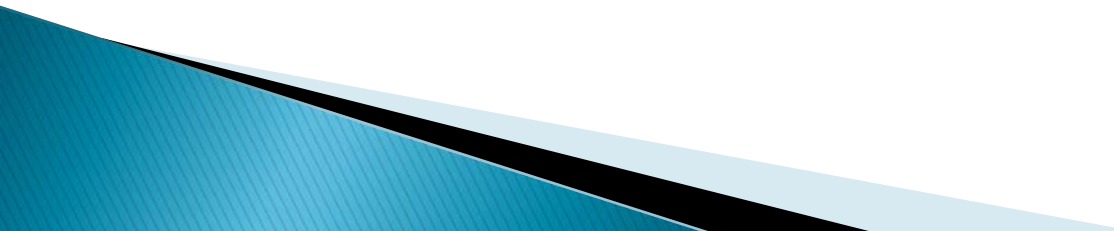


If you build it will they come?


Examining Urban Economic Growth and Development from Sports Stadiums and Arenas

Dr. David M. Mitchell
Missouri State University
LEHD Workshop Census Bureau
Washington, DC
March 7, 2016

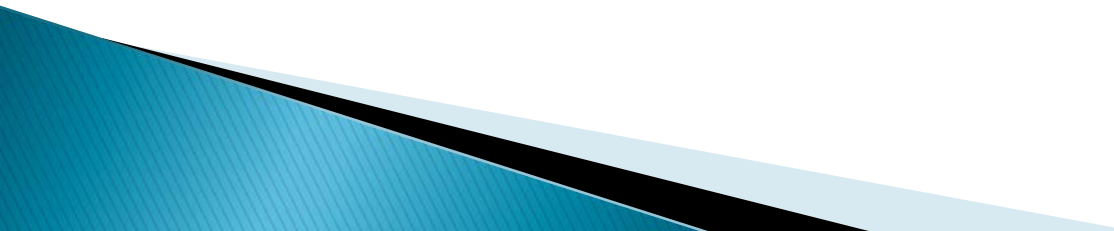
Understanding the Problem

- ▶ Do stadiums and sports arenas spur economic growth?
 - ▶ Many studies have examined the issue from various methodologies
 - ▶ City wide employment /sector employment/earnings
- 

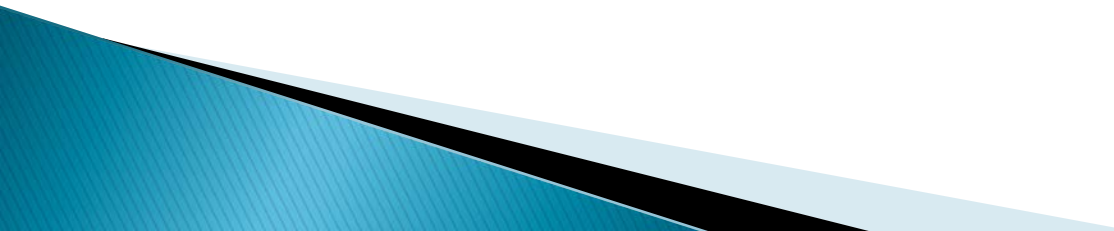
Understanding the Problem

- ▶ Coates and Humphreys (1997, 2003) find an increase in recreation earnings, but declines in employment and earnings in other sectors of the city
 - ▶ Hudson (1999) finds no evidence for the presence of a sports team changing employment or income in the city
 - ▶ Rappaport and Wilkerson (2001) admit that finding increases in employment and earnings is difficult, but that if one examines quality-of-life measures, the results are different
- 

