

# Economies of Shale

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September 10, 2013



## About Us

- Industry Trade Association
- Approximately 300 members strong
- From producers to midstream to suppliers

## Our Focus

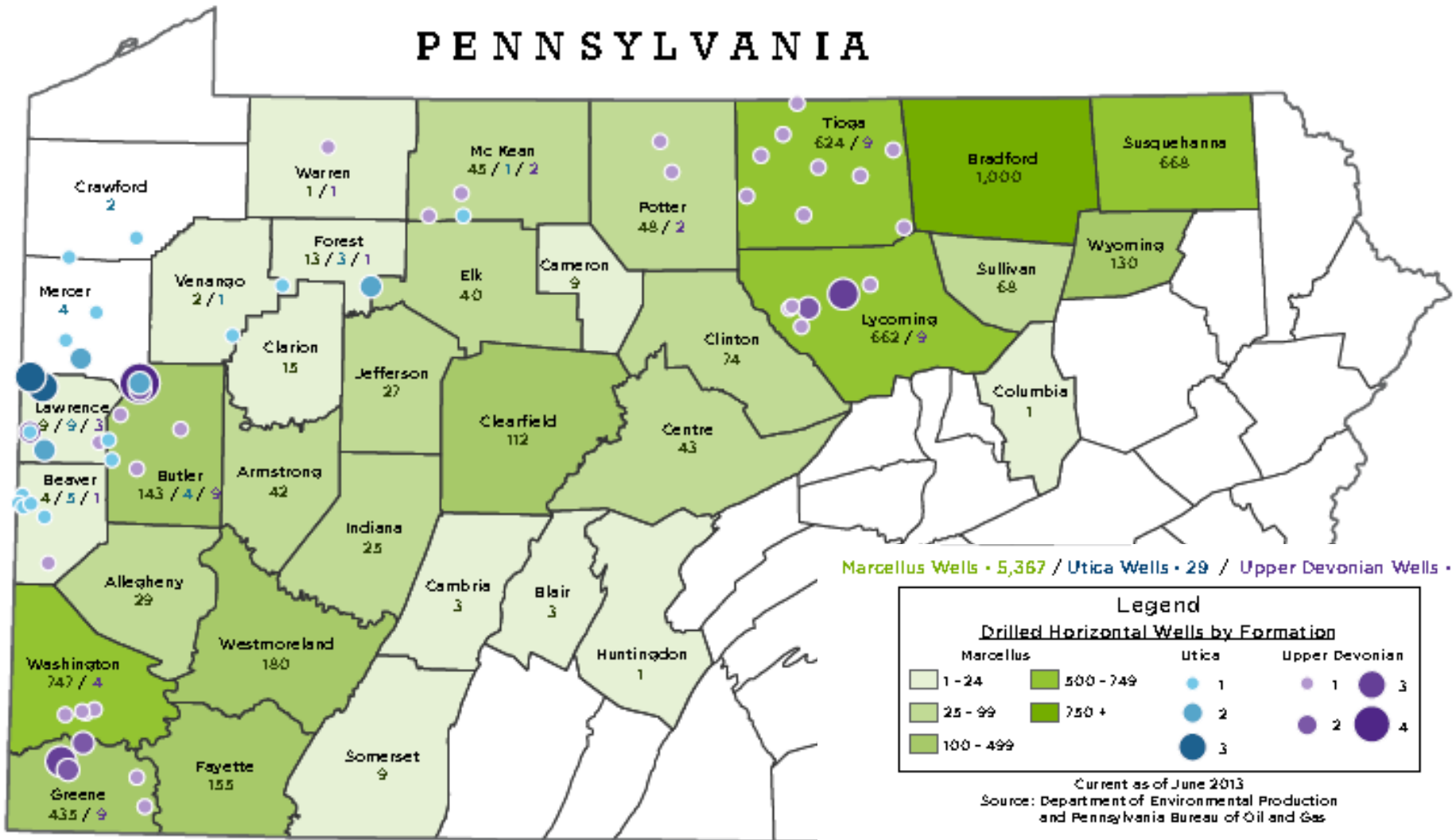
- Responsible shale development
- Fact-based dialogue
- Addressing landowner, government and public issues
- Support the viability of the industry through regulatory and legislative engagement

Pennsylvania now produces nearly 10% of the nation's gas and a quarter of onshore domestic shale gas

# Shale Development in Pennsylvania



## PENNSYLVANIA



Marcellus Wells - 5,367 / Utica Wells - 29 / Upper Devonian Wells - 50

Current as of June 2013  
 Source: Department of Environmental Protection and Pennsylvania Bureau of Oil and Gas

