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Oklahoma Economic Outlook 2015

by Dan Rickman

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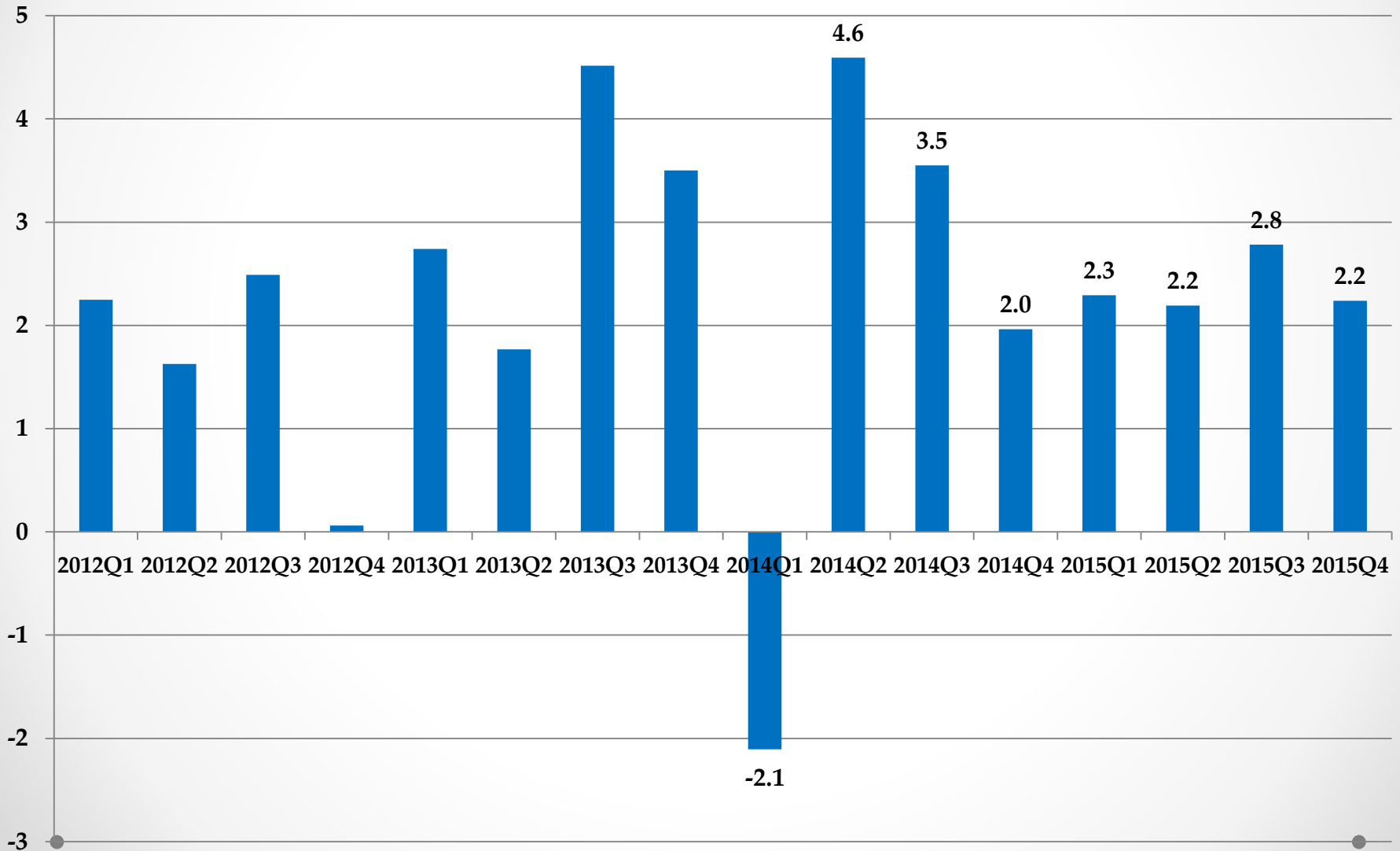


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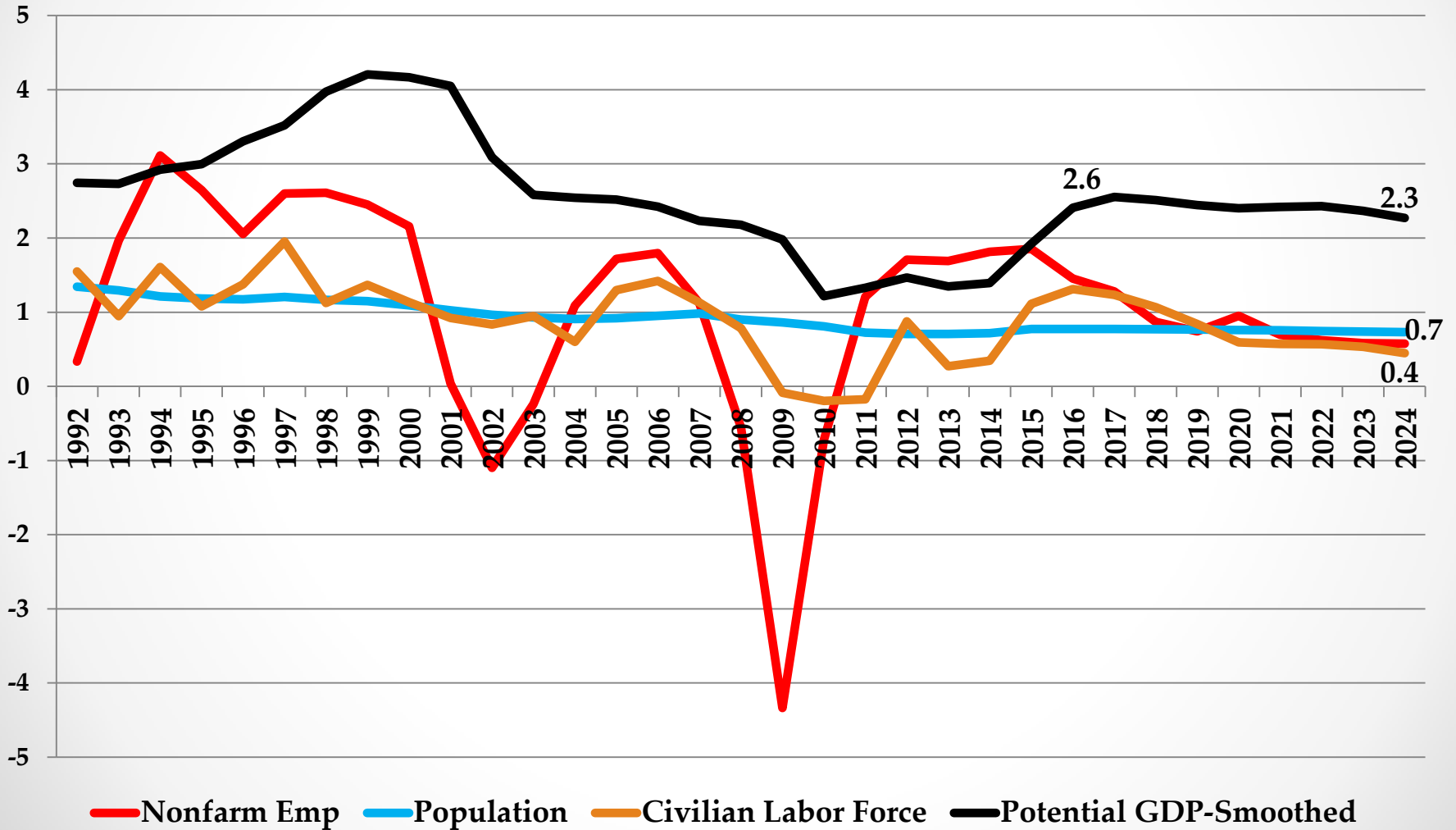
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<http://economy.okstate.edu/>