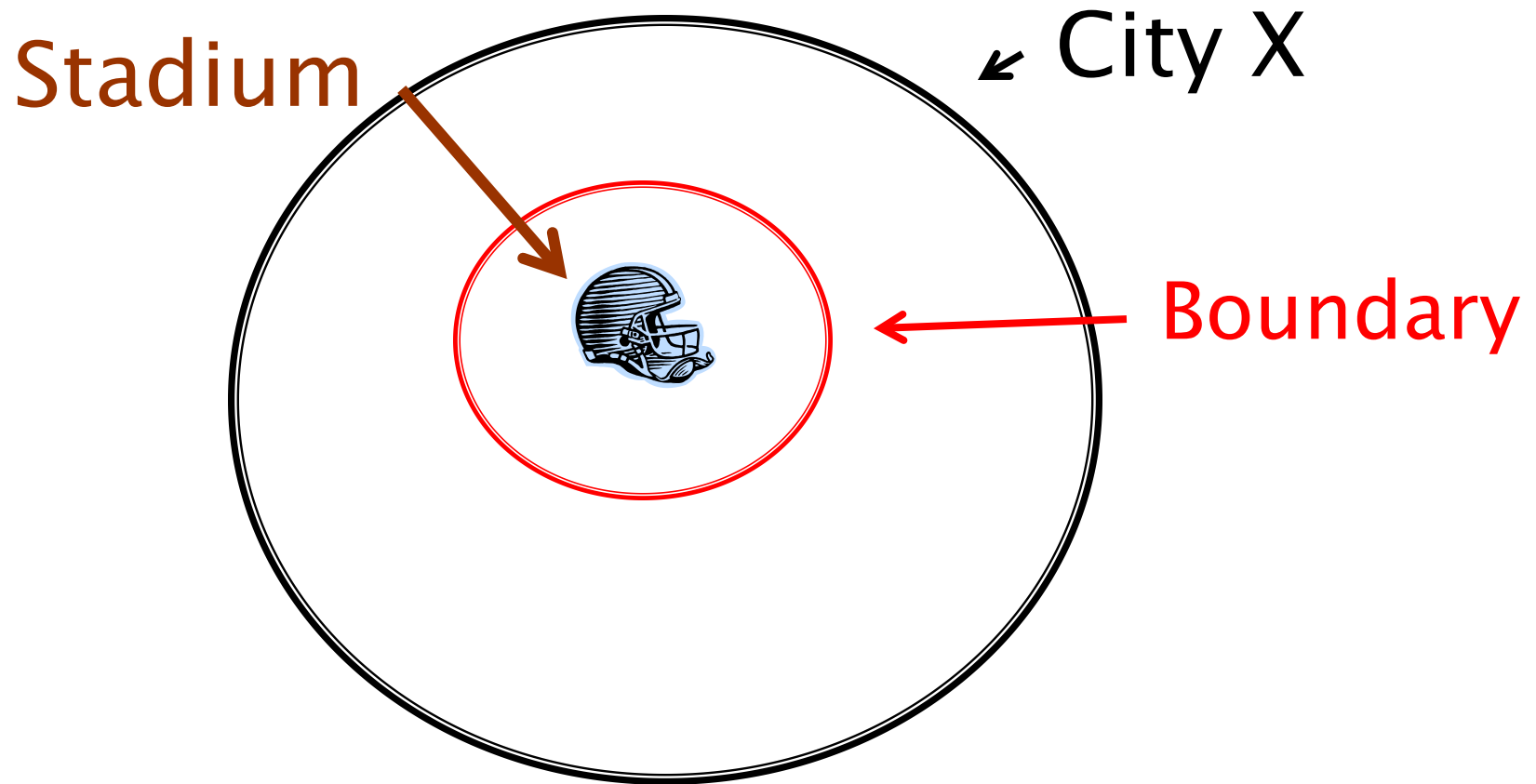
Understanding the Problem

- ▶ Very few, if any, previous studies examine whether arenas change the ‘distribution’ of employment within an urban area
 - ▶ This project examines the issue using data from the LEHD database: i.e., On The Map
 - ▶ The methodology can be used to examine pockets of growth in your city/county
- 

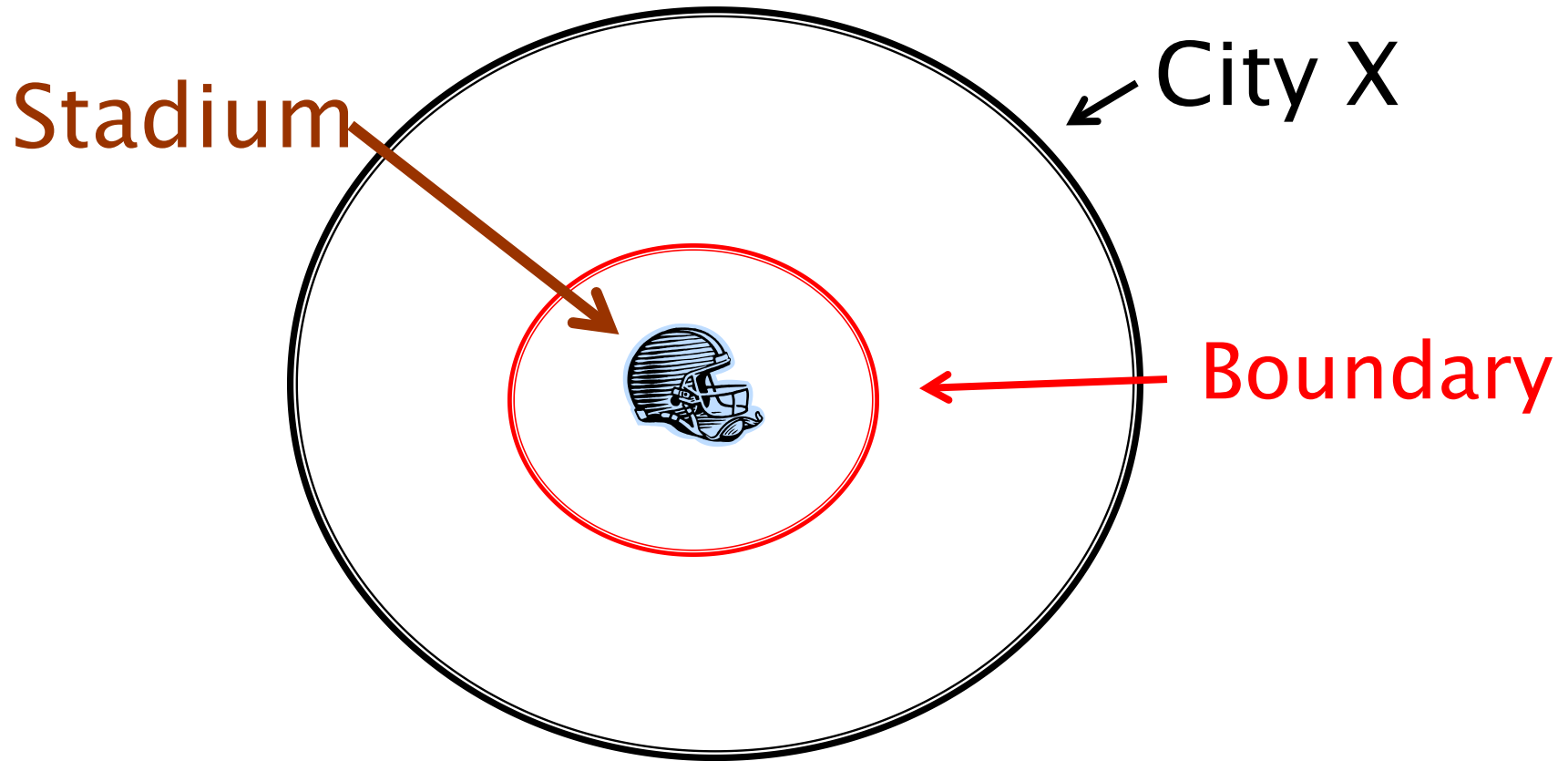
Understanding the Problem

- ▶ What is interesting is does the presence of a stadium/arena change the rate of growth of employment around the arena?
 - ▶ What about types of employment?
 - ▶ High income employment?
- 

Understanding the problem

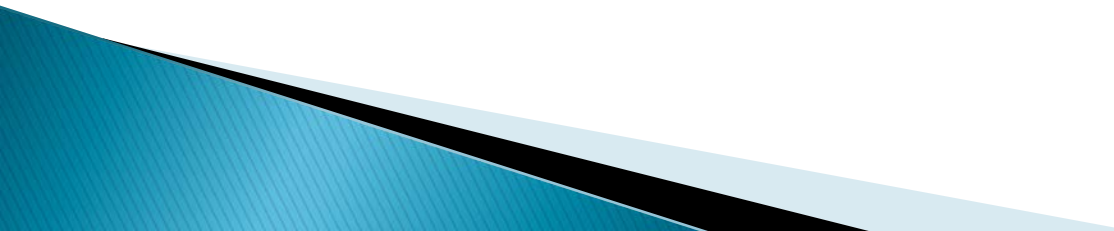


Understanding the problem



Does employment increase in the red area
relative to the city?

