

Addressing the Workforce Challenge

Marcellus Shale Education and Training Center

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Workforce Development & Continuing Education

Pennsylvania College of Technology
PENNSTATE

PENNSTATE
College of Agricultural Sciences

natural gas
exploration & drilling
<http://naturalgas.psu.edu>



Session Objectives

- Discuss workforce needs
 - Related plays around the country
 - Other areas of Pennsylvania (traditional gas)
 - Known impacts from current Pennsylvania data
 - The regional difference
- Moving ahead with the Marcellus Shale Education & Training Center (MSETC)
 - Workforce development coordination and dissemination
- Questions & Answers

Session Speakers

- Larry L. Michael

Executive Director, Workforce & Economic Development, Penn College

- James Ladlee

Sr. Extension Educator, Penn State Cooperative Extension

- Jeff Lorson

Industrial Technology Specialist, Penn College

Wyoming

Sublette County

- 64% increase in population 1990-2007
- 296% increase in building permits 2000-2006
- Traffic
 - Big truck traffic increased 418%
 - All vehicle traffic increase 112%
 - Traffic citations increased as rigs increased
- Employment
 - Rose from just under 2,500 people in 1990 to nearly 6,500 in 2007
- Unemployment decreased
 - 6.7% high in 1992-93
 - 1.2% low in 2006-07
 - Peaks and valleys of an unemployment cycle appeared to level out

Tight-Sand



Wyoming

Sublette County

- K-12 school enrollment increased
- Homes
 - 75% increase in home values 1990-00
 - 91% increase in home values 2000-07
 - 33% increase in rental rates 2000-07
- Heavy workforce pressure
 - 18% of workforce directly engaged in mining in 2008
 - 15% of workforce directly engaged in construction in 2008
 - 98% increase in median family income 1990-2007
 - Higher wages in the gas fields
- Emergency service requests increase as number of rigs increase



Arkansas - Fayetteville Shale

Faulkner County

- 40% population increase
- Income
 - 1,667% increase in households with income \$100,000 - \$149,999
 - Median household income 76% higher
 - 204% increase in Gross income
- Jobs (1990-2006)
 - 53% increase in the labor force
- Homes
 - 107% increase in ownership
 - 107% increase in home values

White County

- Income
 - 171% increase in households with income \$100,000 - \$149,999
 - Median income 83% higher
 - 122% increase in Gross income
- Homes (2000-2006)
 - 76% increase in ownership

