



Department of  
Job and Family Services

TO STRENGTHEN OHIO FAMILIES WITH SOLUTIONS TO TEMPORARY CHALLENGES

John R. Kasich, Governor · Michael B. Colbert, Director

# OHIO SHALE



QUARTERLY ECONOMIC TRENDS FOR  
OHIO OIL AND GAS INDUSTRIES

January 2013



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### **A Message from Director Colbert**

Ohio is fortunate to have a natural gift with great potential for reinvigorating our economy: huge deposits of shale rock, beneath which sit potentially vast reserves of oil and natural gas. Safely and responsibly extracting this oil and gas and making them usable as energy sources will take work, but Ohio is perfectly poised to do that work. We have a workforce equipped with the skills employers need and a multitude of local training programs to keep that pipeline of skilled workers flowing.

The pages that follow show the effect that shale already has had on Ohio's economy, as of November 2012. Total shale-related employment for the first quarter of 2012 was 167,310, and employment in core shale-related industries was up 17 percent from the first quarter of 2011. In any given month, thousands of shale-related jobs openings are posted online, at [www.ohiomeansjobs.com](http://www.ohiomeansjobs.com). The Ohio Board of Regents also provides an overview of shale-related employment opportunities and information about education and training at [www.ohioenergypathways.com](http://www.ohioenergypathways.com).

The average wages of shale-related jobs are excellent: \$73,934 in core shale-related industries (such as pipeline construction and well drilling), and \$58,765 in ancillary shale-related industries (such as freight trucking and environmental consulting). To put that in perspective, the average wage in all industries in Ohio is \$43,687.

For Ohio families and communities still struggling to regain their financial footing after the recession, this is welcome news. The Ohio Department of Job and Family Services (ODJFS) has been working hard to help employers, workers and the state as a whole take advantage of these opportunities. We've been working closely with the Board of Regents, local workforce investment areas, post-secondary educational institutions and employers to identify the most-needed shale-related occupations and make sure that training programs are in place to help fill them.

Individuals can sign up for on-the-job training opportunities at any of the state's local One-Stop Centers, which provide free job training and other services to Ohioans looking for work and employers looking for workers. Individuals can post their resumes, and employers can post job openings at [www.ohiomeansjobs.com](http://www.ohiomeansjobs.com).

We are excited about the potential shale holds for Ohio and will publish regular snapshots of shale employment trends in future issues of this report. Check back quarterly for the latest updates.

A handwritten signature in black ink, appearing to read 'M. Colbert', with a stylized flourish at the end.

Michael B. Colbert, Director  
Ohio Department of Job and Family Services





## EXECUTIVE SUMMARY

### Employment (2011 Q1 to 2012 Q1)

- Core industry employment (such as pipeline construction and well drilling) was up 1,066 (17 percent).
- Ancillary industry employment (such as freight trucking and environmental consulting) was up 4,809 (3.1 percent).
- All industry employment was up 90,435 (1.9 percent).
- Total employment in shale-related industries for the first quarter of 2012 was 167,310.

### Business Establishments (2011 Q1 to 2012 Q1)

- 39 core business establishments were added. Ancillary industries declined by 14 establishments.
- This represented 6.7 percent growth in the core industries and a modest decline in the ancillary industries. Over the same time period, Ohio experienced 0.2 percent growth for all industries.
- Shale-related business establishments totaled 13,412 during the first quarter of 2012.

### Wages (2011 Q2 through 2012 Q1)

- The average wage across all industries was \$43,687.
- The average wage in core industries was \$73,934, which was approximately \$30,247 greater than the average for all industries.
- The average wage in ancillary industries was \$58,765, which was approximately \$15,078 greater than the average for all industries.

### Stable Employment, All Hires and Separations (2011 Q2 to 2011 Q3)

- Stable jobs, those present at the beginning and end of a quarter, increased slightly (2 and 3 percent) for oil and gas extraction and support activities for mining. They decreased for pipeline transportation of natural gas. Stable jobs in utility system construction increased by almost 18 percent, but only a small part of this industry is involved in shale-related activities.
- Support activities for mining and utility system construction had high percentages of separations relative to stable jobs (23 and 30 percent, respectively), suggesting a large temporary worker component in their employment.

### Online Job Postings (August 2012)

- There were 2,895 online job postings statewide in core and ancillary industries.

These data are meant to provide a barometer of shale-related economic activity and employment trends. While the vast majority of shale-related employment can be found in certain industries, not all business establishments in those industries are involved in shale activity. For those that are, not all of their products and services and, therefore, their employment, are necessarily linked to shale-related economic activity.

## **BACKGROUND INFORMATION**

### **Data Sources**

The purpose of this quarterly publication is to provide the most current available data on shale-related economic activity in Ohio. Although several data sources are cited in this publication, the primary source is the Quarterly Census of Employment and Wages (QCEW).

The QCEW program derives its data from quarterly tax reports of employers subject to state and federal unemployment insurance laws. This includes 95 percent or more of all wage and salary employment in Ohio. Under the QCEW program, employment data represent the number of covered workers who worked during, or received pay for, the pay period including the 12<sup>th</sup> of the month. Excluded are members of the armed forces, the self-employed, unpaid family workers and railroad workers covered by the railroad unemployment insurance system. Data is published approximately six months after the quarter ends.

Also included in this publication are several additional data sources that capture Ohio's overall economic situation (Local Area Unemployment Statistics and Current Employment Statistics), employer demand (The Conference Board Help Wanted OnLine™ Data Set) and hiring activity (Quarterly Workforce Indicators). For an explanation of all data sources, please refer to the "Definitions" section on page 19.

In this edition, data from the QCEW program are for the first quarter of 2012. This is the most current data available. Because the data are not seasonally adjusted, the same quarter must be used when analyzing growth over time. This will ensure that seasonal factors are not influencing employment change. Therefore, first-quarter 2012 QCEW data are compared to first-quarter 2011 QCEW data.

### **Data Limitations**

The North American Industry Classification System (NAICS) was used to define shale-related industries. Much of the information included in this publication reflects data on a group of six industries identified as "core" and a group of 30 industries identified as "ancillary." These data are meant to provide a barometer of shale-related economic activity and employment trends. While the vast majority of shale-related employment can be found in these industries, not all business establishments in these industries are involved in shale activity. For those that are, not all of their products and services and, therefore, their employment are necessarily linked to shale-related economic activity. This is particularly true for the ancillary industries.

The data in this edition include government employment (federal, state and local) in all shale-related industries because significant non-private employment is present in a number of these industries, most notably: highway, street and bridge construction; engineering services; water supply and irrigation systems; and sewage treatment facilities.

