

Long-Term Economic Outlook: 2014-2024

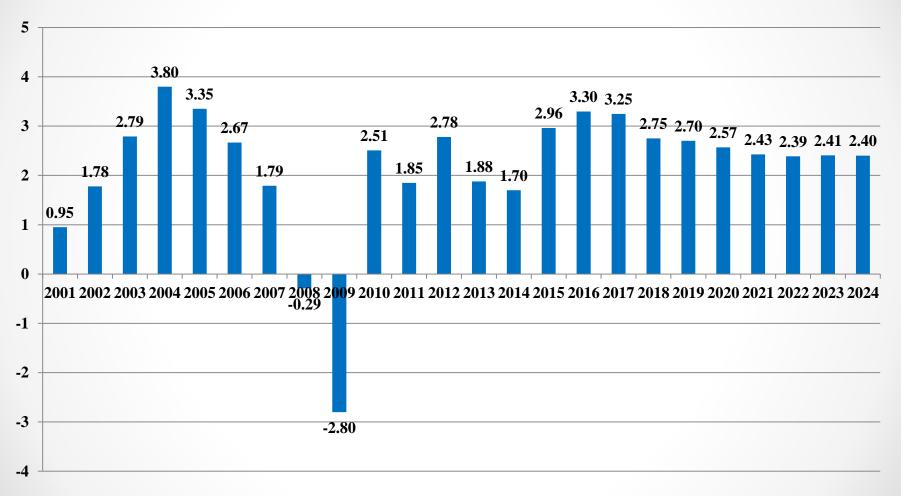
by Dan Rickman

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Prepared for presentation at OG&E Energy Corporation July 28, 2014

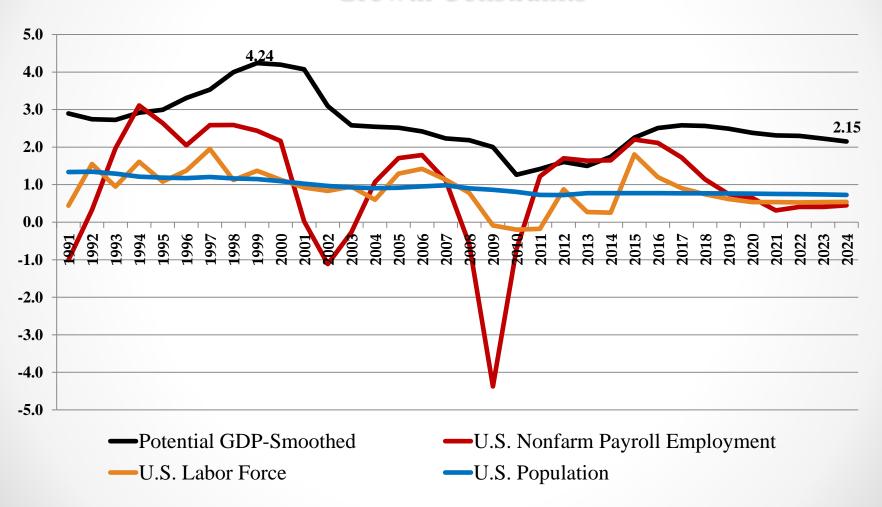


U.S. Real Gross Domestic Product Growth (%): (IHS Global Insight, Inc. Forecast)