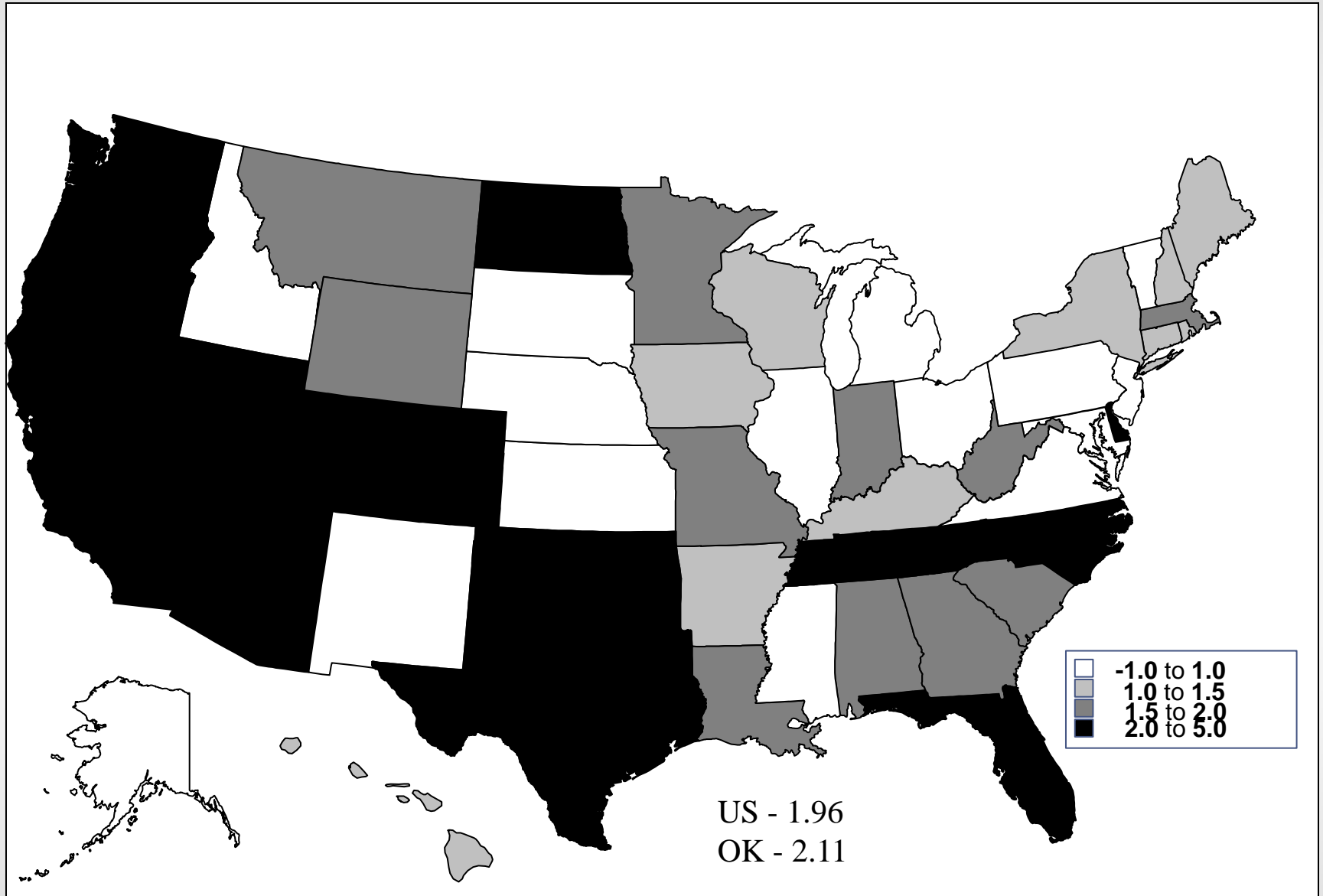
U.S. Real Gross Domestic Product Growth (%): IHS Global Insight Forecast (November, 2014)



U.S. Potential GDP Growth (%): Population and Labor Force Growth Constraints (IHS Global Insight, Inc.)



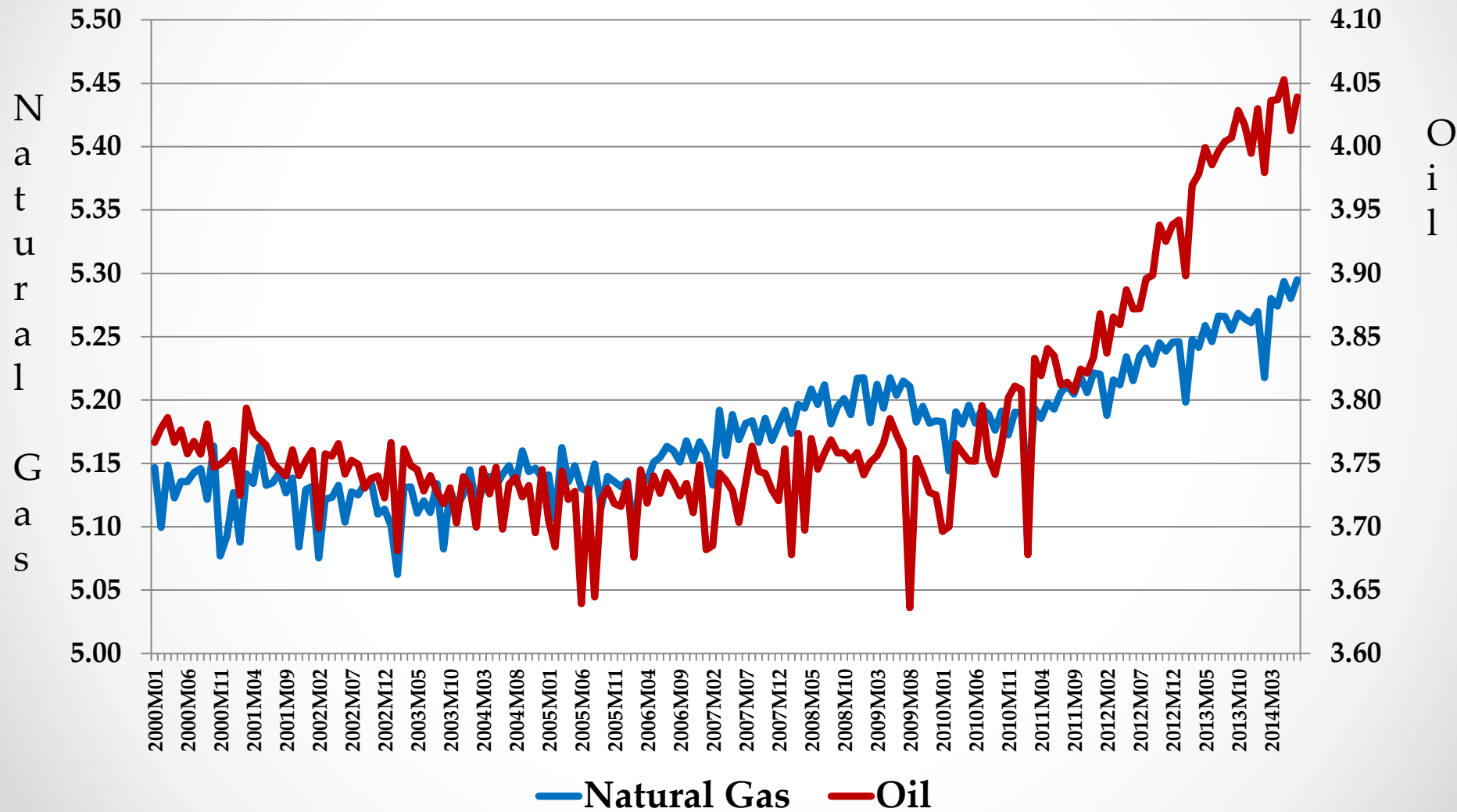
September 2013-2014 Nonfarm Employment Growth Rates (%)



