scheduled bus services and corporate aircraft; or simply decide not to travel.
- Passengers are increasingly bypassing travel agents; purchasing their tickets directly from the airlines or booking through the Internet. They cannot be captured by a ticket coupon survey.

These difficulties mean that a ticket lift could provide misleading results for the all-important task of estimating total demand. The survey therefore was used only to investigate the behavior of the "typical" Johnson County passenger: their top destinations and carriers used.

The results of the ticket lift are primarily used in the network analysis of potential routes in the next section of this chapter. However, some results of the ticket lift analysis are presented below. Exhibit III-4 shows the top O&D markets of Johnson County as indicated by the ticket lift. Not surprisingly the results match very closely to what was anticipated from discussions with local travel agencies and businesses, thus, verifying the accuracy of the ticket lift. Full ticket lift results are located in Appendix C.

The top 20 markets identified by the ticket lift are similar to the data in Database 1B for the entire Kansas City region, (18 of the top 20 markets in the ticket lift match the top 20 markets in Database 1B). The top 50 Database 1B markets are reported in Appendix D.
### Exhibit III-4. Top 20 Johnson County Markets

Exhibit III-5 shows the market share of airlines as used by Johnson County residents indicated by the ticket lift. Southwest has the largest market share, followed by Delta and American. This matches closely with Database 1B, although Southwest has a smaller market share in the latter.

#### F. Network Analysis

An airline considering services to the New Century AirCenter would examine both the traffic and its own network to determine its likely market share. The airline whose network could serve the largest number of passengers would likely have the best prospects for success, all other factors being equal.
### Exhibit III-5. Airlines Used by Johnson County Residents

This section examines Johnson County's traffic in relation to the networks of the major airlines. It considers the services each carrier might offer, and ranks each prospective flight in terms of total potential traffic. The analysis is based on the following assumptions:

- The carrier would offer nonstop services from the New Century AirCenter to a hub;
- In keeping with the trend to online connections, the carrier would only offer attractive connecting fares to its own services, a code-sharing affiliate or the partner in an alliance.
- The type of aircraft or the daily frequencies would not affect market acceptance.
- All residents of Johnson County would be willing to board flights at New Century AirCenter.
- The proposed service would charge competitive fares to every destination.

These assumptions are used to develop a ranking of the different services, based on the total number of passengers that could or might use the service. The actual number of customers would actually be well below this ceiling. In the next chapter some of these assumptions are relaxed.

The potential of each service was calculated through a formal process. Twelve different hub-airline combinations were identified as air service candidates. Each route was considered in turn. Each of the 315 Johnson County destinations indicated in the ticket lift was then examined, to determine if passengers from Johnson County would be willing to fly to these points by using the service in...
question. If so, the total number of passengers for this destination was included in the route's potential.

In order for a destination to be included in a flights route potential two criterion needed to be met. First, the airline, a code-sharing affiliate or a code-sharing alliance partner must operate nonstop services from hub "X" to destination "Y." Second, the routing from New Century to destination "Y" via hub "X" must be reasonably direct. Any route that takes a passenger more than a 15 percentage deviation in miles traveled over how passengers currently travel via MCI is excluded in the analysis. In other words, a passenger will not be expected to travel to Denver by first flying to Atlanta and then back west to Denver.

Exhibit III-6 displays the traffic potentials for each route investigated. The traffic potential includes not only the direct traffic between the hub and Johnson County but also beyond traffic.

<table>
<thead>
<tr>
<th>Hub/Airport</th>
<th>Airline</th>
<th>Traffic Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Direct Traffic</td>
</tr>
<tr>
<td>St Louis</td>
<td>TWA</td>
<td>250,775</td>
</tr>
<tr>
<td>Chicago O'Hare</td>
<td>United</td>
<td>367,114</td>
</tr>
<tr>
<td>Chicago O'Hare</td>
<td>American</td>
<td>367,114</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>Delta</td>
<td>54,550</td>
</tr>
<tr>
<td>Denver</td>
<td>United</td>
<td>332,450</td>
</tr>
<tr>
<td>Chicago Midway</td>
<td>Southwest</td>
<td>367,114</td>
</tr>
<tr>
<td>Chicago Midway</td>
<td>American Trans Air</td>
<td>367,114</td>
</tr>
<tr>
<td>Dallas Ft. Worth</td>
<td>American</td>
<td>226,419</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Delta</td>
<td>190,057</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>Midwest Express</td>
<td>48,577</td>
</tr>
<tr>
<td>Dallas Love</td>
<td>Southwest</td>
<td>226,419</td>
</tr>
<tr>
<td>Denver</td>
<td>Vanguard</td>
<td>332,450</td>
</tr>
</tbody>
</table>

Exhibit III-6. Johnson County Traffic Potential

Exhibit III-6 shows the upper bound of traffic that could conceivably be captured with a specific route. The number denotes the total market size, which is subsequently distributed among competing airlines operating at MCI. Exhibit III-7 shows the current market share of a potential new route to the traffic potential identified in Exhibit III-6 above. It is relevant to note that although a TWA service to St Louis has the highest potential traffic of any route investigated in the network analysis, due to the excellent location of St Louis, TWA currently captures a mere 8% of that traffic...
from its operations out of MCI. Most of the other carriers do not do much better, as fierce competition among rival hubs does not allow any one airline to dominate most routes.

<table>
<thead>
<tr>
<th>Hub Airport</th>
<th>Airline</th>
<th>Airline Market Share</th>
<th>Traffic Carried by Airline in its Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Louis</td>
<td>TWA</td>
<td>8.0%</td>
<td>198,532</td>
</tr>
<tr>
<td>Chicago O'Hare</td>
<td>United</td>
<td>8.6%</td>
<td>174,510</td>
</tr>
<tr>
<td>Chicago O'Hare</td>
<td>American</td>
<td>10.3%</td>
<td>206,909</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>Delta</td>
<td>13.4%</td>
<td>191,952</td>
</tr>
<tr>
<td>Denver</td>
<td>United</td>
<td>28.3%</td>
<td>403,882</td>
</tr>
<tr>
<td>Chicago Midway</td>
<td>Southwest</td>
<td>27.3%</td>
<td>366,957</td>
</tr>
<tr>
<td>Chicago Midway</td>
<td>American Trans Air</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Dallas Ft. Worth</td>
<td>American</td>
<td>29.9%</td>
<td>263,394</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Delta</td>
<td>54.9%</td>
<td>408,778</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>Midwest Express</td>
<td>29.9%</td>
<td>210,197</td>
</tr>
<tr>
<td>Dallas Love</td>
<td>Southwest</td>
<td>19.6%</td>
<td>98,050</td>
</tr>
<tr>
<td>Denver</td>
<td>Vanguard</td>
<td>36.7%</td>
<td>121,912</td>
</tr>
</tbody>
</table>

Source: EK Analysis


The carriers that have achieved significant market share of their potential networks such as Delta at Atlanta and American at Dallas Fort Worth would be competing with their own operations at MCI by serving New Century. In order for these airlines to serve New Century they would have to establish facilities and operations at a new low volume airport. This would produce large fixed costs for the airline. Carriers would have to be compensated in kind for this expense and the inherent risk of startup services at a new airport. Thus, passengers would have to pay a fare premium for these services. The fare premium passengers would be willing to pay and the premium carriers would require is investigated in the next chapter.