Understanding the Problem

- ▶ Since the OTM data runs from 2002 to 2014, stadiums and arenas built within this timeframe were examined.
 - ▶ The geolocation of several of stadiums and arenas was determined at the census tract level.
 - ▶ Employment at the NAICS level was determined for the city as a whole, as well as for concentric rings (0.5 miles, 1 mile, 2 miles) around the census tract that contained the stadium/arena.
 - ▶ Also examined was worker age and income.
- 

10 Year Changes in Pearl, MS



2004



2014

10 Year Changes in Pearl, MS

Is this growth because of the baseball field?

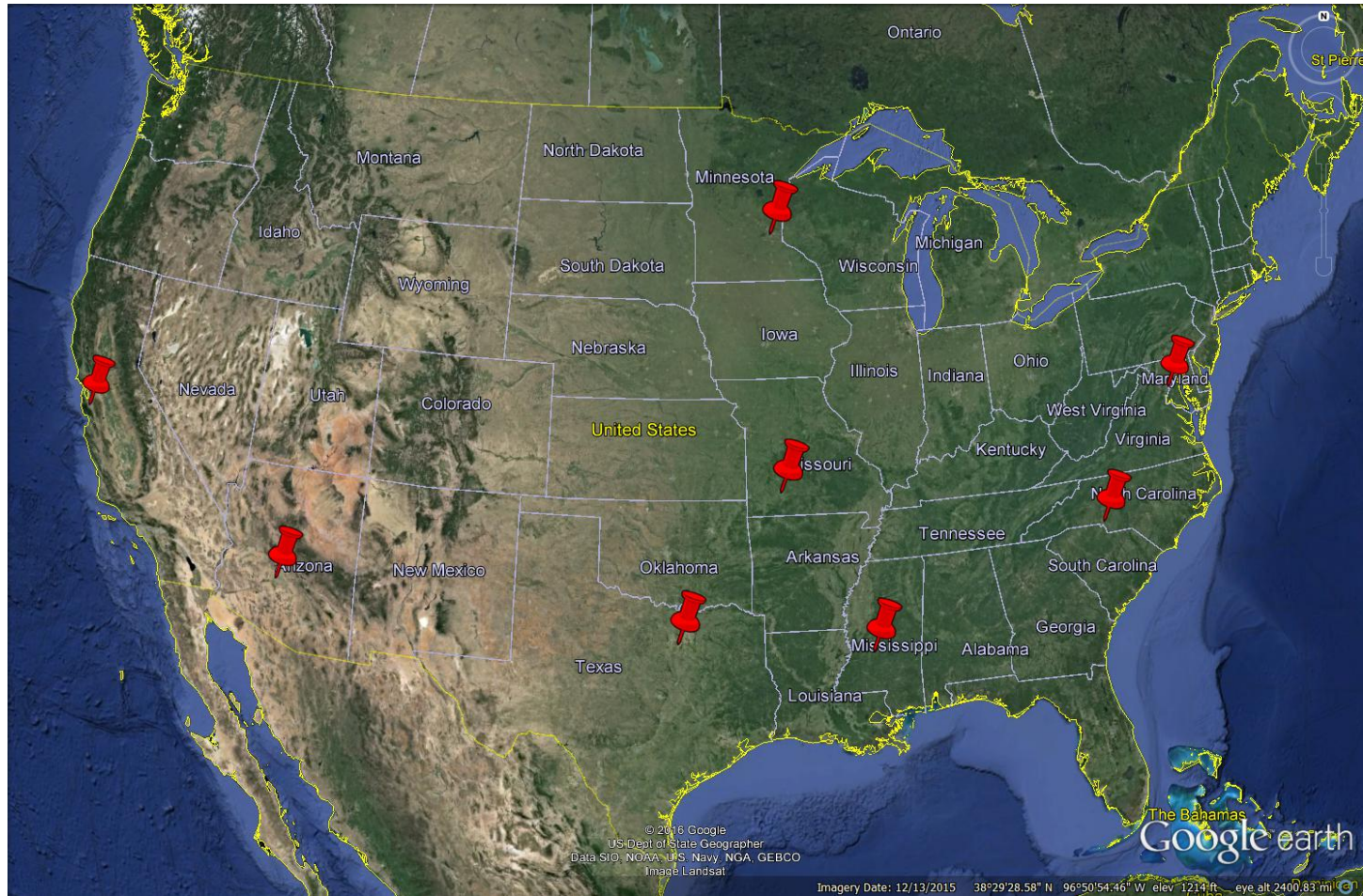