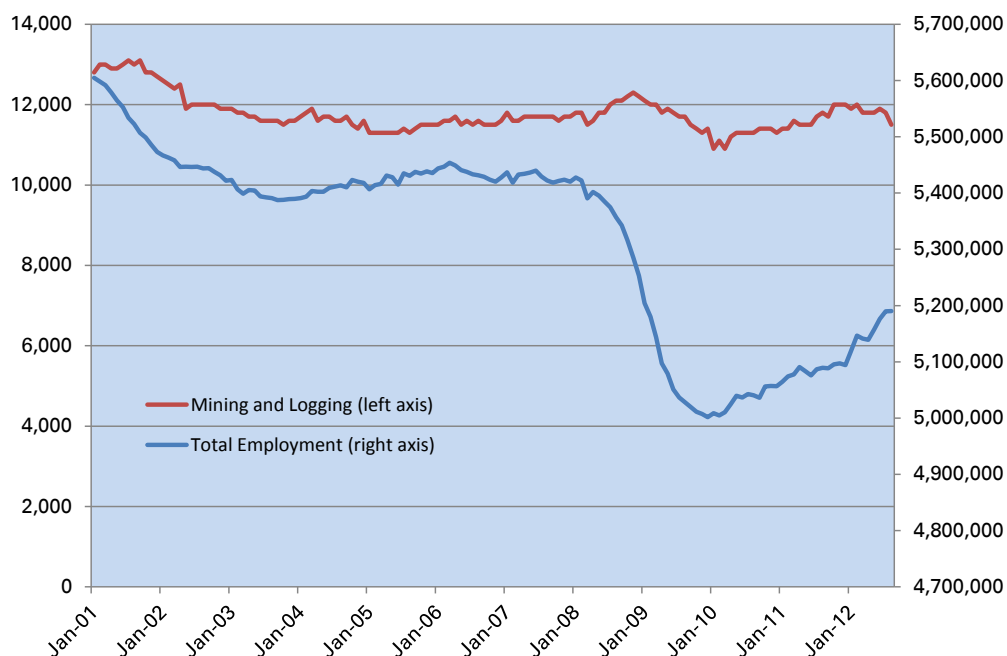
As shale-related activity develops further in Ohio, additional industries may be added to the ancillary group, based on such factors as significant employment gains in an industry in a geographic region or the identification of a group of companies in the same industry involved in shale-related activity.

## Snapshot of Ohio's Economy

- **Ohio's seasonally adjusted unemployment rate for August 2012 was 7.2 percent.**
  - The rate was 1.6 percentage points lower than the August 2011 rate.
- **Ohio had 5,190,000 seasonally adjusted nonfarm jobs in August 2012.**
  - From August 2011, employment increased by 100,700 jobs.
- **Ohio's hiring activity decreased slightly from the second quarter of 2011 to the third quarter of 2011.**
  - Across all industries, an estimated 819,727 workers started new jobs (new hires and rehires) during the third quarter of 2011, a decrease of 33,265 hires over the second quarter of 2011.
- **Employer demand increased in Ohio.**
  - 193,463 job ads were posted online in August 2012, an increase of 11,916 from August 2011.
- **Ohio's supply/demand rate, which is the ratio of the number of unemployed people to advertised job vacancies, increased in August 2012 (The Conference Board).**
  - The Ohio supply/demand rate was 2.23, which was lower than the U.S. rate (2.67).

## Mining Jobs vs. Total Jobs in Ohio

Total Mining and Logging Employment since January 2001 (Seasonally Adjusted)



Source: Current Employment Statistics. Estimates may be revised.

- **In August 2012, 5,190,000 workers were employed in Ohio industries.**
  - From August 2011 to August 2012, employment increased by 100,700 jobs.
- **In August 2012, 11,500 Ohio workers were employed in the mining and logging industries.**
  - From August 2011 to August 2012, employment decreased by a total of 300 jobs.



## STATEWIDE SHALE-RELATED INDUSTRIES

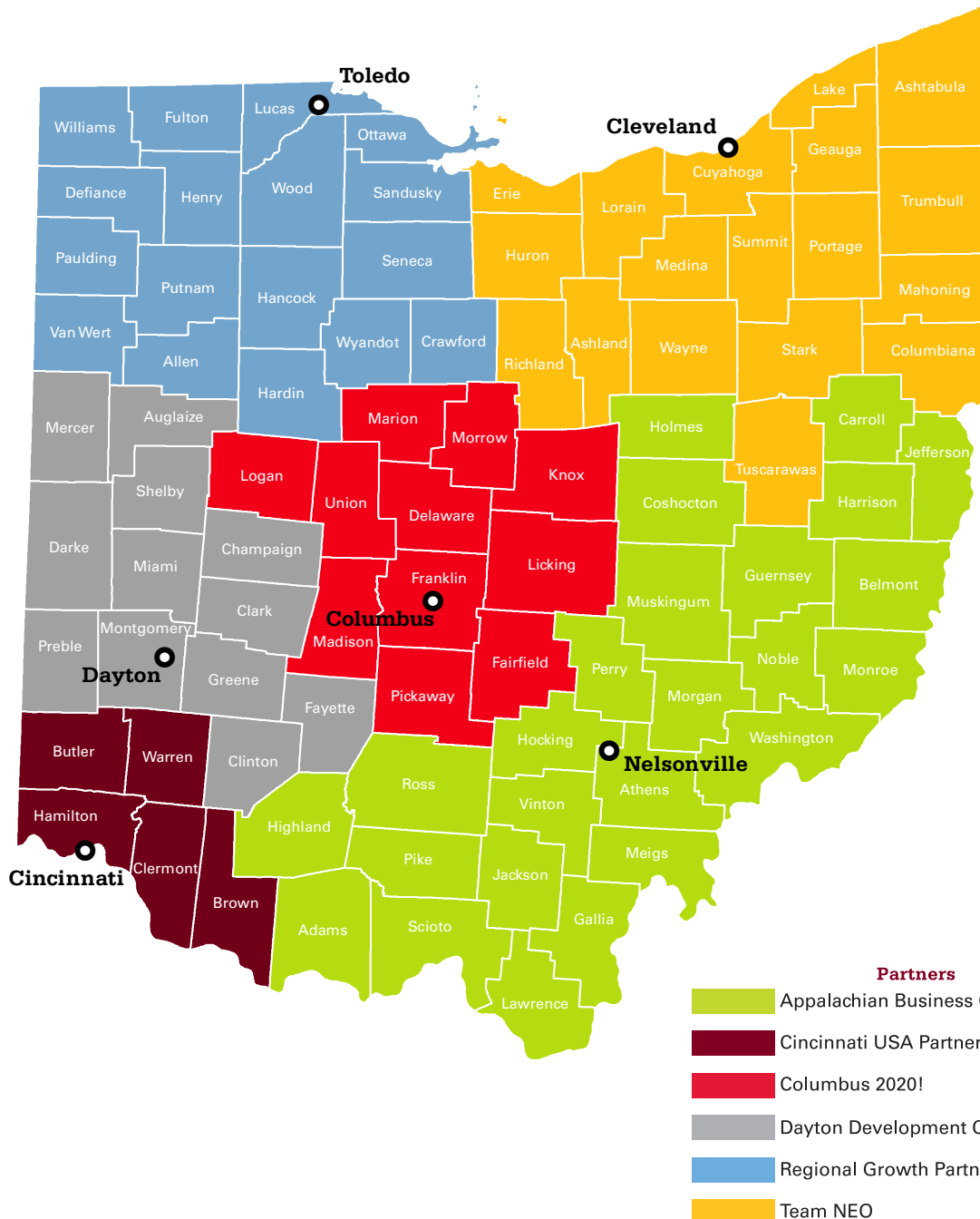
Number of Business Establishments and Employment in Shale-Related Industries (2011 Q1-2012 Q1)