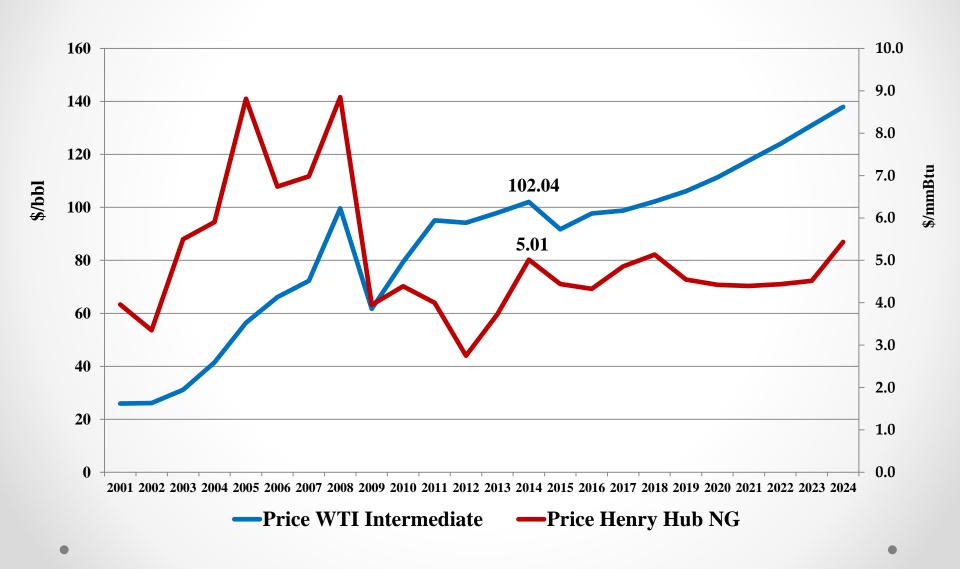


■ U.S. Real GDP

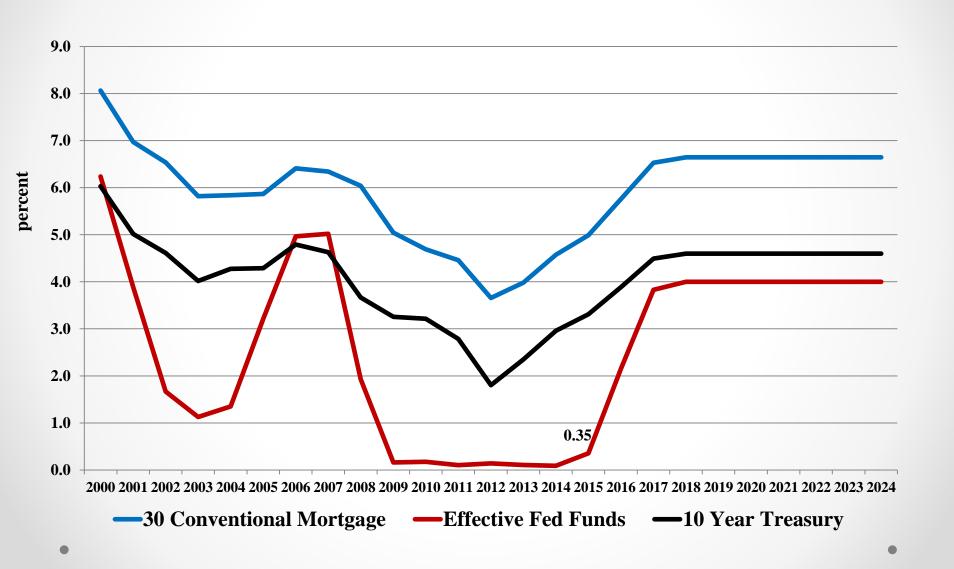
U.S. Potential GDP Growth: Population and Labor Force Growth Constraints



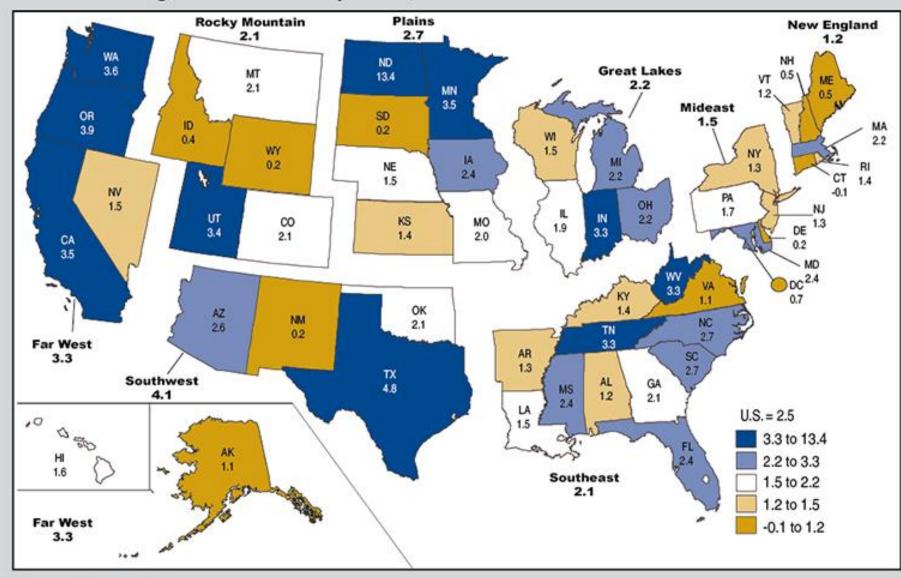
Energy Prices (IHS Global Insight, Inc.): West Texas Intermediate Oil (WTI) and Henry Hub Natural Gas (PNGHH)



