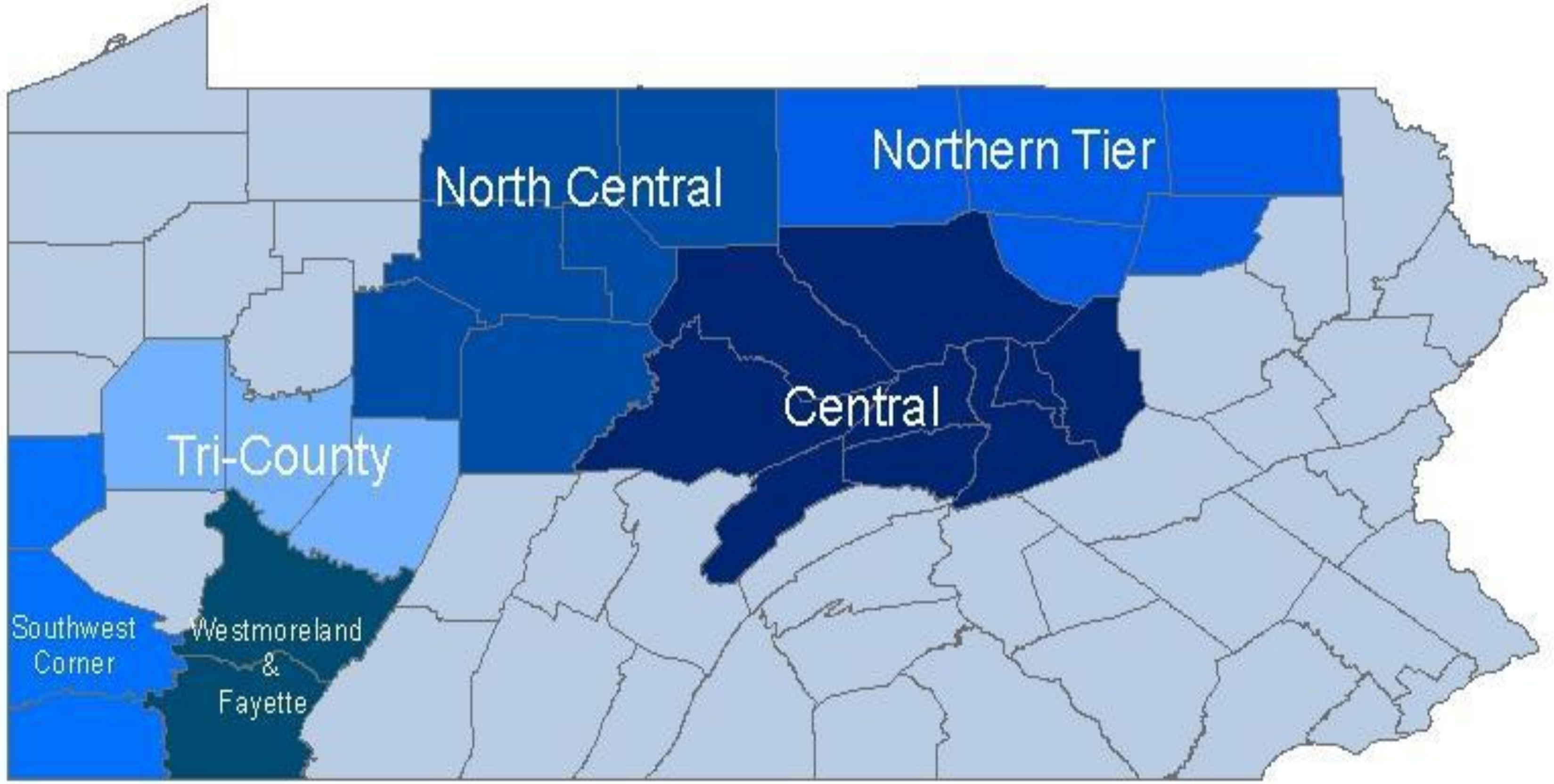
Marcellus Shale Follow-up Questions



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Follow-up (from 4/14/2011)

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1. Ancillary – does it include **tourism**? How has Tourism been impacted? Related additions:
   ***** Impact of 'Government' on jobs***
   ***** Additions to ancillary***
2. What would **unemployment rate** be if Marcellus Shale industries never came?
3. Have we seen any **population gains** due to the industry activities?
4. 48,000 **new hires** were identified within the Marcellus Shale core and ancillary industries. What is the break down among the 6 core divisions and 21 ancillary divisions?
5. Of the **jobs** created , how long do they typically last?
6. How many **workers** are out of state residents?
7. How the industry is impacting **housing**?
8. **Educational makeup** of this particular labor force?
9. **Social demographics** of population?