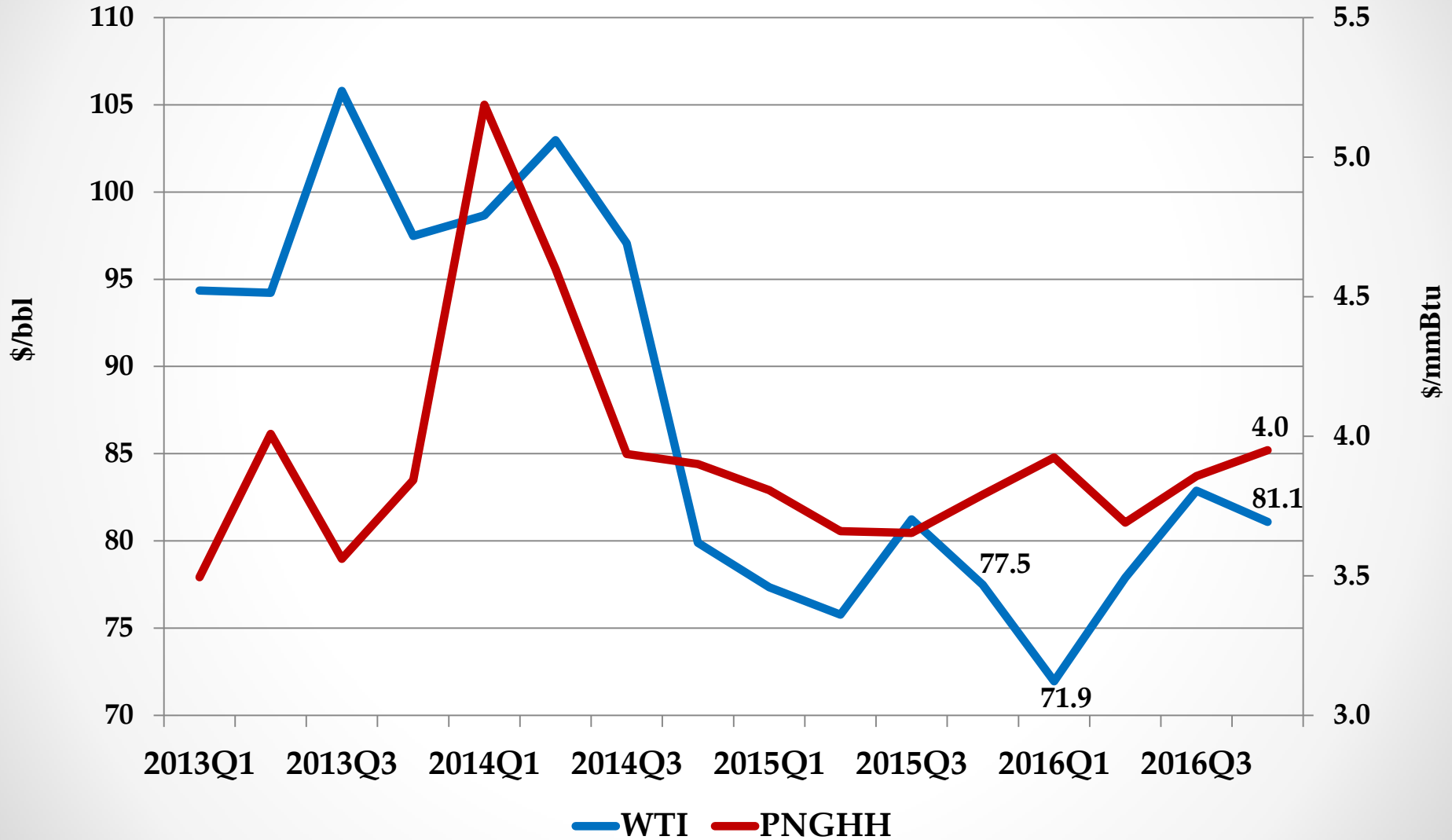
Employment Growth Patterns (September '13-'14)

- **Energy** states had about **0.5** percent **faster** growth (AK, CO, LA, MT, ND, OK, TX, WV, WY)
- **0.4** percent per change in **amenity rank** on a 1-7 scale by USDA Economic Research Service:
 - CO-average amenity rank 5.4; OK-average amenity rank 3.7 (about U.S. average)
 - implies **0.7** percentage point **lower growth** relative to **Colorado**
- **Manufacturing** states **0.2** percent **lower** growth (IL, IN, MI, OH, PA, WI)
- **Farm** states **0.2** percent **faster** growth (IA, MT, NE, ND, SD).

