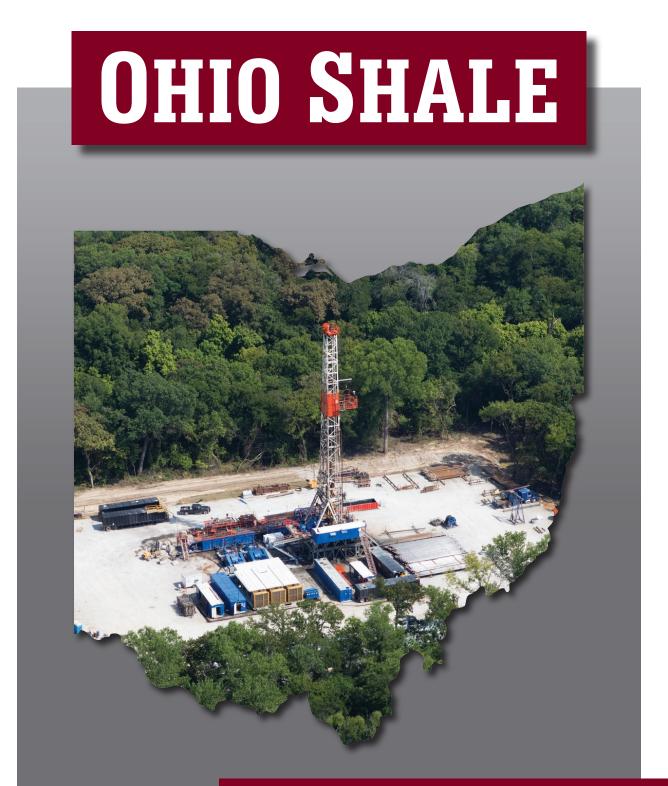
Department of Job and Family Services

TO STRENGTHEN OHIO FAMILIES WITH SOLUTIONS TO TEMPORARY CHALLENGES

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

hio



Quarterly Economic Trends for Ohio Oil and Gas Industries

July 2013



Department of Job and Family Services



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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 December 2012. Employment in core shale-related industries was up 17.7 percent from the fourth guarter of 2011. In any given month, thousands of shale-related job openings are posted online, at 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.org.

The average wages of shale-related jobs are excellent: \$76,643 in core shale-related industries (such as pipeline construction and well drilling), and \$58,908 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 \$44,242.

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 Ohio 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.

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.

Ohio Department of Job and Family Services



EXECUTIVE SUMMARY

Employment (2011 Q4 to 2012 Q4)

- Core shale-related industry employment (such as pipeline construction and well drilling) was up 1,319 (17.7 percent).
- Ancillary shale-related industry employment (such as freight trucking and environmental consulting) declined 77 (less than 0.1 percent).
- All industry employment was up 76,083 (1.5 percent).

Business Establishments (2011 Q4 to 2012 Q4)

- Forty core shale-related business establishments were added. Ancillary shale-related industries declined by 179 establishments.
- This represented a 6.4 percent growth in business establishments in the core shale-related industries and 1.4 percent decline in the ancillary shale-related industries. Over the same time period, Ohio experienced a slight decline of 0.7 percent in business establishments in all industries.
- Shale-related business establishments totaled 13,470 during the fourth quarter of 2012.

Wages (2012 Q1 through 2012 Q4)

- The average wage across all industries was \$44,242.
- The average wage in core shale-related industries was \$76,643, which was \$32,401 greater than the average for all industries.
- The average wage in ancillary shale-related industries was \$58,908, which was \$14,666 greater than the average for all industries.

Stable Employment, All Hires and Separations (2011 Q2 to 2012 Q2)

• Stable jobs, those present at the beginning and end of a quarter, increased in all core shalerelated industries: oil and gas extraction, support activities for mining, pipeline transportation of natural gas, and utility system construction.

Online Job Postings (2013 Q2)

• There were 6,052 online job postings statewide in core and ancillary shale-related 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 12th 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 18.