North Texas

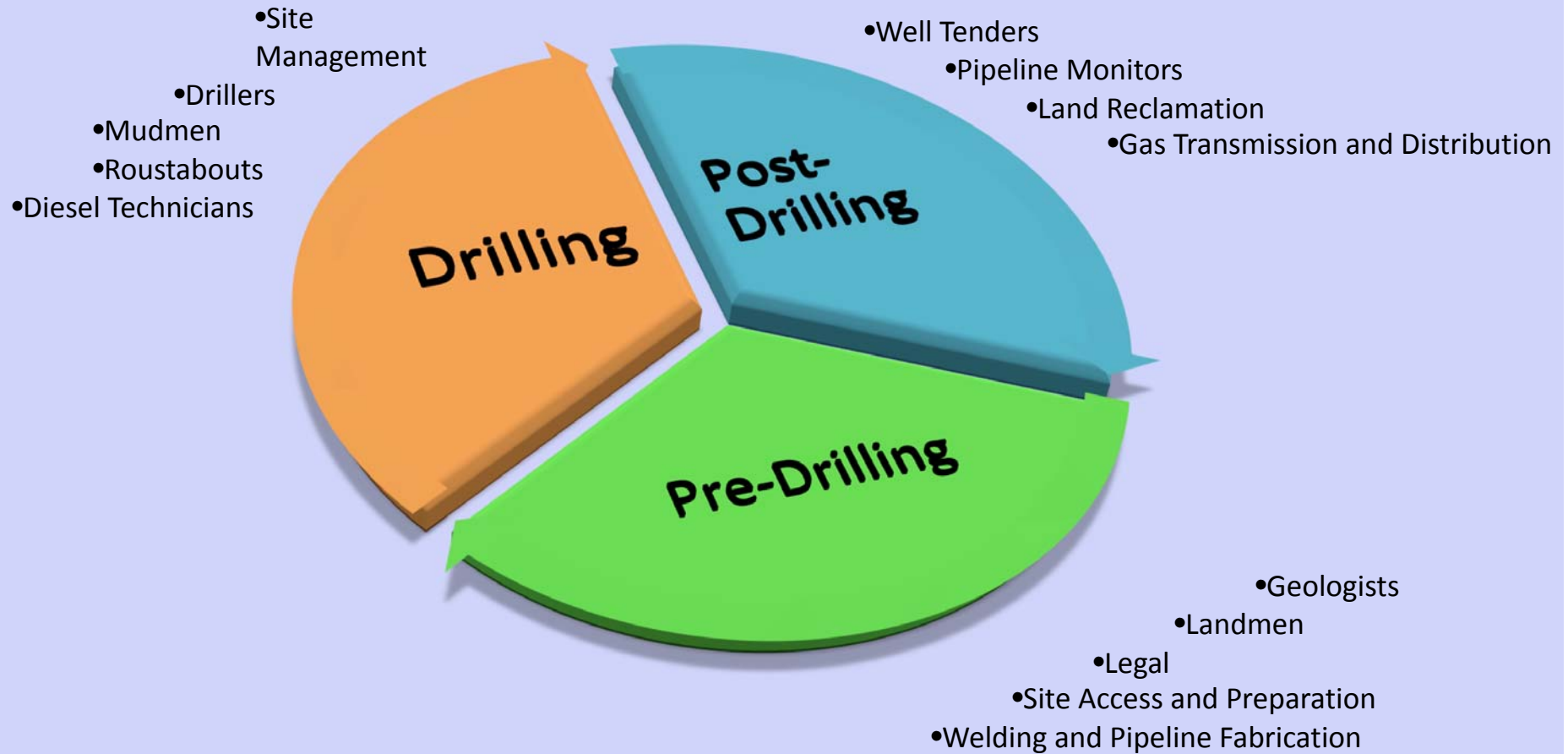
Denton County

- 123% increase in population between 1990-2007
- 67% increase in household income 1990-2005
- Increased jobs
 - Maintenance
 - Repair
 - Construction
 - Retail trade
- Housing units skyrocketed by 178% in 16 years
- Increased number of businesses
- Increased job creation
- Support of local charities