Interest Rates (IHS Global Insight, Inc.)



Percent Change in Real GDP by State, 2012

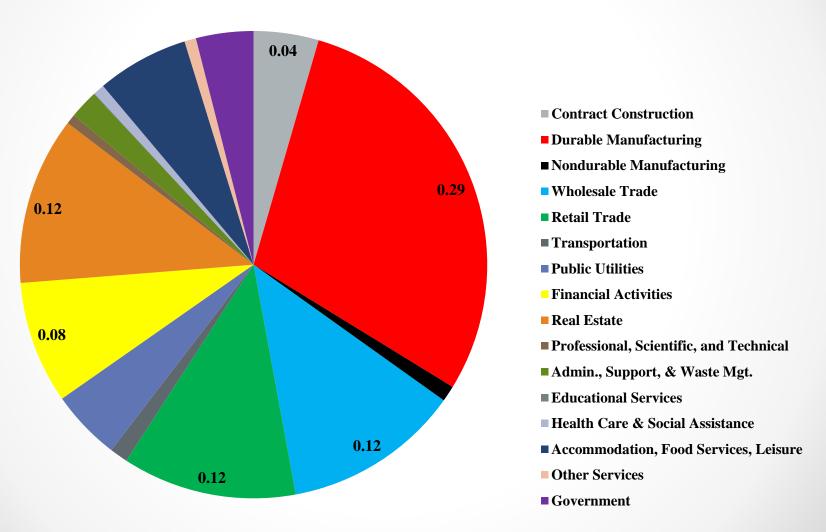


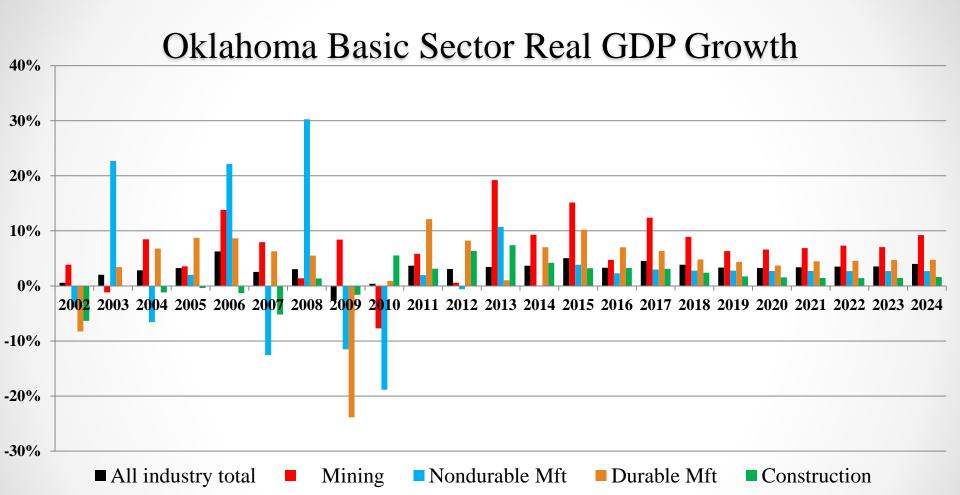
U.S. Bureau of Economic Analysis

State GDP Growth Patterns (U.S. Bureau of Economic Analysis)