Core Industries		2011 Q1		2012 Q1		Change	
NAICS	Title	Estab.	Empl.	Estab.	Empl.	Estab.	Empl.
211111	Crude petroleum and natural gas extraction	193	2,749	196	2,790	3	41
211112	Natural gas liquid extraction	4	26	10	76	6	50
213111	Drilling oil and gas wells	78	516	94	568	16	52
213112	Support activities for oil and gas operations	179	1,165	188	1,418	9	253
237120	Oil and gas pipeline construction	94	1,498	99	2,159	5	661
486210	Pipeline transportation of natural gas	37	309	37	318	0	9
<b>Totals</b>		<b>585</b>	<b>6,263</b>	<b>624</b>	<b>7,329</b>	<b>39</b>	<b>1,066</b>
Ancillary Industries		2011 Q1		2012 Q1		Change	
NAICS	Title	Estab.	Empl.	Estab.	Empl.	Estab.	Empl.
221112	Fossil fuel electric power generation	83	5,326	75	4,742	-8	-584
221210	Natural gas distribution	141	3,697	148	4,029	7	332
221310	Water supply and irrigation systems	247	6,007	252	6,077	5	70
221320	Sewage treatment facilities	212	3,820	208	3,750	-4	-70
237110	Water and sewer system construction	394	4,167	375	4,428	-19	261
237310	Highway, street, and bridge construction	721	10,906	723	11,503	2	597
238912	Nonresidential site preparation contractors	629	4,318	609	4,661	-20	343
325110	Petrochemical manufacturing	5	358	5	299	0	-59
325120	Industrial gas manufacturing	45	737	46	784	1	47
331110	Iron and Steel Mills and Ferroalloy Manufacturing	58	9,797	63	10,528	5	731
331210	Iron, steel pipe and tube from purchase steel	52	3,051	53	3,114	1	63
333131	Mining machinery and equipment manufacturing	12	451	10	506	-2	55
333132	Oil and gas field machinery and equipment	6	141	9	337	3	196
423810	Construction equipment merchant wholesalers	195	2,419	204	2,890	9	471
423830	Industrial machinery merchant wholesalers	1,695	15,107	1,663	15,732	-32	625
423840	Industrial supplies merchant wholesalers	503	4,678	508	4,630	5	-48
484110	General freight trucking, local	1,346	11,667	1,347	11,960	1	293
484220	Other specialized trucking, local	1,004	6,057	1,000	6,466	-4	409
484230	Other specialized trucking, long-distance	283	4,412	291	4,789	8	377
531190	Lessors of other real estate property	301	858	286	838	-15	-20
532412	Other heavy machinery rental and leasing	165	1,231	171	1,363	6	132
541330	Engineering services	2,247	26,920	2,272	27,777	25	857
541360	Geophysical surveying and mapping services	53	246	46	281	-7	35
541380	Testing laboratories	359	6,379	360	5,599	1	-780
541620	Environmental consulting services	291	1,528	304	1,644	13	116
562910	Remediation services	170	2,222	195	2,551	25	329
811310	Commercial machinery repair and maintenance	1,111	7,014	1,095	7,533	-16	519
924110	Air, water, and waste program administration	164	6,089	163	6,003	-1	-86
924120	Administration of conservation programs	281	5,081	279	4,699	-2	-382
926130	Utility regulation and administration	29	488	28	468	-1	-20
<b>Totals</b>		<b>12,802</b>	<b>155,172</b>	<b>12,788</b>	<b>159,981</b>	<b>-14</b>	<b>4,809</b>
<b>Core Industries and Ancillary Industries Totals</b>		<b>13,387</b>	<b>161,435</b>	<b>13,412</b>	<b>167,310</b>	<b>25</b>	<b>5,875</b>

Source: Quarterly Census of Employment and Wages. Data from 2012 Q1 are preliminary and may be revised.

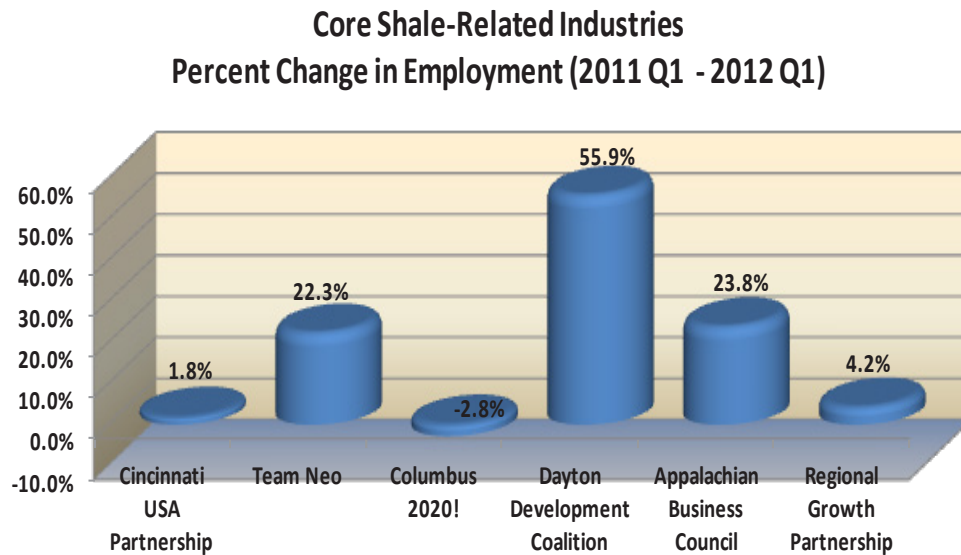
- From 2011 Q1 to 2012 Q1, employment in core industries increased by 17 percent.
- Over the same period, employment in the ancillary industries increased by 3.1 percent.

## JOB SOHIO NETWORK

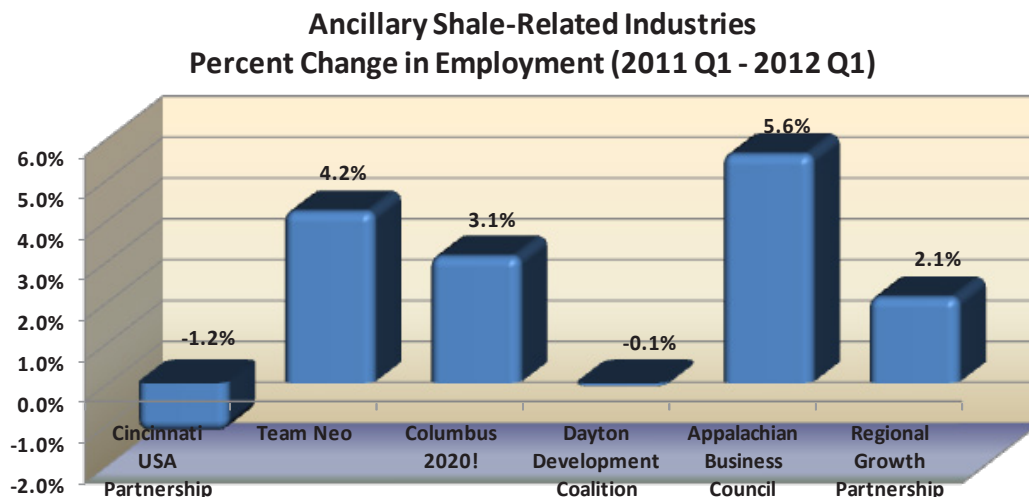


## REGIONAL SHALE-RELATED INDUSTRIES

The JobsOhio Network is a partnership of statewide economic development organizations with deep ties to their business communities. The following charts show trends in shale-related employment for each of the six JobsOhio regions.



