



# *Natural Gas Exploration:* **Social & Economic Impact on Local Community and Business Activities**

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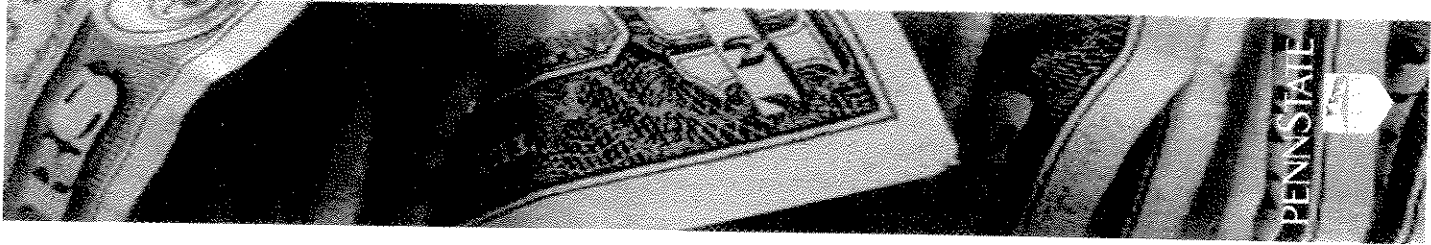
*Presented by Allan J. Bassler, Extension Educator*

Tuesday, Sept. 9, 2008

PENNSYLVANIA  
STATE

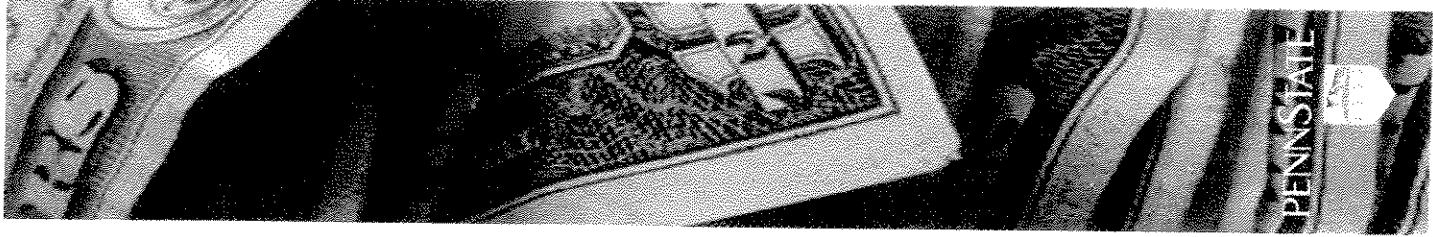


Cooperative Extension



# Outline

- Experience in Texas
- Experience in Wyoming
- Possibilities here in Pennsylvania