In this edition, data from the QCEW program are for the fourth quarter of 2012. This is the most current data available. Because the data are not seasonally adjusted, the same quarter of a given year must be used when analyzing growth over time. This will ensure that seasonal factors are not influencing employment change. Therefore, fourth quarter 2012 QCEW data are compared to fourth 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 June 2013 was 7.2 percent.
 - The rate was 0.1 percentage point lower than the June 2012 rate.
- Ohio had 5,201,500 seasonally adjusted nonfarm jobs in June 2013.
 Compared to June 2012, employment increased by 16,000 jobs.
- Ohio's hiring activity increased from the second quarter of 2011 to the second quarter of 2012.
 - Across all industries, an estimated 919,691 workers started new jobs (new hires and rehires) during the second quarter of 2012, an increase of 66,163 hires over the second quarter of 2011.
- Employer demand increased in Ohio.
 - 479,656 job ads were posted online in second quarter 2013, an increase of 2,666 from second quarter 2012.
- Ohio's supply/demand rate, which is the ratio of the number of unemployed people to advertised job vacancies, was unchanged for May and June 2013 (The Conference Board).
 - The June Ohio supply/demand rate was 2.19, which was lower than the U.S. rate (2.39).

Mining and Logging Jobs vs. Total Jobs in Ohio

14,000 5,700,000 5,600,000 12,000 5,500,000 5,400,000 10,000 5,300,000 8,000 5,200,000 5,100,000 6,000 5,000,000 Mining and Logging (left axis) 4,000 4,900,000 Total Employment (right axis) 4,800,000 2,000 4,700,000 4,600,000 0 1211.01 Jan.OA Jan.06

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

Source: Current Employment Statistics. Estimates may be revised.

- In June 2013, 12,400 workers were employed in the mining and logging industries.
 - o From June 2012 to June 2013, employment declined by a total of 100 jobs.



STATEWIDE SHALE-RELATED INDUSTRIES

Number of Business Establishments and Employment in Shale-Related Industries (2011 Q4-2012 Q4)