- For the core shale-related industries, the Dayton Development Coalition region had the largest numerical growth (55.9 percent), followed by the Appalachian Business Council region (23.8 percent) and the Team Neo region (22.3 percent).



- For the ancillary industries, the Appalachian Business Council region had the largest percent growth (5.6 percent), followed by the Team Neo region (4.2 percent) and the Columbus 2020! region (3.1 percent).

Source: Quarterly Census of Employment and Wages. Data are preliminary and may be revised.



## WAGES FOR OHIO SHALE CORE AND ANCILLARY INDUSTRIES

- The average wage across all industries for 2011 Q2 through 2012 Q1 was \$43,687.
- The average wage in the core industries was approximately \$30,247 greater than the average wage for all industries.
- The average wage in the ancillary industries was approximately \$15,078 higher.

**Core Shale-Related Industries**  
(2011 Q2-2012 Q1)

**\$73,934**

**Ancillary Shale-Related Industries**  
(2011 Q2-2012 Q1)

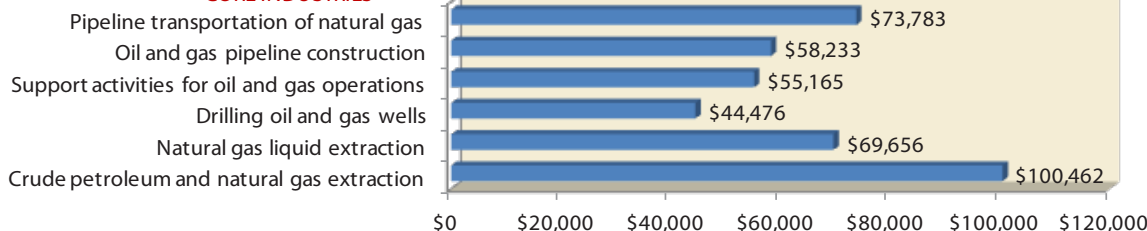
**\$58,765**

**All Ohio Industries**  
(2011 Q2-2012 Q1)

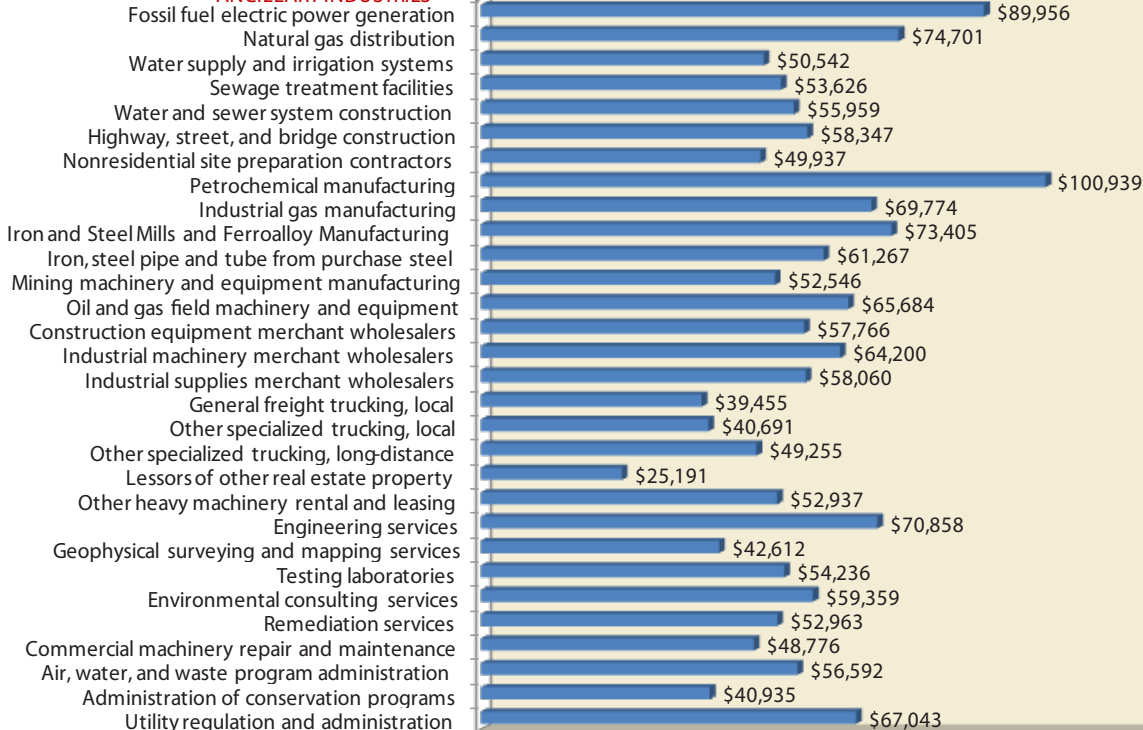
**\$43,687**

### Average Wage by Industry

#### CORE INDUSTRIES



#### ANCILLARY INDUSTRIES



## OHIO SHALE-RELATED ONLINE JOB POSTINGS

### Ohio Statewide Online Job Postings

	August 2011	August 2012	% Change
<b>Core Industries</b>	59	78	24.4%
<b>Ancillary Industries</b>	3,150	2,817	-11.8%
<b>Total: ALL Industries</b>	181,547	193,463	6.2%

### JobsOhio Network Regional Job Postings

<b>Core and Ancillary Combined</b>	August 2011	August 2012	% Change
Regional Growth Partnership	222	217	-2.3%
Team Neo	1,005	961	-4.6%
Appalachian Business Council	151	116	-30.2%
Cincinnati USA Partnership	561	513	-9.4%
Dayton Development Coalition	382	398	4.0%
Columbus 2020!	611	535	-14.2%
<b>Total</b>	<b>3,209*</b>	<b>2,895*</b>	<b>-10.8%</b>

Source: The Conference Board Help Wanted Online™ (HWOL).

*\* The total includes job ads that may have listed Ohio as the only geographical area. As a result, the sum of the job ads for all JobsOhio regions may be lower, since it does not include ads without a city or MSA specification.*