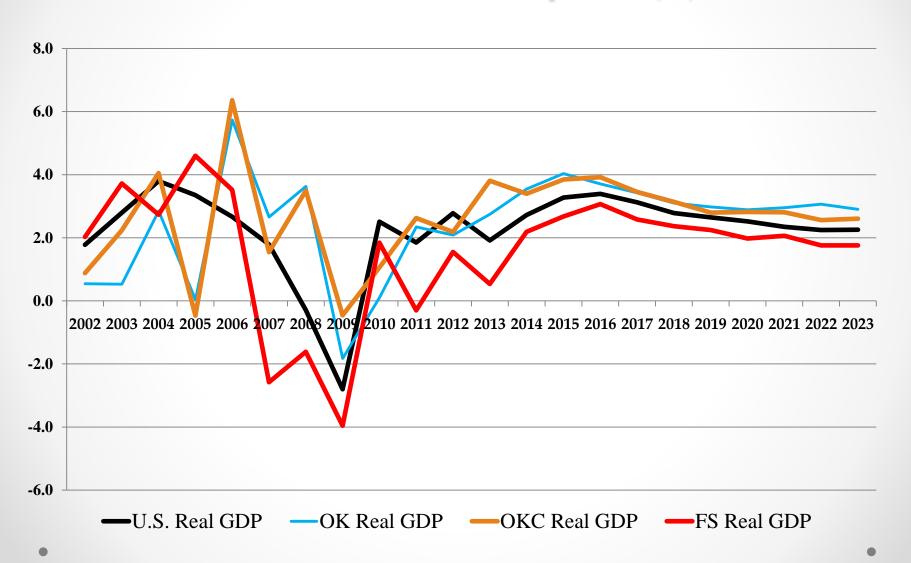
- Largest Contributor (BEA):
 - o Durable–goods manufacturing:
 - "increased 9.1 percent in 2012, after increasing 6.8 percent in 2011
 - **leading contributor** to real GDP growth in **seven of the eight BEA regions** and in **22 states**. Durable–goods manufacturing contributed 2.87 percentage points to growth in Oregon and 1.70 percentage points to growth in Indiana"
- Leading Contributors (BEA):
 - Finance and insurance
 - "increased 3.6 percent in 2012, rebounding from –0.6 percent in 2011
 - contributed to **growth in seven of eight BEA regions** and was the leading contributor to growth in the **Mideast region**.
 - contributed 0.75 percentage point or more to the growth of real GDP in **Utah**, **South Dakota**, and **Delaware**"
 - Mining
 - "was not a major contributor to real GDP growth for the nation, it was a large contributor in **North Dakota**, **West Virginia**, **and Texas**. In North Dakota, the fastest growing state in 2012, mining contributed 3.26 percentage points to real GDP growth of 13.4 percent" (large multiplier effects in ND)
 - Construction
 - "turned up in 2012, after eight consecutive years of contraction; increasing by 3.2 percent nationally
 - contributed to **real GDP growth in 43 states** and the District of Columbia"
 - o Agriculture, forestry, fishing, and hunting
 - "subtracted from real GDP growth in 2012 in six of eight BEA regions and in 35 states.
 - South Dakota- subtracted 2.03 percentage points from real GDP growth"