Question 1: Impact of 'Tourism'

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Ancillary – does it include tourism? How has Tourism been impacted?

Examined Hospitality, Tourism, & Recreation (HTR) Industry Cluster:

- Data shows increases in both employment and establishments in Northern Tier; no significant growth in the other five WIAs or for the state

- Some Marcellus Shale impacted growth by the end of 2010 in the Northern Tier

- Marcellus Shale will likely have an additional impact on this cluster's employment that will be monitored as 'tertiary' moving forward

Data (2007 Q4 to 2010 Q4):

Hospitality, Tourism & Recreation (2007 Q4 to 2010 Q4)	Statewide		Six WIAs		Northern Tier	
	Volume Change	Percent Change	Volume Change	Percent Change	Volume Change	Percent Change
Employment	1,840	0.4%	1,482	1.9%	366	8.6%
Establishment	97	0.3%	-42	-0.8%	14	3.2%

Question 1: Ancillary Expanded

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Expanded Ancillary: Marcellus Shale Related Ancillary Industries expanded to include additional industries, including three government oversight industries.

1. Highway, Street, & Bridge Construction
2. Petrochemical Manufacturing
3. Construction & Mining Machinery & Equipment Merchant Wholesalers
4. Industrial Machinery & Equipment Merchant Wholesalers
5. Industrial Supplies Merchant Wholesalers
6. General Freight Trucking, Local
7. **Administration of Air & Water Resources & Solid Waste Management Programs**
8. **Administration of Conservation Programs**
9. **Regulation & Administration of Communications, Electric, Gas, & Other Utilities**

Data (2007 Q4 to 2010 Q4):

Additional Ancillary (2007 Q4 to 2010 Q4)	Statewide		Six WIAs		Northern Tier	
	Volume Change	Percent Change	Volume Change	Percent Change	Volume Change	Percent Change
Employment	-1,064	-1.7%	1,174	8.2%	217	21.6%

Question 1: Impact of 'Government'

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What impact has been seen in Government Employment?

	6 WIA Totals (change from 2007Q4 - 2010Q4)	
Ancillary Industries with Government Employment	**Government Employment**	**Private Employment**
Highway, Street, & Bridge Construction	2,703	3,895
Engineering Services	1,794	4,106
Admin. of Conservation Programs	1,292	0
Sewage Treatment Facilities	1,154	40
Water Supply & Irrigation Systems	1,036	308
Admin. Of Air & Water Resources & Solid Waste Management Programs	770	0
All Other Ancillary Industries	29	29,960
Totals – All Ancillary Industries	**8,778**	**38,309**