**G. Summary**

A key step in any air service study is to determine the market size of the area being studied. In the case of Johnson County and New Century AirCenter this is difficult due to the lack of existing air service at the airport. However, alternative methodologies can be used to estimate the County’s market size. They included a cross sectional analysis of U.S. markets evaluating the relationship between a market’s demographic and quality of air services characteristics and its air traffic potential. The second methodology used a simple license plate survey of MCI to determine the
percentage of passengers that originate from Johnson County. Traffic data for the entire MCI airport is available from U.S. Department of Transportation data sources, but it does not distinguish passengers by area of true origin. Both methodologies estimated that the Johnson County market is in the range of 5.3 million to 5.5 million passengers per year.

In order to fully study the traffic patterns of Johnson County a ticket lift was conducted. The ticket lift collected airline ticket coupons from local travel agents, who process most of the ticket transactions in the County, to create a sample database of Johnson County air trips. The statistically valid sample was then used to determine the County major markets and give estimates actual size. The major markets included Chicago, Denver, St Louis, and Dallas verifying the anecdotal evidence of the project interviews with local business and civic leaders.

Finally, the ticket lift results were used to determine the "high end" traffic potential of possible routes by specific airlines from New Century AirCenter, assuming Johnson County as its catchment area. The analysis showed that many of the routes have adequate traffic numbers for services to be successful. However, the question of how much of a market share a New Century service could capture is questionable, considering that potential airlines face stiff competition and must compete rigorously for the same air passengers at MCI with not only other competitors but with themselves. The next chapter discusses in detail what advantages and disadvantages a New Century air service would have in capturing an adequate market share.
IV. THE COMPETITIVE POSITION OF NEW CENTURY AIRCENTER

A. Introduction

The previous chapter examined the Johnson County demand for air services and found the market is very large and could easily support air services if the County were an island unto itself. The County generates over 5 million annual passengers constituting over 50% of the region’s traffic base. Several potential routes show traffic figures that more than adequately meet minimum standards for comprehensive services. Despite these findings, a few questions must be addressed in order to complete an examination of the potential for air services at New Century. They are as follows:

1. What do Johnson County residents currently believe about their current services, the adequacy of MCI and the need for improved air services?
2. Would a New Century service be able to compete with current services out of MCI?
3. Does New Century AirCenter offer the residents of Johnson County any incremental benefits to air services they currently enjoy at MCI?
4. Would air services at New Century be significantly inferior to current services out of MCI?
5. If air services at New Century were only offered at a higher cost, how much of a price premium would County residents be willing to pay?
6. Would any carrier be willing to serve New Century? Carriers already serving MCI would be competing with themselves, while new entrants may be limiting their appeal strictly to Johnson County rather than the entire Kansas City region.

This chapter investigates these questions in further detail and will be used to produce the final conclusions on the feasibility of obtaining air services at New Century in Chapter V.

B. Community Perceptions

The previous chapter examined the level of air service demand in Johnson County from a strictly quantitative perspective. However, the “numbers” alone do not tell a complete story. In order to supplement the data, meetings with business and community leaders of Johnson County were
held. The purpose of these interviews was to obtain qualitative information and impressions on current air services, commute times and economic issues. Specifically, these meetings explored:

- The degree to which air services are independently called for at a grassroots level;
- Community perceptions and expectations on air services;
- Community perceptions of the MCI commute;
- Information, opinions and impressions on the region's economy and travel patterns, which may be absent or difficult to extract from the formal statistical analysis;
- The level of satisfaction with current air services;
- The degree to which the development of the community and of particular businesses is impeded by the lack of scheduled air services;
- The benefit different air service options might provide to economic enterprises and residents;
- The future economic development of Johnson County and other trends that may lead to changes in air services.

These meetings contributed to the fact-finding process. They have also helped to direct the recommendations of this Study so as to address key concerns of the community. Appendix A contains a list of the major contributors. Most persons presented a range of perspectives; of their businesses/employers as well as personal/family experiences. Many were active in political institutions, or played leadership roles in community economic development. Important contributions were particularly made by local travel agents who were able to offer their professional expertise and thorough knowledge of the local travel market.

The interviews were conducted in a manner not to bias the results. Questions were worded in a neutral manner allowing the interviewee to answer the questions anyway they pleased. Despite this precaution many of the same themes were repeated. These themes are summarized as follows:

- There is no clear desire on the part of the community for air services at New Century AirCenter. Most of the respondents thought it would "be nice" to have services but were for the most part quite happy with MCI and would not be disappointed if the status quo remains. There were only a few complaints about high fare levels to smaller niche markets such as Omaha. People have adjusted quite well to current air services situation. The issue is clearly not a major concern of the community.
Regional Jets are the minimum level of services that Johnson County residents would support. Small turboprop aircraft are deemed too loud and uncomfortable to be successful. As one interviewee put it, "anything less than first rate won't cut it".

There is a high level of satisfaction with current air services, notwithstanding the long drive to MCI.

The commute time and distance to MCI was thought to be burdensome by some and not such a problem by others. Some hotel owners lamented the fact that MCI's distant location didn't allow for economical shuttle service to pick up guests.

Conversely, the discussion of the travel times and distances to New Century brought mixed reviews. Many persons thought the commute time would be a vast improvement while others thought it would only bring small benefits especially from the northern and more densely populated portions of the County. Hotels in these areas would still not be able to run shuttle services because the distance to New Century is greater than 8 miles, which is the threshold for economical service.

Many of the businesses use preferred flyer agreements with specific airlines. Thus, these companies would only use air services at New Century if "their" airline were operating the flights.

There was no evidence of any kind that the lack of air services at New Century or the lengthy drive from MCI constrain Johnson County's economic development.

Most of the persons interviewed doubted that they or the County as a whole would pay a significant fare premium to use flights from New Century in lieu of MCI.

The community is used to low air fares at MCI, thus the general consensus was that air passengers would not be willing to pay much of a price premium for New Century services. The primary customers for any services would be time sensitive business travelers.

The interviewees talked proudly of Johnson County and its impressive economic growth. However, there was also a sense that the County was part of the greater Kansas City region. Many were quite insistent that no air service initiatives should do any harm to MCI. A degree of parochialism found in many communities attempting to grab air services is minimal in Johnson County.

These results of the interview process are vital to understanding the "big picture" and constitute an important input to the conclusions and recommendations in Chapter V.
C. Kansas City International Airport

MCI is the most important factor affecting the viability of air services at New Century. How well does the Airport currently serve Greater Kansas City? This section investigates the Airport’s infrastructure and its corresponding capacity to get an understanding of the convenience of using this Airport. The quality and level of air services which it offers the residents of Johnson County is also discussed.

1. Location and Infrastructure

MCI, located approximately 30 miles north of Overland Park, Kansas and 25 miles north of Kansas City, MO is one the newest airports in the United States. The Airport was dedicated in October of 1972 and consists of over 10,000 acres of available land. This ranks it among the largest airports in the world.

Current facilities consist of three terminal buildings with 52 airline gate positions. Given current traffic, it is estimated that these gates are currently only being used at slightly over 50% capacity.

The Airport boasts the use of 3 runways each over 9500 feet enabling even the largest commercial jets the ability to land. Two of the runways are parallel allowing for simultaneous operations. Thus, the Airport’s airfield can accommodate up to 139 aircraft operations per hour. This allows the Airport to be one of the least congested airfields in the Country.