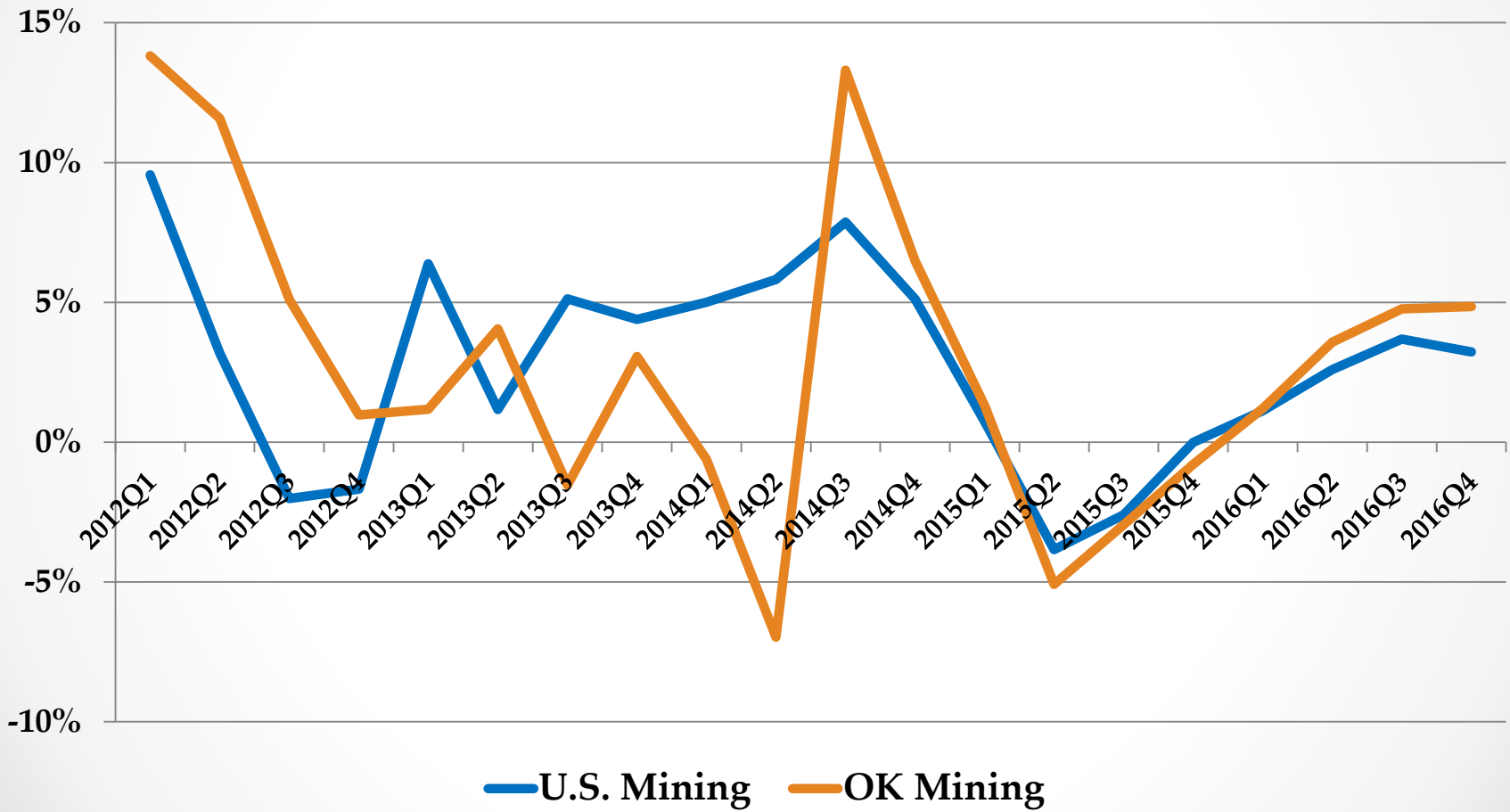
Oklahoma Energy Production (natural logarithms)



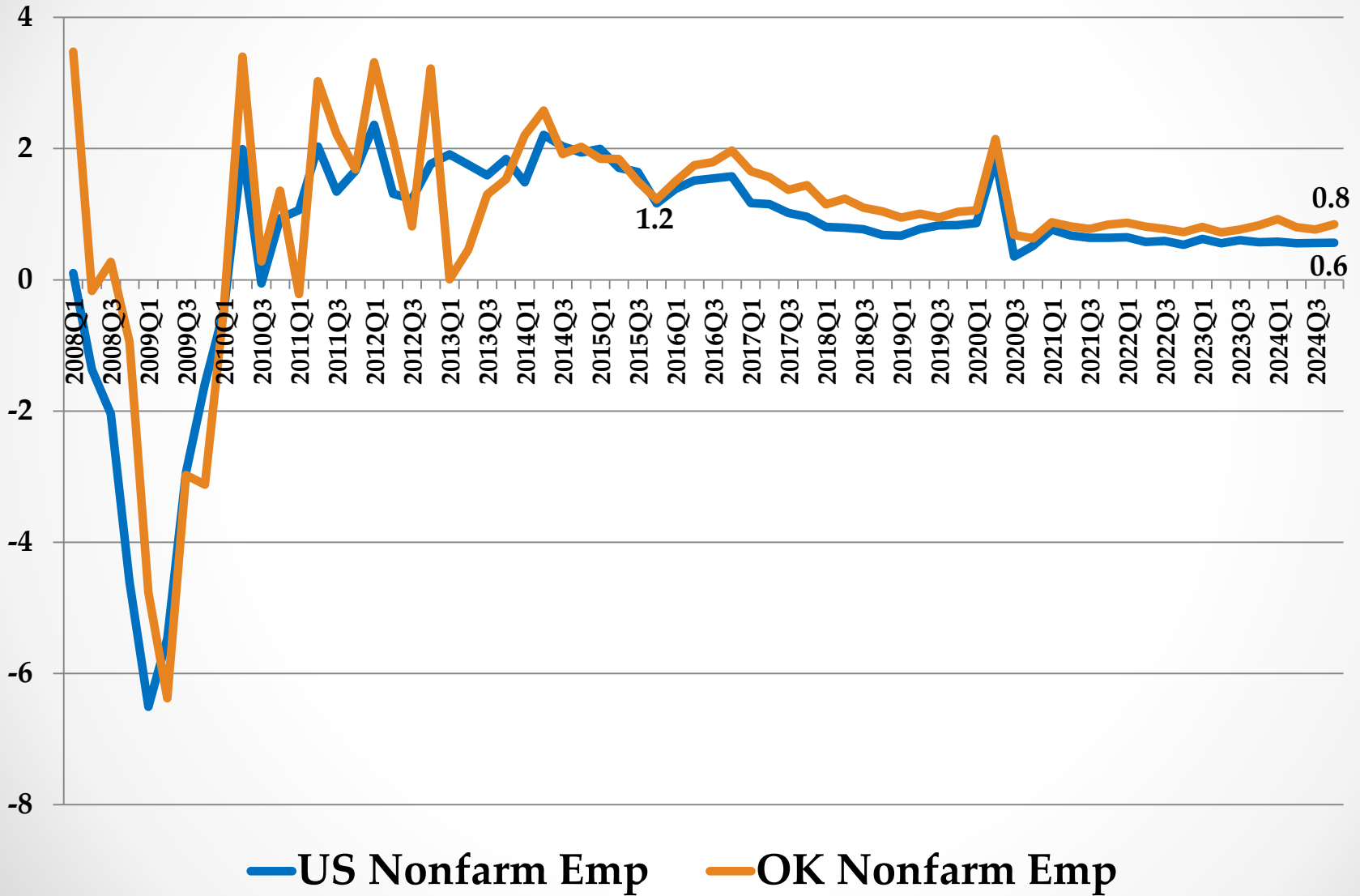
Energy Prices (IHS Global Insight, Inc.): West Texas Intermediate Oil (WTI) and Henry Hub Natural Gas (PNGHH)