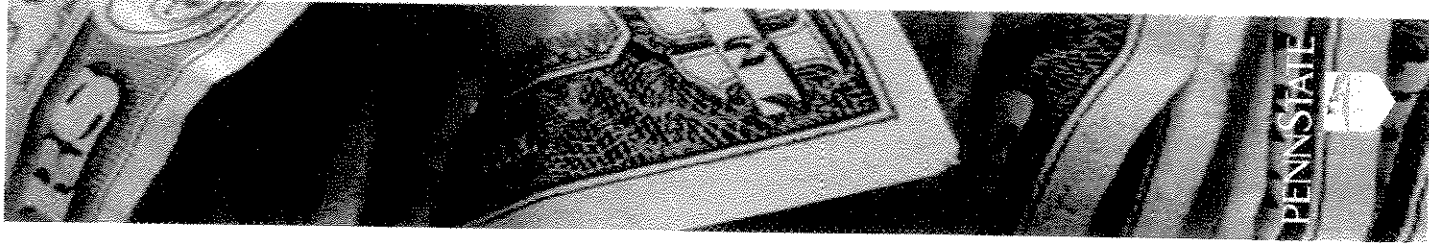


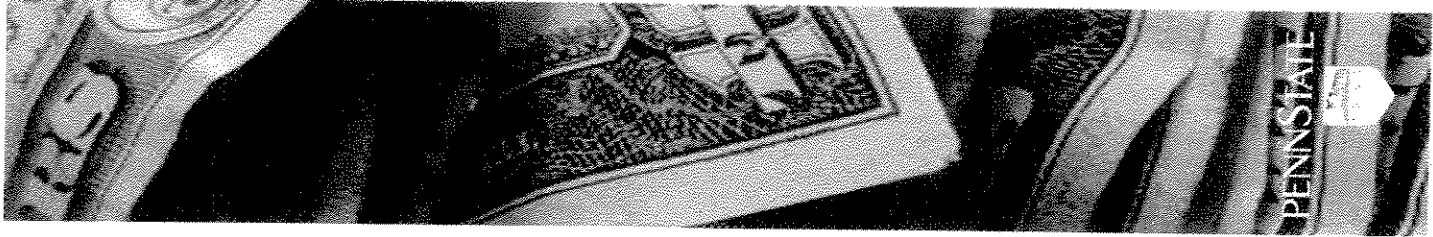
# A Few Background Concepts

- Scale of this may be **BIG**
- Resource-based economic development; when its gone, its gone
- Local impact- multiplier effects if keep dollars local
- How ensure “winners” pay fair share of increased taxes & costs?

# Overall Economic Impact

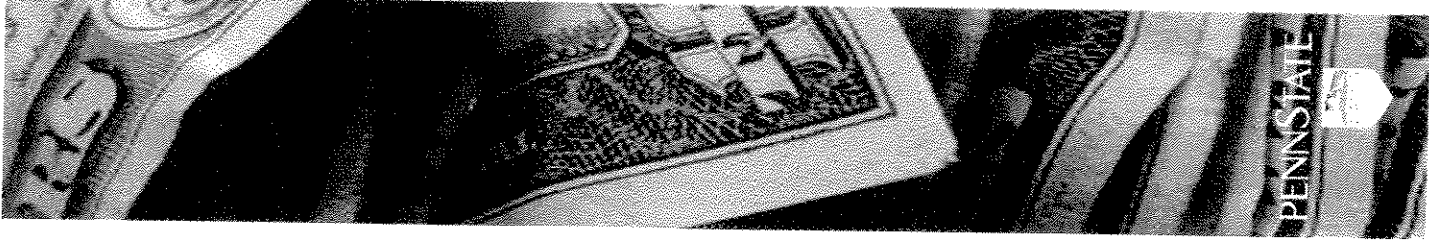
- Estimated \$500 billion in recoverable natural gas in Pennsylvania - *NOT uniformly distributed across the Commonwealth*
- Total Earnings across ALL Industries (2006)
  - Pennsylvania - \$339 billion
  - Lycoming County - \$2.4 billion
  - Indiana County - \$1.7 billion





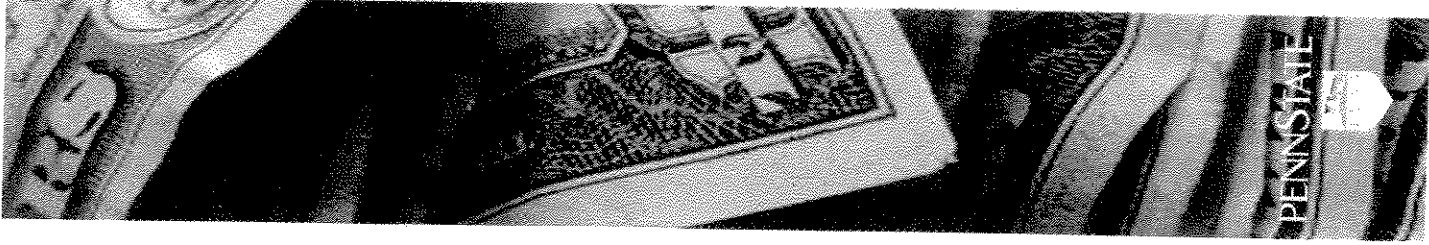
# Estimating Economic Impacts?

- **Economic models?**
  - Based upon existing relationships
  - NOT too good if SIGNIFICANT change
  - “Figures don’t lie, but liars figure.”  
(Samuel Clemens)
- **Experience in other communities?**



# 1. Barnett Shale in Texas

- Geology is similar to Marcellus
- Development started in 2001
- Employment & income impacts can be documented
- But predominantly urban area
- Perryman Group “Drilling for Dollars”  
[www.bseec.org/images/summaryreport.pdf](http://www.bseec.org/images/summaryreport.pdf)



# Economic Impact of Barnett

- \$8.2 billion in annual output
  - 8.1% of total regional output
- 83,823 jobs (8.9% of total employment)
- Barnett Shale provides some stability to Fort Worth area's economy