2012 Oklahoma Sector Shares of Real GDP Growth

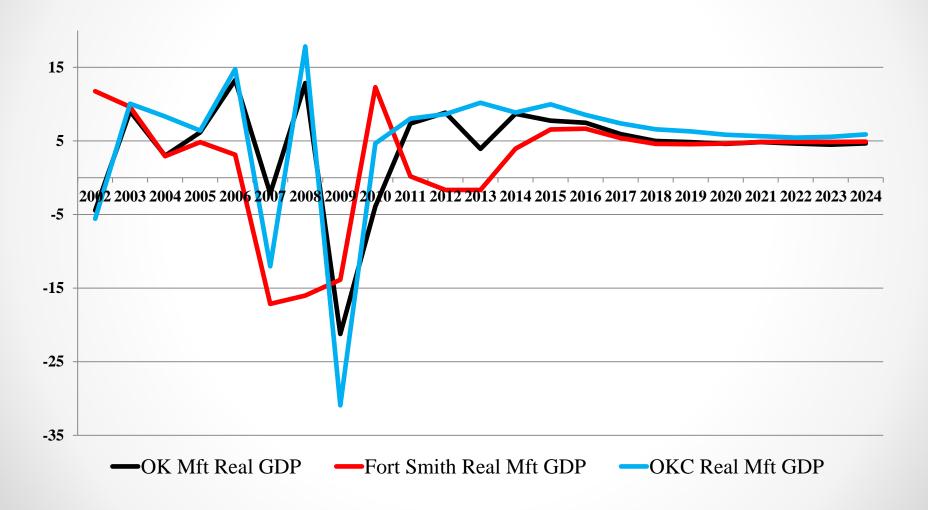




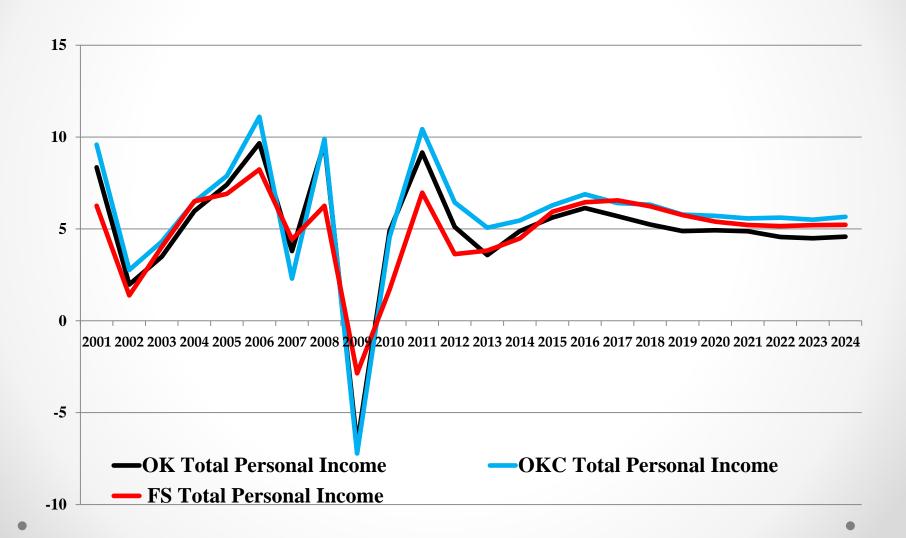
Real GDP Growth Comparison (%)



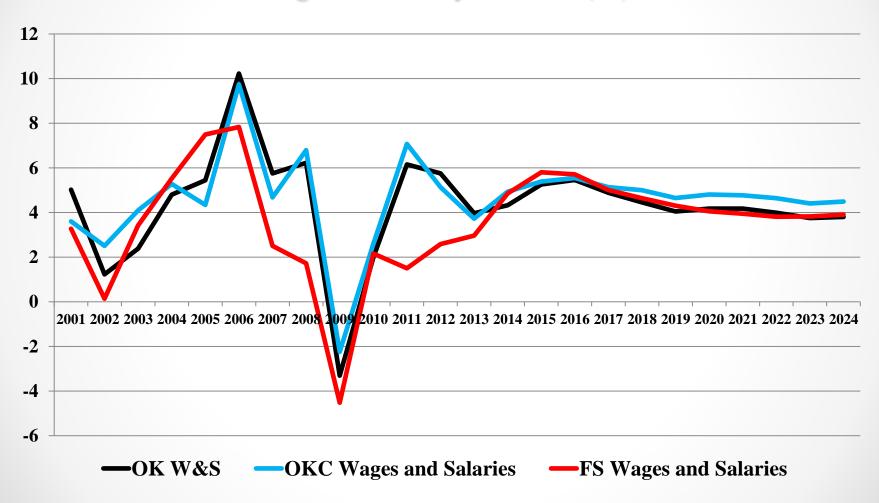
Real Manufacturing GDP Growth (%)



