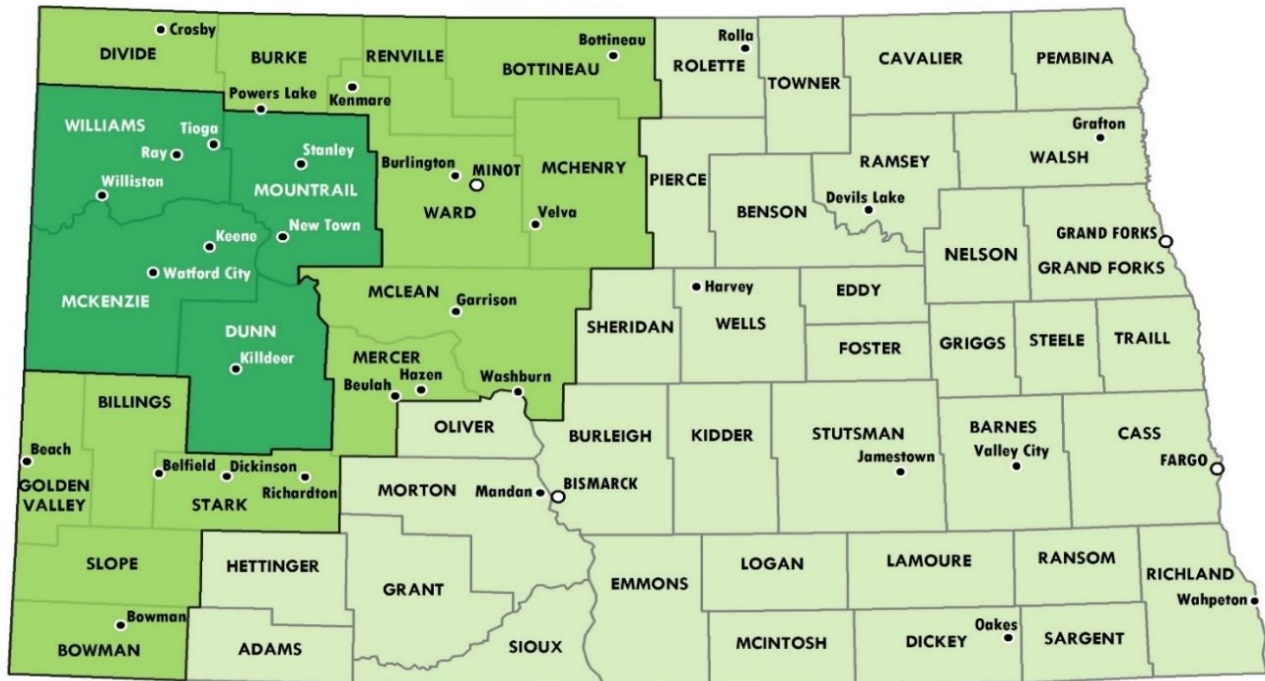


# NORTH DAKOTA'S OIL AND GAS ECONOMY

North Dakota has 17 active oil and gas producing counties. An oil and gas producing county is a county that has had oil and gas production in the last five calendar years. This designation is reviewed for each county at the beginning of each calendar year and adjusted as necessary. Four counties are considered core oil and gas producing counties. Core counties must be top oil and gas producers and, when combined, account for at least 75 percent of North Dakota's oil and gas production. The remaining 13 non-core counties generate 25 percent or less of North Dakota's oil and gas production.

■ CORE OIL AND GAS PRODUCING COUNTIES ■ BALANCE OF OIL AND GAS PRODUCING COUNTIES ■ NON OIL AND GAS PRODUCING COUNTIES



## REPORT HIGHLIGHTS

North Dakota produced an average of 1,181,319 barrels of oil per day in December 2017, a change of -1.3 percent from the prior month and +25.4 percent from one year ago. Average daily gas production was at 2,081,522 MCF (thousand cubic feet) in December 2017, a change of -0.7 percent from the prior month and +35.4 percent from one year ago. Unsold natural gas accounted for 17.9 percent of all gas produced in December 2017. The four core oil and gas producing counties accounted for 93.7 percent of all oil and gas production in North Dakota. The transportation of Williston Basin oil via pipeline accounted for 77 percent of volume while rail accounted for 9 percent.

The number of oil and gas wells in production in North Dakota was 14,293 in December 2017, a change of -0.3 percent from the prior month and +7.2 percent from one year ago. Approximately 8 in 10 oil and gas wells are located in the four core oil and gas producing counties. There were 86 oil and gas permits issued in North Dakota for December 2017, a change of -27.7 percent from the prior month and +152.9 percent from one year ago. The drilling rig count was 51 in December 2017, which is lower than the prior month's 55 count but higher than last year's 40 count. A vast majority (96.1 percent) of drilling rigs were located in the four core oil and gas producing counties.