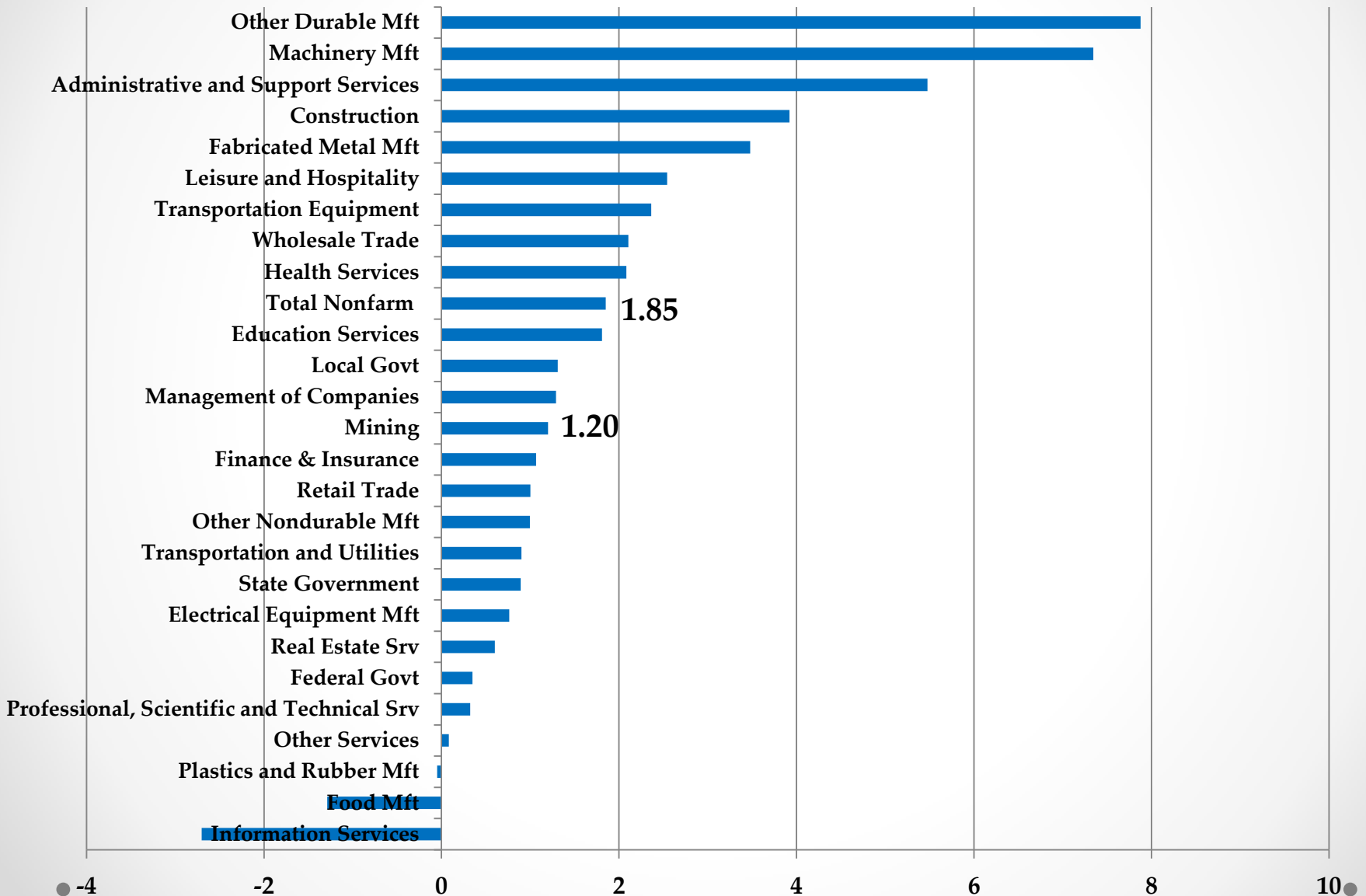
U.S. and Oklahoma Mining Employment Growth (Annualized Rates)



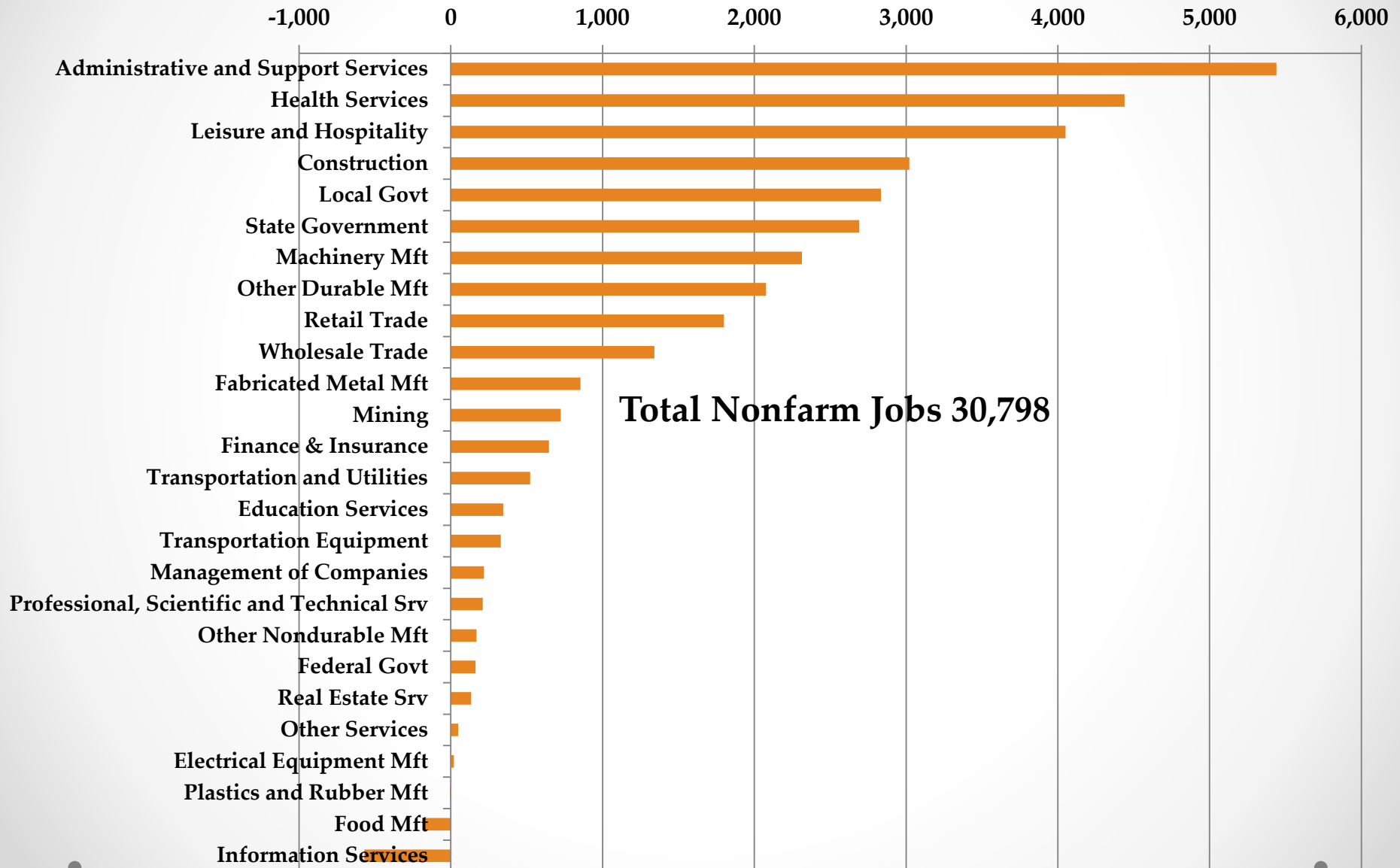
US and Oklahoma Nonfarm Employment Growth Rates (%)