There are approximately 17,000 available parking spaces with plans to expand capacity in the near future. Interstates 29 and 435 allow rapid ground access of the Airport. These two major highways can easily accommodate 2,700 vehicles per hour. Overall, the Greater Kansas City Region has the highest per capita miles of interstate in the United States and boasts one of the least congested freeway systems of any major U.S. city.

2. Level of Air Services

As examined in the previous section, residents of Johnson County are very satisfied with the level of air services they receive from Kansas City International Airport (MCI). In terms of every

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9 "Transportation 2020, Metropolitan Kansas City’s Long Range Transportation Plan 1995-2020", Mid-America Regional Council
important measure of air service MCI does well. The airport offers a wide variety of destinations with multiple frequencies and very competitive fares.

In April 2001, MCI had nonstop air services to 62 destinations. Exhibit IV-1 shows these destinations. Cities with Southwest Airlines service are marked in orange. The map clearly shows that the airport’s services reaches to every portion of the United States and even includes one Canadian airport, Toronto. Furthermore, the ticket lift data reports that these markets make up over 88% of all passenger traffic for Johnson County residents. The only notable markets from which MCI does not have nonstop services include Columbus, Ft. Lauderdale/Miami, Louisville and Hartford. However, Southwest offers direct one stop service to all these markets.

In addition, MCI has nonstop service to practically every major domestic hub in the country. There is almost no sizeable market in the United States from which MCI does not have one stop service or better. Because Kansas City travelers have such an excellent choice of services through several hubs, they receive excellent airfares as carriers must compete each other for connecting traffic. Not only does the airport have a large number of nonstop destinations, the number of daily frequencies is significant. 37 of these destinations have 3 or more departures per day. These 37 airports include most of the nation’s connecting hubs. Chicago, Minneapolis, Dallas, Denver, Atlanta, and St. Louis all have more than 10 daily flights. In addition, these destinations are served by more than one carrier keeping these routes competitive and subsequently, reasonably priced.

A major positive characteristic of MCI services is the presence of Southwest Airlines. Southwest as the most successful low fare carrier, changes the dynamic of market which it serves. Not only does the carrier offer its customers excellent services with very low prices, it forces other carriers to do the same in order to compete. Thus, although traditional mainline carriers are not “low fare” carriers they must act like one to a certain extent in the Kansas City market. As shown in the cross sectional analysis in Chapter 2, the Kansas City Metro and Johnson County markets have much higher per capita air travel than other markets across the country. This is a direct result of the low airfares in the market. Other non traditional airlines at the airport including Frontier, Vanguard, and Midwest Express also help to promote competition at the airport. For example, it is highly unlikely that a mainline carrier would challenge Northwest Airlines with a flight to their hub at Minneapolis. However, Vanguard, a nontraditional carrier, competes on this route with two daily flights.
Exhibit IV-1. Nonstop Destinations from MCI
A major reason why Southwest Airlines has opted to operate out of MCI, is the lack of a large mainline hub carrier that dominates the market. Hub carriers that have achieved high levels of market share are extremely difficult to compete against because these carriers are able to use their monopoly positions to drive out competitors. Given Kansas City's central U.S. location and its significant population base, the airport would be a likely target for an airline to begin hubbing operations. In fact, in the 1980's both Braniff and Eastern Airlines attempted to establish a hub at MCI. Both these airlines filed for bankruptcy and eventually ceased operations. Although, a hub operation would have certainly given the Region a greater number of nonstop flights than it currently has, it would have likely come at an increased price. MCI has on average some of the lowest fare levels in the United States. Exhibit IV-2 shows the average fare levels of several hub and non-hub airports.

Source: United States Department of Transportation Database 18, Year Ending September 30, 2000

Exhibit IV-2. Average Fare Levels of Interior U.S. Airports

Edwards and Kelcey, Inc.
The exhibit clearly shows the low average level of airfares that MCI enjoys. At an average one way fare of $146 it is $29 less than the national average of $175. Furthermore, the graph also illustrates the high fare cost burden that domestic hub passengers have to endure. Most all of the hub airports in the graph have higher average fares than the national average. The only two that do not, St Louis and Detroit, are fortunate enough to have Southwest Airlines operations lowering overall average fares.

D. **Ground Access and Total Travel Time**

1. **Ground Access**

A major argument for the feasibility of air services at New Century AirCenter is the improvement in ground access time and convenience these air services would provide over current MCI services for Johnson County residents and businesses. This section quantifies this benefit by determining the average and distribution of travel time saved on surface trips. It also includes an analysis of time saved for the complete air travel trip for a resident of Johnson County between MCI and New Century.

In order to determine the average trip time savings a passenger would accrue from New Century air services, data was collected from the Mapquest internet site. Mapquest enables a user to estimate surface travel time and distance between any two points in its database. The level of detail disaggregates to specific address. In this analysis the average travel time and distance was calculated between each zip code and both New Century and MCI. Mapquest selects a central location in each zip code to determine the travel route. The difference in travel time and distance between a trip to New Century and MCI was calculated for each zip code. A weighted average of the differential time and distance measures is given in Exhibit IV-3 below. The zip codes were weighted based on population. Full results of the analysis are included in Appendix E which shows the average travel time and distance differential, as well as population for each zip code.
Dollar values of time and distances savings were calculated as such:

- The FAA publishes estimates of the value of an air traveler’s time. The current level that the FAA accepts is $26.70 per hour. Thus the 15-minute average of time saved equates to $6.64.
- The IRS allows a business expense of $.35 a mile when individuals use their own vehicles for business purposes. The average of 19 miles saved thus equates to a dollar savings of $6.68.

Moreover, during the interview with a Sprint representative, it was revealed that the company must pay $35 for a shuttle or taxi service to MCI from the Sprint campus. Taxi companies were then called to determine the price of a fare from the campus to New Century. An average quoted price was $29. This is only a savings of $6.

Furthermore, the convenience factor of New Century varies by location within the County. Exhibit IV-4 and Exhibit IV-5 show a Johnson County map illustrating the incremental time and distance savings of each of zip code in the region.

The map show that the benefits of New Century air services would vary from zip code to zip code. The northern sections of the county would benefit much less than the southern sections. This is particularly important because most of Johnson County’s population at the current time lives in the North. Although the residents in southern Johnson County would potentially enjoy significant savings, they are outweighed by the small degree of savings in the North and its larger population base.
2. Flight and Layover Travel Time

The ground access travel time analysis did show that almost all residents of Johnson County would benefit at least minimally from the closer location of New Century. However, the drive to the airport is only a small portion of the total trip of an air traveler. The time spent on the aircraft and the layover time in stopover points waiting for a second flight are the primary time consumers of any trip. Any services originating out of New Century would be of limited scope. Thus the actual flight and layover time maybe potentially much greater than a MCI flight.

MCI has nonstop services to 62 destinations and an average of 277 departures per day. The large number of flights and destinations offers travelers convenience and greater choice than any minimal service at New Century. Whereas a potential New Century service might have four flights a day to St. Louis, MCI already has 18 flights per day. If a businessperson decides that they need to leave an hour later or come home an hour later their options are far superior at MCI. These options have significant value, even if they are never utilized.

A formal schedule analysis was completed to determine the time savings of MCI services over New Century services. The minimum travel time from MCI and New Century to the top 50 destinations of Johnson County residents was calculated, as determined by the ticket lift. The MCI travel times were calculated using March 2001 schedules obtained from the Official Airline Guide. New Century travel times were based on a hypothetical schedule for the airport. The schedule included 14 flights a day to four hub airports including Dallas Fort Worth, Denver, Chicago, and St. Louis. This schedule is very optimistic allowing for multi-directional flights and a significant number of frequencies for inaugural services. The schedule is basically a best case scenario for New Century. The timing of the New Century schedule was structured so that flights would connect conveniently with the banks of flights at the four hub destinations. Flight times for New Century are the same as a corresponding flight from MCI.