Question 2: Unemployment Rate

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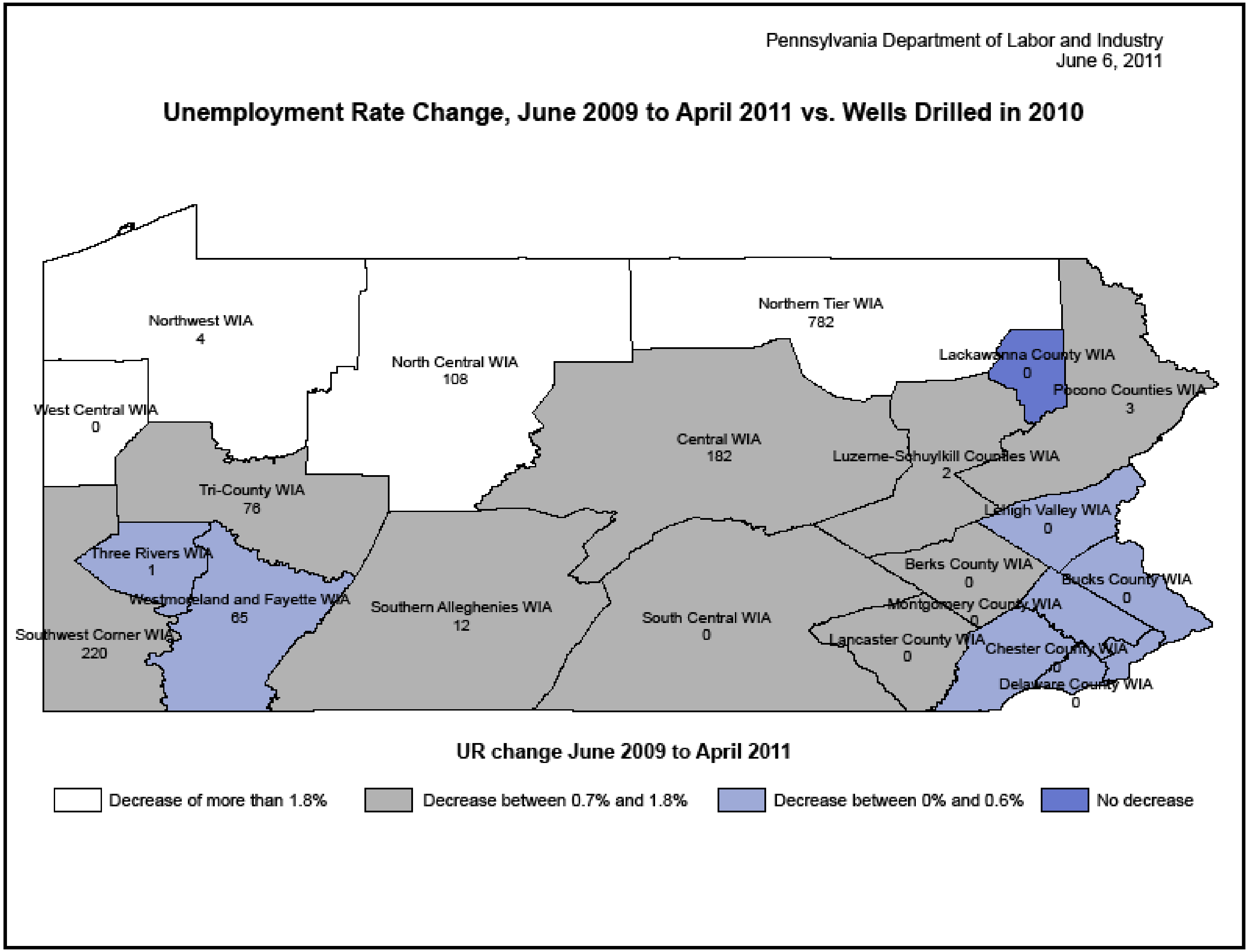
What would the unemployment rate be if Marcellus Shale industries never came?



Question 3: Population Gains

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Have we seen any population gains due to the industry activities?