2004



2014

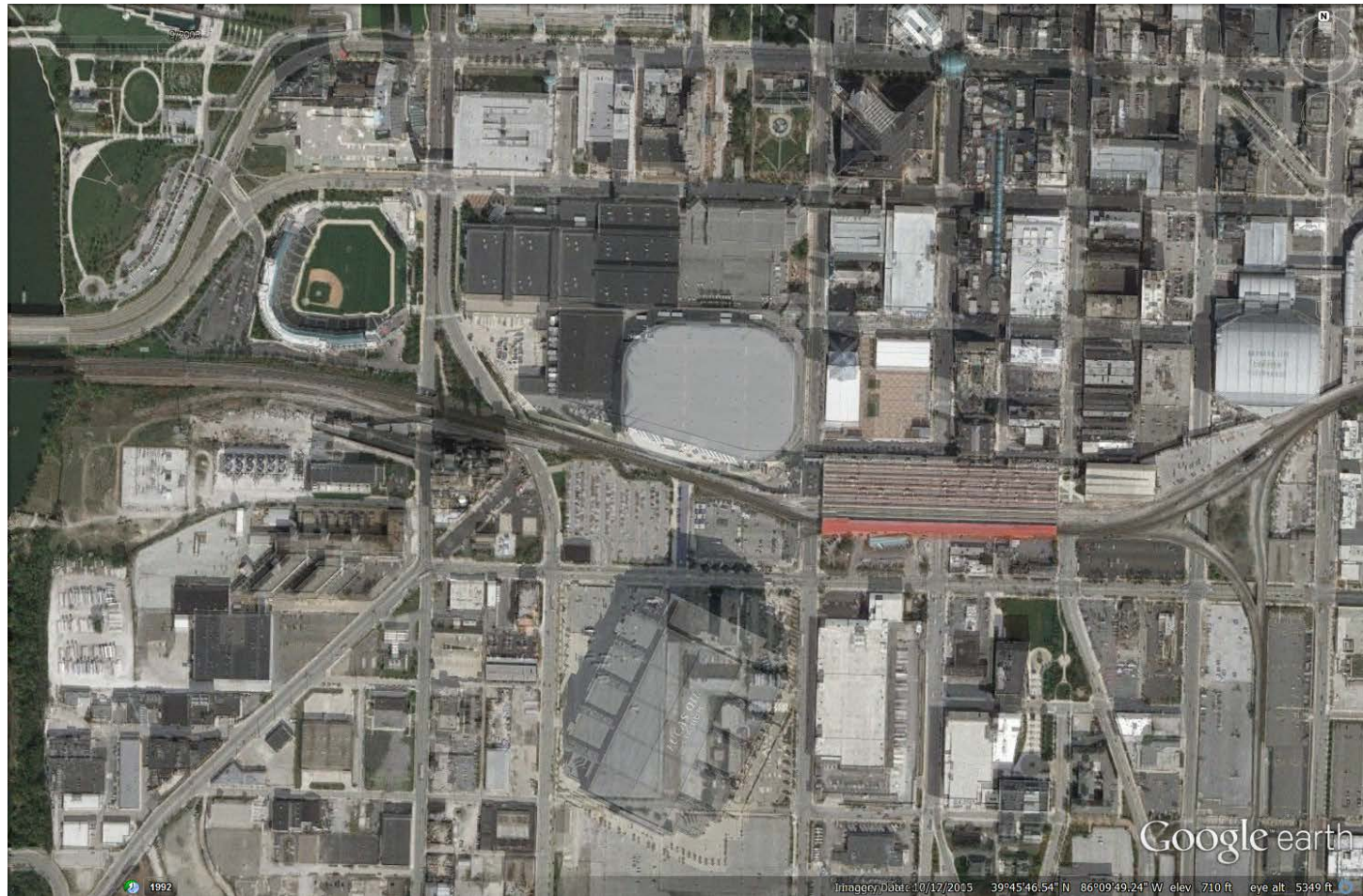
Cities Studied



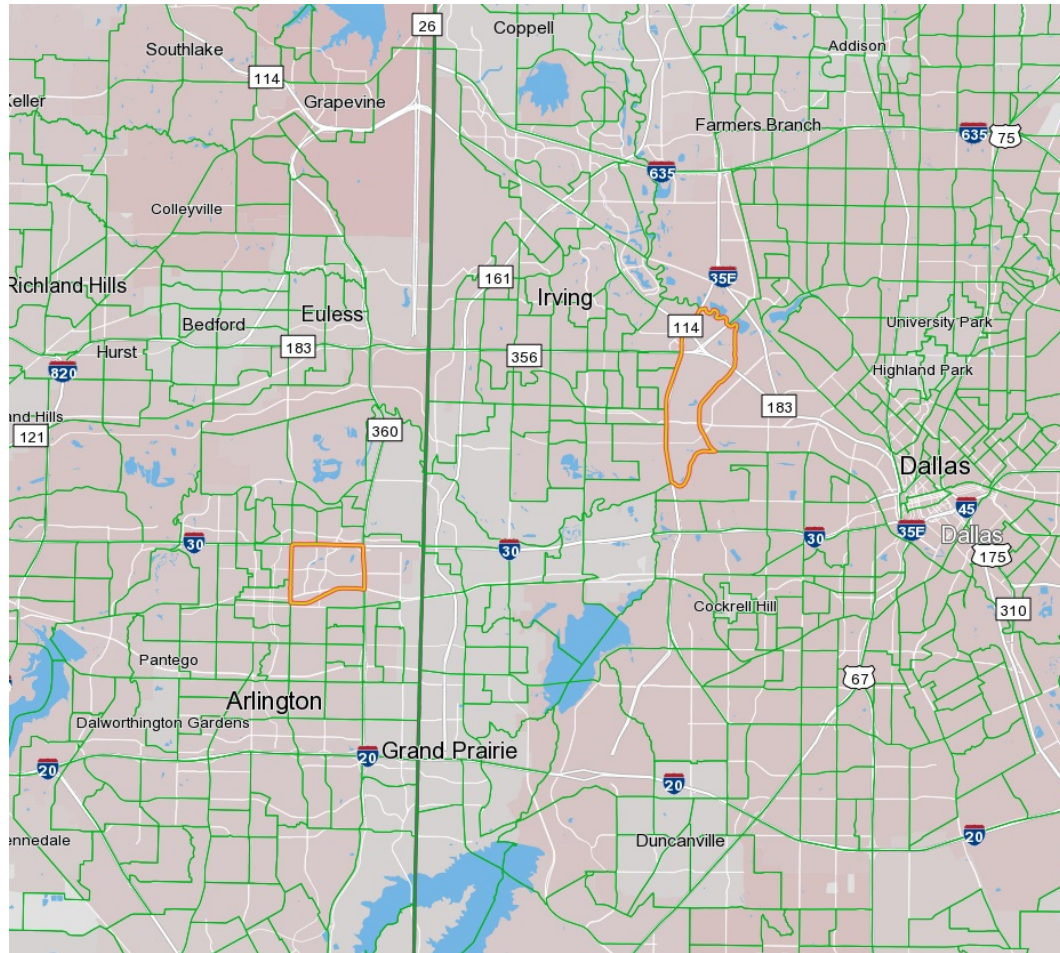
Cities Studied

- ▶ AT&T Stadium Arlington, Texas (NFL) 2009 was Texas Stadium in Irving, Texas
 - ▶ Levi's Stadium Santa Clara, CA (NFL) 2014 was Candlestick Park in SF, CA
 - ▶ U of Phoenix Glendale, Az (NFL) 2006 was Sun Devil Stadium in Tempe, Az
 - ▶ Nationals Park Washington, DC (MLB) 2008
 - ▶ Target Field Minneapolis, MN (MLB) 2010 was Humphrey Metrodome
 - ▶ Time Warner Arena Charlotte, NC (NBA/NHL) 2005
 - ▶ Hammonds Field Springfield, Mo (Minor MLB--AA) 2004
 - ▶ Trustmark Park Pearl, Ms (Minor MLB--AA) 2005
- 