Exhibit IV-6 shows the time differential of MCI service versus New Century for the top 50 Johnson County markets. The savings in drive time for New Century was subtracted from New Century flight times to incorporate its ground access benefits.
<table>
<thead>
<tr>
<th>Airport</th>
<th>Time Differential</th>
<th>Airport</th>
<th>Time Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Antonio</td>
<td>1:33</td>
<td>Miami</td>
<td>-0.03</td>
</tr>
<tr>
<td>Albuquerque</td>
<td>1:28</td>
<td>Milwaukee</td>
<td>1:30</td>
</tr>
<tr>
<td>Atlanta</td>
<td>1:44</td>
<td>Minneapolis</td>
<td>1:51</td>
</tr>
<tr>
<td>Hartford</td>
<td>-0.20</td>
<td>New Orleans</td>
<td>0:06</td>
</tr>
<tr>
<td>Nashville</td>
<td>1:44</td>
<td>Oakland</td>
<td>0:58</td>
</tr>
<tr>
<td>Boston</td>
<td>1:15</td>
<td>Oklahoma City</td>
<td>2:18</td>
</tr>
<tr>
<td>Baltimore</td>
<td>1:22</td>
<td>Ontario</td>
<td>0:06</td>
</tr>
<tr>
<td>Cleveland</td>
<td>1:12</td>
<td>Chicago O'Hare</td>
<td>-0.14</td>
</tr>
<tr>
<td>Columbus</td>
<td>0:28</td>
<td>Philadelphia</td>
<td>1:27</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>1:20</td>
<td>Phoenix</td>
<td>1:09</td>
</tr>
<tr>
<td>Washington National</td>
<td>1:28</td>
<td>Pittsburgh</td>
<td>1:13</td>
</tr>
<tr>
<td>Denver</td>
<td>-0.14</td>
<td>Providence</td>
<td>1:26</td>
</tr>
<tr>
<td>Dallas Fort Worth</td>
<td>-0.14</td>
<td>Raleigh Durham</td>
<td>1:50</td>
</tr>
<tr>
<td>Detroit</td>
<td>1:09</td>
<td>San Diego</td>
<td>0:54</td>
</tr>
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<td>Newark</td>
<td>1:19</td>
<td>Louisville</td>
<td>0:40</td>
</tr>
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<td>Ft. Lauderdale</td>
<td>-0:14</td>
<td>Seattle</td>
<td>0:53</td>
</tr>
<tr>
<td>Houston Hobby</td>
<td>1:42</td>
<td>San Francisco</td>
<td>-0:13</td>
</tr>
<tr>
<td>Houston Intercontinental</td>
<td>1:39</td>
<td>San Jose</td>
<td>1:07</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>0:30</td>
<td>Salt Lake City</td>
<td>1:06</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>-0:14</td>
<td>Sacramento</td>
<td>1:15</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>1:07</td>
<td>Orange County</td>
<td>2:33</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>1:05</td>
<td>St Louis</td>
<td>-0.14</td>
</tr>
<tr>
<td>La Guardia</td>
<td>1:29</td>
<td>Tampa</td>
<td>1:54</td>
</tr>
<tr>
<td>Orlando</td>
<td>1:41</td>
<td>Tulsa</td>
<td>2:44</td>
</tr>
<tr>
<td>Chicago Midway</td>
<td>3:34</td>
<td>Toronto</td>
<td>1:21</td>
</tr>
</tbody>
</table>

**Exhibit IV-6. Travel Time Savings of MCI Over New Century for Johnson County Residents**

Exhibit IV-6 clearly shows that to most destinations, MCI will save a Johnson County resident significant time. This is a direct result of the high number of nonstop service and the higher frequency of services to major hubs at MCI. Although both MCI and New Century may have services to Chicago, the MCI services are better because they offer the passenger more choice. This analysis was an analysis of minimum travel time rather than average time. Thus, it calculates the best case scenario for both schedules. It did not take into account the number of flight options. For example, a passenger can fly to St Louis in approximately 50 minutes. A passenger flying from MCI can do this 18 times a day, a hypothetical New Century passenger could only do this 4 times a day. Thus, a MCI passenger is much more likely to be able to achieve the "best case scenario."
This analysis did show that out of the top 50 Johnson County destinations nine destinations would actually have time savings of an average of 14 minutes. Almost all the savings are obtained from the shorter surface trip. The total time savings in a year would equate to over 310,000 hours valued at $8.2 million if every potential passenger used the New Century service. These destinations make up 23% of total traffic. The destinations include such notable points as St Louis and Chicago O'Hare.

For 41 destinations the analysis revealed that Johnson County residents would be actually lose valuable time. These airports make up of over 68% total traffic and the average time lost would be one hour and 23 minutes per passenger. The annual loss of time would equal more than 6.037 million hours valued at $161.1 million.

E. New Century AirCenter Price Premium

In the previous section travel time saved for New Century service was estimated based on both connecting time and ground surface estimates. The analysis showed that although New Century does offer some ground access time and distance savings, overall when total travel time including time spent in the air and at connecting hubs the vast majority of Johnson County residents would be better served by services at MCI. Although a small percentage of Johnson travelers would receive benefits from a New Century.

At the same time, any New Century services would be subject to higher fare levels than those at MCI. This is true for two primary reasons. First, any airline inaugurating services would be taking a risk by coming to an unproven airport and market. In order, to make up for that risk, the airline would have to be incrementally compensated over a service at MCI. Second, operating costs at New Century would be greater requiring higher fare levels to achieve equal profit margins. Operating costs are greater for two reasons. An airline would have to setup support operations at the airport that already exist at MCI. Thus, incremental fixed costs would be incurred that would not be incurred if the flight were operated at MCI.

Variable costs of operating an aircraft will also be greater. All the airlines at MCI operate large jets (greater than 100 seats). Startup services at New Century are not able to support such large aircraft and would require either 50 seat regional jets or 19 to 39 seat turboprops. As discussed in
the Community Perceptions of this report, the consensus was that the community would not support turboprop services. Thus, regional jet services are the most probable option for new services. Regional jets, however, are more expensive to operate on a per seat mile basis. A seat mile is the number of miles a "seat" travels. For example, a 100 seat aircraft that flies 100 miles has flown 10,000 seat miles. This is an industry standard that measures activity and considers both aircraft size and travel distance. Larger aircraft are generally more efficient for obvious reasons.

Although, regional jet service is more expensive, that does not mean it cannot be profitable. Regional jets are primarily used to connect smaller markets to a hub or to each other. The passenger on these aircraft is willing to pay a fare premium for the convenience of a nonstop flight or any flight at all.

The extent of the fare premium that a Johnson County resident would have to pay was estimated for several potential routes. The analysis was based on the higher costs that an airline would incur if it flew a regional jet out of New Century versus its current services at MCI with a larger jet. Cost data was collected from U.S. Department of Transportation database Form 41. Aircraft and airline cost data is reported in Appendix F. The data was subdivided by airline and aircraft type. Exhibit IV-7 shows the results of the analysis. Average fare data of existing services was obtained from Database 1B.