# *Employment Impacts in Texas:* **Cause of New Permanent Jobs**

**Leasing &  
Royalty**

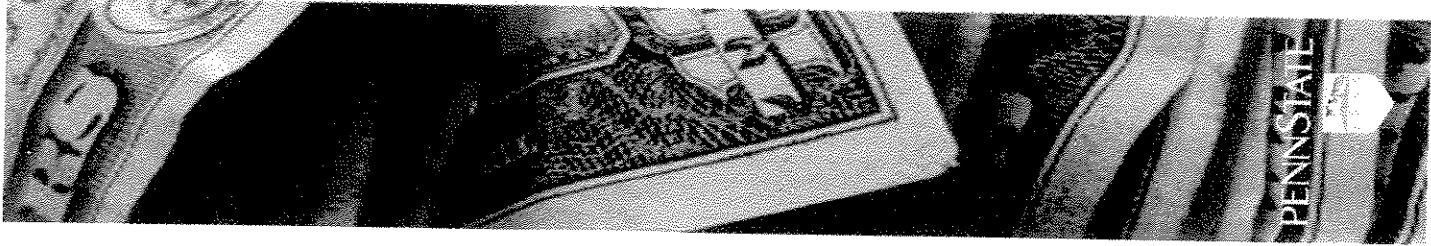
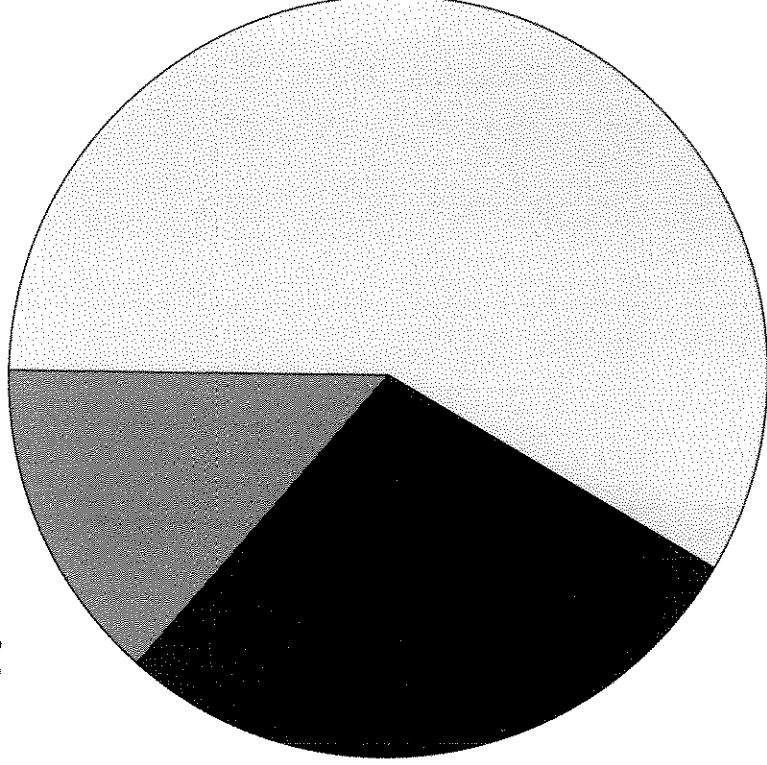
**14%**

**Pipelines**

**28%**

**Drilling &  
Operations**

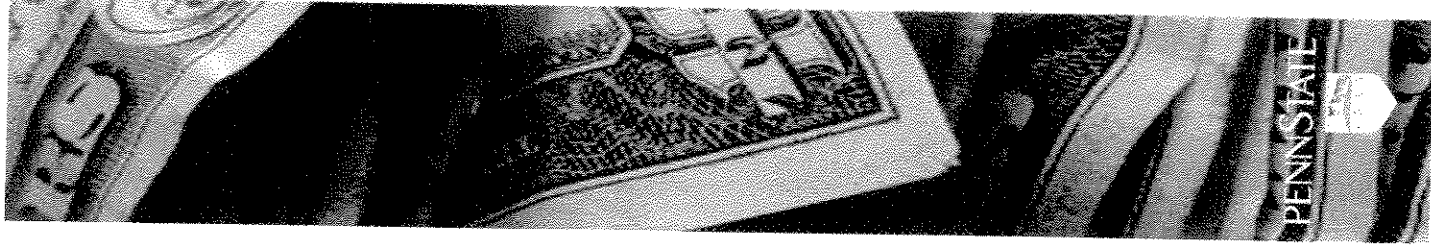
**58%**



# Barnett -Which Industries Benefit?

Share of Annual Impact on Business Activity

Business Sector	Personal income	Employment
Crude Petroleum & Natural Gas	21%	7%
Retail Trade	16%	27%
New Construction	10%	9%
Maintenance & repair	7%	7%
Business services	6%	4%
Health services	6%	6%
Eating & drinking places	5%	15%
Transportation	4%	3%