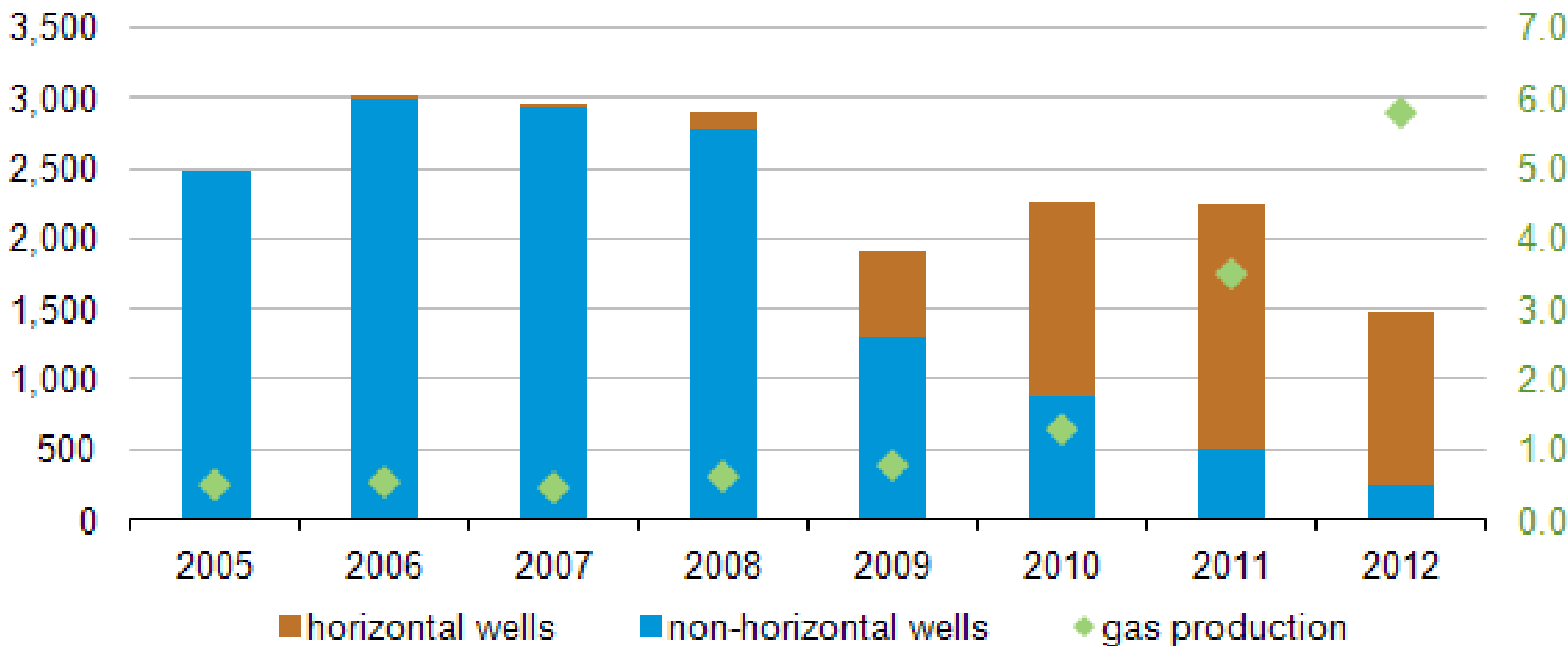
# Increases in Production

Annual natural gas well starts and production in Pennsylvania

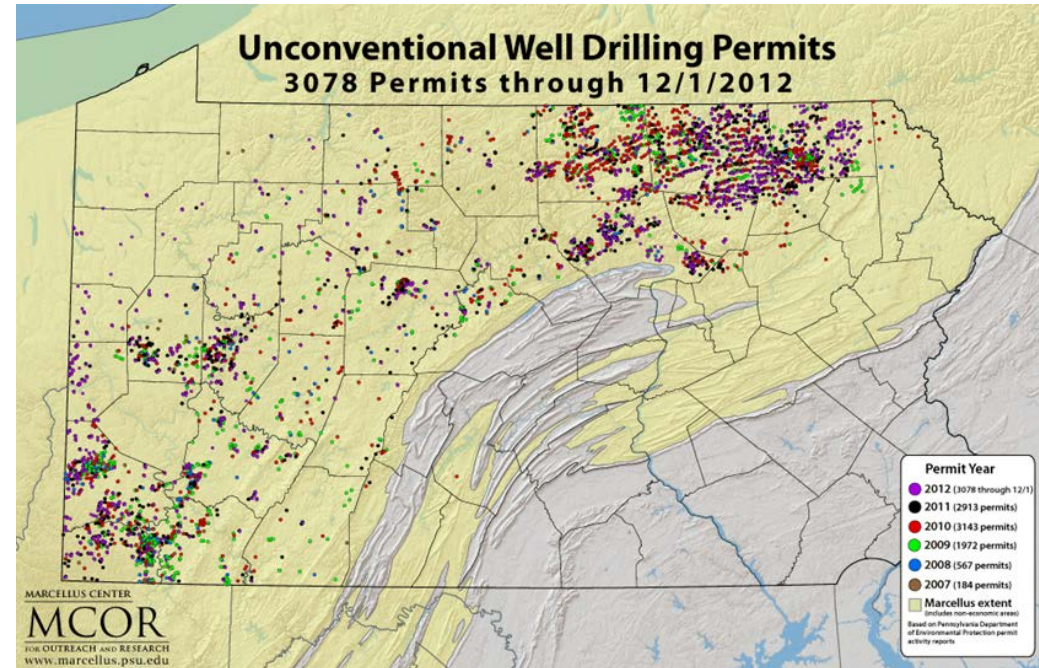


wells started

billion cubic feet per day



- Through 2010-2012 over 4,500 wells drilled resulting in approximately \$31.5 billion private investment