<table>
<thead>
<tr>
<th>Hub Destination</th>
<th>Airline</th>
<th>Current Service</th>
<th>Potential Regional Jet Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Cost Per Seat</td>
<td>Equalization Fare</td>
</tr>
<tr>
<td></td>
<td>Fare</td>
<td>Mile</td>
<td>Fare</td>
</tr>
<tr>
<td>Denver</td>
<td>United</td>
<td>$183</td>
<td>$0.116</td>
</tr>
<tr>
<td>Chicago</td>
<td>United</td>
<td>$175</td>
<td>$0.094</td>
</tr>
<tr>
<td>Chicago</td>
<td>American</td>
<td>$168</td>
<td>$0.103</td>
</tr>
<tr>
<td>Dallas Ft Worth</td>
<td>American</td>
<td>$157</td>
<td>$0.130</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Delta</td>
<td>$190</td>
<td>$0.101</td>
</tr>
<tr>
<td>St Louis</td>
<td>TWA</td>
<td>$122</td>
<td>$0.096</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>Delta</td>
<td>$200</td>
<td>$0.095</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>$171</td>
<td>$0.11</td>
</tr>
</tbody>
</table>

Source: EK Analysis

Exhibit IV-7. Comparative Fare and Cost Data Between Potential New Century Service and Existing MCI Service
An equalization fare level was estimated for potential New Century services for each route. The equalization fare is the fare level at which New Century services would have equal profits with current MCI services on a seat mile basis. In order for United to make as much profit per seat mile with a regional jet service to Denver it would have to charge an average fare of $209 or a 14.1% fare premium. The route would cost a Johnson County resident on average an additional $26.

Cost per seat mile is subdivided between fixed and variable costs. Variable cost data is based on aircraft type while fixed cost data is based on an allocation of functional and corporate overheads which cannot be attributed to specific aircraft or flights. It was assumed that New Century would have a 10% fixed cost premium due to reasons stated above. The higher regional jet costs are partially due to this fixed cost premium, but primarily because of the higher variable operating cost of these aircraft. Revenue projections were based on average fare levels and load factor data obtained from the T-100 database. T-100 load factor data is given in Appendix G. The fare premium analysis is conservative, as it assumes that load factors for the regional jets will match those of the larger jets at MCI. Previous experience indicates that commuter operations at small airport have significantly lower load factors than jet services at large airports.

The average fare premium for these potential routes is 15.5% or $27. In the previous section on ground access, it was estimated that the average Johnson County resident would save 15 minutes of time and 19 miles of distance equating to $13.32 in value to the air travel. Thus, the net benefits of an average traveler would actually be a loss of $13. It should also be clearly noted, this includes only the travelers that do not lose the benefits of easier access due to longer flight and connecting times evaluated in the previous section.

F. **Preliminary Airline Contact**

The analysis of prospects for scheduled air services at the New Century AirCenter rests primarily on the following:

- A review of airline industry trends, and the manner and extent to which they favor or oppose scheduled air services at New Century;
- An analysis of population and income trends in Johnson County and Greater Kansas City;
• A comprehensive review of the costs and benefits of the prospective services. This addressed what costs passengers at New Century would likely pay vis-à-vis Kansas City International, and the benefits they would likely obtain;

• Interviews with Johnson County community leaders, to identify attitudes and perceptions. These discussions addressed broad community issues and determined the level of public concern over this issue. Discussions with local businesses and economic development organizations examined if the lack of scheduled services at a Johnson County airport was constraining community development;

• An analysis of the air services and infrastructure at the Kansas City International Airport, to determine if there is an immediate or future need for a reliever airport in metropolitan Kansas City.

The final part of this research involved discussions with the airlines themselves. It is they, after all, who would make the final decision on serving New Century. The answers to these discussions should not be viewed as final; the process of courting a prospective airline to begin services can take years. Many different departments of the airline would be involved, and a decision would represent a compromise between many considerations. Rather, these discussions were of a strictly preliminary nature, and gauged the likely difficulty of a more concerted, persistent and aggressively funded initiative by the Commission. The response of Southwest Airlines to Edwards and Kelcey's inquiries is located in Appendix I.

These carriers contacted represent a cross-section of the industry, and include the best prospects for New Century. They, and other airlines, are continually besieged by communities seeking services, and receive all manner of requests, ranging from exhaustive and tightly focused requests for specific routes, to "pie in the sky" dreams. All carriers contacted were, however, friendly and helpful, as well as exceedingly frank. Favorable respondents said that the Commission has the burden of proof to establish that a route to New Century could be profitable. Nothing would be possible until the airline received compelling evidence. Other respondents complained about the low fares at Kansas City International and the difficulty of launching regional jet services from an airport in such close proximity. They did not wish to incur the added costs of an operation, merely to undermine their services at MCI. One raised concerns about potential problems of unplanned flight cancellations, and the possibility of passengers being stranded at New Century. All carriers were exceedingly skeptical.
These discussions were by no means exhaustive and did not include all airlines. Furthermore, the carriers are open to proof, and an airline might change their position if presented with suitable evidence. The persons we interviewed would not necessarily be the final decision makers, although they would certainly have substantial input. It is very clear from these discussions that there is broad skepticism about the viability of scheduled services at New Century. While a very persistent, determined and strongly funded campaign by the Commission might attract a carrier, it would face a long, expensive and frustrating process. None of our research has suggested that the possibility of success or the resulting benefits would justify such an expensive and risky effort.

G. Summary

The previous chapter had indicated that Johnson County if an entity unto itself, generates enough air passenger traffic to support services. However, any New Century air service initiatives would have to compete with existing air services at MCI and the attitudes and levels of satisfaction of the community to these services. The analyses in this chapter indicated that potential services would have very competitive hurdles to overcome to become viable for the following reasons:

- The community perceptions of current air services were very positive. Residents enjoy the low fares and multiple nonstop flights at MCI. They have grown accustomed to longer drive times.

- New Century, while more convenient for most county residents, does not offer as much time savings as initially expected. This is especially the case for residents of the northern sections of the county. Air services at New Century would only save the average traveler 15 minutes of time and 19 miles of distance. A large percentage of residents would see very little or almost no ground access benefits.

- Even though New Century may offer beneficial ground access savings to many County residents, almost all these benefits would be lost by additional flight time air services at New Century would incur in comparison to MCI services.

- Johnson County residents would certainly be required to pay a price premium for air service out of New Century. The price premium was estimated to be approximately 15% or $27 per one way flight under the most optimistic of circumstances. The travel time savings of New Century's easier ground access was estimated to be only worth about $13 for an average passenger, less than half the expected increase in additional fare costs.
Edwards and Kelcey contacted four separate airlines about the potential of inaugurating air service at New Century. All were highly skeptical due to New Century's vicinity to MCI, the added costs of split operations and the ability of regional jets and turboprop aircraft to compete with large jet services out of MCI.
V. CONCLUSIONS AND RECOMMENDATIONS

A. Introduction

The preceding chapters of this Report summarize the objectives, methodologies and conclusions of a review of the feasibility and advisability for scheduled air services at the New Century AirCenter. They serve as the basis for a go/no-go recommendation to the Johnson County Airport Commission for pursuing scheduled air service. Depending on the broad strategic direction that it takes, the Commission will face other choices, as shown in Exhibit V-1.