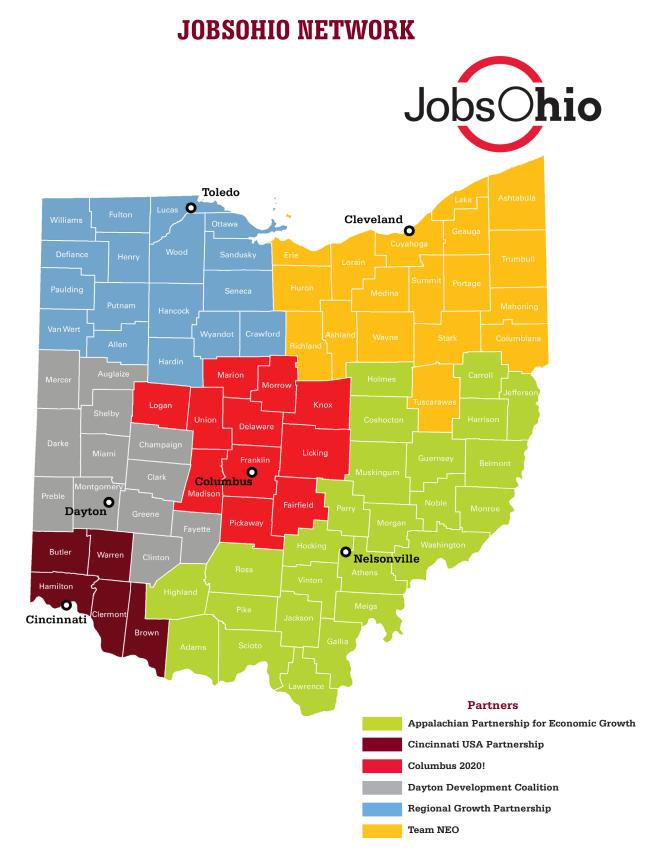
	Core Industries	2011 Q4		201	2012 Q4		Change	
NAICS	Title	Estab.	Empl.	Estab.	Empl.	Estab.	Empl.	
211111	Crude petroleum and natural gas extraction	202	2,861	198	2,929	-4	68	
211112	Natural gas liquid extraction	8	47	15	261	7	214	
213111	Drilling oil and gas wells	87	604	92	712	5	108	
213112	Support activities for oil and gas operations	193	1,383	214	1,886	21	503	
237120	Oil and gas pipeline construction	100	2,254	110	2,669	10	415	
486210	Pipeline transportation of natural gas	36	313	37	324	1	11	
	Core Industry Totals	626	7,462	666	8,781	40	1,319	
	Ancillary Industries	201	1 Q4	201	2 Q4	Change		
NAICS	Title	Estab.	Empl.	Estab.	Empl.	Estab.	Empl.	
221112	Fossil fuel electric power generation	83	5,207	72	4,434	-11	-773	
221210	Natural gas distribution	148	3,950	144	4,112	-4	162	
221310	Water supply and irrigation systems	249	6,016	254	5,912	5	-104	
221320	Sewage treatment facilities	211	3,763	208	3,838	-3	75	
237110	Water and sewer system construction	383	5,232	364	4,988	-19	-244	
237310	Highway, street, and bridge construction	727	15,461	731	15,296	4	-165	
238912	Nonresidential site preparation contractors	632	5,504	598	5,552	-34	48	
325110	Petrochemical manufacturing	5	350	5	309	0	-41	
325120	Industrial gas manufacturing	45	759	45	773	0	14	
331110	Iron and steel mills and ferroalloy manufacturing	62	10,469	60	9,041	-2	-1,428	
331210	Iron, steel pipe and tube from purchase steel	54	3,182	48	3,178	-6	-4	
333131	Mining machinery and equipment manufacturing	11	487	12	489	1	2	
333132	Oil and gas field machinery and equipment	7	146	11	369	4	223	
423810	Construction equipment merchant wholesalers	203	2,850	203	3,292	0	442	
423830	Industrial machinery merchant wholesalers	1,709	15,727	1,652	16,223	-57	496	
423840	Industrial supplies merchant wholesalers	511	4,988	511	4,813	0	-175	
484110	General freight trucking, local	1,375	12,650	1,350	12,915	-25	265	
484220	Other specialized trucking, local	1,016	7,322	1,010	7,534	-6	212	
484230	Other specialized trucking, long-distance	293	4,692	296	4,943	3	251	
531190	Lessors of other real estate property	292	912	274	867	-18	-45	
532412	Other heavy machinery rental and leasing	174	1,373	176	1,675	2	302	
541330	Engineering services	2,313	28,130	2,302	28,982	-11	852	
541360	Geophysical surveying and mapping services	51	289	55	246	4	-43	
541380	Testing laboratories	364	6,538	360	5,835	-4	-703	
541620	Environmental consulting services	301	1,635	308	1,693	7	58	
562910	Remediation services	191	2,605	203	2,799	12	194	
811310	Commercial machinery repair and maintenance	1,098	7,478	1,087	7,760	-11	282	
924110	Air, water, and waste program administration	165	6,083	162	6,041	-3	-42	
924120	Administration of conservation programs	281	5,301	274	5,130	-7	-171	
926130	Utility regulation and administration	29	477	29	460	0	-17	
	Ancillary Industry Totals	12,983	169,576	12,804	169,499	-179	-77	
C	Core Industries and Ancillary Industries Totals	13,609	177,038	13,470	178,280	-139	1,242	

Source: Quarterly Census of Employment and Wages.

• From 2011 Q4 to 2012 Q4, employment in core industries increased by 1,319 (17.7 percent). Over the same period, employment in ancillary industries declined by 77 (less than 0.1 percent).

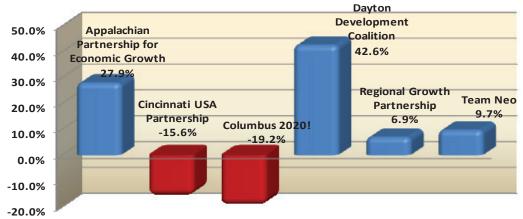
• From 2011 Q4 to 2012 Q4, the number of business establishments in the core industries grew by 40 (6.4 percent), while establishments in ancillary industries declined by 179 (-1.4 percent).





REGIONAL SHALE-RELATED INDUSTRIES

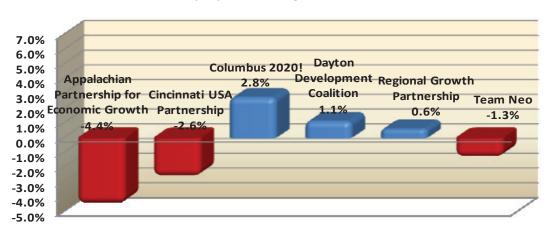
The JobsOhio Network is a partnership of statewide economic development organizations with deep ties to their business communities. The following charts show trends in shale-related employment for each of the six JobsOhio regions.



Core Shale-Related Industries Percent Employment Change (2011 Q4 - 2012 Q4)

Source: Quarterly Census of Employment and Wages.

