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An Analysis of the Effects of Affordable Airfares Programs on Wichita Area Employment

Approach & Results



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Introduction

Adequate levels of airline service can play an important role in urban economic development. Having access to multiple airline services at a single airport can increase competition among airlines, which in turn lowers fares, reducing the costs of business travel and meeting face-to-face with business collaborators. This can make a city more attractive to both potential new businesses looking to locate there and businesses which already exist in the area. Lower travel costs can help increase intercity agglomeration economies by making it easier for firms to integrate themselves with the business community outside of the city in which they are located¹.

In 2002, Wichita introduced its Fair Fares program to help attract low-cost air carriers to provide service, with the goal of reducing the airfares paid by travelers at the Wichita Mid-Continent Airport, and in 2006 the program was expanded to the state level as the Kansas Affordable Airfares Program. Starting in 2002, the program was successful in attracting several low-cost air carriers to service routes from Wichita Mid-Continent Airport, and, in each year since 2002, there has been a low-cost air carrier with a presence at Wichita Mid-Continent Airport.

Approach

The scope of this study is to estimate the average effect the Affordable Airfares program has had on employment in the Wichita metropolitan statistical area (MSA)². To accurately estimate this effect, a panel regression econometric was taken to examine the effects of airport incentives used in mid-sized MSAs to attract low-cost air carriers across the United States. This approach was taken to better isolate the effect of incentives programs and the low-cost carriers attracted by them and to avoid confounding factors such as the national business cycle or factors specific to a single airport or MSA.

The underlying methodology of this study is based on Jan Brueckner's 2003 study, *Airline Traffic and Urban Economic Development*. This study updates the methodology in several meaningful ways. The panel regression approach was taken in order to best estimate the changes over time in airport traffic after the incentives were introduced and a low-cost carrier entered the market. The sample selected included annual observations from 1999 to 2013 for 50 mid-sized MSAs. The population of the MSAs ranged from 414,079 to 1,902,404, and each MSA had at least one major airport located within its borders. The sample was limited to mid-sized MSAs to best estimate the effects on Wichita and comparable cities.

To estimate the effects of incentives on employment, a two-step approach was taken³. First, a panel regression of airport traffic on the presence of an incentives-attracted air carrier and other controls was

¹ Brueckner, Jan K. "Airline Traffic and Urban Economic Development," *Urban Studies*, Vol. 40, No. 8 1455-1469, July 2003, pg. 1456.

² The Wichita MSA includes Butler, Harvey, Sedgwick, Sumner, and Kingman counties.

³ A more detailed description of the model and equations used is available in the methodology section of this report.

run to estimate the effect that the presence of an incentives-attracted low cost air carrier had on overall airport traffic. Then, the second regression estimating the effects of airport traffic on MSA employment was run. Combining these two estimators enables us to determine the average effect of incentives on MSA employment.

Results⁴

- CEDBR’s estimate is that, on average, annual airport traffic is 18.1 percent higher at airports with an incentives-attracted low-cost carrier⁵. This increase in air traffic is estimated to persist even after the incentives are discontinued, assuming the incentives-attracted low cost air carrier continues operations at the airport.
- To estimate the effects of air traffic on employment, three different estimators were calculated, each using different controls for local business conditions⁶. Each estimate of the average effect on employment of a one percent increase in airport traffic is presented in the following table:

Average Effect on Annual Total Non-Farm MSA Employment			
	Low Estimate	Medium Estimate	High Estimate
An 18.1 increase in airport traffic is estimated to lead to...	0.57 percent increase in annual total employment	0.89 percent increase in annual total employment	1.1 percent increase in annual total employment

- Based on CEDBR’s estimators for the effect of an incentives-attracted low-cost carrier on airport traffic and for the effect of increased airport traffic on total non-farm MSA employment, the average annual effect on the Wichita MSA’s total non-farm employment is estimated to be:⁷

Average Effect on Annual Total Non-Farm Employment for a Wichita-sized MSA			
	Low Estimate	Medium Estimate	High Estimate
On average, presence of an incentives-attracted low cost air carrier is estimated to lead to...	Approximately 1,700 more jobs than if the carrier was not present	Approximately 2,600 more jobs than if the carrier was not present	Approximately 3,400 more jobs than if the carrier was not present

- These estimates represent the average number of additional jobs that existed in the Wichita MSA each year that an incentives-attracted low cost carrier was in operation at Wichita Mid-Continent Airport, relative to the number of jobs that would have existed if the Wichita MSA did not have an incentives-attracted low cost air carrier serving the MSA.

⁴ The full regression result table is available in the appendix of the methodology section of this report.

⁵ Relative to airport traffic if the low-cost carrier was not present at that airport.

⁶ The low estimate uses real personal income per capita as the control for local business cycle conditions, the medium estimate uses real GDP per capita as the control for local business cycle conditions, and the high estimate does not include a control for local business cycle conditions. See methodology section for more details.

⁷ To calculate, the annual total non-farm Wichita employment from 2001, the year prior to the incentives being implemented, is used as the employment base, then the estimators of the effects of incentive-attracted low-cost carriers and airport traffic are applied. Using the average Wichita employment from 1999 to 2013 as the employment base provides similar results.