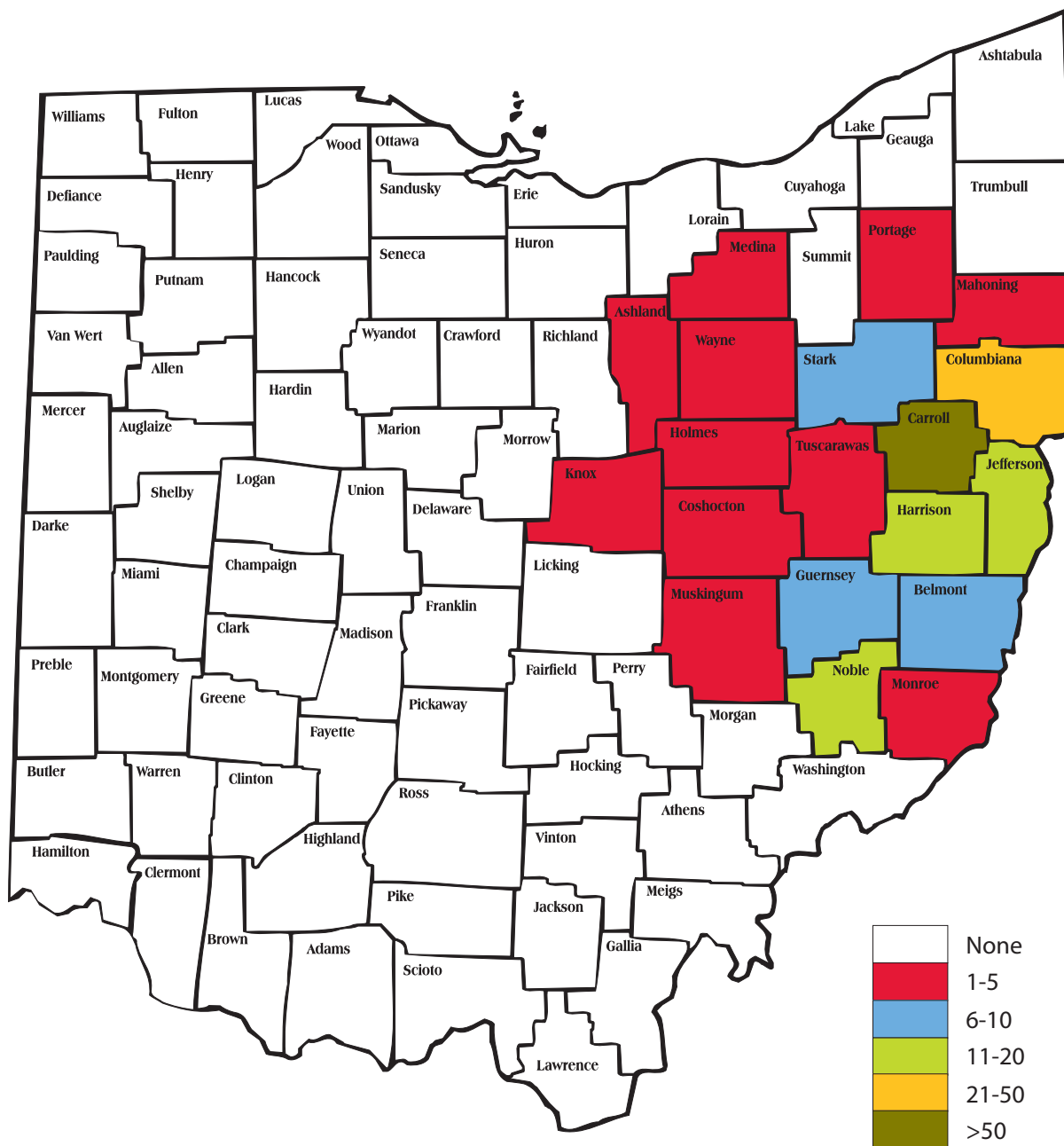
### Ohio Online Job Postings

- Total job postings across all industries for Ohio were 6.2 percent higher in August 2012 than in August 2011.
- The increase seen in core shale-related industries was 24.4 percent.

### JobsOhio Network Regional Online Job Postings

- With the exception of the Dayton Development Coalition region, all regional partners experienced a decrease in posting activity for the combined core and ancillary industries for the year for August.
- The Appalachian Business Council region experienced the largest over-the-year decrease for August in shale-related job posting activity, decreasing by 30.2 percent.

## WELLS DRILLED BY COUNTY AS OF NOVEMBER 2012





## STATEWIDE HIGH-PRIORITY OCCUPATIONS RELATED TO SHALE-RELATED INDUSTRIES

The occupations listed in the table below and on the next page are found in shale-related core and ancillary industries and have been identified as high-priority occupations. High-priority occupations are identified as in demand by employers, have higher skills needs, and are most likely to provide family-sustaining wages.

A standard occupation classification (SOC) code is provided for each occupation. For a complete list of terms, please refer to the Staffing Patterns definition on page 19.

SOC Code	SOC Title	Average Median Wage	Typical Education Level
53-7062	Laborers and Freight Stock and Material Movers Hand	\$22,490	Short-Term OJT
43-9061	Office Clerks General	\$27,000	Short-Term OJT
43-3021	Billing and Posting Clerks	\$31,400	Short-Term OJT
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$37,380	Short-Term OJT
43-4051	Customer Service Representatives	\$29,990	Moderate-Term OJT
43-6014	Secretaries and Administrative Assistants Except Legal Medical and Executive	\$30,970	Moderate-Term OJT
43-3031	Bookkeeping, Accounting and Auditing Clerks	\$33,730	Moderate-Term OJT
51-9061	Inspectors, Testers, Sorters, Samplers and Weighers	\$34,650	Moderate-Term OJT
47-2061	Construction Laborers	\$36,100	Moderate-Term OJT
43-5061	Production Planning and Expediting Clerks	\$38,880	Moderate-Term OJT
47-2073	Operating Engineers and Other Construction Equipment Operators	\$45,030	Moderate-Term OJT
49-9052	Telecommunications Line Installers and Repairers	\$42,340	Long-Term OJT
49-9041	Industrial Machinery Mechanics	\$44,600	Long-Term OJT
47-2152	Plumbers, Pipefitters and Steamfitters	\$45,220	Long-Term OJT
49-9051	Electrical Power-Line Installers and Repairers	\$58,040	Long-Term OJT
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	\$51,410	Related Work Exp.
51-1011	First-Line Supervisors of Production and Operating Workers	\$52,260	Related Work Exp.
49-1011	First-Line Supervisors of Mechanics Installers and Repairers	\$57,060	Related Work Exp.
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$57,670	Related Work Exp.
41-4011	Sales Representatives Wholesale and Manufacturing Technical and Scientific Products	\$66,250	Related Work Exp.
51-4121	Welders, Cutters, Solderers, and Brazers	\$34,740	Postsec. Voc. Award
13-1051	Cost Estimators	\$54,820	Bachelor's Degree
17-2112	Industrial Engineers	\$70,840	Bachelor's Degree

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2011

(continued on the next page)

### Statewide High-Priority Occupations Related to Shale-Related Industries

(continued from the previous page)

SOC Code	SOC Title	Average Median Wage	Typical Education Level
45-4022	Logging Equipment Operators	\$27,810	Moderate-Term OJT
47-5071	Roustabouts Oil and Gas	\$30,980	Moderate-Term OJT
53-7073	Wellhead Pumpers	\$31,140	Moderate-Term OJT
47-5011	Derrick Operators Oil and Gas	\$31,700	Moderate-Term OJT
47-5012	Rotary Drill Operators Oil and Gas	\$32,750	Moderate-Term OJT
47-5013	Service Unit Operators Oil Gas and Mining	\$34,610	Moderate-Term OJT
53-7072	Pump Operators Except Wellhead Pumpers	\$46,030	Moderate-Term OJT
53-7071	Gas Compressor and Gas Pumping Station Operators	\$57,440	Moderate-Term OJT
49-3042	Mobile Heavy Equipment Mechanics Except Engines	\$43,420	Long-Term OJT
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators and Tenders	\$31,830	Postsec. Voc. Award
17-3025	Environmental Engineering Technicians	\$38,730	Associate's Degree
17-3023	Electrical and Electronics Engineering Technicians	\$53,780	Associate's Degree
19-4041	Geological and Petroleum Technicians	\$54,410	Associate's Degree
17-2151	Mining and Geological Engineers Including Mining Safety Engineers	\$56,660	Bachelor's Degree
19-2042	Geoscientists Except Hydrologists and Geographers	\$71,020	Master's Degree

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2011

## STATEWIDE SHALE-RELATED EMPLOYMENT DATA

The Quarterly Workforce Indicators (QWI) are a set of economic indicators derived from state administrative records and basic demographic information from the Census Bureau. They can be examined based on geography, as well as by industry, gender and age of workers.