<table>
<thead>
<tr>
<th>Should the Johnson County Airport Commission pursue Scheduled Services for New Century?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>What route(s) should the Commission seek?</td>
</tr>
<tr>
<td>What carriers should it target?</td>
</tr>
<tr>
<td>What approach should it employ for marketing the AirCenter to the identified airlines?</td>
</tr>
<tr>
<td>What role should the Johnson County community play in the process?</td>
</tr>
<tr>
<td>What facilities should the Commission provide at New Century for scheduled services and how should it manage facilities issues?</td>
</tr>
<tr>
<td>How should the Commission manage community expectations for its air service development efforts?</td>
</tr>
<tr>
<td>How should the Commission's relationship to the community change as a result of the enhanced role for the New Century AirCenter?</td>
</tr>
</tbody>
</table>

Exhibit V-1. The Choices Facing the Johnson County Airport Commission

This chapter summarizes the best air service strategies for the Commission, in light of this framework. The following section reviews and summarizes highlights of Edwards and Kelcey's research, and provides a point of departure for the recommendations.

*Edwards and Kelcey, Inc.*
B. Conclusions

Exhibit V-2 summarizes the key findings of this Study. It shows the importance of each conclusion on the feasibility of scheduled air services at the New Century AirCenter.

<table>
<thead>
<tr>
<th></th>
<th>Impact on Feasibility of Scheduled Air Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td><strong>The Community</strong></td>
<td></td>
</tr>
<tr>
<td>Sophisticated Business</td>
<td>Source of profitable, dependable traffic</td>
</tr>
<tr>
<td>Community</td>
<td>No strong support for scheduled services at New Century. High passenger standards rule out turboprops.</td>
</tr>
<tr>
<td>Large Traffic Base</td>
<td>About half of MCI's traffic comes from Johnson County</td>
</tr>
<tr>
<td>Fast Growth</td>
<td>Growing need for air services</td>
</tr>
<tr>
<td>Affluent population</td>
<td>Growing need for air services</td>
</tr>
<tr>
<td>Shift of population to SW</td>
<td>More traffic originating near New Century</td>
</tr>
<tr>
<td>Excellent Highways, no congestion</td>
<td>Good access to New Century</td>
</tr>
<tr>
<td>Value-conscious community</td>
<td>Will not pay fare premium at New Century</td>
</tr>
<tr>
<td>Community Support for MCI</td>
<td>Do not wish to fragment services or undermine MCI</td>
</tr>
<tr>
<td>NASCAR, Wizard of Oz</td>
<td>Expands Johnson County traffic</td>
</tr>
<tr>
<td></td>
<td>Serves fare-sensitive leisure passengers</td>
</tr>
<tr>
<td>Aversion to turboprops</td>
<td>Greatly increases the traffic and revenues needed to support a minimal scheduled service.</td>
</tr>
<tr>
<td>Location of MCI</td>
<td>Inconvenient for Gardner, Olathe</td>
</tr>
<tr>
<td></td>
<td>Convenient or satisfactory to most of Johnson County</td>
</tr>
<tr>
<td>No congestion at MCI</td>
<td></td>
</tr>
<tr>
<td>Kansas-Missouri rivalry</td>
<td>People want KS Airport</td>
</tr>
<tr>
<td></td>
<td>Small factor, of declining importance and dubious legitimacy</td>
</tr>
<tr>
<td><strong>New Century AirCenter</strong></td>
<td></td>
</tr>
<tr>
<td>Facilities</td>
<td>Adequate runways, navaids</td>
</tr>
<tr>
<td>Location</td>
<td>Close to Gardner, Olathe</td>
</tr>
<tr>
<td></td>
<td>Far from Overland Park, Shawnee</td>
</tr>
<tr>
<td><strong>The Airline Industry</strong></td>
<td></td>
</tr>
<tr>
<td>Cost pressures</td>
<td>Slow growth, reluctance to serve new airports</td>
</tr>
<tr>
<td>Mergers</td>
<td>May give a carrier &quot;critical mass&quot; in Kansas City to expand product to New Century.</td>
</tr>
<tr>
<td></td>
<td>Reduce number of candidate airlines</td>
</tr>
<tr>
<td>Regional jets</td>
<td>Permit low volume jet services to small airports</td>
</tr>
<tr>
<td></td>
<td>Require high fares to be profitable</td>
</tr>
<tr>
<td>New entrants</td>
<td>May prefer secondary airports</td>
</tr>
<tr>
<td></td>
<td>Group is risky and unstable</td>
</tr>
<tr>
<td>Southwest Airlines at MCI</td>
<td>Could serve Dallas Love from New Century</td>
</tr>
<tr>
<td>Reduced services by turboprops</td>
<td>Reduces available options</td>
</tr>
<tr>
<td>Low fares at MCI</td>
<td>New Century services would require a fare premium</td>
</tr>
<tr>
<td>Dynamics of Multi-Airport Communities</td>
<td>Metropolitan Kansas City does not meet the conditions of a successful multi-airport community</td>
</tr>
<tr>
<td>Abundant capacity at MCI</td>
<td></td>
</tr>
</tbody>
</table>

Exhibit V-2. Principal Findings
Most of the factors summarized in Exhibit V-2 are negative. A review of the most important elements follows.

The strongest evidence favoring scheduled air services is the large traffic base of Johnson County. The study’s statistical procedures, whether using the ticket lift, the cross-sectional analysis of the community, or the license plate survey, uniformly provided strong, consistent and undeniable evidence of abundant air traffic generated by Johnson County. If somehow isolated from Greater Kansas City, Johnson County alone could support a commercial airport the size of Milwaukee; an airport with multiple airlines, over 5 million O&D passengers annually and nonstop services to many dozens of communities. This airport would be mini version of Kansas City International. As the County grows to the southwest along Interstate 35, the relative benefits of New Century over Kansas City International will increase. However, New Century may then face residential urban areas, and some residents may oppose airport expansion.

However, it is not the population of Johnson County, but the pre-existence of Kansas City International Airport, which is the pivotal factor on the air services question. The Johnson County community is strongly supportive of MCI. As in Johnson County and elsewhere, community preferences for particular airports are strong and long lasting. It is doubtful that Johnson County residents would pay the higher fares, and endure a clear loss of convenience, to obtain the very modest benefits of scheduled air services at New Century.

The "Johnson County generates most of MCI's traffic" argument has little validity in a metropolitan region the size of Kansas City. Most airports in the nation have a lop-sided distribution of traffic, in which one area generates a disproportionately large share of the total. When a community builds only one scheduled services airport on the periphery, it is inevitable that some passengers and some areas of the metropolis will have longer surface travel distances and times than others. While the location of the Kansas City International Airport is not convenient to Johnson County, it is a fait accompli, which has not prevented the County from thriving. Johnson County and Metropolitan Kansas City do not have a unique access problem.

As shown in Chapter II, Kansas City has none of the attributes of a community with multiple airports for scheduled services:
• It does not have a population exceeding 4 million persons
• It is not facing major facility constraints
• There is not a distinct niche market that cannot be served adequately by one major airport
• The area does not experience extreme distances or travel times
• Administrative rules or slot controls which artificially constrain an airport does not exist, and
• There is not a demand by a carrier wishing to differentiate their services by operating to a secondary airport.

Airline industry fundamentals uniformly oppose any initiative for scheduled air services at New Century. Airlines typically do not like to assume the large fixed costs of a new station, especially when the planned flights would compete with a thriving operation barely 35 miles away. The current economic climate, in which most airlines face large increases in fuel and crew costs, and sluggish traffic, makes them only more reluctant to expand.