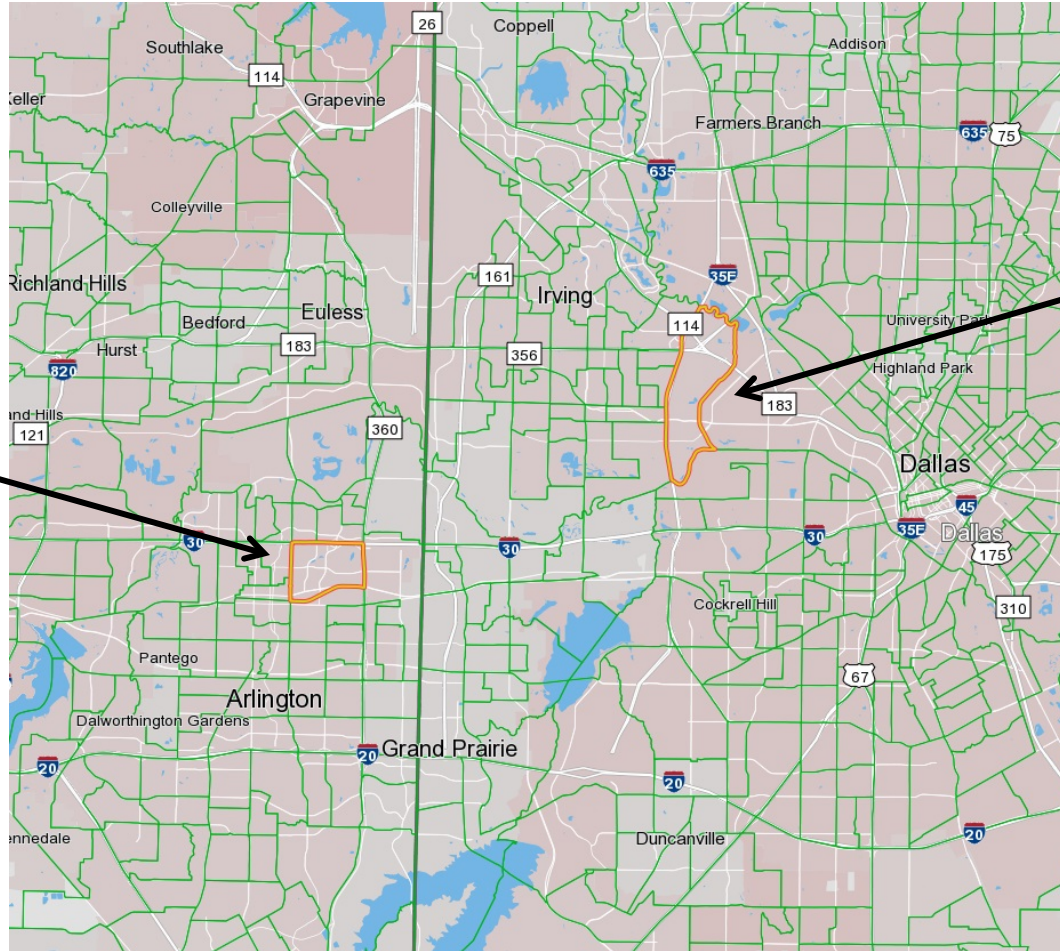
Indianapolis, In



Dallas /Ft. Worth, Texas MSA



Dallas /Ft. Worth, Texas MSA



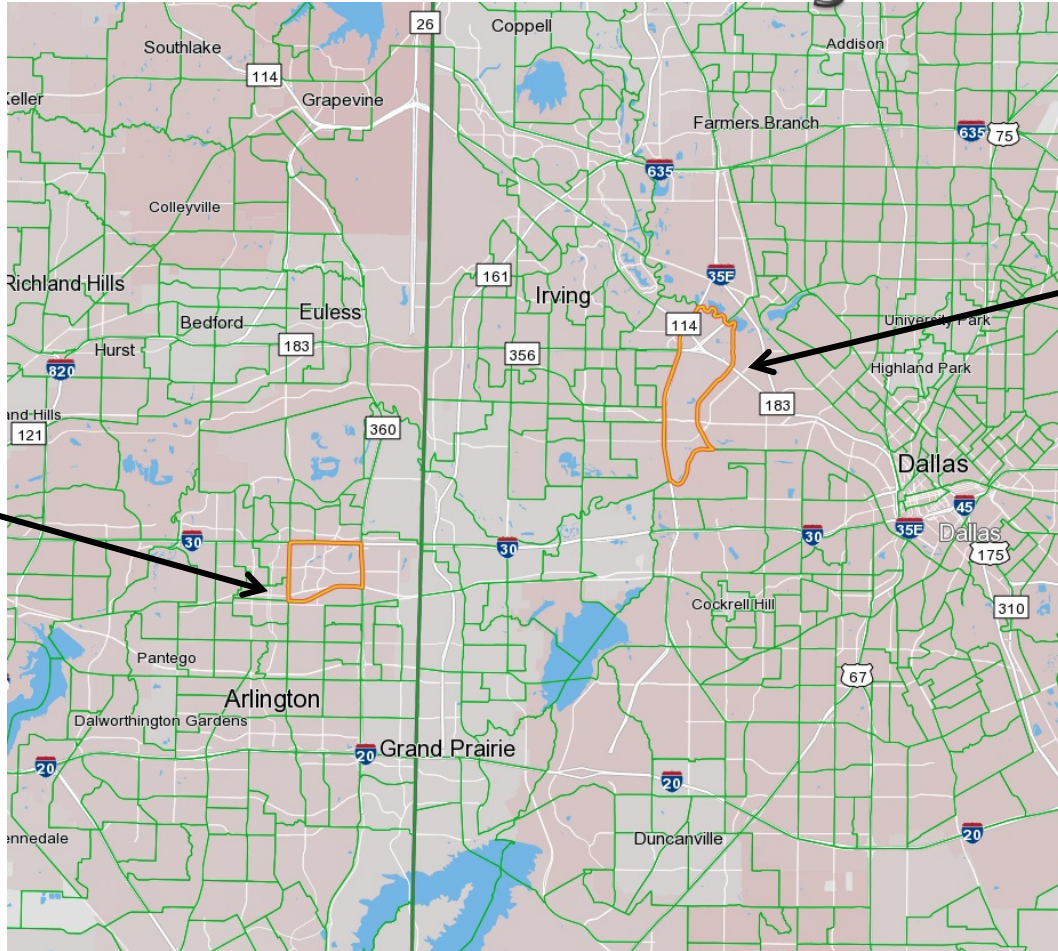
AT&T
Stadium
Arlington,
TX

Texas
Stadium
Irving, TX

Dallas/Ft. Worth, Texas MSA

Increases in Arlington and Decreases in Irving??