The tables below and on the following page show Ohio shale-related employment. “Stable Employment” is an estimate of the number of jobs that were present at the beginning and end of a quarter. “All Hires” is the estimated number of workers who started a job during the quarter; it includes new and recalled employees. “Separations” is the estimated number of workers whose jobs with a given employer ended during a quarter.

Ohio	2011 Q2			2011 Q3		
	Stable Employ.	All Hires	Separations	Stable Employ.	All Hires	Separations
All industry groups	4,303,277	852,992	767,381	4,295,727	819,727	852,639
2111 Oil and Gas Extraction	2,717	281	183	2,777	204	251
2131 Support Activities for Mining	2,603	736	516	2,684	844	629
2371 Utility System Construction	8,796	4,480	2,461	10,337	3,958	3,074
4862 Pipeline Trans. of Natural Gas	321	15	9	303	9	36

Source: U.S. Census Bureau, Quarterly Workforce Indicators.

Quarterly Workforce Indicators are available only at the four-digit NAICS level. Consequently, although these industry groups contain some employment from non-shale-related core industries, they provide an indication of labor activity for these shale-related industries.

- Stable jobs, those present at the beginning and end of a quarter, increased slightly (2 and 3 percent) for oil and gas extraction and support activities for mining. They decreased for pipeline transportation of natural gas. Stable jobs in utility system construction increased by almost 18 percent, but only a small part of this industry is involved in shale-related activities.
- Support activities for mining and utility system construction had high percentages of separations relative to stable jobs (23 and 30 percent, respectively), suggesting a large temporary worker component in their employment.



## JOB OHIO NETWORK SHALE-RELATED EMPLOYMENT

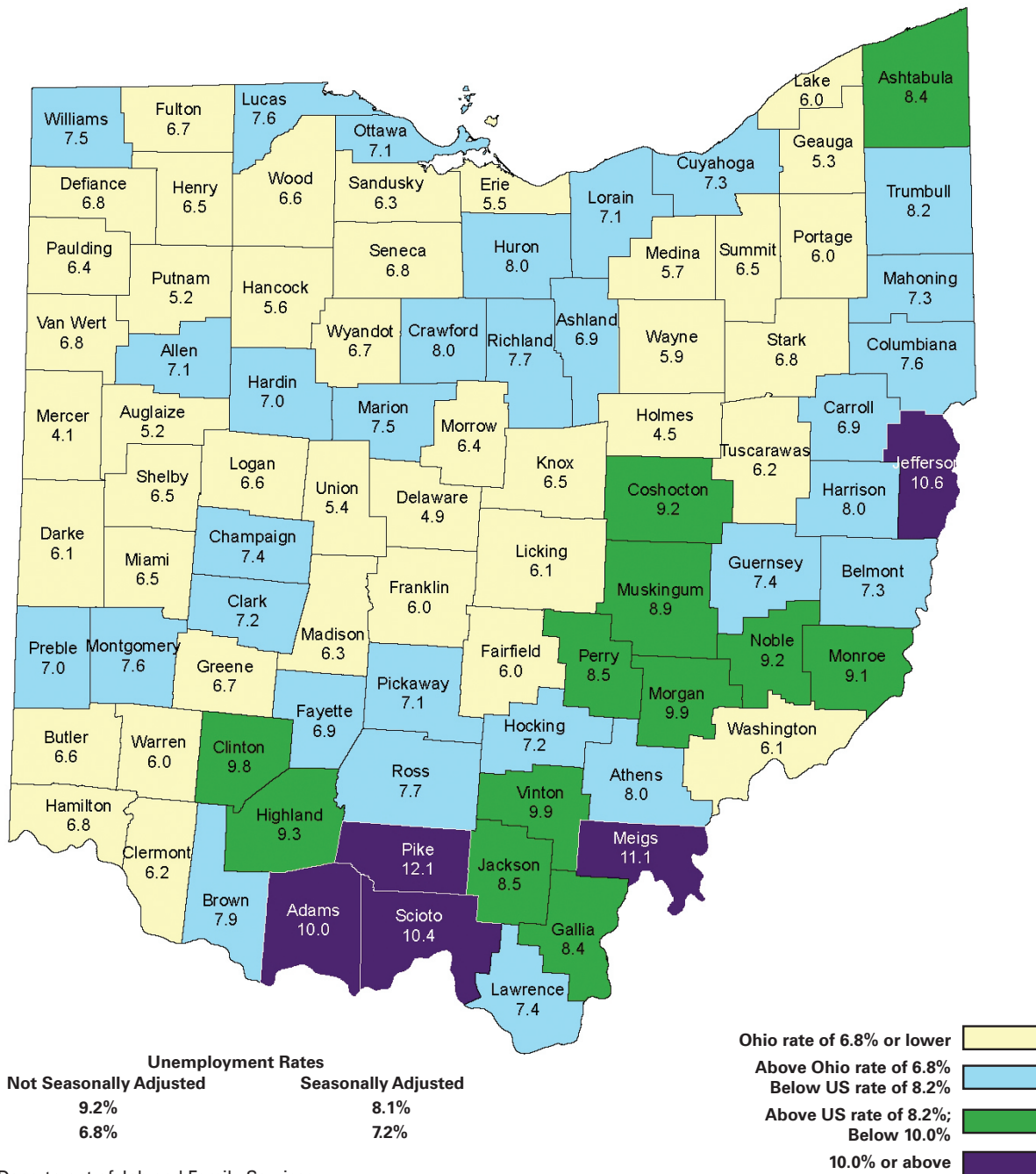
Columbus 2020!	2011 Q2			2011 Q3		
	Stable Employ.	All Hires	Separations	Stable Employ.	All Hires	Separations
All industry groups	848,176	160,493	149,639	843,632	167,398	164,909
2111 Oil and Gas Extraction	160	8	14	162	8	13
2131 Support Activities for Mining	202	163	68	223	97	88
2371 Utility System Construction	1,727	615	339	1,836	543	455
4862 Pipeline Trans. of Natural Gas	24	0	0	25	0	0
<b>Regional Growth Partnership</b>						
All industry groups	475,674	93,616	81,810	476,390	85,601	89,637
2111 Oil and Gas Extraction	***	0	0	0	0	0
2131 Support Activities for Mining	0	0	0	0	0	0
2371 Utility System Construction	1,086	495	160	1,393	966	816
4862 Pipeline Trans. of Natural Gas	***	0	0	***	0	0
<b>Team Neo</b>						
All industry groups	1,632,648	331,864	305,817	1,639,855	315,565	328,074
2111 Oil and Gas Extraction	524	74	30	535	31	57
2131 Support Activities for Mining	608	94	114	642	157	99
2371 Utility System Construction	3,176	1,919	1,185	3,662	1,227	855
4862 Pipeline Trans. Of Natural Gas	58	0	0	59	0	0
<b>Appalachian Business Council</b>						
All industry groups	264,201	55,674	46,443	265,431	49,902	51,233
2111 Oil and Gas Extraction	347	32	4	346	31	50
2131 Support Activities for Mining	1,589	406	299	1,621	524	385
2371 Utility System Construction	417	121	60	467	108	79
4862 Pipeline Trans. Of Natural Gas	26	0	0	15	0	12
<b>USA Partnership</b>						
All industry groups	665,605	137,410	118,795	657,782	124,498	142,995
2111 Oil and Gas Extraction	85	8	7	***	***	***
2131 Support Activities for Mining	10	0	0	9	0	0
2371 Utility System Construction	1,419	534	229	1,671	688	483
4862 Pipeline Trans. Of Natural Gas	***	0	***	***	0	0
<b>Dayton Development Coalition</b>						
All industry groups	416,973	73,937	64,875	412,636	76,764	75,790
2111 Oil and Gas Extraction	***	***	***	***	***	***
2131 Support Activities for Mining	30	6	4	30	4	5
2371 Utility System Construction	629	234	102	775	179	170
4862 Pipeline Trans. of Natural Gas	0	0	0	***	0	0