As shown in Chapter IV, Kansas City has some of the lowest fares in the nation. The low fares result from:

• Services by low fare airlines such as Southwest, Vanguard and Frontier. Kansas City has become an important station for Southwest Airlines, with nonstop services to 24 cities throughout the nation.

• The lack of a hub of a large network airline. An airline with a large hub has a very strong advantage in competing for locally originating traffic. This is reflected in average fares that are significantly higher than for non-hub communities. Thus travel to "fortress hubs" such as Cincinnati and Charlotte can be very expensive. At Kansas City, in contrast, no carrier dominates the market sufficiently to obtain a fare premium.

• Favorable geography, which allows several airlines to serve any particular city-pair through their hubs. Thus American, United, Delta, US Airways, Northwest, Continental and Trans World offer reasonably direct services to New York. In regions such as the Northeast or Southeast, the geographical distribution of hubs prevent all but one or two airlines competing between many city-pairs.

• Limited congestion at downline airports. While some destinations served nonstop from Kansas City are congested (e.g. Chicago O'Hare), these problems are less severe than at many communities. Through limiting airline capacity, airport congestion helps boost fares.
These circumstances are fortuitous for residents and visitors to Greater Kansas City. However, they greatly complicate any initiative to obtain scheduled air services at New Century. An ambitious goal for New Century would be 3-5 flights per day commuter turboprop or regional jet service. However, the operating costs of such a service would be high, because of the small size of aircraft (and a correspondingly high cost per available seat-mile) and the fixed costs of establishing a new, low volume station at New Century. The service could only be profitable with fares at least 14% higher than at Kansas City International. Based on our interviews, we are highly skeptical that the small percentage of potential passengers who benefit would pay such a premium for the modest time savings.

The best air services opportunity for New Century could involve a new entrant. Despite Deregulation, the airline industry has proved very difficult for new entrants. Established airlines can readily add capacity where they face new competition, and can sell discounted seats at strategic departure times. Frequent flyer programs and corporate travel discounts pose further entry barriers. Most recent startups, including Western Pacific, Access Air and Legend, have failed.

New entrants sometimes seek to distance themselves from entrenched incumbents by serving different airports in the same cities. Thus, Pan American serves Chicago through the Gary IN airport, Boston via Portsmouth NH and St. Louis from the Mid America Airport. Similarly, a new entrant might seek to serve Greater Kansas via the New Century AirCenter, avoiding competitors at Kansas City International.

This reasoning suggests that New Century should target a new entrant airline. However, there are several potential drawbacks to this proposal:

- New entrants are inherently fragile. They often lack the resources to launch new services. Their shaky finances often require that any new routes be successful from the outset.
- A service to New Century by a new entrant could easily fail for reasons altogether outside the control of the community and the Airport Commission. This would unfairly discredit the community and the Commission.
- New entrant carriers sometimes have unreliable services. They often use older aircraft. Most large airlines maintain operational but idle equipment around their systems, to ensure that weather, congestion or mechanical problems do not disrupt the schedule excessively. Small,
Conclusions and Recommendations
Feasibility of Attracting Scheduled Air Service

poorly financed new entrants do not have this buffer capacity and must often cancel flights if unforeseen problems arise. A few instances of passengers stuck at New Century due to mechanical problems could irreparably harm its scheduled service prospects.

- A bankruptcy could prevent the Commission from any recovering funds owed to it.
- The vulnerability of a new entrant would make any investments in a passenger terminal particularly risky.

If the New Century AirCenter already had a passenger terminal, and if the Commission had already committed to pursuing passenger services, we would likely recommend pursuing a new entrant. With large facilities investments already made, and ratepayers expecting a quick payback, the Commission and the community would be expected to pursue any new carrier. With few opportunities among established airlines, New Century would be forced to select from a few limited and less attractive alternatives. However, being forced by necessity to work with a group of potentially fragile and unreliable carriers to meet community expectations is not a good situation for anyone.

C. Recommendations

1. Do Not Seek Scheduled Services at the New Century AirCenter

Edwards and Kelcey recommends against pursuing scheduled air services at the New Century Airport. Such an initiative would be contrary to the best interests of the Johnson County community and the mandate of the Commission. As summarized in previous chapters:

- There is no clear or even perceived community need for scheduled air services to New Century.
- There is no evidence that a lack of scheduled services is limiting the growth or the national competitiveness of Johnson County.
- The initiative would have a low probability of success, whether of initially attracting an airline or of generating a sufficient financial return to retain the service.
- The effort would be costly to the Commission, especially in the area of capital costs, consultant’s fees and ongoing marketing expenses.

Edwards and Kelcey, Inc.
- The effort could lead to the Commission's having to make a large investment in developing a passenger terminal at New Century. Such an investment, which can only be considered speculative, would permanently commit the Commission to marketing itself as a scheduled airport, with all attendant costs. It would expose the Commission to the large "worst case" risk of building a terminal, and having a succession of low quality and short-lived services which fail for reasons totally beyond the control of the community.

- The effort could divert Johnson County from the important task of supporting the development of better air services at Kansas City International Airport.

- The fundamentals of the airline industry are opposed to scheduled air services at New Century.

2. Support Air Services Development at Kansas City International

The Commission should support any and all efforts by the Kansas City International Airport to improve its scheduled passenger services.

A repeated theme of many of the interviews was the need to support the Kansas City International Airport. Many of our contacts feared that New Century could fragment the market, and possibly weaken Kansas City International. However, the research for this Study suggests that limited air service at New Century would not necessarily weaken the services at Kansas City International. While an individual airline may be reluctant to split its Kansas City operation over two airports, the modest service to which New Century could aspire would not weaken Kansas City International to any significant degree.

The interviews showed an absence of Kansas-Missouri parochialism. The refurbishment of the Kansas City Union Station was cited as an example of the cooperation that is becoming more necessary. There is a danger that, whatever the Commission's motivation, any effort to obtain scheduled air services at New Century could be perceived in Missouri as altogether parochial. It could also be viewed by airlines as evidence of a lack of community solidarity. This could undermine efforts to obtain more scheduled services at Kansas City International.

Although Kansas City International has excellent services and fares, it has suffered its share of setbacks. The Eastern and Braniff hubs failed, for reasons totally outside the community's control.
Kansas City has repeatedly and unsuccessfully tried to attract a hub; it remains the largest and most centrally located commercial airport without a hub. Home carrier Vanguard Airlines still continues to struggle. Kansas City International faces several difficulties of its own obtaining new services, including:

- The very low level of fares, which discourages new services;
- The intense level of competition, with traffic fragmented over many airlines and hubs;
- Southwest's large role at MCI, which depresses the level of fares;
- The airport's role as the base for low fare Vanguard Airlines, which increases the threat of fare dilution;
- Lack of a large hub carrier with comprehensive domestic feeder network able, to support international services; and
- A limited international traffic base.

The low fares are particularly important obstacles, since carriers increasingly pursue not traffic, but high quality revenue. The prosperity, strong commercial base and rapid growth of Johnson County are major inducements to any carrier considering new services to Greater Kansas City. Johnson County support for any air services initiative at Kansas City International would be viewed as evidence that Greater Kansas City is a strong and cohesive community that offers a prospective carrier low risk and profitable opportunities.