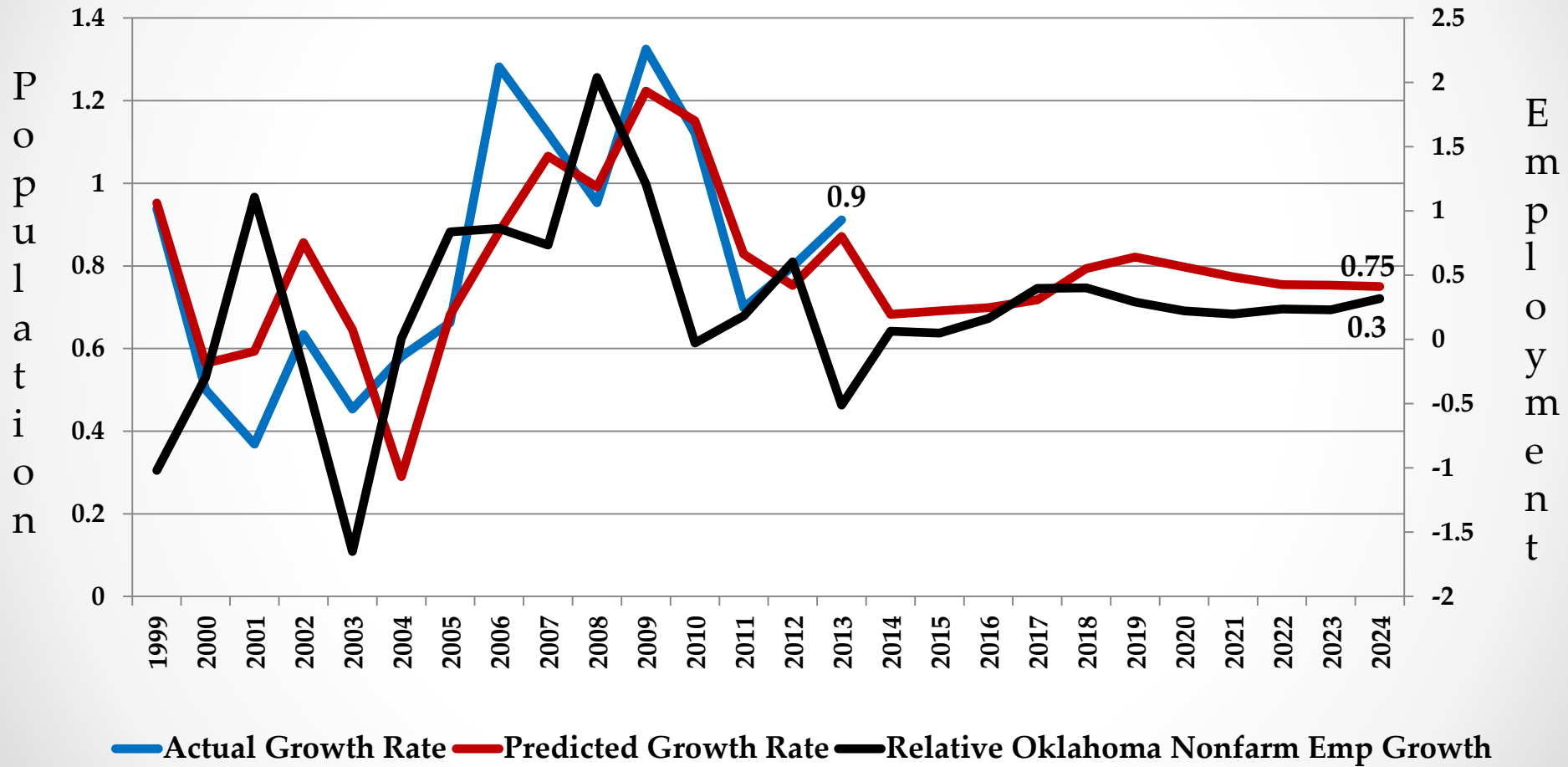
Sector Change in Oklahoma Employment (%): 2015



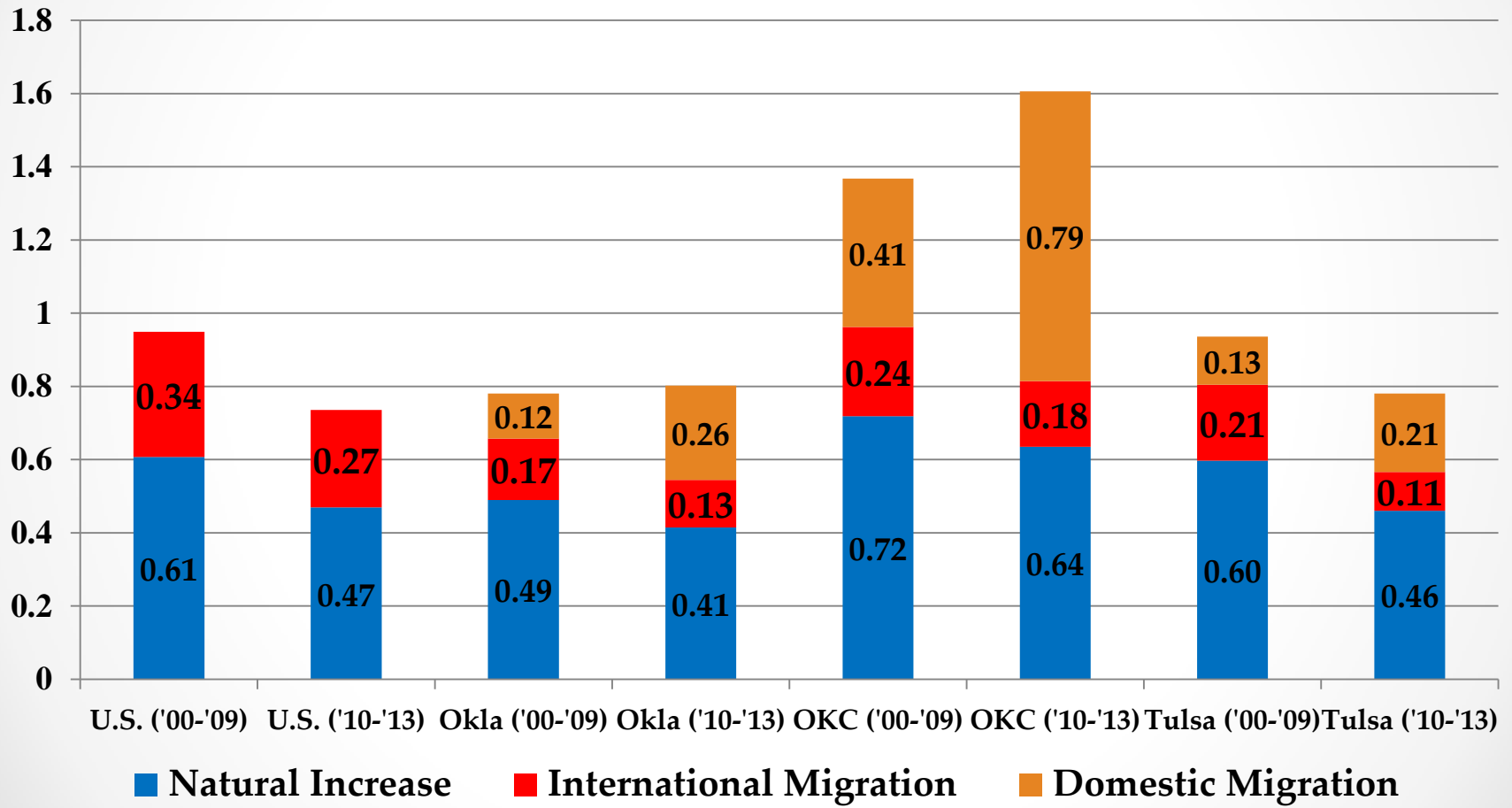
Sector Change in Oklahoma Employment (Jobs): 2015