- 2013 projection: \$13.5 billion
  - Leasing and bonuses
  - Exploration
  - Drilling and completion
  - Pipelines and processing
  - Royalties



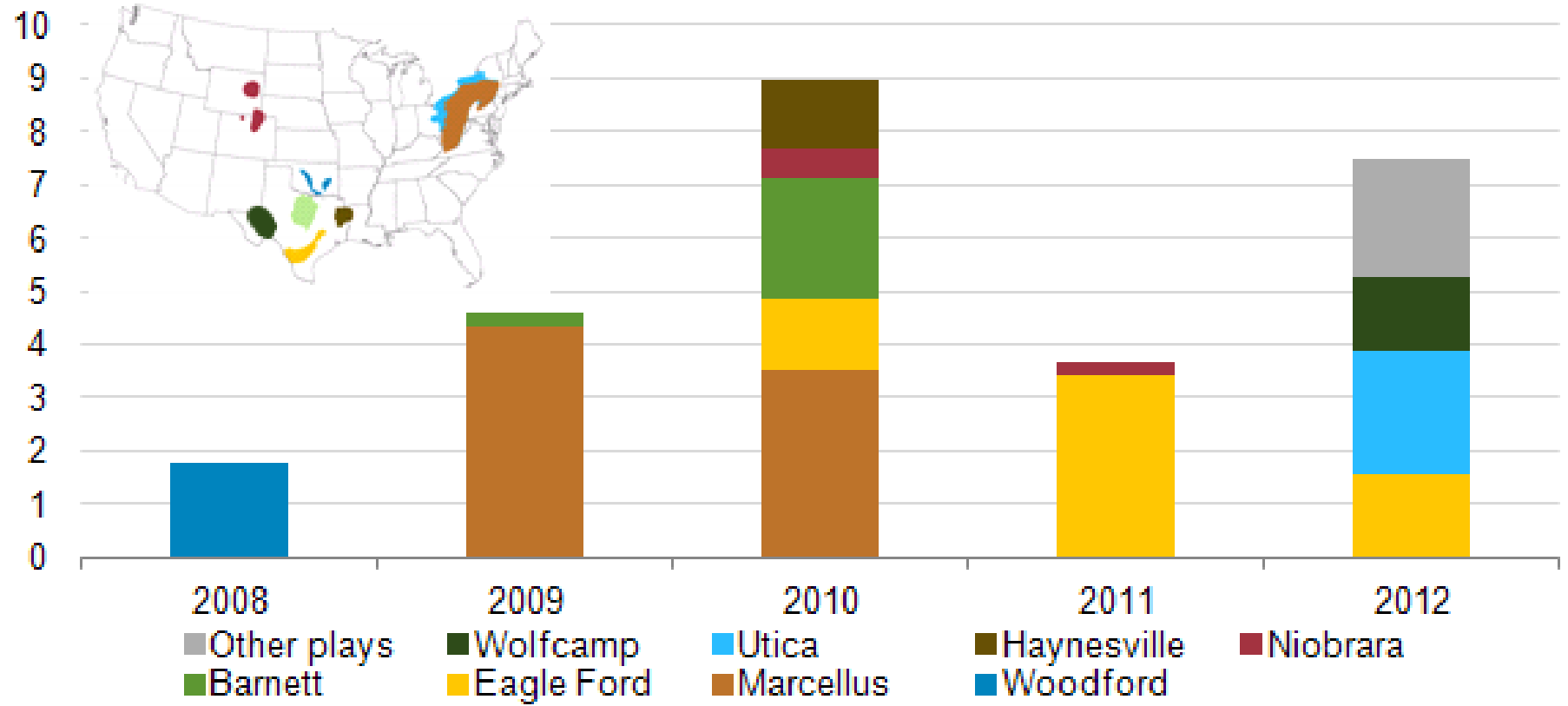
Source: Marcellus Center for Outreach and Research, 2013  
Source: Survey of MSC Member Companies, 2013