3. **Be Prepared to Support All Cargo Services at New Century if Approached by the Carriers**

We recommend against New Century pursuing scheduled passenger services. The benefits would be modest, the risks substantial, and the prospects of success very low. Furthermore, we believe that the County and the Commission should support further development of Kansas City International as the sole passenger gateway to the region and eschew any efforts to fragment the market.

Despite the low probability of attracting scheduled passenger service, New Century **might** play an important role for air cargo or industrial aviation. Several factors could favor cargo services at New Century:
The large UPS sorting facility in Johnson County;
- The region's growing population. It is a growing generator of traffic, and could also supply the staff needed for a sorting facility;
- New Century's proximity to Interstate 35;
- Most all-cargo services operate at night. Cargo operators are increasingly threatened by aircraft noise complaints. They seek to grow at facilities where there is no prospect of nighttime flight restrictions;
- New Century is located in the geographical center of the United States;
- The large supply of vacant land near New Century; and
- New Century's ability to offer an airfield specializing in the needs of cargo carriers

There are two successful cases of airport cargo development that might be relevant to New Century:

The Rickenbacker Airport
The Rickenbacker Airport, just south of Columbus Ohio, is one of the most successful cargo airports. A former military field (it still serves the Reserve), it accommodates both "hard cargo" operators\(^\text{10}\) (airlines which carry very large, containerized shipments under contract) and integrated operators\(^\text{11}\). The airport serves a large local shipping/logistics industry for large forwarders and retailers such as The Limited. Several distribution complexes are located close or near to the airport. Passenger services, including belly cargo, remain at the Port Columbus Airport.

Alliance Airport
The Alliance Airport, located north of Fort Worth, TX was established as an industrial airport. It is less congested than other airports in the Dallas/Forth Worth Metroplex and has abundant land for aerospace industries. Federal Express has developed a large sorting facility, while American Airlines has established a substantial overhaul base for widebody aircraft.

\(^{10}\) These carriers are commercial airlines. They carry traffic on all-cargo flights or in the bellies of passenger aircraft. Shipments tend to be very large, and are often tendered in full container loads. Many entities; airlines, truckers, forwarders and customs brokers, may participate in any one shipment. These entities are especially important on international routes.

\(^{11}\) Companies such as FedEx and United Parcel Service. These firms perform all shipping functions in-house. They carry both large (i.e. full containers moving under long term contracts) items, and small document/package shipments tendered by individuals and small businesses. Service standards vary from same day to several day delivery.
The Terms of Reference for this Study did not include an assessment of New Century's cargo potential, and Edwards and Kelcey's research did not include this component. We therefore cannot make a recommendation on the feasibility or desirability of obtaining cargo services. Kansas City International may oppose any effort by New Century to "steal" its all-cargo services. However, the New Century AirCenter might offer cargo carriers unique advantages. The Commission should remain receptive to all-cargo carriers considering a location at the New Century AirCenter. There is no current evidence that the integrated carriers are interested in establishing new hubs in the central U.S. However, such decisions are made internally, after extensive analysis. The Commission may, if it deems it appropriate, approach the leading carriers such as UPS, Federal Express, Emery, Burlington and Airborne with information about New Century and a proposal for leasing airport land.

The Commission must recognize that its role in any final decision is limited. In its efforts to attract a passenger carrier, it can assemble and analyze considerable data (such as that used in this Study) on passenger travel patterns and preferences. Data can be collected with relative ease, and a considerable quantity of information is available from the United States Department of Transportation. Data on cargo traffic is very limited. The cargo operators are highly sophisticated, and are continually reviewing their networks. Any decision to establish a new hub would be the result of a complicated analysis of traffic, current logistics patterns and operating costs. The cargo airlines are well aware of unused airport capacity throughout the country. The Commission will have access to virtually none of this data, and will not even have a good understanding of the targets' decision-making processes. The Commission's ability to influence the decision, through providing otherwise unknown information or insights will be very limited, especially in comparison with passenger services.

All-cargo services, especially by integrated carriers, operate at night. The convenience of a spoke airport is greatly harmed by any nighttime operations restrictions. All-night operation is a sine qua non prerequisite of a cargo hub. Even the prospect of nighttime restrictions would eliminate an airport from consideration. Thus, New Century can only compete for cargo services if there is no prospect of opposition by adjacent communities to airport noise. It is therefore of special importance that the Commission protect its options for the future. It should carefully monitor, control, and if necessary, prevent further residential development in the vicinity of the New Century AirCenter.
4. Protect Long Term Options for New Century and Johnson County

This is the most important recommendation. While the interviews uncovered only limited support for scheduled air services to the New Century AirCenter, they exposed a very clear pride in Johnson County and a desire for continued progress. The issues of recent growth, and accommodating future development in a fair, cost-effective, ecologically sensitive and fair manner are very important to the community. The growing dispute between nearby residents and the Executive Airport highlights the problems of rapid growth.

While there is no case for an immediate need for scheduled passenger services at New Century, there is overwhelming evidence that New Century AirCenter might face new and expanding demands (which may or may not include scheduled services) in the future. The airport can only fulfill these new roles if the County and the Commission taken conscious steps to preserve these options. In particular, the Commission must ensure that a buildup of residential areas close to New Century does not prevent the AirCenter from meeting demands 20 or 30 years in the future. Effective land acquisition and zoning measures are imperative if New Century is to fulfill the future needs of Johnson County.

5. Manage Community Expectations

As Johnson County grows and traffic congestion increases, residents may become increasingly concerned about travel times to the Kansas City International Airport. Furthermore, airports and aviation will remain a high profile item for public concern. It is probable that, despite the recommendations of this Study, County residents may continue to seek scheduled air services from New Century. It is important that this issue not sidetrack the Commission for important decisions regarding the County's airports.

6. Remain in a Reactive Mode for Scheduled Passenger Services

Scheduled airlines have examined New Century in the past, and may likely do so in the future. It is thus possible that, whatever the conclusions of this research, the issue of scheduled services will remain. A prospective carrier might approach the Commission about starting services. The Commission should be prepared to assist any carrier considering services to the AirCenter, by providing information on the community.
It is recommended that any such cooperation be **reactive** than **proactive**. The Commission should respond to the needs of any and all users or potential users; it should not, however, aggressively seek scheduled operators. It should remain with Recommendation (4), while allowing potential carriers the fullest freedom to choose.

7. **Re-open the Scheduled Air Services Issue if Appropriate**

Based on airline industry trends and the development of Johnson County, it is unlikely that circumstances will change sufficiently in the near future to amend these recommendations. Nevertheless, the Commission should reopen the issues of scheduled air services to the New Century AirCenter under the following conditions:

- Greater Kansas City passenger traffic continues to increase rapidly with Johnson County as the major catalyst. The population of Greater Kansas City grows substantially larger than its current 1.7 million. (the current threshold for a two airport city is approximately a population of 4 million). Greater Kansas City population is only project to grow to about 1.91 million by the year 2010. However, as average propensities to travel increase nationwide and in Johnson County the population threshold may decrease. FAA Terminal Area Forecasts (TAF) project that MCI passenger traffic will grow 43% by the year 2010 with about 14 million annual O&D passengers. This approaches the annual number of O&D passengers in the Houston market at 17 million. TAF for MCI are reported in Appendix H.

- Unforeseen changes in aircraft technology or airline competitive behavior cause a substantial fragmentation of airline networks and permit previously unserved airports to obtain scheduled air services;

- The development of large attractions such as the Oz center sharply increases the quantity of traffic to the area.

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12 "Metro Market Profile, Kansas City 2000", CERI Market Research