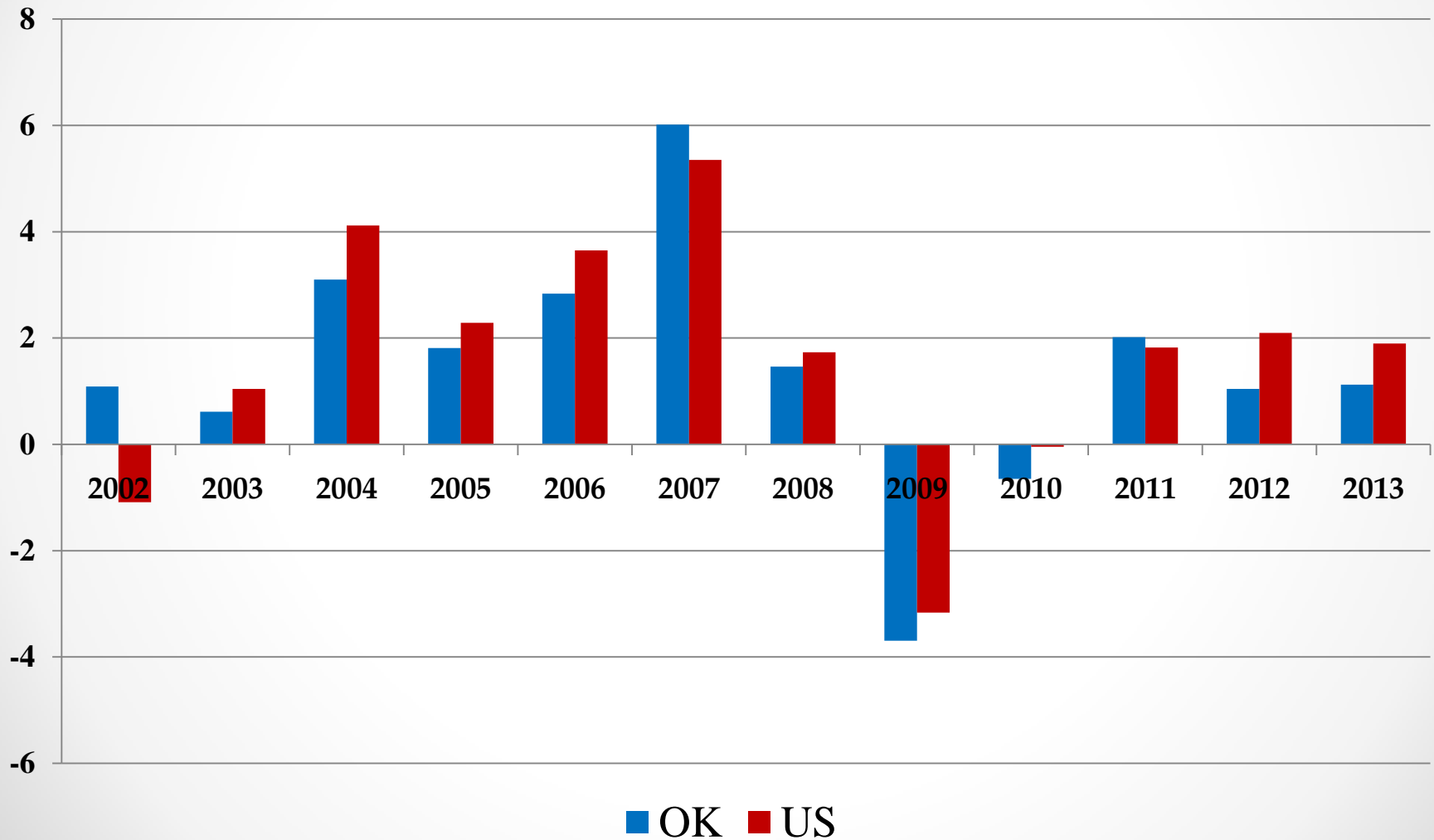
Oklahoma Population Growth Rates (%)



Components of Cumulative Population Growth: 2000-2009 (does not reflect 2010 Census) and 2010-2013: % population growth per year