# International Interest in the Marcellus



International joint venture investment in U.S. shale plays (2008-12)

billion dollars



Source: EIA, April 8, 2013

# Revenue for Pennsylvania



Paid by Natural Gas Industry	
Overall taxes since 2006 <sup>1</sup>	> \$1.8 billion
Road construction investments since 2008 <sup>2</sup>	> \$1 billion
Royalty payments to state in 2011 <sup>3</sup>	\$107 million
Permitting and enforcement fees to increase DEP personnel	\$11 million
Impact Fee in first two years <sup>4</sup>	> \$400 million

1 – Fox News, July 23, 2013

2 – On-going Survey of Marcellus Shale Coalition Members

3 – Pennsylvania Department of Environmental Protection

4 – Pennsylvania Public Utility Commission (2007-2011 grandfathered wells plus 2012 assessment)

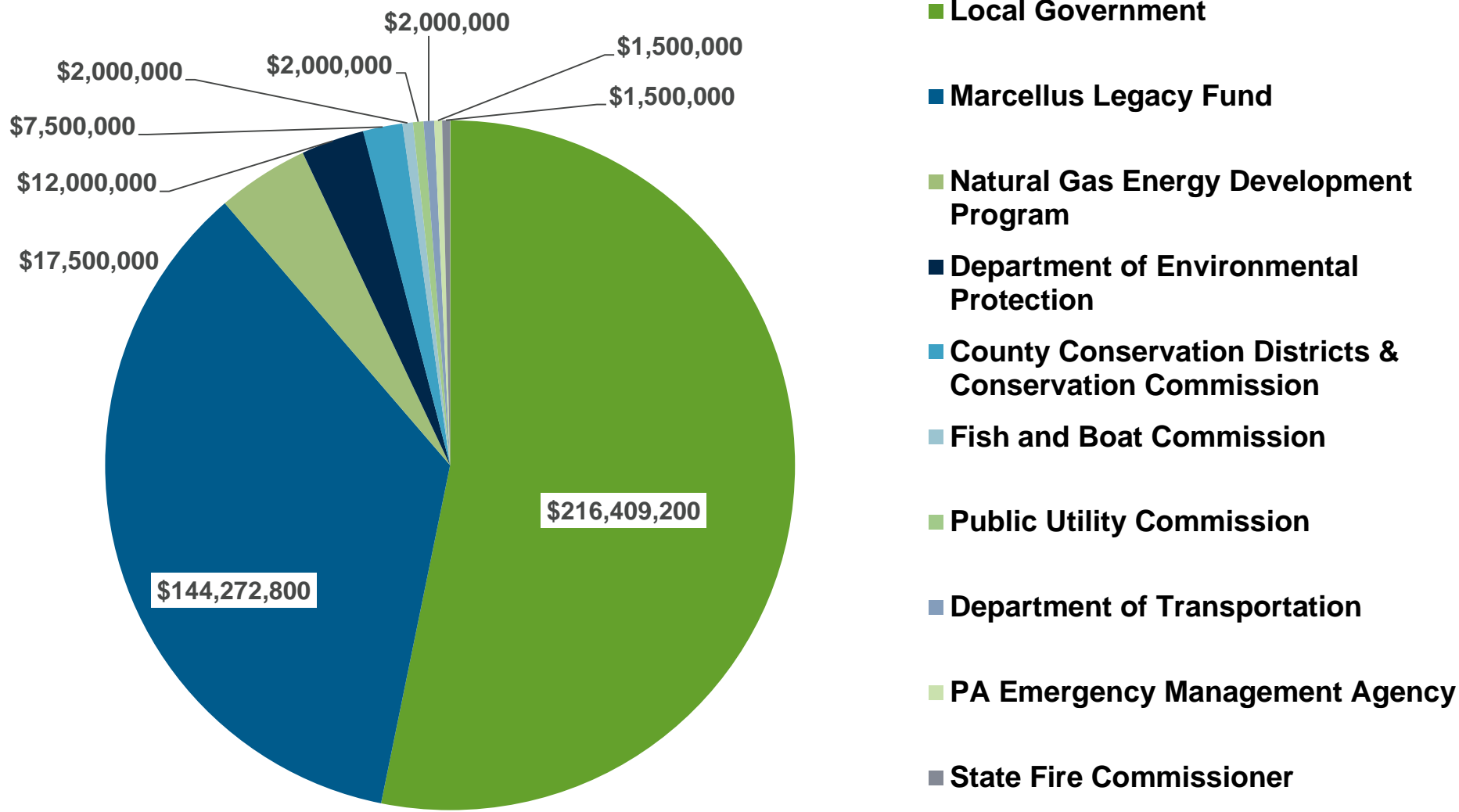