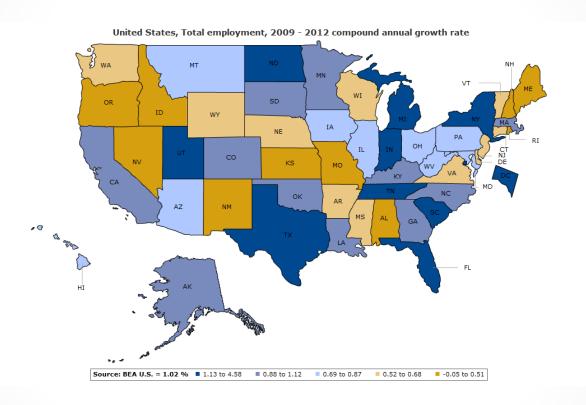
Total Personal Income Growth (%)



Wage and Salary Growth (%)

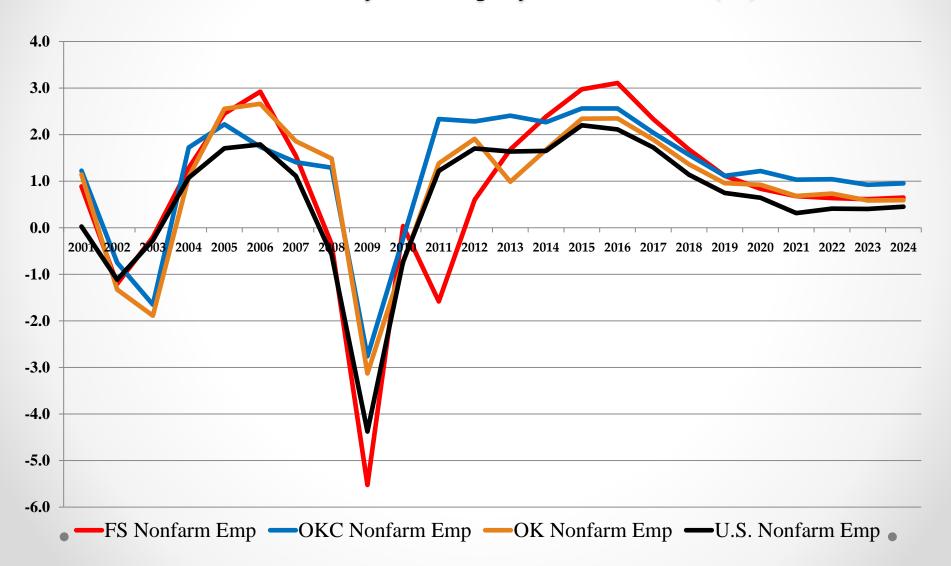


State Total Employment Growth 2009-2012 (annual compounded rate)