• For the core shale-related industries, the largest percent growth in employment was in the Dayton Development Coalition region (42.6 percent), followed by the Appalachian Partnership for Economic Growth region (27.9 percent).



Ancillary Shale-Related Industries Percent Employment Change (2011 Q4 - 2012 Q4)

Source: Quarterly Census of Employment and Wages.

• For the ancillary shale-related industries, the largest percent growth in employment was in the Columbus 2020! region (2.8 percent), followed by the Dayton Development Coalition region (1.1 percent).



WAGES FOR OHIO SHALE-RELATED CORE AND ANCILLARY INDUSTRIES

- The average wage across all industries for 2012 was \$44,242.
- The average wage in the core industries was \$32,401 greater than the average wage for all industries.
- The average wage in the ancillary industries was approximately \$14,666 higher than the average wage for all industries.

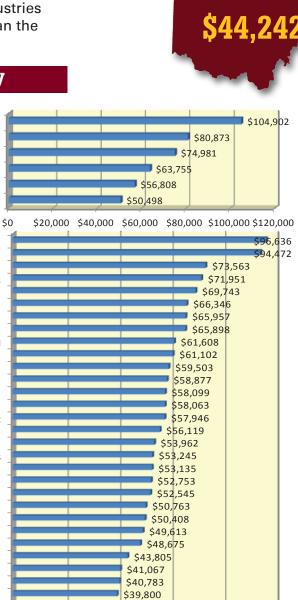
Average Wage by Industry



Crude petroleum and natural gas extraction Natural gas liquid extraction Pipeline transportation of natural gas Oil and gas pipeline construction Support activities for oil and gas operations Drilling oil and gas wells

ANCILLARY INDUSTRIES

Petrochemical manufacturing Fossil fuel electric power generation Natural gas distribution **Engineering services** Industrial gas manufacturing Industrial machinery merchant wholesalers Utility regulation and administration Iron and Steel Mills and Ferroalloy Manufacturing Iron, steel pipe and tube from purchase steel Environmental consulting services Highway, street, and bridge construction Construction equipment merchant wholesalers Water and sewer system construction Industrial supplies merchant wholesalers Oil and gas field machinery and equipment Air, water, and waste program administration Other heavy machinery rental and leasing Remediation services Testing laboratories Sewage treatment facilities Mining machinery and equipment manufacturing Nonresidential site preparation contractors Water supply and irrigation systems Other specialized trucking, long-distance Commercial machinery repair and maintenance Geophysical surveying and mapping services Other specialized trucking, local Administration of conservation programs General freight trucking, local Lessors of other real estate property



Core Shale-Related

Industries

(2012 01-2012 04)

\$76,643

All Ohio Industries

(2012 01-2012 04)

Ancillary Shale-Related

Industries

(2012 01-2012 04)

\$58,908

Source: Quarterly Census of Employment and Wages.

\$27.072

OHIO SHALE-RELATED ONLINE JOB POSTINGS

Onio Statewide Onine Job Postings			
	2012 Q2	2013 Q2	% Change
Core Industries	150	198	32.0%
Ancillary Industries	6,386	5,841	-8.5%
Total: ALL Industries	476,990	479,656	0.6%

Ohio Statewide Online Job Postings

JobsOhio Network Region Online Job Postings

Core & Ancillary Combined	2012 Q2	2013 Q2	% Change
Appalachian Partnership for Economic Growth	255	343	34.5%
Cincinnati USA Partnership	1,255	1,013	-19.3%
Columbus 2020!	1,289	1,158	-10.2%
Dayton Development Coalition	746	706	-5.4%
Regional Growth Partnership	529	480	-9.3%
Team NEO	2,092	1,039	-7.3%
Total*	6,541	6,052	-7.5%

Source: The Conference Board Help Wanted Online® (HWOL). Data subject to revision. Not seasonally adjusted.

Data are not comparable to previous Ohio Shale Quarterly Economic Trends for Ohio Oil and Gas Industries reports due to HWOL 2013 methodological revisions.

*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 the JobsOhio Regions may be lower, since it does not include these ads without a City or MSA specification.