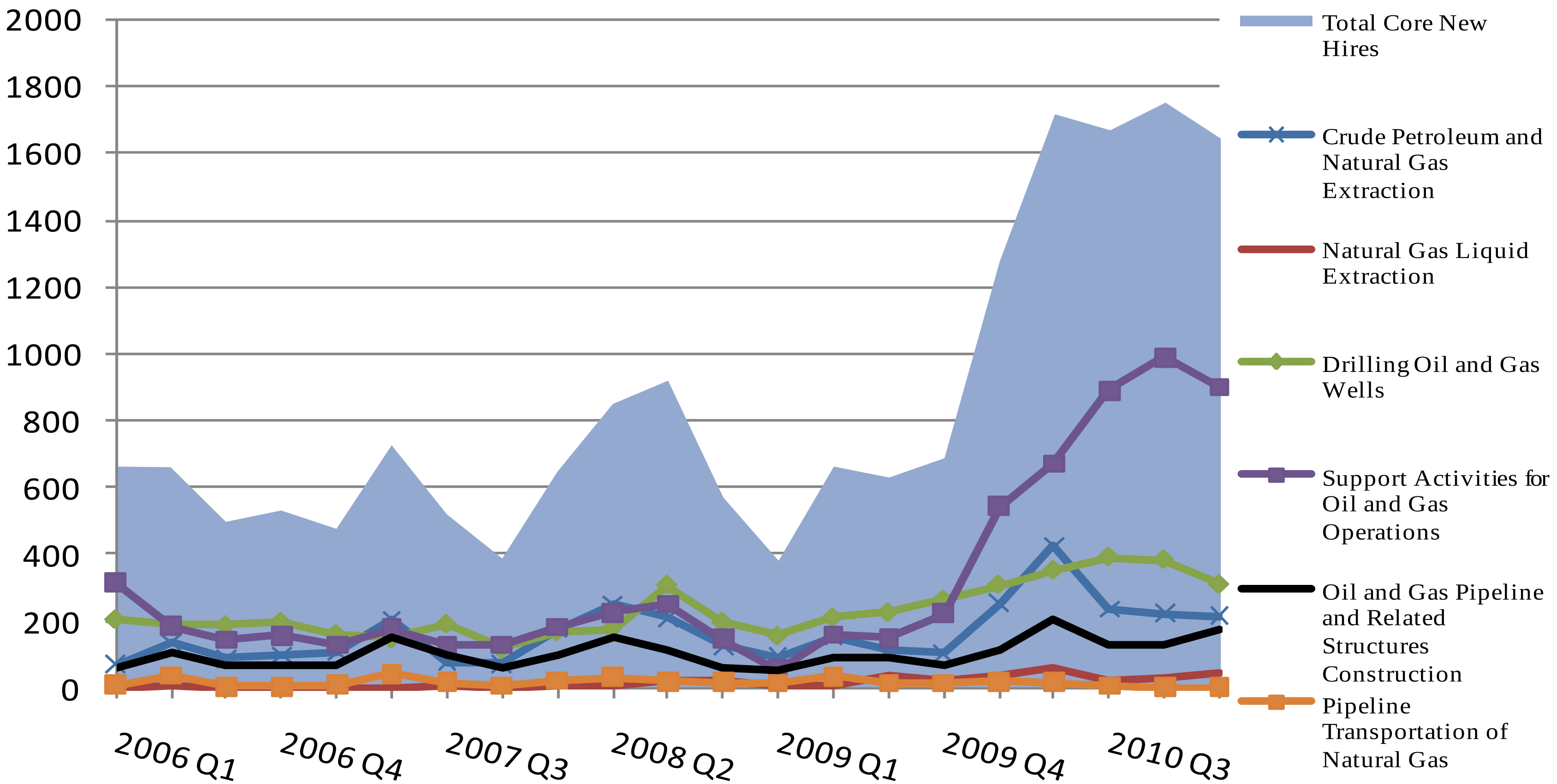
Area	**Population Change (2000 – 2010)**
Central WIA	4.1%
North Central WIA	-4.1%
Northern Tier WIA	0.9%
Southwest Corner WIA	-1.9%
Tri County WIA	1.7%
Westmoreland & Fayette WIA	-3.3%
Pennsylvania	3.4%

Source: U.S Census, 2000 and 2010 Comparison

Question 4: Where are the New Hires?

What is the break down of New Hires among the core and ancillary industries?

Total New Hires in the Core Marcellus Shale Industries (1,647 in 2011 Q1)



Source: Department of Labor & Industry, New Hires Reporting Program

Question 4: New Hires (Core)