Barnett Shale

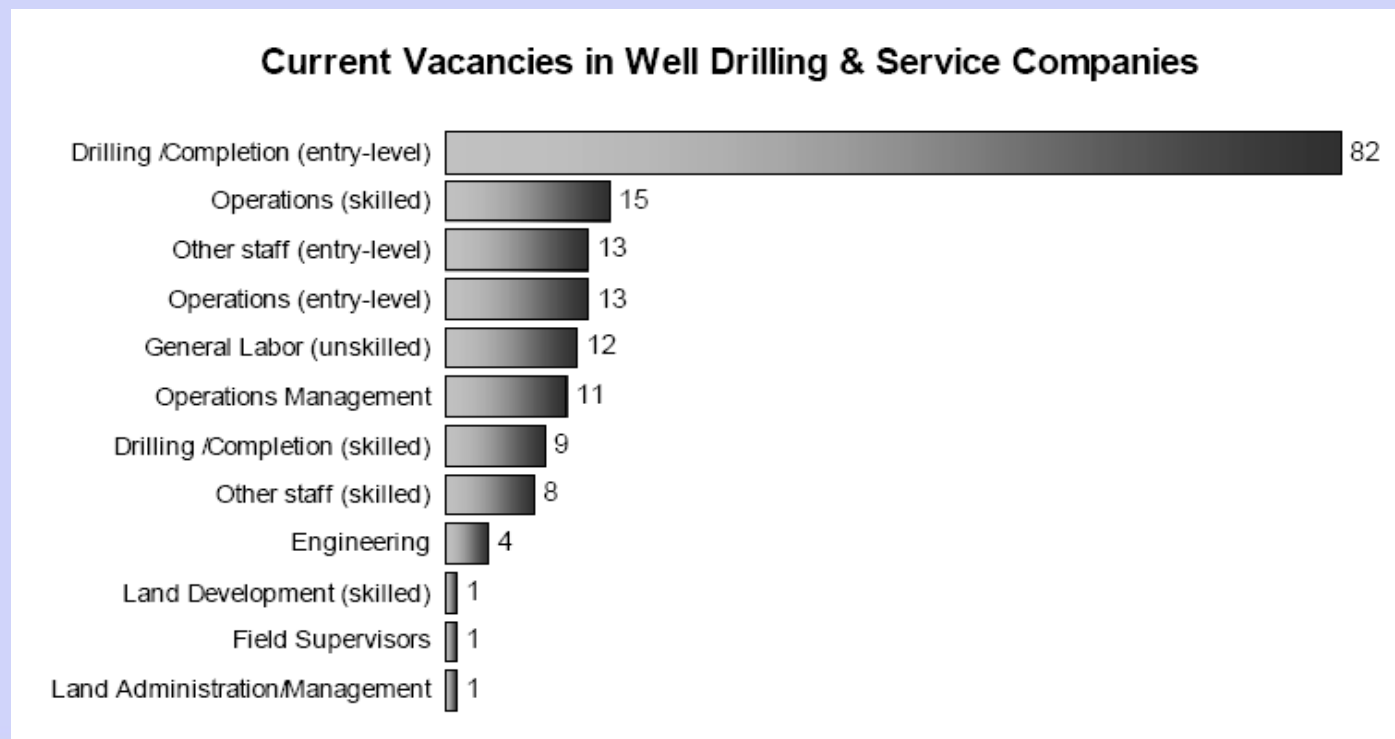


The Life Cycle of the Play



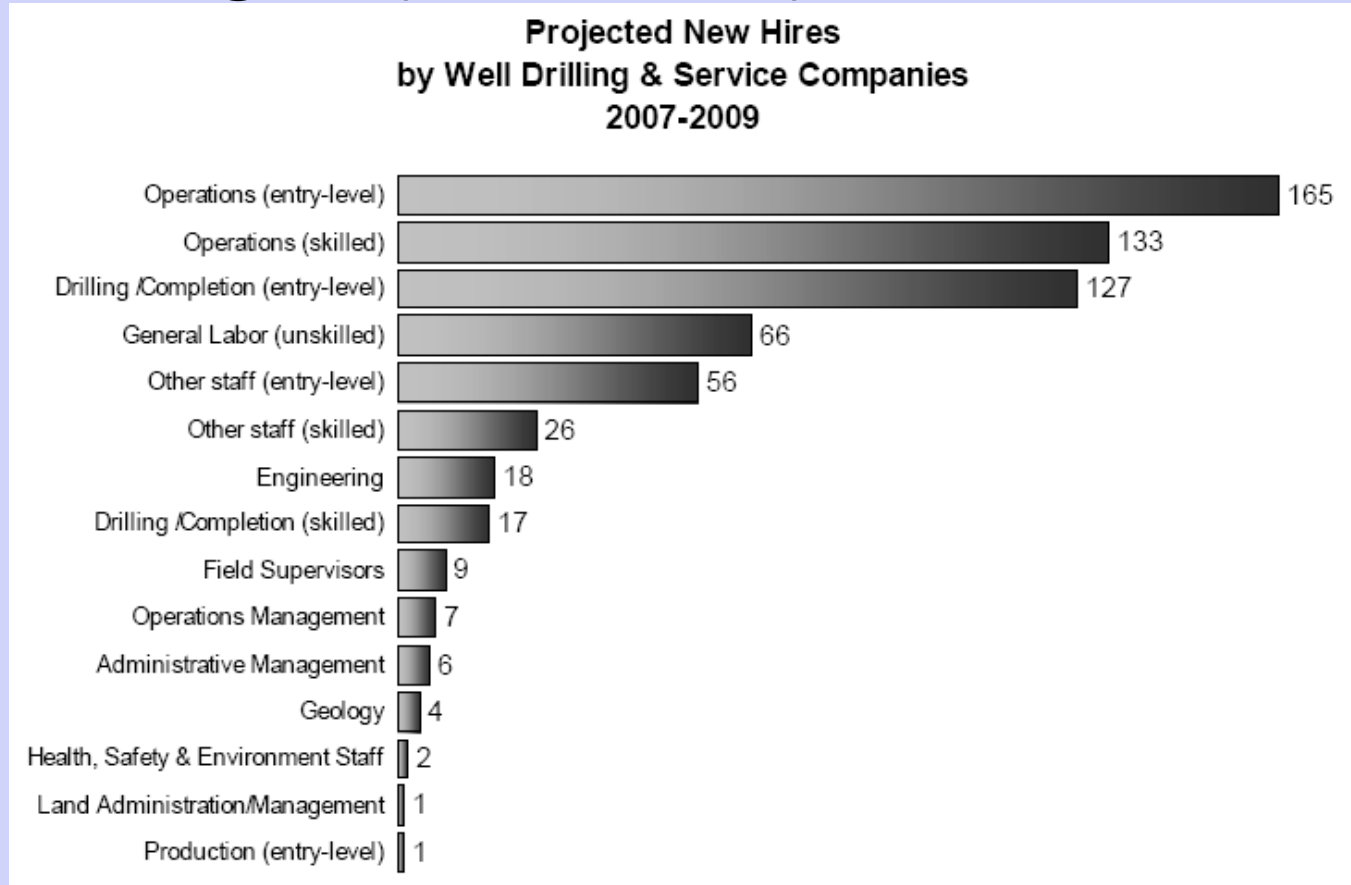
Assessing the Workforce Needs

NCWIB Region (2007-2009)