Ohio Online Job Posting

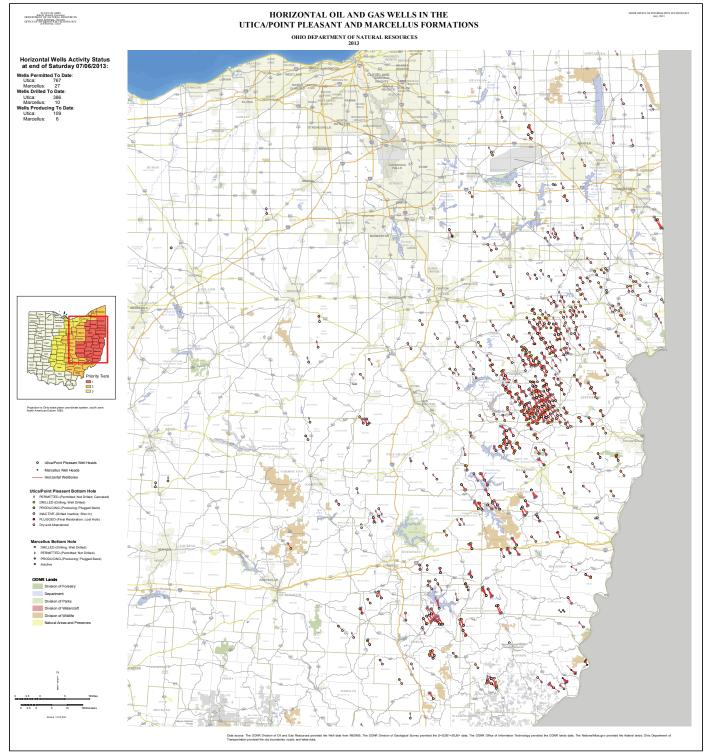
- Total job postings across all industries for Ohio were 0.6 percent higher in second guarter 2013 than in second guarter 2012.
- Overall, job postings increased in core shale-related industries, but decreased in • ancillary shale-related industries.

JobsOhio Network Regional Online Job Postings

Job postings increased in the Appalachian Partnership for Economic Growth region (34.5 percent) in the second quarter 2013 when compared to second quarter 2012.



WELL ACTIVITY STATUS AS OF JULY 6, 2013





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	\$22,580	Short-Term OJT
43-9061	Office Clerks, General		Short-Term OJT
43-3021	Billing and Posting Clerks	\$32,260	Short-Term OJT
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$38,200	Short-Term OJT
43-4051	Customer Service Representatives	\$30,520	Moderate-Term OJT
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$31,210	Moderate-Term OJT
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$34,290	Moderate-Term OJT
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$34,550	Moderate-Term OJT
47-2061	Construction Laborers	\$35,660	Moderate-Term OJT
43-5061	Production, Planning, and Expediting Clerks		Moderate-Term OJT
47-2073	Operating Engineers and Other Construction Equipment Operators	\$44,430	Moderate-Term OJT
49-9052	Telecommunications Line Installers and Repairers		Long-Term OJT
49-9041	Industrial Machinery Mechanics		Long-Term OJT
47-2152	Plumbers, Pipefitters, and Steamfitters	\$47,140	Long-Term OJT
49-9051	Electrical Power-Line Installers and Repairers	\$60,740	Long-Term OJT
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	\$50,770	Related Work Exp.
51-1011	First-Line Supervisors of Production and Operating Workers	\$52,690	Related Work Exp.
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$57,110	Related Work Exp.
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$57,500	Related Work Exp.
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$67,130	Related Work Exp.
51-4121	Welders, Cutters, Solderers, and Brazers	\$35,300	Postsec. Voc. Award
13-1051	Cost Estimators	\$54,760	Bachelor's Degree
17-2112	Industrial Engineers	\$72,520	Bachelor's Degree

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2012.

(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	\$28,480	Moderate-Term OJT
47-5071	Roustabouts, Oil and Gas	\$28,610	Moderate-Term OJT
47-5012	Rotary Drill Operators, Oil and Gas	\$29,110	Moderate-Term OJT
47-5011	Derrick Operators, Oil and Gas	\$32,580	Moderate-Term OJT
53-7073	Wellhead Pumpers	\$33,020	Moderate-Term OJT
53-7072	Pump Operators, Except Wellhead Pumpers	\$44,960	Moderate-Term OJT
47-5013	Service Unit Operators, Oil, Gas, and Mining	\$45,410	Moderate-Term OJT
53-7071	Gas Compressor and Gas Pumping Station Operators	\$61,290	Moderate-Term OJT
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$43,430	Long-Term OJT
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	\$33,110	Postsec. Voc. Award
17-3025	Environmental Engineering Technicians	\$41,630	Associate's Degree
19-4041	Geological and Petroleum Technicians	\$51,520	Associate's Degree
17-3023	Electrical and Electronics Engineering Technicians	\$54,540	Associate's Degree
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	\$56,790	Bachelor's Degree
19-2042	Geoscientists, Except Hydrologists and Geographers	\$71,950	Master's Degree

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2012.