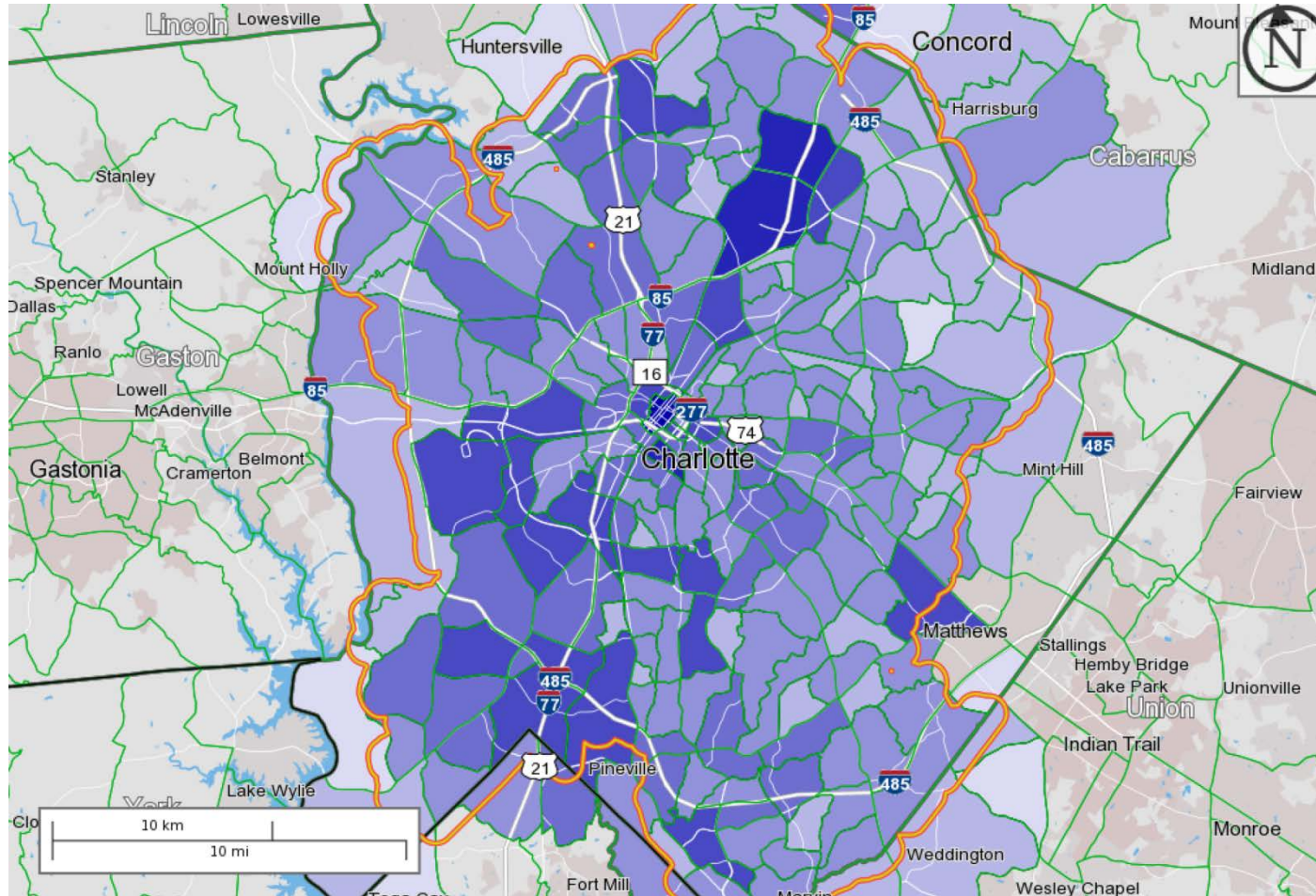
AT&T
Stadium
Arlington,
TX



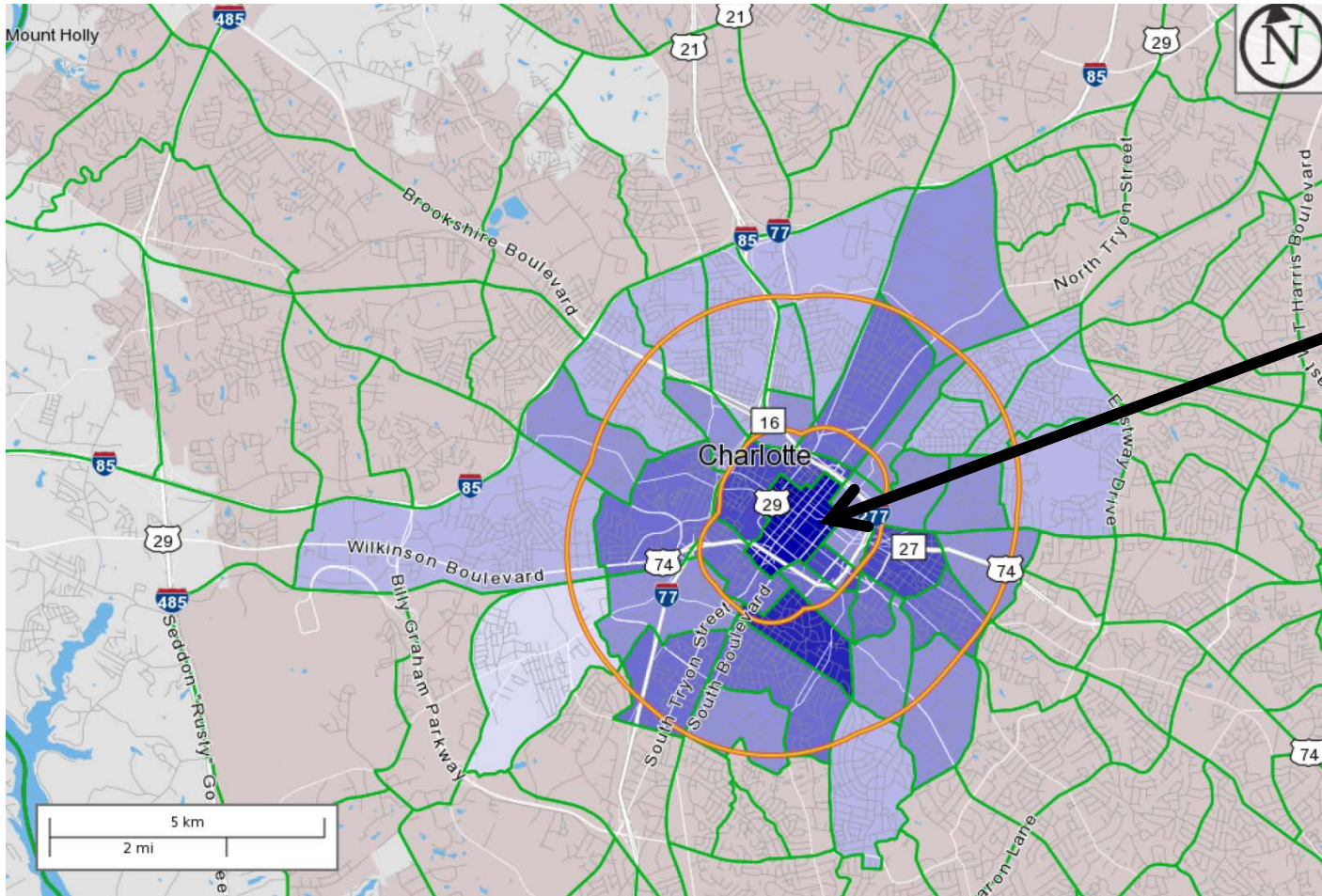
Texas
Stadium
Irving, TX

Charlotte, NC

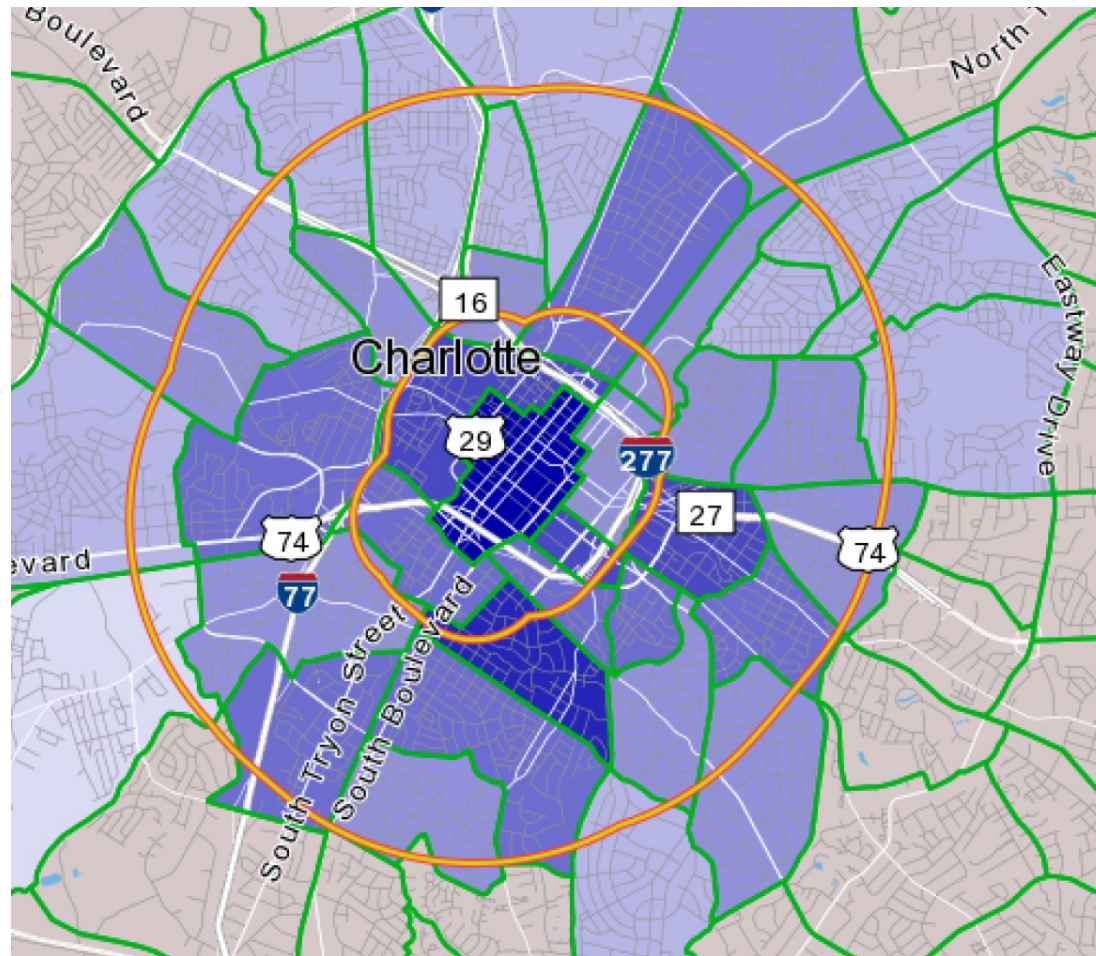
Total Employment by Census Tract



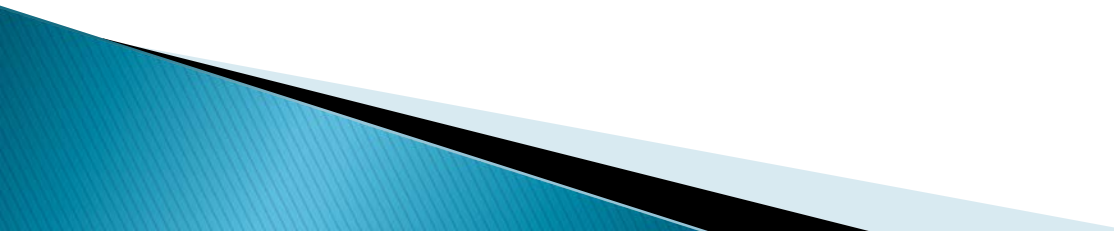
Time Warner Arena Charlotte, NC



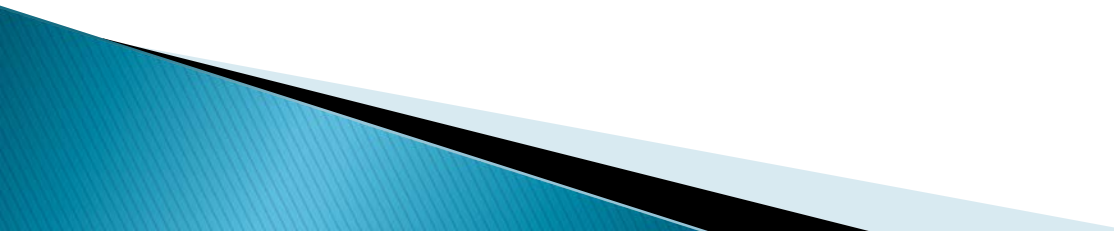
Time Warner Arena, Charlotte, NC



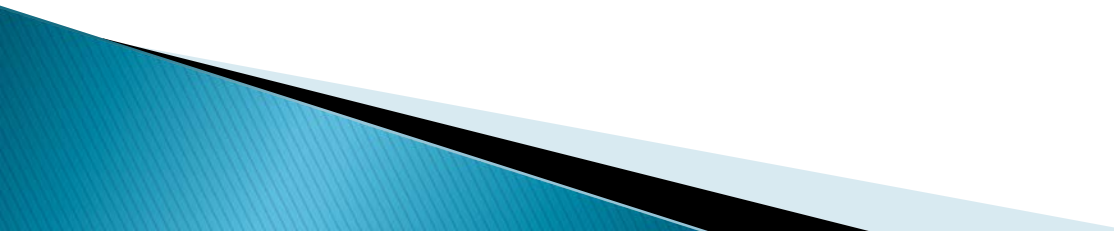
Methodology

- ▶ Examining the rate of change in employment within census tracts in each zone (1 /2 mile, 1 mile, and 2 miles) relative to the rate of change in employment in the city
 - ▶ Also examined the rate of change in employment within the census tracts in each zone of analysis relative to the rate of change in employment in the state
- 

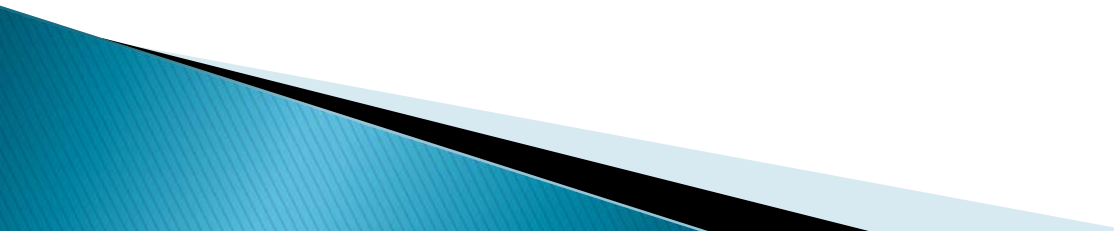
Methodology

- ▶ Other variables included a dummy variable for the years in which there was a stadium present
 - ▶ The number of years the stadium has been in existence—what happens if it takes a few years to create a critical mass of economic development?
 - ▶ Probably not realistic to expect new jobs overnight
 - ▶ Variables for a time trend
- 


Methodology

- ▶ Dummy variables for baseball vs. football