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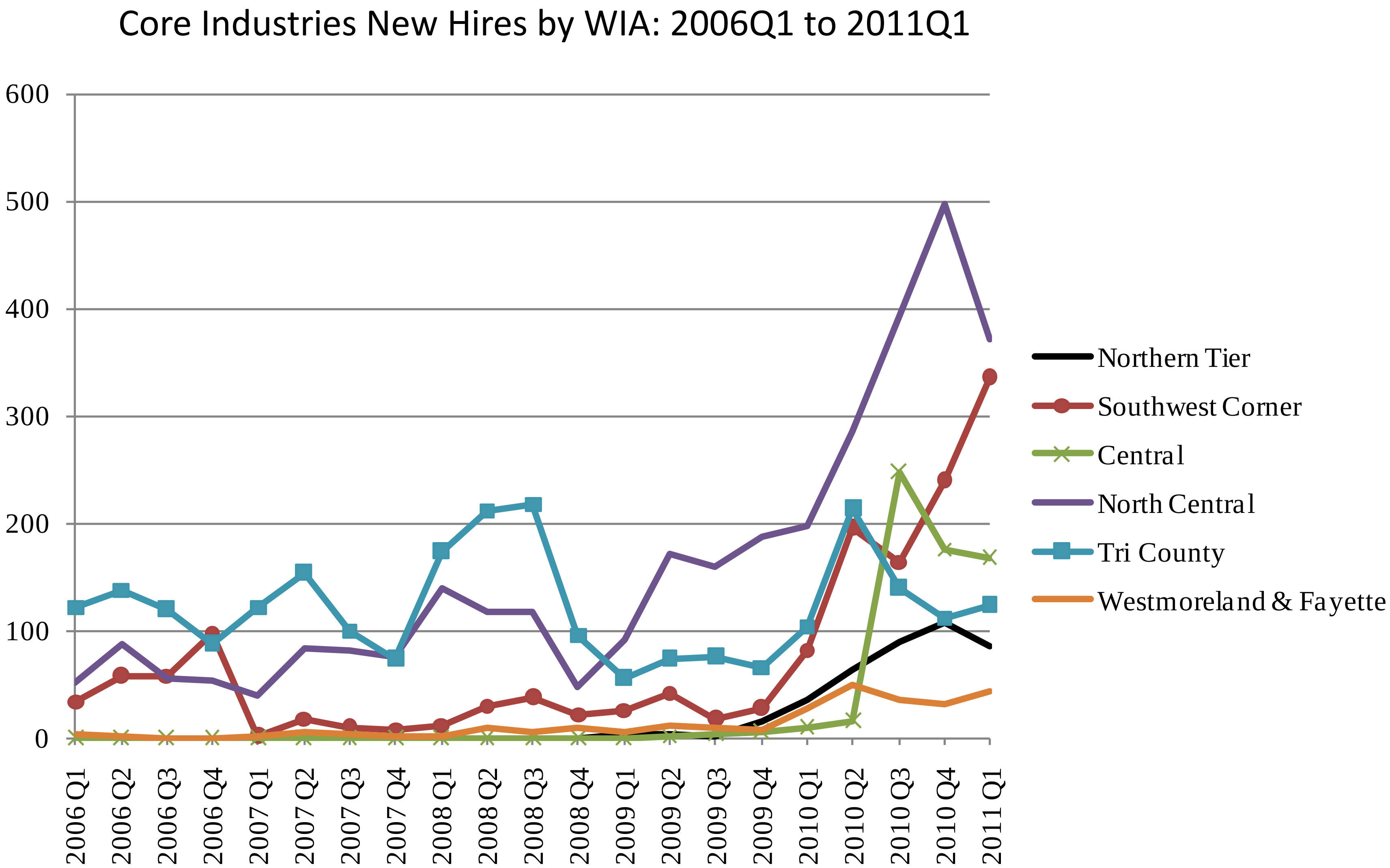

Source: The Pennsylvania Department of Labor & Industry, New Hires Reporting Program

Question 4: New Hires (Ancillary)

Top ten Industries with Highest New Hires	2011Q1
Engineering Services	3,030
Highway, Street, & Bridge Construction	2,402
Specialized Freight Trucking, Local	557
Industrial Mach. & Equip. Wholesalers	510
Testing Laboratories	490
Iron & Steel Mills	453
General Freight Trucking, Local	431
Commercial & Industrial Mach. & Equip. Repair	419
Nonresidential Site Preparation Contractors	408
Remediation Services	318
Total New Hires for all Marcellus Shale Ancillary Industries	11, 092

Source: The Pennsylvania Department of Labor & Industry, New Hires Reporting Program

Question 5: How Long do Jobs (New Hires) Last?

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2008 Northern Tier New Hires – 2 Year Analysis

Months Retained:

1. Newly hired employees in Marcellus Shale related industries (Core & Ancillary) averaged 10 months job retention within Marcellus Shale industries.
2. In comparison, newly hired employees in Manufacturing industries averaged 13 months job retention within Manufacturing industries.