The North Dakota crude oil first purchase price was \$56.44 per barrel in December 2017, a change of +1.7 percent from the prior month and +24.5 percent from one year ago. Retail fuel prices for regular gasoline in the Midwest region averaged \$2.35 per gallon (including taxes) in December 2017, which is -5.1 percent lower than last month but +8.3 percent higher than last year. Diesel fuel prices averaged \$2.86 per gallon in the Midwest region, which is -0.6 percent lower than last month but +16.2 percent higher than last year.

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## REPORT HIGHLIGHTS cont'd

The unemployment rate for the core oil and gas producing counties was 2.2 percent in December 2017, up from 2.1 percent last month but down from 3.5 percent one year ago. The unemployment rate for the balance counties was 3.1 percent in December 2017, up from 2.7 percent last month but down from 3.9 percent one year ago. North Dakota's unemployment rate for December 2017 was 2.6 percent. The rate for non oil counties was 2.6 percent.

There were 1,608 job openings in the core oil and gas producing counties in February 2018, a change of +32.0 percent from the prior month and +20.6 percent from one year ago. There were 2,432 job openings in the balance counties, a change of +23.6 percent from the prior month and +6.2 percent from one year ago. Together, the seventeen core and balance counties accounted for 29.1 percent of North Dakota's total job openings. The December 2017 rate of unemployed persons per job opening was 0.64 for core counties, while one year prior the rate was 1.28. The rate was 1.37 for balance counties, versus 1.59 one year prior. North Dakota's rate was 0.95.

There were 660 active résumés in the core oil and gas producing counties in February 2018, a change of +4.6 percent from the prior month and -19.0 percent from one year ago. There were 1,469 active résumés in the balance counties, a change of +2.2 percent from the prior month and -21.7 percent from one year ago. Together, core and balance counties accounted for 34.2 percent of North Dakota's total active résumés. The February 2018 rate of active résumés per job opening was 0.41 for core counties, while one year prior the rate was 0.61. The rate was 0.60 for balance counties, compared to 0.82 one year prior. North Dakota's rate was 0.45.

Employment in core oil and gas producing counties for Q3 (Jul-Sep) 2017 averaged 44,662, a change of +6.1 percent over the year for a difference of +2,584 jobs. For balance counties, employment was 67,789, a change of -1.2 percent over the year for a difference of -791 jobs. Over the year, North Dakota's change in average employment was -0.9 percent. Together, core and balance counties accounted for 27.2 percent of North Dakota's total employment. Jobs specifically in the Mining, Quarrying, and Oil and Gas Extraction industry accounted for 15.9 percent of total employment in the 17 oil and gas producing counties, up from 12.3 percent a year earlier.

Wages in core oil and gas producing counties for Q3 (Jul-Sep) 2017 totaled \$801,147,177, a change of +8.3 percent over the year. For balance counties, total wages were \$875,309,348, a change of -2.3 percent over the year. North Dakota's over-the-year change in total wages was -2.2 percent. Together, core and balance counties accounted for 32.7 percent of North Dakota's total wages. The Mining, Quarrying, and Oil and Gas Extraction industry accounted for 26.4 percent of total wages in the 17 oil and gas producing counties, up from 20.7 percent a year earlier. Total wages in non oil and gas counties changed -2.9 percent over the year.

The average weekly wage in core oil and gas producing counties for Q3 (Jul-Sep) 2017 was \$1,380, a change of +2.1 percent over the year. For balance counties, the average weekly wage was \$993, a change of -1.2 percent over the year. The average weekly wage in core counties was 44.8 percent higher than the statewide average of \$953. For balance counties, the average weekly wage was 4.2 percent higher than the statewide average. The average weekly wage in non oil and gas counties was \$877, 8.0 percent lower than the statewide average. For jobs specifically in the Mining, Quarrying, and Oil and Gas Extraction industry, average weekly wages in the core and balance counties were \$1,917 and \$1,890, respectively.

Taxable sales and purchases in core oil and gas producing counties for Q3 (Jul-Sep) 2017 were \$501,355,798, a change of +27.6 percent over the year. For the balance of oil and gas counties, taxable sales and purchases were \$631,033,298, a change of +2.6 percent over the year. Taxable sales and purchases in non oil and gas counties recorded a change of -4.4 percent over the year.