 - ▶ Three types of employment were examined:
 - ▶ Total employment; High wage employment; and Sportscentric employment (retail, art/entertainment, accommodations/food)
 - ▶ Employment in the entire city relative to the state: Does the arena make the city's employment growth rate increase?
- 

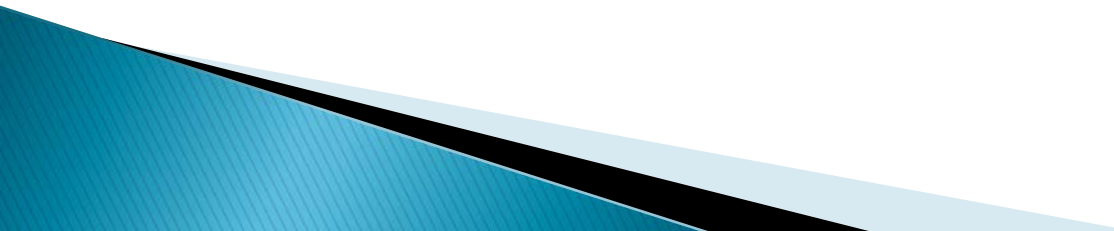
General Results

- ▶ City wide employment, city wide sportscentric employment, and city wide high wage employment does not grow at an increased rate with a stadium/arena
 - ▶ These results are similar to other results in the literature which confirms that the overall economic impact from stadiums is probably either nonexistent or very small
- 


General Results

- ▶ However, when examining changes in employment for the area around the stadium, the results are slightly different
 - ▶ At $\frac{1}{2}$ mile radius from the stadium, there is a statistically significant result.
 - ▶ We see high wage employment grows relative to state wide high wage employment
 - ▶ The same is true for total employment and sportscentric employment within the $\frac{1}{2}$ mile zone
 - ▶ The effect is small but it is valid
 - ▶ Employment (all 3 measures) don't grow relative to city wide employment