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 industry, gender and age of workers. Data are presented for the most recent data available and because QWI data are not seasonally adjusted, the same quarter must be used when analyzing changes over time. This will ensure that seasonal factors are not influencing employment change. Therefore, in the table below and on the following page, second quarter data from 2011 is presented with second quarter data from 2012.

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.

	2011 Q2			2012 Q2			
Ohio	Stable Employment	All Hires	Separations	Stable Employment	All Hires	Separations	
All industry groups	4,303,384	853,528	767,420	4,399,426	919,691	768,499	
2111 Oil and Gas Extraction	2,717	283	185	2,723	449	250	
2131 Support Activities for Mining	2,607	739	517	2,865	958	631	
2371 Utility System Construction	8,788	4,463	2,464	9,894	3,826	2,751	
4862 Pipeline Transportation of Natural Gas	321	15	9	339	11	3	

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

Quarterly Workforce Indicators are only available at the 4-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 in all core shale-related industries from second quarter 2011 to second quarter 2012.
- It is also clear there is significant churn and turnover in the job market as demonstrated by the levels of hires and separations.

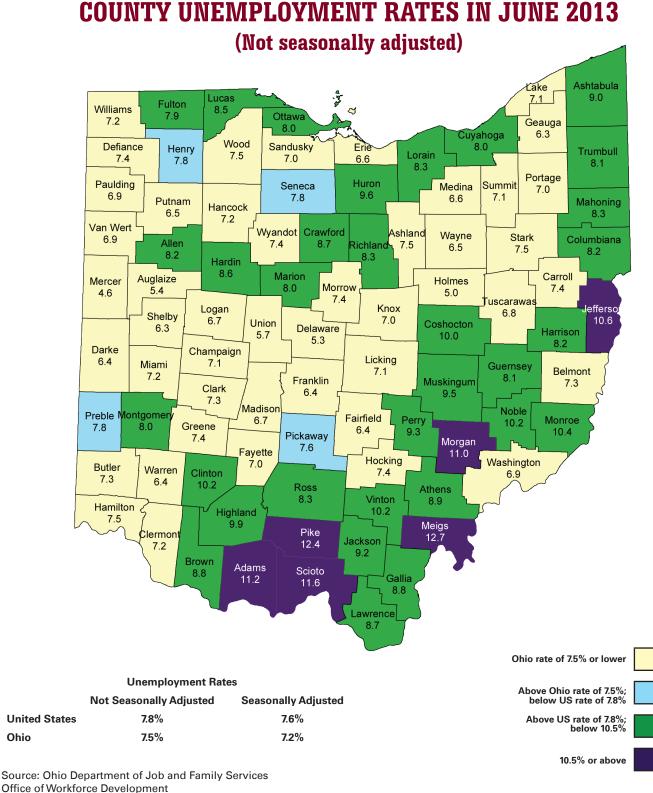
JOBSOHIO NETWORK SHALE-RELATED EMPLOYMENT

	2011 Q2			2012 Q2			
	Stable			Stable			
Appalachian Partnership for Economic Growth	Employ.	All Hires	Separations	Employ.	All Hires	Separations	
All industry groups	264,061	54,870	45,557	267,598	56,760	49,072	
2111 Oil and Gas Extraction	347	32	4	351	162	75	
2131 Support Activities for Mining	1,601	406	303	1,777	485	344	
2371 Utility System Construction	417	121	60	507	467	354	
4862 Pipeline Transportation of Natural Gas	24	0	0	24	0	0	
Cincinnati USA Partnership						r	
All industry groups	664,524	137,764	118,852	672,056	147,234	118,113	
2111 Oil and Gas Extraction	89	9	9	***	0	***	
2131 Support Activities for Mining	15	3	19	11	0	0	
2371 Utility System Construction	1,381	532	228	1,735	334	233	
4862 Pipeline Transportation of Natural Gas	***	0	***	***	0	0	
Columbus 2020!							
All industry groups	891,667	169,525	156,804	905,449	184,796	163,080	
2111 Oil and Gas Extraction	160	8	15	165	10	3	
2131 Support Activities for Mining	206	164	68	193	69	43	
2371 Utility System Construction	1,874	636	377	2,041	525	318	
4862 Pipeline Transportation of Natural Gas	87	0	0	18	0	0	
Dayton Devlelopment Coalition							
All industry groups	417,784	74,369	65,137	422,570	80,717	71,934	
2111 Oil and Gas Extraction	***	0	0	***	***	***	