## ➤ Act 13

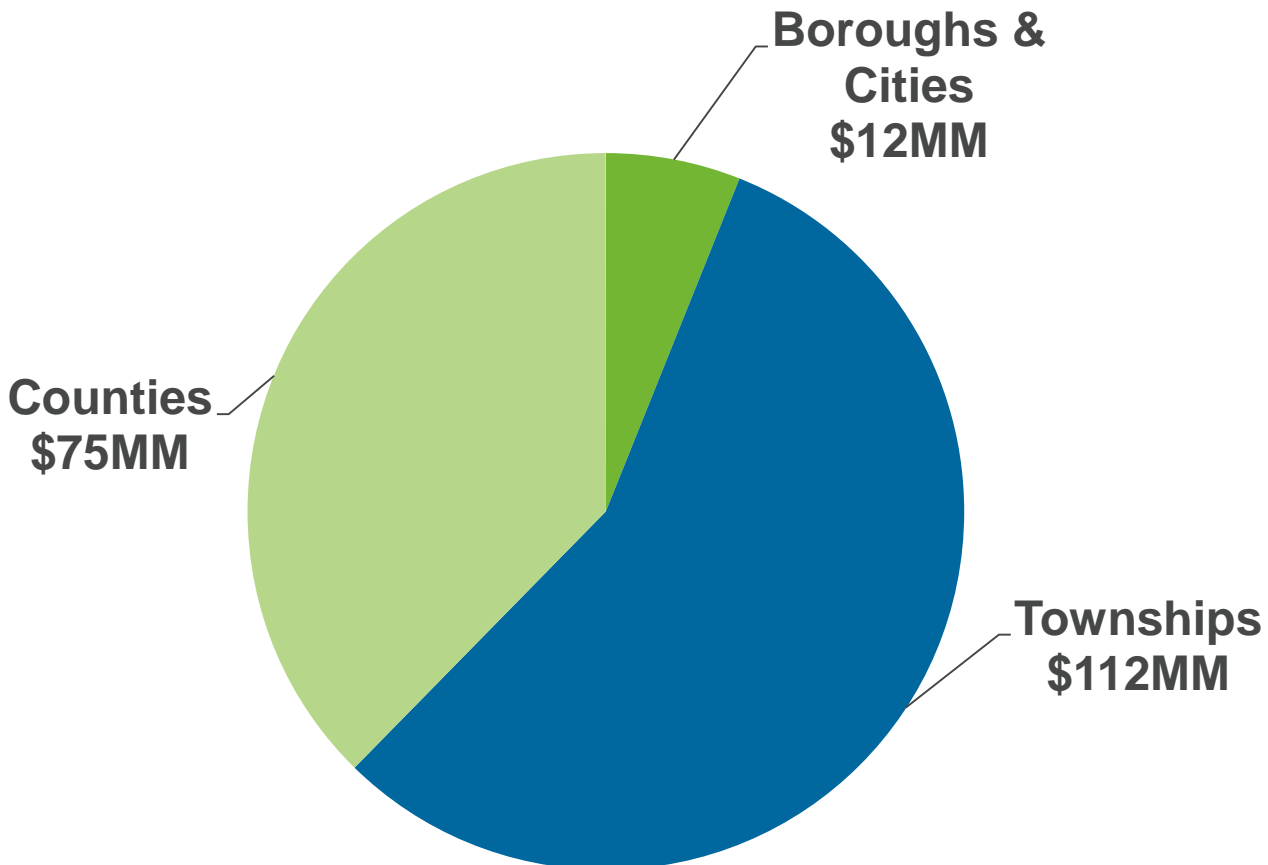
Act 13 of 2012 amends Title 58 of the Pennsylvania Consolidated Statutes (Oil and Gas Act of 1984)

- ✓ Impact Fee - Per well fee assessed and collected on unconventional wells
- ✓ *Municipal Uniformity – Authority to enact uniform development standards at the municipal level was challenged and this provision uncertain until State Supreme Court issues a decision.*
- ✓ Substantial revisions to environmental protections for both surface and subsurface activities – including but not limited to:
  - Increased record keeping for transportation of waste water fluids
  - Source reporting for air contaminant emissions
  - Strict spill prevention requirement during drilling and hydraulic fracturing
  - Increased permitting, siting, and protection of water supplies
  - Well control emergency response