Source: U.S. Census Bureau, Quarterly Workforce Indicators.

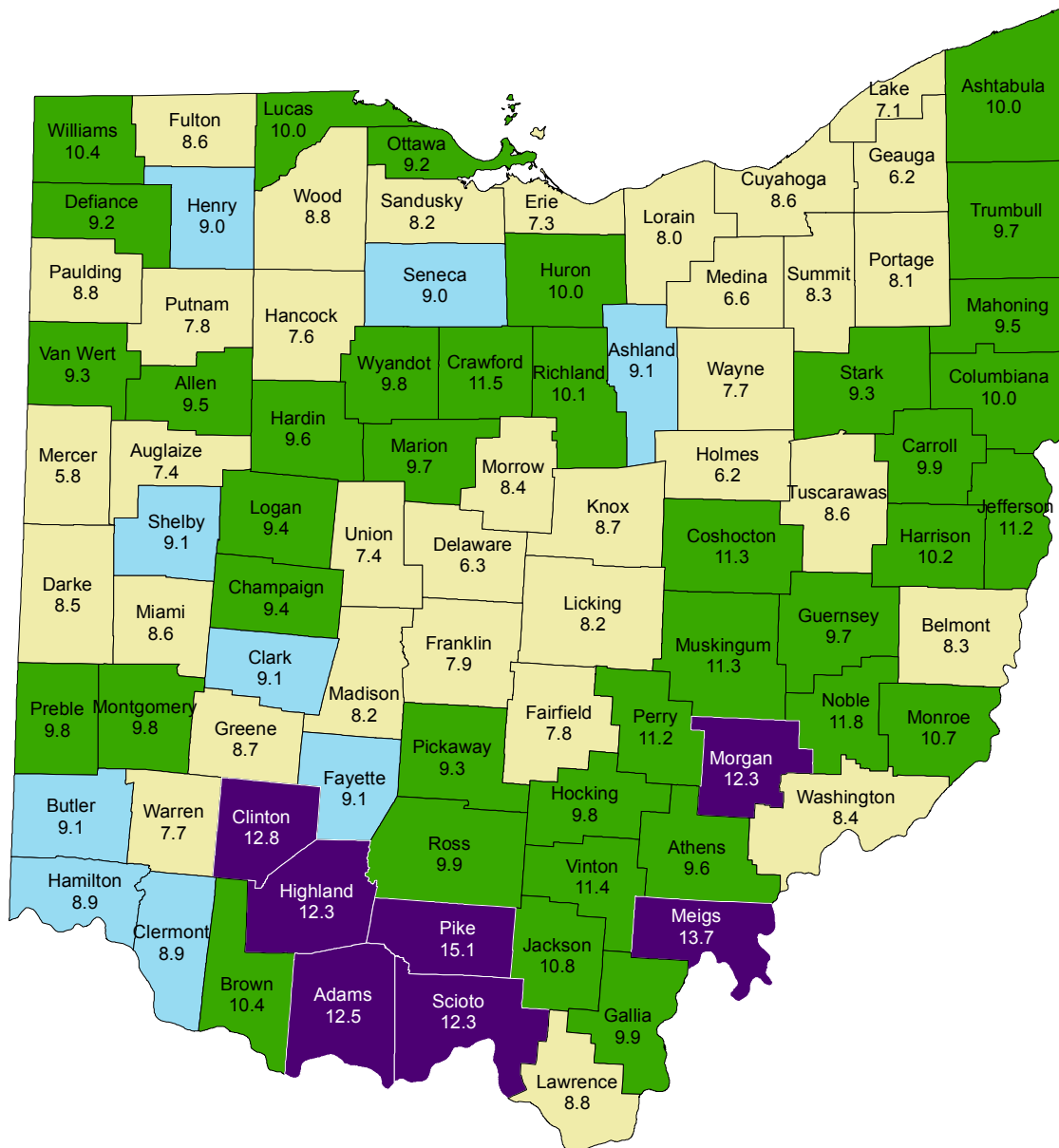
\*\*\* Indicates data cannot be disclosed due to confidentiality restrictions or data quality standards.

Quarterly Workforce Indicators are available only at the four-digit NAICS level. Consequently, although these industry groups contain some employment from non-shale-related core industries, they help provide an indication of labor activity for these shale-related industries.

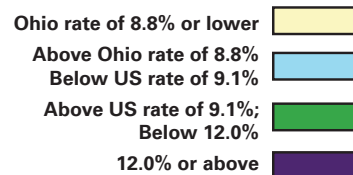
## COUNTY UNEMPLOYMENT RATES IN AUGUST 2012



## COUNTY UNEMPLOYMENT RATES IN AUGUST 2011



Unemployment Rates		
	Not Seasonally Adjusted	Seasonally Adjusted
United States	9.1%	9.1%
Ohio	8.8%	9.1%



Source: Ohio Department of Job and Family Services  
Office of Workforce Development  
Bureau of Labor Market Information

## DEFINITIONS

### OHIO LABOR FORCE STATISTICS\*

**Source:** Ohio Department of Job and Family Services' Bureau of Labor Market Information, Local Area Unemployment Statistics (LAUS)

The labor force and unemployment data are based on the same concepts and definitions as those used for the official national estimates obtained from the Current Population Survey (CPS). The LAUS program measures employment and unemployment on a place-of-residence basis and produces estimates using equations based on regression techniques. This method uses data from several sources, including the CPS, the Current Employment Statistics (CES) program, and state unemployment insurance programs. The LAUS program does not produce estimates for any demographic groups.

**Employment** – A count of all persons who, during the week that includes the 12<sup>th</sup> day of the month, (a) did any work as paid employees, worked in their own businesses or professions or on their own farm, or worked 15 hours or more as unpaid workers in enterprises operated by members of their families, or (b) were not working but who had jobs from which they were temporarily absent. Each employed person is counted only once, even if the person holds more than one job. Included are the self-employed, unpaid family workers, agricultural workers and private household workers, who are excluded by the CES survey.

**Labor Force** – The population of people either working or looking for work, or classified as employed or unemployed.

**Unemployment** – A count of all persons aged 16 years and older who had no employment during the reference week (the week containing the 12<sup>th</sup> day of the month), who were available for work (except for temporary illness), and who had made specific efforts to find employment sometime during the four-week

period ending with the reference week. This includes those waiting to be recalled to jobs from which they had been laid off.