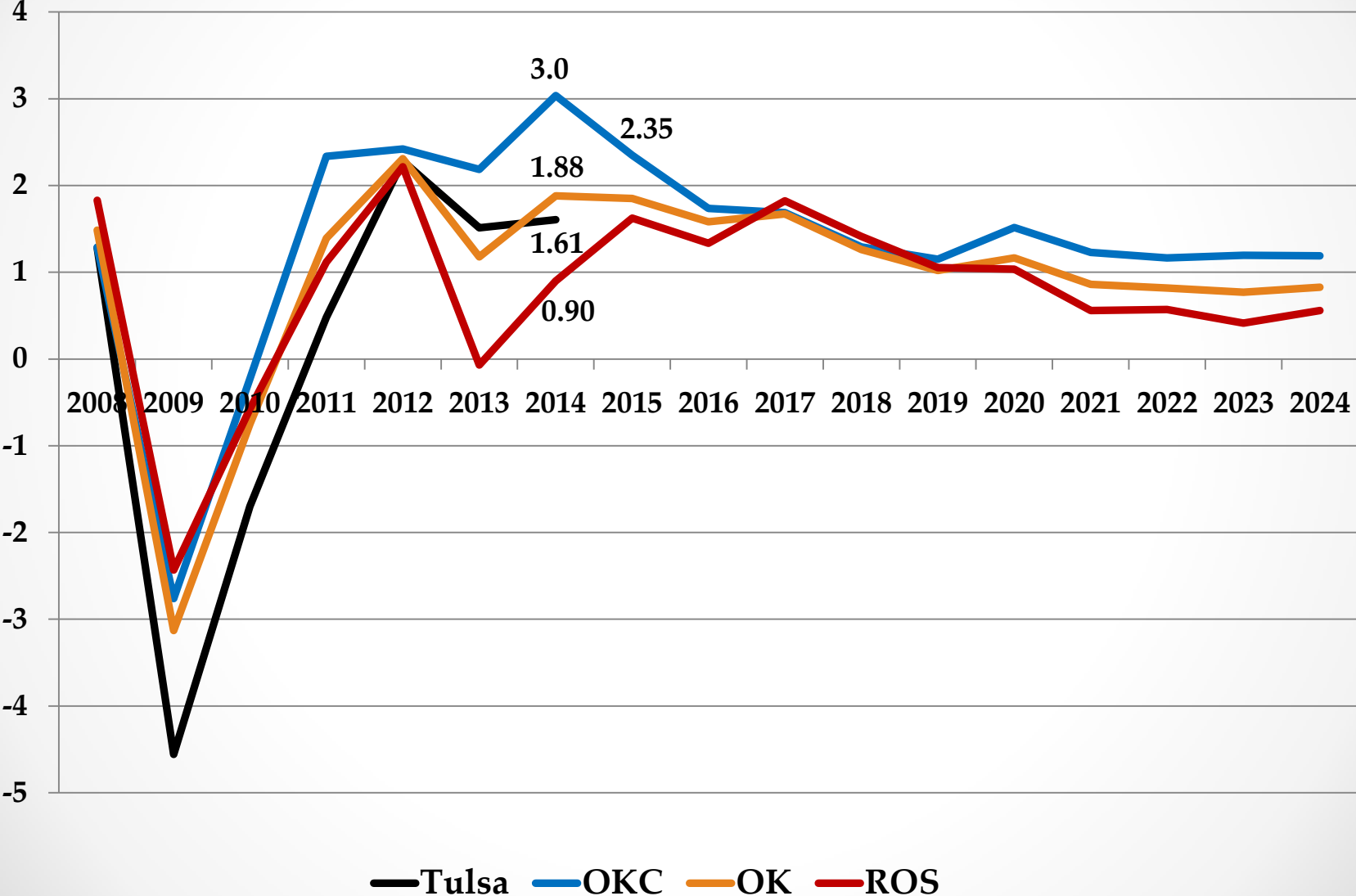


Professional, Scientific, and Technical Services (%Δ BEA Total Employment)



Occupation	U.S. Salary(\$)	Oklahoma Location Quotient
Petroleum Engineers	149,180	9.22
Computer and Information Systems Managers	132,570	0.70
Physicists	117,040	0.21
Computer and Information Research Scientists	109,260	0.55
Geoscientists, Except Hydrologists and Geographers	108,420	2.96
Actuaries	107,740	0.26
Computer Hardware Engineers	106,930	0.25
Aerospace Engineers	105,450	1.08
Software Developers, Systems Software	104,480	0.48
Sales Engineers	101,790	0.38
Economists	101,450	0.47
Mining and Geological Engineers, Including Mining Safety Engineers	96,950	6.39
Software Developers, Applications	96,260	0.42
Engineers, All Other	94,310	0.50
Biomedical Engineers	93,960	0.50
Electronics Engineers, Except Computer	93,380	0.94
Medical Scientists, Except Epidemiologists	90,230	0.37
Materials Engineers	89,930	0.78
Mechanical Engineers	85,930	0.79
Civil Engineers	85,640	0.64
Environmental Engineers	85,520	0.58
Industrial Engineers	83,390	0.64
Computer and Mathematical Occupations	82,010	0.58
Electrical Engineers	78,020	0.55
Chemists	77,740	0.43
Geological and Petroleum Technicians	58,780	7.04

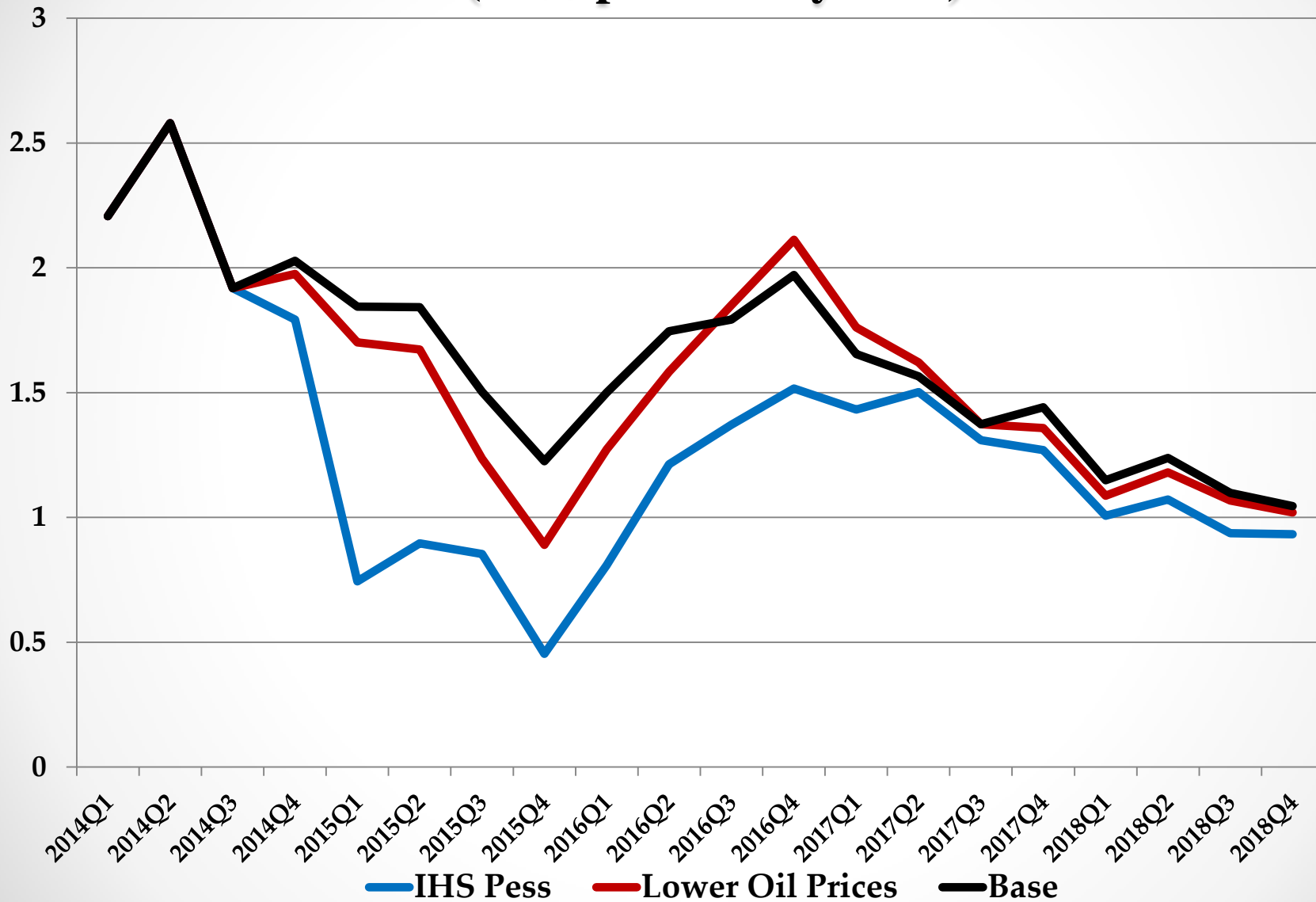
Oklahoma Major Metro Total Nonfarm Employment Growth Rates (%)



Forecast Risks

- Oil prices fall further: slowing economic growth worldwide, slow growth in demand for oil, strong domestic supply
- Oklahoma econometric model mining sector wage and salary employment multiplier of approximately 1.6 (about 27% of all net nonfarm job growth attributable to energy sector from 2010-2014)
- Labor force does not bounce back (poor wage growth; slower immigration)
- Weakness in the housing market (slow household formation: limited access to mortgage debt, student loan debt)

Alternative Scenarios: Oklahoma Nonfarm Employment (15% probability each)



Thank you for your attention