## Impact Fee Allocations 2011 & 2012 \$400MM+

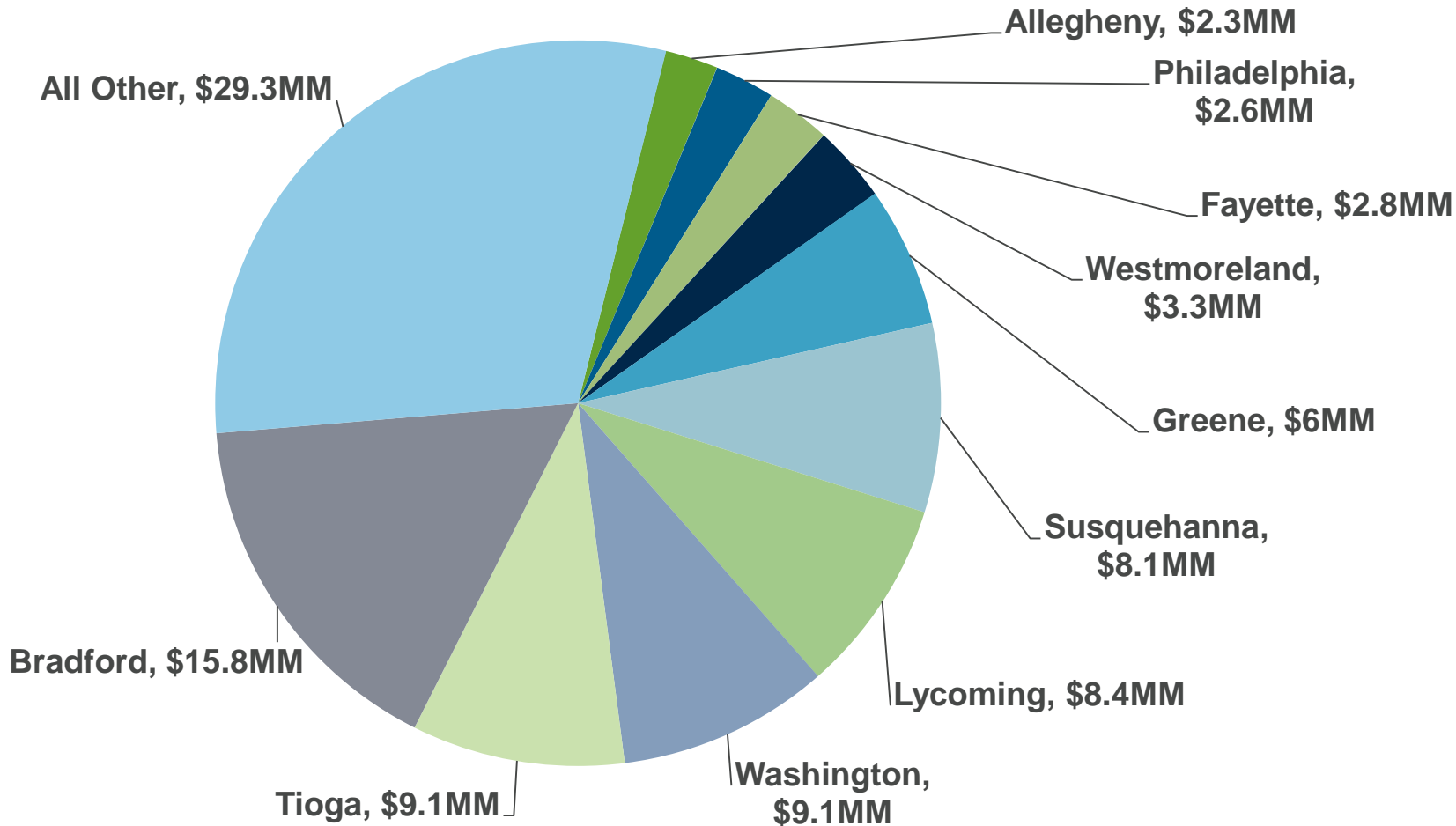


## Impact Fee Payment 2011 & 2012 County and Municipal Government \$200MM



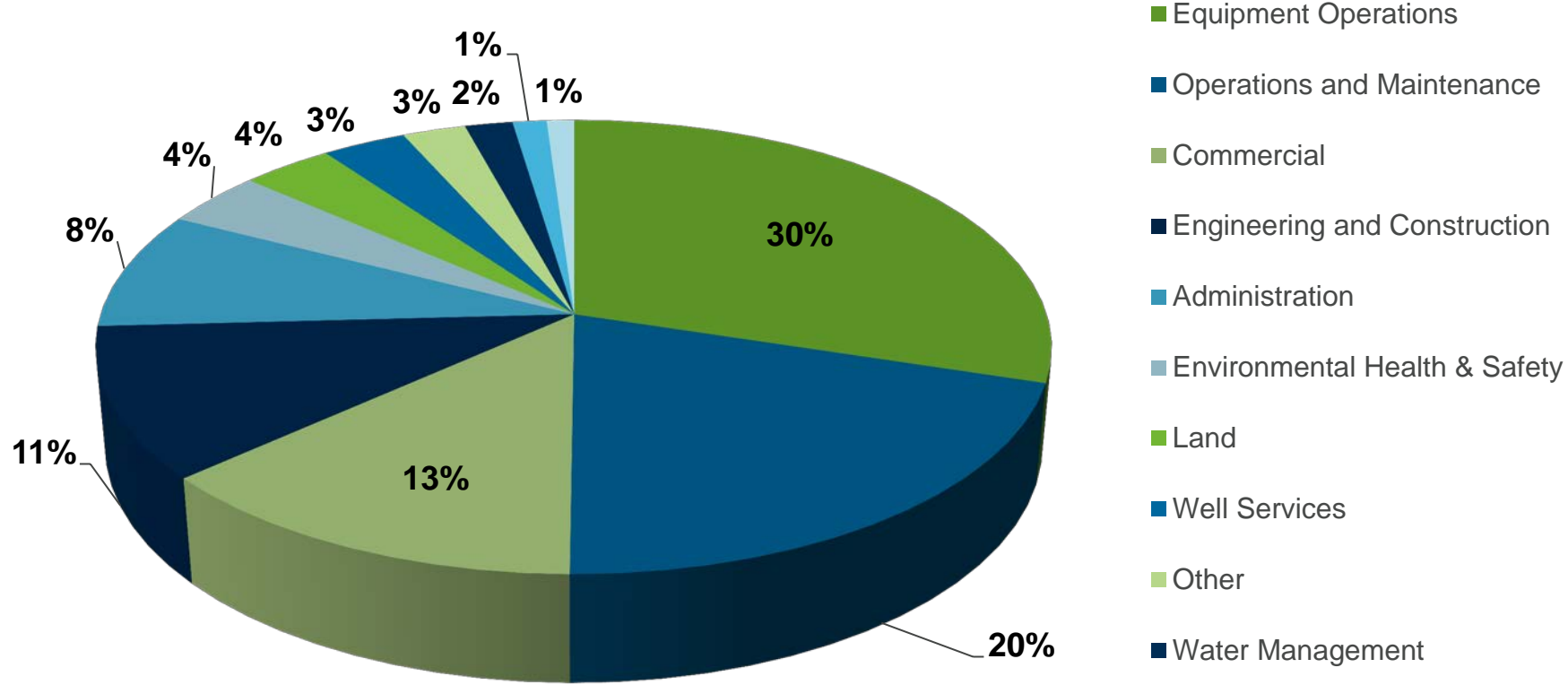
Excludes Housing Affordability and Rehabilitation Fund

## Impact Fee Allocations 2011 & 2012 \$96.8MM



## Professional Functions Identified in MSC Survey

Source: MSC Membership Survey, May 2013



**Fast Fact**  
 ✓ 400+ individuals within nearly 150 different occupations needed to complete and produce gas from a Marcellus Shale well (MSETC, 2010)

- **Pennsylvania leading nation for new or expanded corporate facilities**
- **Pittsburgh 6<sup>th</sup> among metro-markets**
  - **Allegheny Conference on Community and Economic Development reports:**
    - Natural Gas Supply Chain (Extraction, production, pipeline and other midstream activities)
      - » 2012 – 19.6% (37 total)
      - » 2011 – 25 % (56 total)
      - » 2010 – 19.6% (38 total)
      - » 2009 – 15% (21 total)