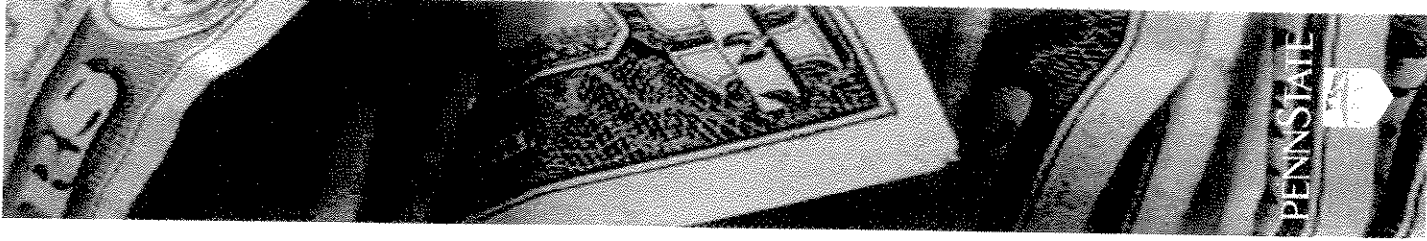


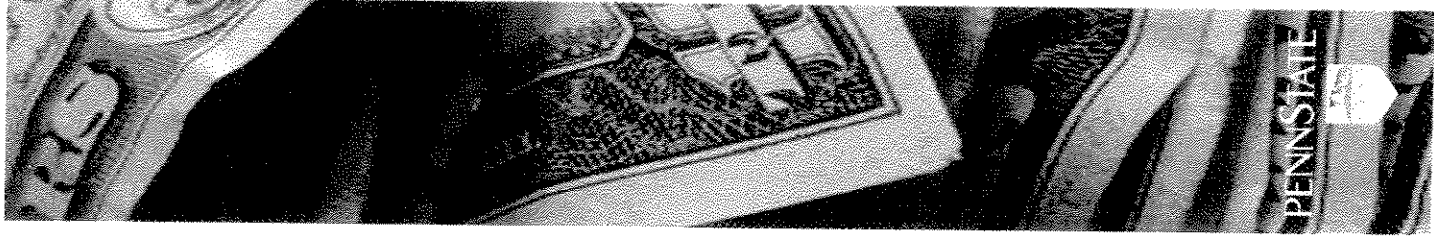
## 2. Experience in Sublette County, Wyoming

- Largest gas-producing county in Wyoming (44% of state's gas in 2006)
- Energy extraction for 100+ years
- 1998 surge with drilling in Jonah Field.
- Very rural area (population was 5,920 in 2000)
- Impacts can be documented

[www.sublette-se.org](http://www.sublette-se.org)

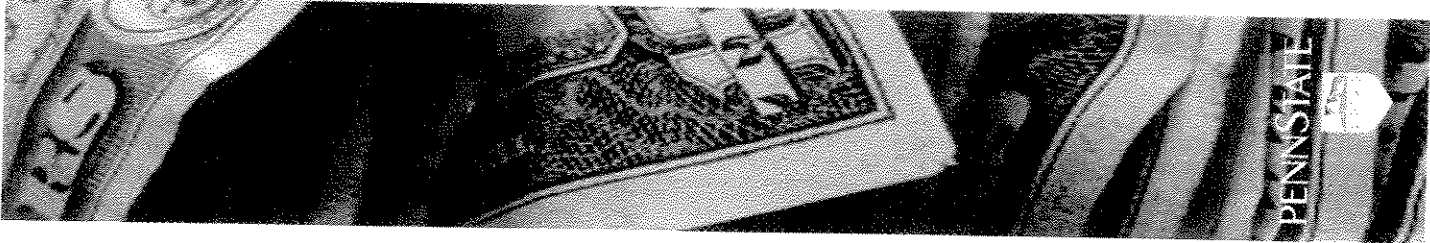
[www.ecosystemrg.com](http://www.ecosystemrg.com)





# Experience in Sublette County

- Direct & significant influence on population, affecting nearly all sectors of the community
  - Housing construction
  - Public services
  - Cultural changes
- Much oil & gas employment is transient workforce – *difficult to estimate numbers*
- During development, 83 of 156 local employees per well (53%) were residing in camps or motels



# Experience in Sublette County

- Highest paying jobs are gas field jobs –  
*“significant opportunities for wage advancement, with a nearly unlimited opportunity to gain overtime wages”*

*Jacquet*

- Seasonal fluctuations in employment & unemployment have effectively stopped

*Jacquet*

- High cost of living & saturated motel and rental housing makes recruiting new employees difficult