- 

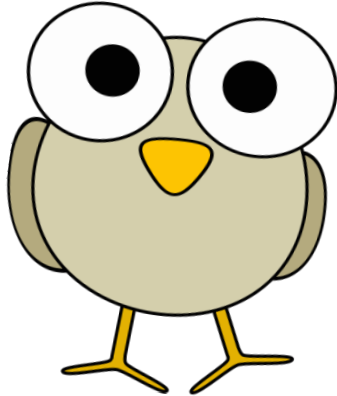
General Results

- ▶ By the time we reach 1 mile radius from the arena, there isn't any effect on the stadium increasing employment growth rates relative to the city or the state
 - ▶ At two miles the effect of the stadium on all three measures of employment returns and is still positive but now significant at the 10% level only
 - ▶ Once again, statistical significance is for employment growth relative to the state, and not the city
- 

Conclusions

- ▶ Building stadiums and arenas probably don't increase the number of jobs in the city
 - ▶ There is some evidence that building stadiums and arenas might change the distribution of employment within a city
 - ▶ High wage employment, total employment, and sportscentric employment does grow at a faster rate relative to identical state level measures
 - ▶ Cities might be able to use stadiums and arenas to 'fix' blight or to bring 'jobs' to certain parts of the city that might otherwise be devoid of employment growth
- 

Thank you



??



Contact Info:

David Mitchell, Ph.D.

Director, Bureau of Economic
Research

Missouri State University

DavidMitchell@missouristate.edu