Percent Retained:

1. Over a period of one year, 36 percent of workers hired into Marcellus Shale industries were retained in those industries – this decreases to 22 percent when measured over two years.
2. Over a period of one year, 50 percent of workers hired in Manufacturing industries were retained in those industries – this decreases to 42 percent when measured over the full two year period

Company Retention:

On average, newly hired workers retained a job with the same ***company*** for about nine months in Marcellus Shale, Manufacturing and/or all industries.

Question 6: How many workers are out of state residents?

Estimated Marcellus Shale Core New Hires by State 2010, 2nd Qtr.

State	Core Marcellus Shale PA New Hires	All PA New Hires*
PA	71%	71%
WV	9%	1%
NY	5%	2%
TX	3%	2%
OH	3%	2%
CO	2%	<1%
AR	1%	<1%
OK	1%	1%
Other	7%	21%

Source: PA New Hires Reporting Program

Of PA's Core Marcellus Shale industries new hires (2010 2nd Qtr) from out of state (29 percent), 9 percent was from West Virginia, 5 percent from New York, 3 percent each from Texas and Ohio, and 2 percent from Colorado. Percentage from West Virginia was significantly higher than out of state new hires for all of PA industries (9 percent versus 1 percent).

** Percent of New Hires from all industries from this state*

Question 6: Out of State Workers Contd.

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Estimated Marcellus Shale Core Workers by State 2010, 2nd Qtr.

State	Core Marcellus Shale PA Workers	All PA Workers*
PA	60%	78%
TX	7%	1%
NY	5%	5%
WV	4%	<1%
OH	4%	2%
OK	3%	<1%
LA	2%	<1%
CO	1%	<1%
AR	1%	<1%
Other	16%	15%

Source: Social Security Number analysis of PA Unemployment Compensation Wage Records

*The percent of all workers from all industries from this state

Question 7: How is the industry impacting **housing**?

What has the impact been on housing as it relates to building permit volumes?

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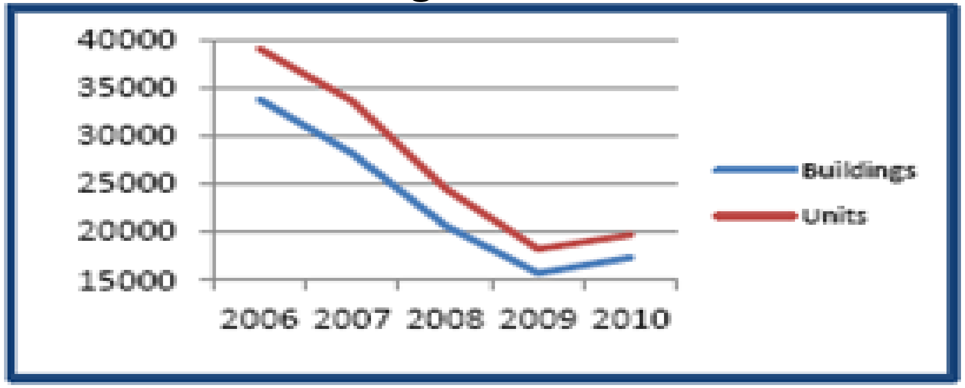
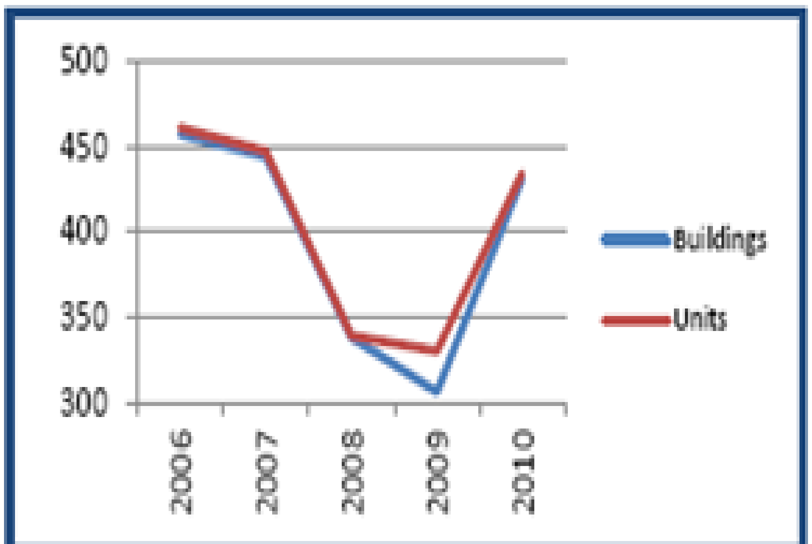
Statewide Building Permits