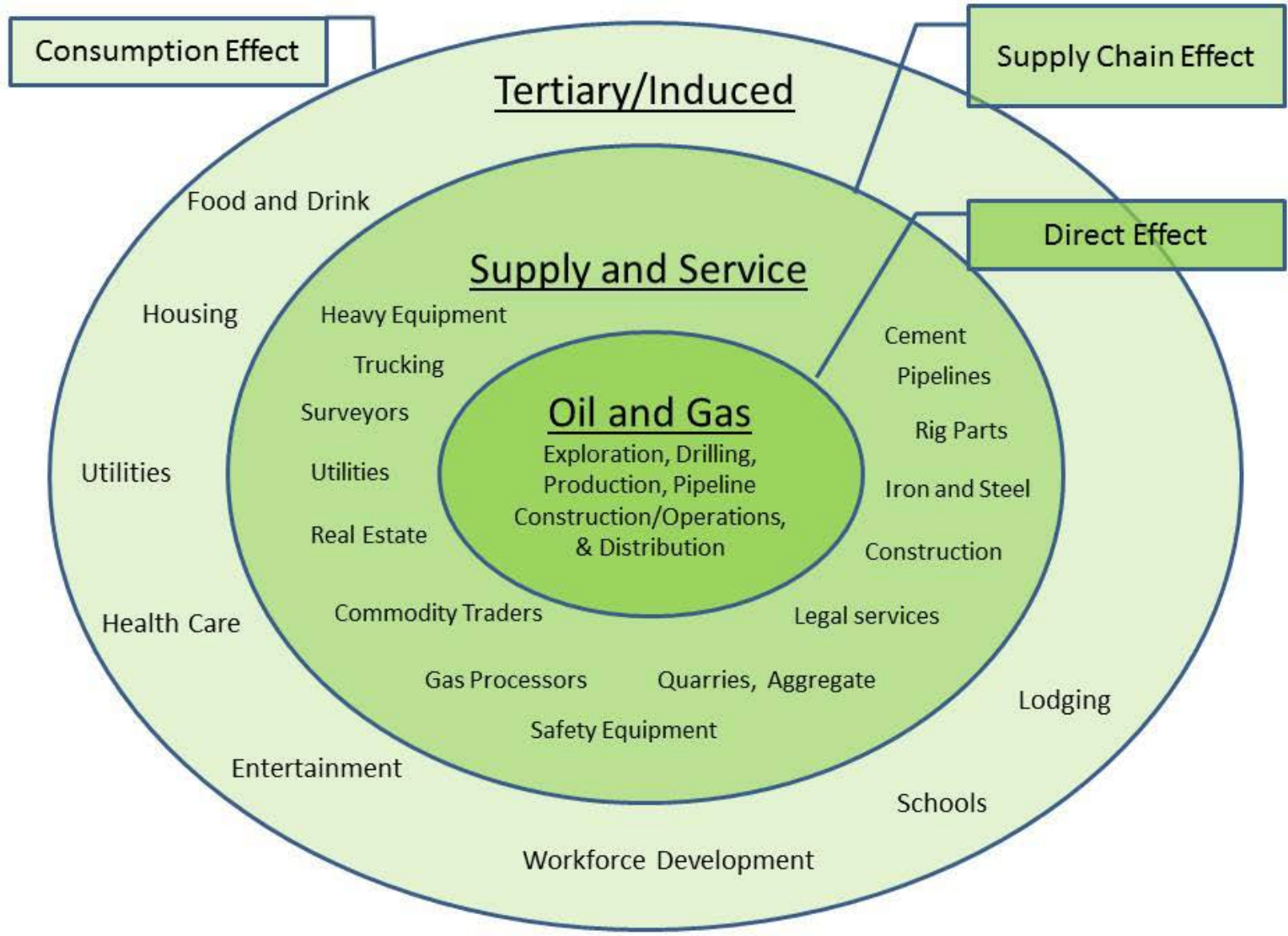
Source: ACCD

## – Transportation & Logistics

- **Facilities growing along class I & short-line rail, truck terminals, intermodal facilities and inland waterways**
  - Storage and loading facilities needed to handle large quantities of material
  - Short-line & Multi-Commodity Terminals
    - » Buffalo & Pittsburgh Railroad (180% increase in Marcellus-related supplies)
    - » Genesee & Wyoming Inc. (owner of BPRR)
      - Marcellus is top 3 growth market
      - 14 transload facilities built for Marcellus-related commodities

Source: SiteSelection.com

# Supply Chain for Shale Development





- **Extremism:** *“A student intern from Arizona has been jailed on charges that he vandalized three gas and oil wells in Pennsylvania's Allegheny National Forest.”* Source: Associated Press, August, 2013
- **Bans:** *“Two energy companies are pulling out of northeastern Pennsylvania, where a three-year moratorium on gas drilling has infuriated landowners who say it now cost them a windfall of more than \$187 million.”* Source: Associated Press, August, 2013



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# SHALE INSIGHT™ — 2013 —

*A Marcellus Shale Coalition Conference*

PENNSYLVANIA CONVENTION CENTER

**PHILADELPHIA, PA**

**SEPTEMBER 25-26**

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

# Thank you!

## Marcellus Shale Coalition

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