2131 Support Activities for Mining	12	0	0	6	13	14	
2371 Utility System Construction	567	193	73	736	142	86	
4862 Pipeline Transportation of Natural Gas	***	0	0		0	0	
Regional Growth Partnership			· · · · · · · · · · · · · · · · · · ·				
All industry groups	459,742	91,074	80,010	466,634	97,755	80,674	
2111 Oil and Gas Extraction	***	0	0	***	0	0	
2131 Support Activities for Mining	0	0	0	7	8	0	
2371 Utility System Construction	1,049	487	155	1,245	341	324	
4862 Pipeline Transportation of Natural Gas	***	0	0	***	0	0	
Team NEO							
All industry groups	1,605,607	325,923	301,059	1,665,122	352,422	285,625	
2111 Oil and Gas Extraction	528	73	31	538	85	48	
2131 Support Activities for Mining	603	96	94	683	212	126	
2371 Utility System Construction	3,138	1,952	1,198	3,376	1,932	1,377	
4862 Pipeline Transportation of Natural Gas	52	3	0	55	0	0	

Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators.

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

Quarterly Workforce Indicators are only available at the 4-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.

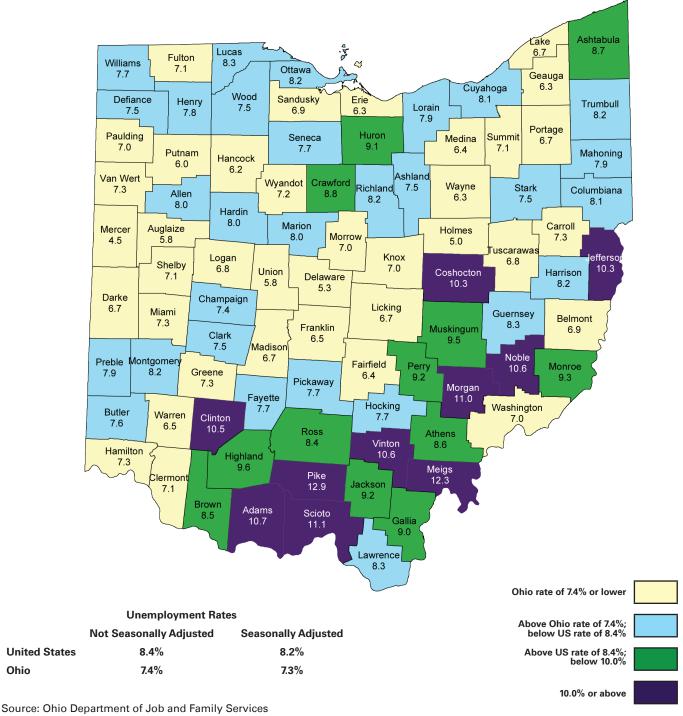


Bureau of Labor Market Information

Ohio

*Data are preliminary and are subject to revision.

COUNTY UNEMPLOYMENT RATES IN JUNE 2012 (Not seasonally adjusted)



Office of Workforce Development Bureau of Labor Market Information

*Data based on 2012 benchmark.

Ohio

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-ofresidence 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 12th 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 selfemployed, 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 12th 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 parttime who received pay for any part of the pay period that includes the 12th 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 parttime employees who worked during or received pay for the payroll period including the 12th 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 labormanagement 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 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 Shale-Related Industries (NAICS):

Crude Petroleum & Natural Gas Extraction (21111); 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 Shale-Related Industries (NAICS):

Fossil Fuel Electric Power Generation (221112); Natural Gas Distribution (221210); 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 (423 840); General FreightTrucking, Local (4841 10); Specialized FreightTrucking, Local (484220); Specialized FreightTrucking, 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

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

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