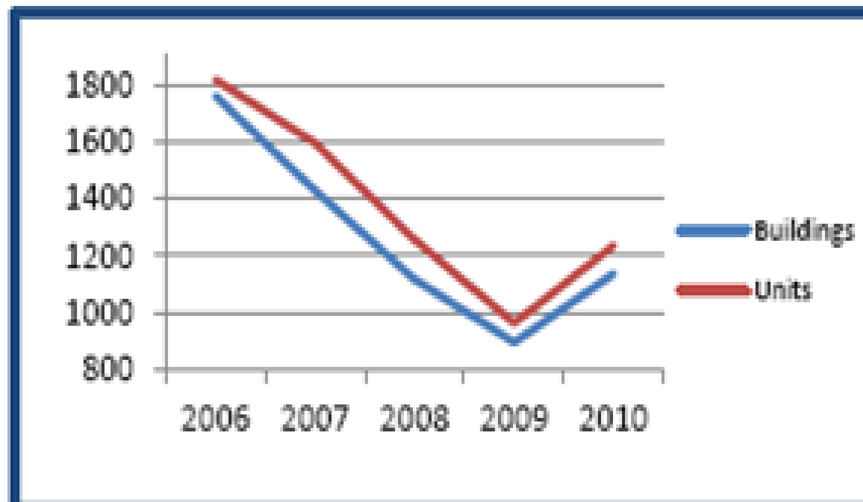


Source: U.S. Census Bureau

Northern Tier



North Central



Question 7 Contd.

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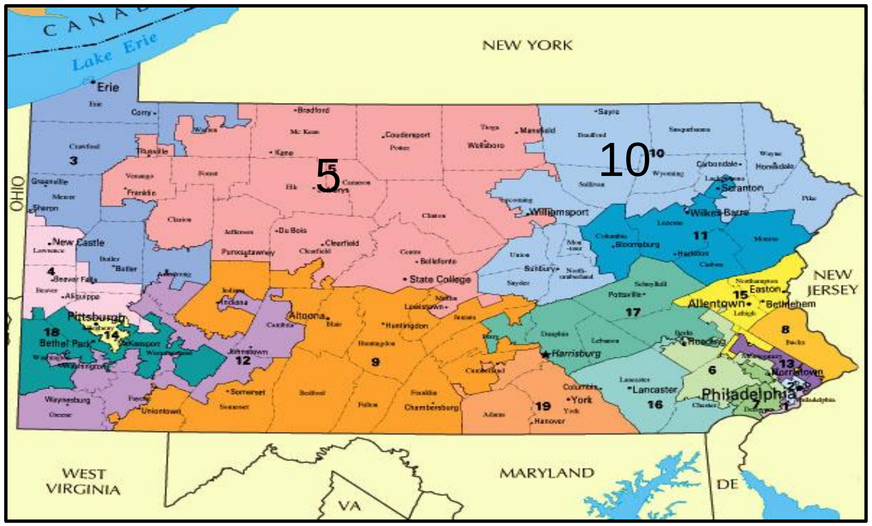
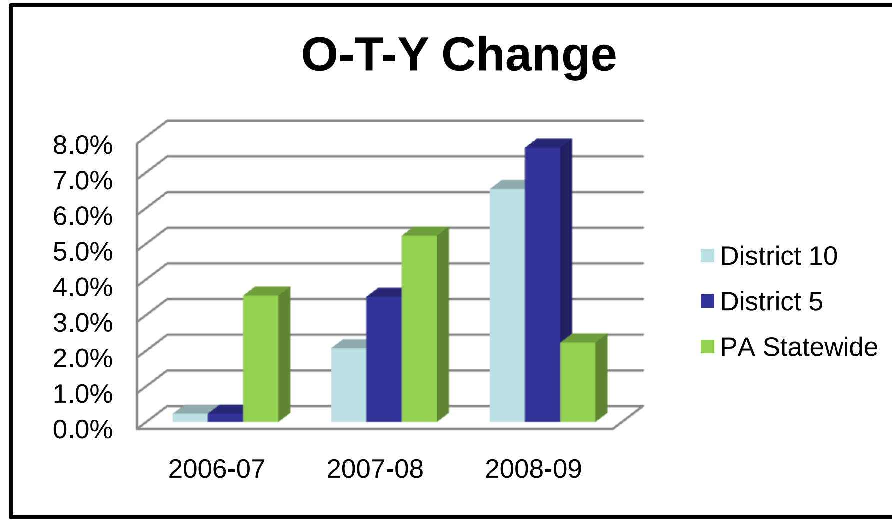
What has the impact been on housing as it relates to rental prices?