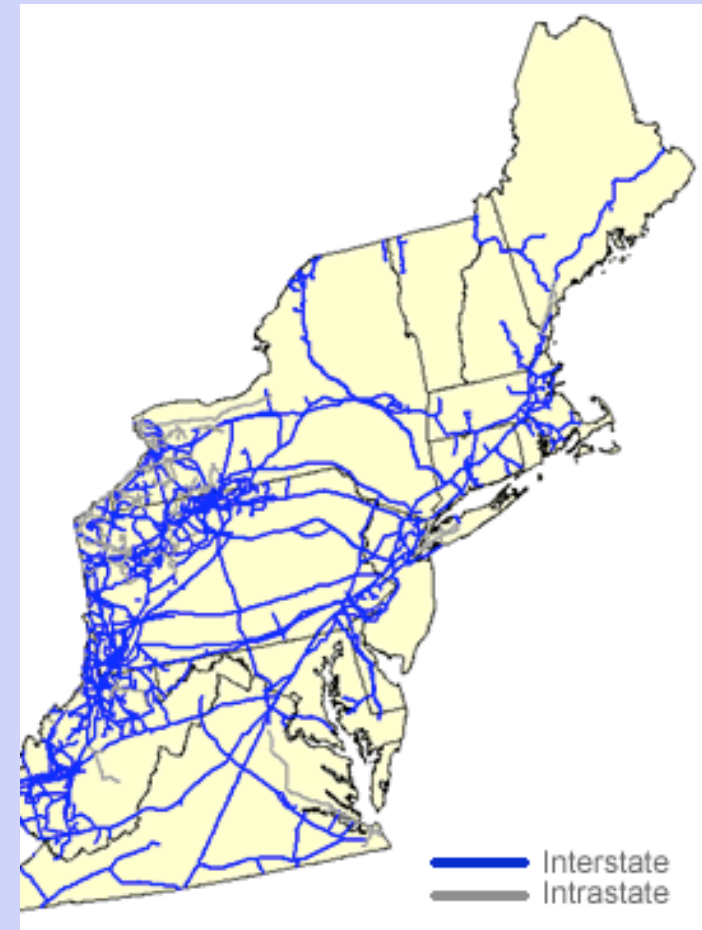
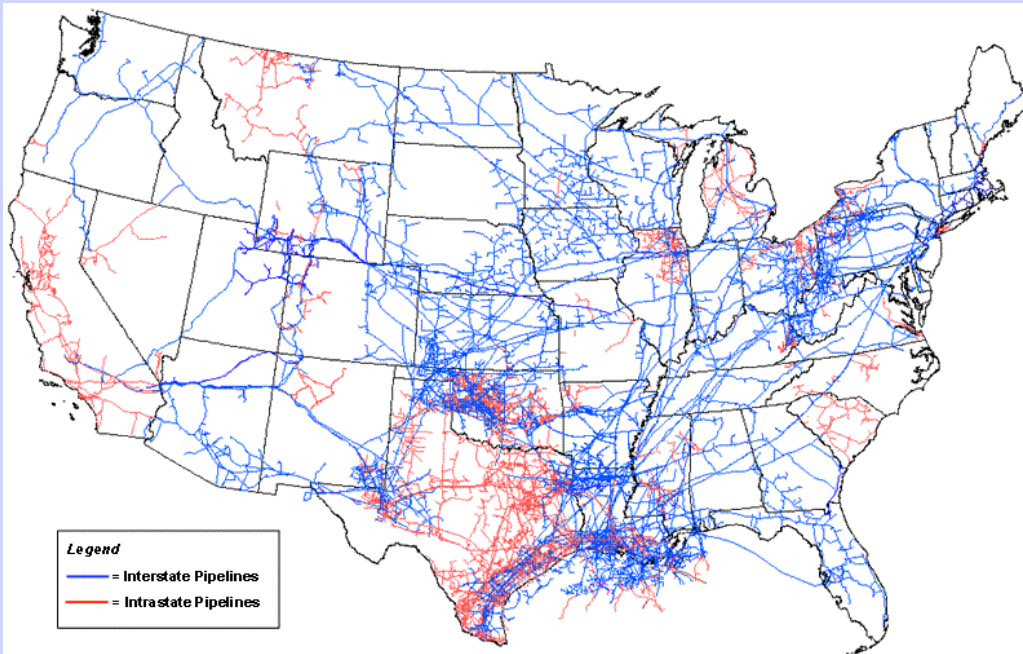
Assessing the Workforce Needs

NCWIB Region (2007-2009)



Moving North and East

Potential Differences?