**Unemployment Rate** – The number of unemployed workers as a percent of the labor force.

### JOBS\*

**Source:** Ohio Department of Job and Family Services' Bureau of Labor Market Information, Current Employment Statistics

Each month the CES program surveys about 140,000 national businesses and government agencies to provide detailed industry data on employment, hours and earnings of workers on non-farm payrolls. This is a collaborative effort between the Bureau of Labor Statistics (BLS) and the states. CES produces a count of jobs, not of people.

**Nonfarm Jobs** – The total number of persons on established payrolls employed full- or part-time who received pay for any part of the pay period that includes the 12<sup>th</sup> day of the month. Temporary and intermittent employees are included, as are any employees who are on paid sick leave, on paid holiday, or who worked during only part of the specified pay period. A striking employee who works only a small portion of the survey period, and is paid, is included as employed. Those on payrolls of more than one establishment are counted in each establishment. Data exclude proprietors, self-employed workers, unpaid family or volunteer workers, farm workers, and domestic workers. Those on layoff, strike or leave without pay for the entire pay period, or who have not yet reported for work are not counted as employed. Government employment covers only civilian employees.

\*THESE DATA ARE SEASONALLY ADJUSTED. Seasonal adjustment removes changes in employment due to normal seasonal hiring or layoffs (such as holidays, weather, etc.).



## DEFINITIONS

### QUARTERLY WORKFORCE INDICATORS

**Source: U.S. Census Bureau**

The Quarterly Workforce Indicators are data that can be examined by region, industry, gender and age of workers. These indicators are built upon wage records in the unemployment insurance system and information from state Quarterly Census of Employment and Wages (QCEW) data.

### QUARTERLY CENSUS OF EMPLOYMENT AND WAGES

**Source: Ohio Department of Job and Family Services' Bureau of Labor Market Information, Quarterly Census of Employment and Wages**

**Business Establishment** – An establishment is the location of a certain economic activity, such as a factory, store, office or mine, which produces goods or services. It is typically at a single physical location and engaged in one, or predominantly one, type of economic activity. An employer may have one or more establishments.

**Employment** – Employment data include all employment covered under federal and Ohio unemployment insurance laws for each of the three months in a quarter. The employment count represents the number of full- and part-time employees who worked during or received pay for the payroll period including the 12<sup>th</sup> day of the month. The employment totals for each month are averaged for the quarter employment count. Those on paid vacations or paid sick leave are included. Workers temporarily earning no wages due to labor-management disputes, layoffs or other reasons are not reported as employed. Those on the payroll of more than one employer during the same reference week are reported more than once.

**Wages** – Wages include total compensation paid during a calendar quarter, including

bonuses. Average wages are calculated by dividing total wages for a quarter by average employment in that quarter.

### STAFFING PATTERNS (High-Priority Occupations Section)

**Source: Ohio Department of Job and Family Services' Bureau of Labor Market Information**

A staffing pattern is a list of the occupations most commonly found within a particular industry. This information comes from the biennial Long-Term Occupational Employment Projections data.

**Annual Median Wage** – The annual median wage earned by workers in an occupation, assuming 40 hours of work per week, 52 weeks a year. Wage data is derived from the annual Occupational Employment Statistics survey.

**Educational Attainment** – BLS identifies 11 categories of educational attainment, for use in career planning. These categories describe the most significant postsecondary education or training pathways to employment for workers in a given occupation.

#### Educational Attainment Levels

- **Associate's degree** – Degree completed after two years of full-time schooling beyond high school
- **Bachelor's degree** – Degree completed after four years of full-time schooling beyond high school
- **Degree plus experience** – A four-year bachelor's degree plus work experience
- **Long-term training** – Knowledge and skills developed through years of On-the-Job-Training (OJT) or formal classroom instruction
- **Master's, doctoral or professional degree** – Degree earned at the college or university level beyond a four-year bachelor's degree.

## DEFINITIONS

- **Postsecondary award** – Certificate earned after training through a vocational training program
- **Related work experience** – Training gained through hands-on work in a similar occupation
- **Short-term or moderate-term OJT** – Basic tasks and skills learned through a period of OJT lasting up to one year

### HELP WANTED ONLINE ADS

#### Source: The Conference Board Help Wanted OnLine™ Data Set

The Conference Board HWOL data set provides real-time insight into the employment marketplace through the world's largest database of online job ads. Jobs ads can be classified by industry, occupation, employer and geographic area. Data are analyzed for employment trends and to forecast economic conditions. The underlying data for The Conference Board HWOL are provided by Wanted Technologies Corporation.

### NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CHANGES

NAICS, established in 1997, is reviewed for potential revisions every five years. The latest revision, in 2012, was implemented by BLS in the QCEW program with the release of first quarter 2011 data. As part of this revision, the NAICS code of only one Marcellus and Utica shale-related industry was impacted: NAICS 331111 (Iron & Steel Mills). The NAICS 2012 structure eliminated NAICS 331111, combining it with NAICS 331112 (Electrometallurgical ferroalloy product manufacturing) to form NAICS 331110 (Iron & Steel Mills and Ferroalloy Manufacturing).

#### Core Marcellus and Utica Shale-Related Industries (NAICS):

Crude Petroleum & Natural Gas Extraction (211111); Natural Gas Liquid Extraction (211112); Drilling Oil & Gas Wells (213111); Support Activities for Oil & Gas Operations (213112); Oil & Gas

Pipeline & Related Structures Construction (237120); and Pipeline Transportation of Natural Gas (486210).

#### Ancillary Marcellus and Utica Shale-Related Industries (NAICS):

Fossil Fuel Electric Power Generation (221112); Natural Gas Distribution (222110); Water Supply & Irrigation Systems (221310); Sewage Treatment Facilities (221320); Water & Sewer Line & Related Structures Construction (237110); Highway, Street, and Bridge Construction (237310); Nonresidential Site Preparation Contractors (238912); Petrochemical Manufacturing (325110); Industrial Gas Manufacturing (325120); Iron & Steel Mills & Ferroalloy Manufacturing (3311101); Iron & Steel Pipe & Tube Manufacturing from Purchased Steel (331210); Mining Machinery & Equipment Manufacturing (333131); Oil & Gas Field Machinery & Equipment Manufacturing (333132); Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers (423810); Industrial Machinery and Equipment Merchant Wholesalers (423830); Industrial Supplies Merchant Wholesalers (423840); General Freight Trucking, Local (484110); Specialized Freight Trucking, Local (484220); Specialized Freight Trucking, Long-Distance (484230); Lessors of Other Real Property (531190); Construction, Mining & Forestry Machinery & Equipment Rental & Leasing (532412); Engineering Services (541330); Geophysical Surveying & Mapping Services (541360); Testing Laboratories (541380); Environmental Consulting Services (541620); Remediation Services (562910); Commercial & Industrial Machinery & Equipment Repair & Maintenance (811310); Administration of Air and Water Resource and Solid Waste Management Programs (924110); Administration of Conservation Programs (924120); and Regulation and Administration of Communications, Electric, Gas, and Other Utilities (926130).



John R. Kasich,  
Governor, State of Ohio

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Director, Ohio Department of Job and Family Services

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