Map depicts locations of Congressional Districts 5 & 10 in PA; chart shows average rental price increases for these regions compared to PA average rental price increases for 2006 to 2009





Source: American Community Survey; 2006 - 2009

- From 2006 to 2007 and from 2007 to 2008, PA experienced increases in average rental prices above both Congressional Districts 5 and 10
- From 2008 to 2009 (when Marcellus activity first began to ramp up), rental prices increases in Congressional Districts 5 and 10 substantially outpaced rental prices for Pennsylvania as a whole

Question 8: Educational Makeup

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What educational makeup of this particular labor force?

Area	Pct. With HS Diploma	Pct. With Bachelor's (or higher)
Northern Tier	86.5	16.4
North Central	86.7	13.6
Central	85.7	20.7
Southwest Corner	88.6	20.7
Tri-County	89.1	22.3
Westmoreland & Fayette	89.0	20.5
Statewide	**87.1**	**26.3**

Source: Economic Modeling Specialists, Inc.

- All regions have lower proportions of people who have attained a four-year degree or higher than the state.
- North Central has the smallest group of four-year and advanced degree holders; the region has approximately half the number of these degree holders than the state.

Question 9: Social Demographics

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What are the social demographics of this population?

Demographic Characteristics for Marcellus Shale Core and Ancillary Industries for Pennsylvania

Industry Group	Male	Female	White*	Black
Core Industries	83.5%	16.5%	92.7%	4.9%
Ancillary Industries	75.2%	24.8%	90.8%	6.3%

- The workforce in both the core and ancillary industries is predominately male and predominately white.
- Slightly more diversity exists in the ancillary industries than in the core industries.

Additional Key Points

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Employment (2007 Q4 to 2010 Q4):
- **Core industries were up 9,300 (+97%)**
- Ancillary industries were down 3,600 (-2%)
- All industries declined 117,000 (-3%)
- 2010 Q4 Marcellus Shale related industries total employment was 218,200

Establishments (2007 Q4 to 2010 Q4):
- Over **500 establishments were added** (319 core, 206 ancillary)
- Marcellus Shale related industries (13,358 total establishments)

Wages (2010 Q1 to 2010 Q4):
- Statewide Average Wage, $45,747
- **Average wage in core industries $73,150** (about $27,400 higher than the statewide average wage)
- Average wage in ancillary industries $61,871

Additional Key Points

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New Hires (2009 Q4 to 2011 Q1):

- 72,000 new hires within Marcellus Shale core and ancillary industries
- 24,000 of these New Hires are the result of adding 9 industries to the Ancillary Industries and the inclusion of government employment

Unemployment Rate:

- Areas with substantial Marcellus Shale drilling activity have seen notable decreases in unemployment rates
- For all counties with >10 wells drilled in 2010, the unemployment rate decreased by 0.6 percentage points

Job Postings (April 2011):

- 2,700 job postings statewide in core and ancillary industries
- >600 more job postings than April 2010

Thank you!

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For a copy of the ***Marcellus Shale Fast Facts*** go to
www.paworkstats.state.pa.us

For additional questions/comments:

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