Moving North and East

Potential Differences?

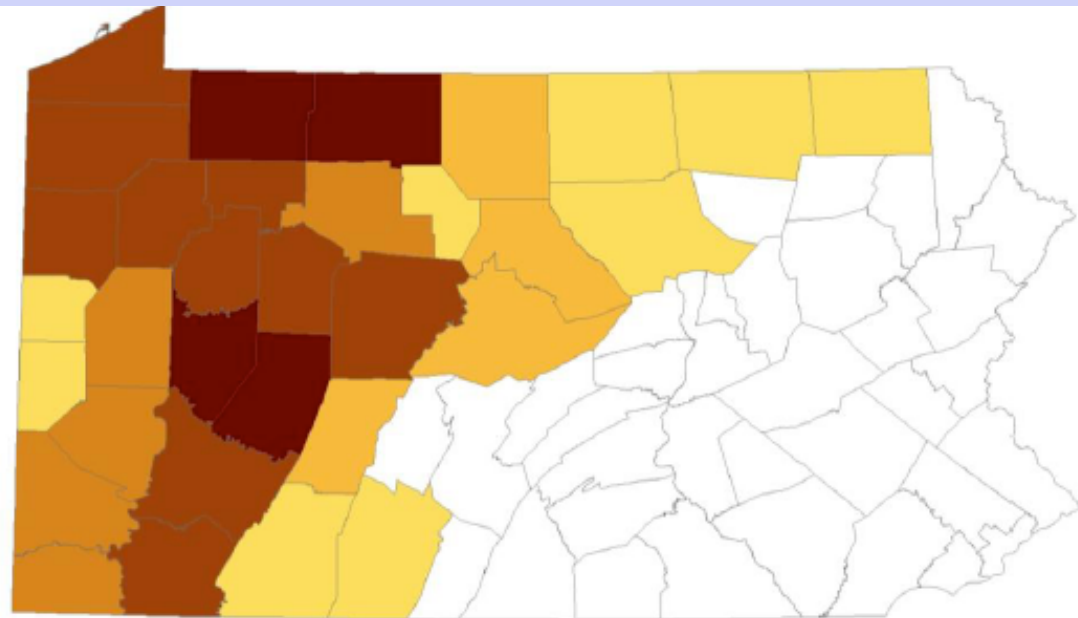
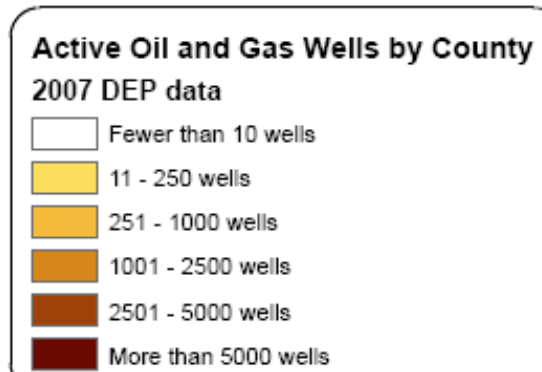
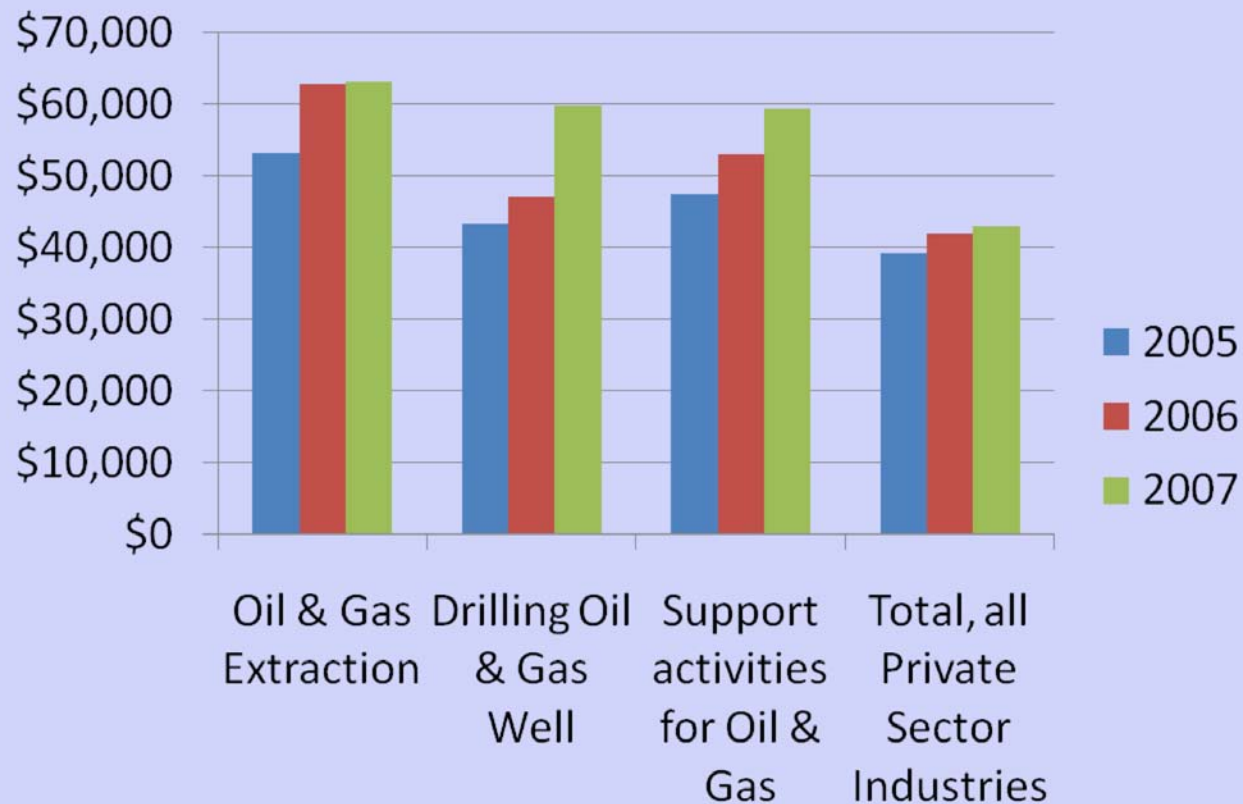