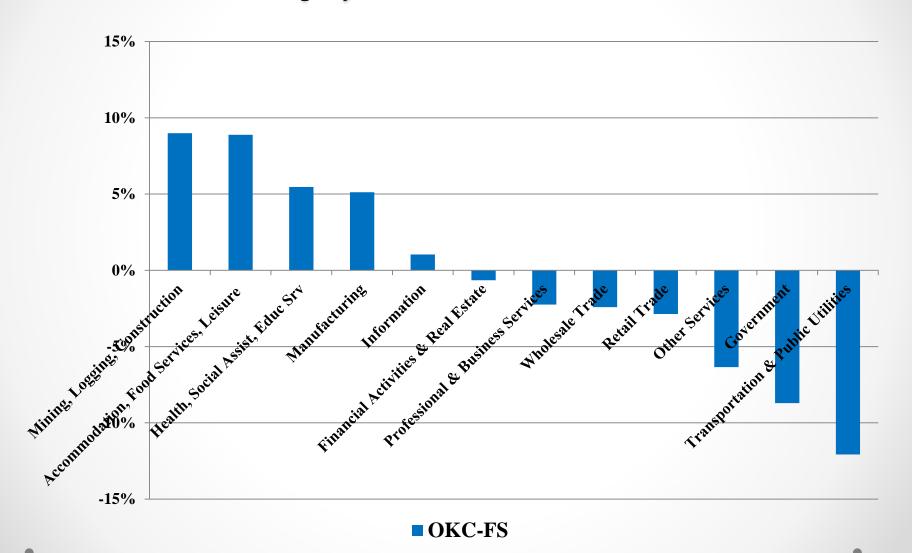


AR: 0.58%; OK: 1.04%

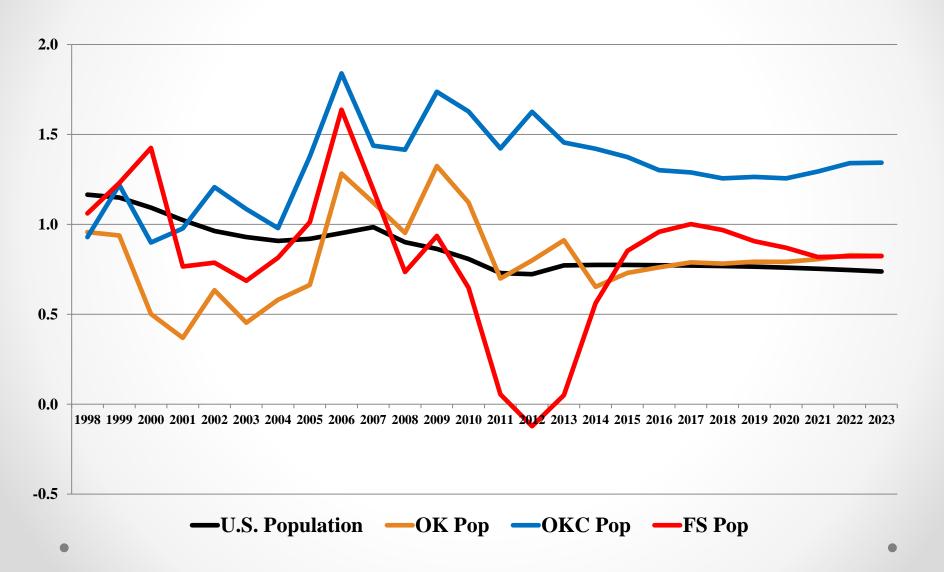
Nonfarm Payroll Employment Growth (%)



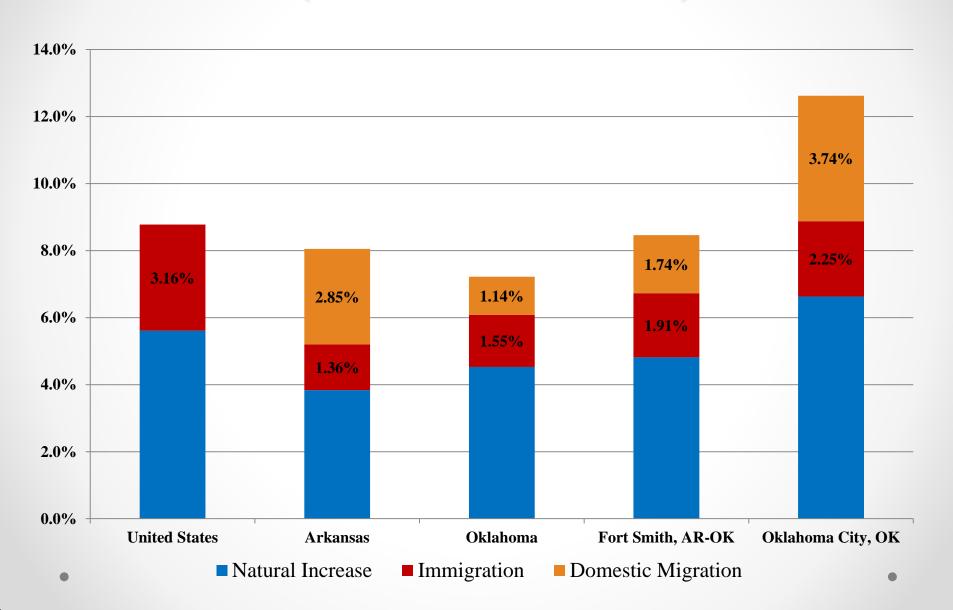
Share of Employment Growth 2014-2024: OKC-FS