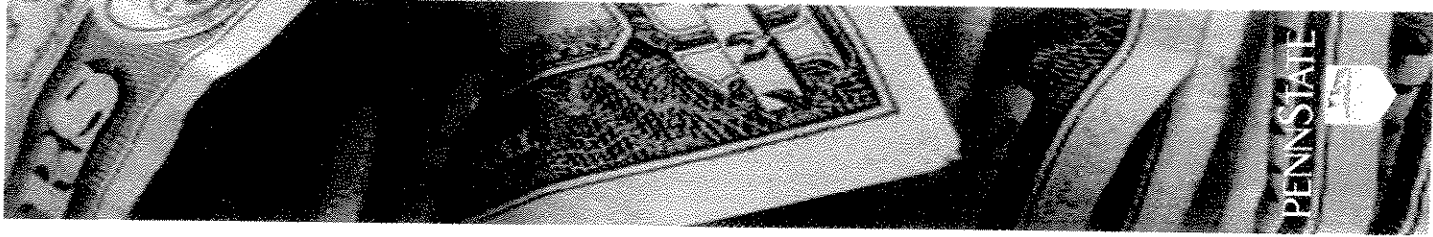
*Ecosystem Research Group*



# Experience in Sublette County

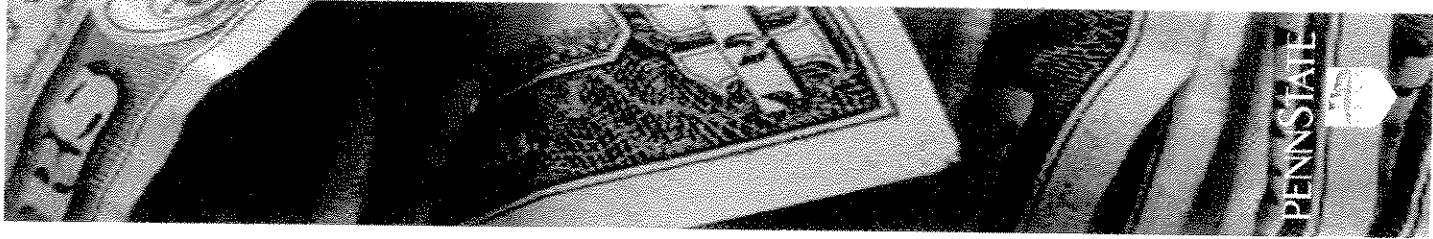
- Availability & affordability of housing affects non-resident workers who would consider relocating
- Local government requires large capital projects to address infrastructure impacts of new population
- Higher crime rate – biggest increases in DUI, drug possession, larceny (violent crimes NOT increase)
- Number of school students has increased dramatically

Source: Ecosystem Research Group



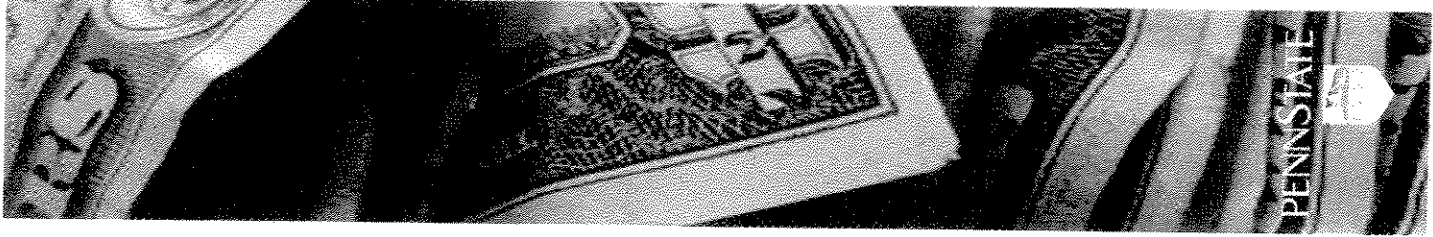
### 3. Possibilities in Pennsylvania?

- LOTS of dollars flowing into the local economy. How to keep 'em here?
  - Jobs?
    - Locals HAVE the skills?
    - Or LEARN the skills?
    - Or get newcomers to move into county?
  - Business activities?
- Impacts on other sectors – tourism?



# Impacts on Local Governments?

- *Little* local revenue impact
  - Natural gas is NOT subject to local taxes in PA
  - Earned Income Tax paid where people live
  - Corporate income tax goes to state
- Service impacts may be large
- If governments lease land – should view revenues as ‘Capital,’ not ‘Income’



# Other Possibilities?

- Other industries that could be attracted due to natural gas being here?
- How ensure “winners” pay fair share of increased taxes & costs?
  - Surface owners vs. mineral owners?
  - Large landowners vs. others?
- Use gains to invest for future AFTER natural gas?