Figure 9 - Active oil and gas wells are concentrated in the west

Source: Pennsylvania Department of Environmental Protection

Wage Impact to the Region?



Source: Pennsylvania Economy League of Southwestern Pennsylvania, LLC 2008

Marcellus Shale Education and Training Center (MSETC)

Mission

- Marcellus Shale Education & Training Center (MSETC) is a partnership established to provide both the regional community and the natural gas industry with a central resource for workforce development and community education needs related to Marcellus Shale gas.

Marcellus Shale Education and Training Center (MSETC)

Current Initiatives

- Natural Gas Industry Needs Assessment
 1. Determine employment demands in the emerging natural gas industry by occupational area.
 2. Identify current training capabilities and capacity, match those with the demands of the industry, and highlight the gaps necessary to fill the employment needs of the industry.
 3. Identify potential areas of worker migration to the natural gas industry from local companies and develop a plan for retaining employees (with CPWDC).

The Marcellus Shale Education and Training Center (MSETC)

Moving Forward (Long-Term Goals)

- Central repository for industry and workforce for employee/training needs
- Coordination point for training and community education specific to the natural gas industry
- Facility and training site resource and partner for the natural gas industry

Sources

- Jacquet, J. (2008). Wyoming Boomtowns: Social and Economic Impacts from Natural Gas Drilling Natural Gas Training and Work Session Penn State Cooperative Extension.
- Murray, S., & Ooms, T. (2008). *The Economic Impact of Marcellus Shale in Northeastern Pennsylvania: Joint Urban Studies Center: A partnership among Keystone College, King's College, Luzerne County Community College, Misericordia University, Penn State Wilkes-Barre, University of Scranton, and Wilkes University.*
- <http://www.whywyoming.org/pdf/Counties/Sublette.pdf>
- American Fact Finder, United States Census, 1990
- American Fact Finder, United States Census, 2000
- Pennsylvania Economy League of Southwestern PA, LLC (2008). The Economic Impact of the Oil and Gas Industry in Pennsylvania.
- Pennsylvania Oil & Gas Association (2007). Oil and Gas Industry Workforce Needs Assessment.

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