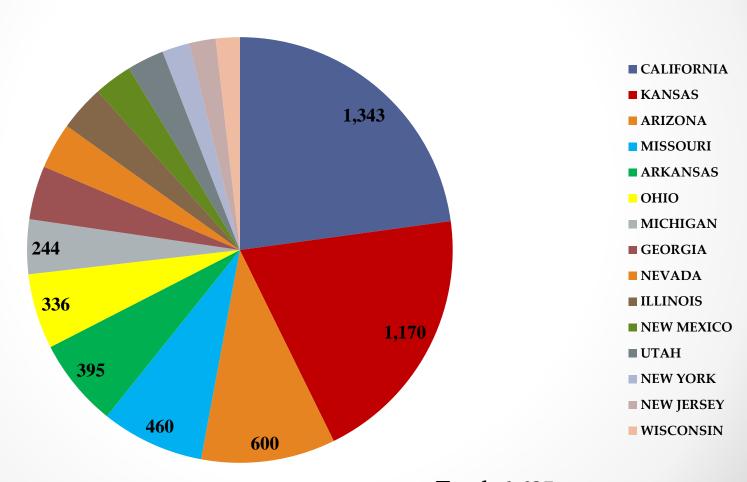
Population Growth (%)



Components of Population Growth: 2000-2009 (does not reflect 2010 Census)

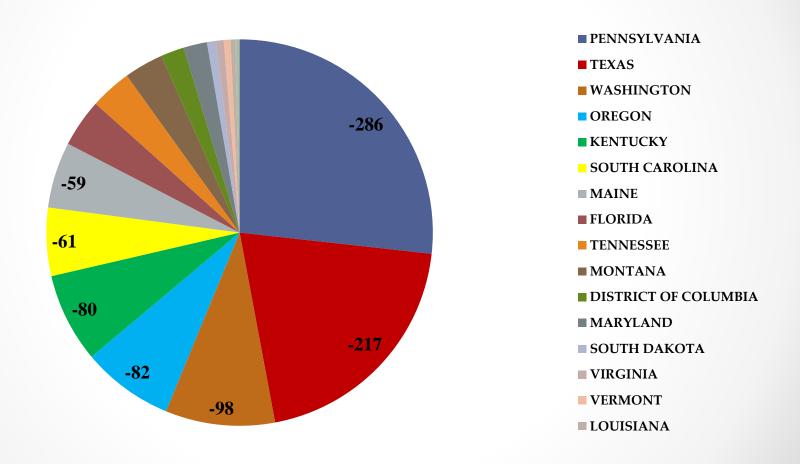


Sources of Oklahoma Positive Net Migration: 2010-2011



Total: **6,635**

Sources of Oklahoma Negative Net Migration: 2010-2011



Total: -1,069

Broad Population Trends

Stronger population growth in metropolitan areas (2000s)

- Higher rates of immigration and greater increases in natural population growth in metropolitan areas
- o Internal migration from nonmetropolitan (rural) to metropolitan areas (all else equal)
 - Exceptions include: energy-producing areas; high natural amenity areas (slowed with the Great Recession)
 - Location responsiveness of households to regional differentials in economic rewards has diminished post-2000, collapsed further during the Great Recession
 - Possible reasons: differentials in rewards across regions smaller; greater occupational mobility within industries; Millennials unwilling to move for jobs

Broad Population Trends

- Aging of the population and labor force, slowing employment and potential GDP growth nationwide
- Attracting human capital (Brookings Institution)
 - o 1970-Top 20 metropolitan areas received 24.6 percent of college graduates
 - o 2010-Top 20 metropolitan areas received 43.4 percent of college graduates
 - Technology Hubs:
 - Boulder, CO-57% (1980-2010 change 20.6%);
 - Durham, Chapel Hill 42.9% (1980-2010 change 17.8%)
- OKC: 26.2% (1980-2010 change 9.1%) (64th out of largest 100 metros)
 - o Columbus, OH: 32.5% (1980-2010 change 14.5%)
 - o Richmond, VA: 30.7% (1980-2010 change 13.3%)
 - Milwaukee, WI: 30.9% (1980-2010 change 13.8%)
 - Memphis, AR: 24.7% (1980-2010 change 10.6%)

Thank you for your attention