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

SUMMARY STATISTICS		NORTH DAKOTA	CORE COUNTIES	BALANCE COUNTIES	NON OIL COUNTIES
<b>Average Daily Oil Production (in barrels)</b>	[OGD DEC 2017]	1,181,319	1,092,750	88,569	***
1-Year Numeric Change		+238,997	+239,672	-675	***
1-Year Percent Change		+25.4	+28.1	-0.8	***
<b>Crude Oil First Purchase Price (\$ per barrel)</b>	[EGY DEC 2017]	56.44	***	***	***
1-Year Numeric Change		+11.12	***	***	***
1-Year Percent Change		+24.5	***	***	***
<b>Average Daily Gas Production (in MCF)</b>	[OGD DEC 2017]	2,081,522	1,964,052	117,471	***
1-Year Numeric Change		+543,691	+541,497	+2,195	***
1-Year Percent Change		+35.4	+38.1	+1.9	***
<b>Natural Gas City Gate Price (\$ per MCF)</b>	[EGY DEC 2017]	4.36	***	***	***
1-Year Numeric Change		+0.26	***	***	***
1-Year Percent Change		+6.3	***	***	***
<b>Oil and Gas Production Wells</b>	[OGD DEC 2017]	14,293	11,002	3,291	***
1-Year Numeric Change		+956	+877	+79	***
1-Year Percent Change		+7.2	+8.7	+2.5	***
<b>Drilling Rigs</b>	[OGD DEC 2017]	51	49	2	***
1-Year Numeric Change		+11	+15	-4	***
1-Year Percent Change		+27.5	+44.1	-66.7	***
<b>Oil and Gas Permits</b>	[OGD DEC 2017]	86	***	***	***
1-Year Numeric Change		+52	***	***	***
1-Year Percent Change		+152.9	***	***	***
<b>Population</b>	[CENS 2016]	755,548	61,566	146,290	550,096
1-Year Numeric Change		+689	-1,494	-2,601	+5,212
1-Year Percent Change		+0.1	-2.4	-1.7	+1.0
<b>Labor Force</b>	[LAUS DEC 2017]	409,589	39,481	73,582	296,528
1-Year Numeric Change		-2,877	-1,417	-1,181	-286
1-Year Percent Change		-0.7	-3.5	-1.6	-0.1
<b>Unemployed</b>	[LAUS DEC 2017]	10,789	851	2,265	7,674
1-Year Numeric Change		-1,885	-589	-623	-675
1-Year Percent Change		-14.9	-40.9	-21.6	-8.1
<b>Unemployment Rate (%)</b>	[LAUS DEC 2017]	2.6	2.2	3.1	2.6
Same Month, 1 Year Ago		3.1	3.5	3.9	2.8

Sources: BEA U.S. Bureau of Economic Analysis; CENS U.S. Census Bureau; EGY U.S. Dept of Energy; LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics; OGD North Dakota Dept of Mineral Resources, Oil and Gas Division; OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report; QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages; TAX North Dakota Office of State Tax Commissioner; UI Labor Market Information Center, Job Service ND, Unemployment Insurance Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

SUMMARY STATISTICS		NORTH DAKOTA	CORE COUNTIES	BALANCE COUNTIES	NON OIL COUNTIES
<b>Initial Jobless Claims</b>	[UI JAN 2018]	4,682	240	786	3,006
1-Year Numeric Change		-648	-64	-142	-258
1-Year Percent Change		-12.2	-21.1	-15.3	-7.9
<b>Job Openings</b>	[OJOR FEB 2018]	13,873	1,608	2,432	9,833
1-Year Numeric Change		+927	+275	+143	+509
1-Year Percent Change		+7.2	+20.6	+6.2	+5.5
<b>Unemployed per Job Opening</b>	[OJOR DEC 2017]	0.95	0.64	1.37	0.92
Same Month, 1 Year Ago		1.02	1.28	1.59	0.88
<b>Active Résumés</b>	[OJOR FEB 2018]	6,222	660	1,469	4,093
1-Year Numeric Change		-1,077	-155	-407	-515
1-Year Percent Change		-14.8	-19.0	-21.7	-11.2
<b>Active Résumés per Job Opening</b>	[OJOR FEB 2018]	0.45	0.41	0.60	0.42
Same Month, 1 Year Ago		0.56	0.61	0.82	0.49
<b>Average Employment</b>	[QCEW Q3 (JUL-SEP) 2017]	414,269	44,662	67,789	299,318
1-Year Numeric Change		-3,900	+2,584	-791	-3,950
1-Year Percent Change		-0.9	+6.1	-1.2	-1.3
<b>Business Establishments</b>	[QCEW Q3 (JUL-SEP) 2017]	31,957	3,659	5,907	21,622
1-Year Numeric Change		-182	-141	-116	+57
1-Year Percent Change		-0.6	-3.7	-1.9	+0.3
<b>Average Weekly Wage (\$)</b>	[QCEW Q3 (JUL-SEP) 2017]	953	1,380	993	877
1-Year Numeric Change		-13	+28	-12	-15
1-Year Percent Change		-1.3	+2.1	-1.2	-1.7
<b>Per Capita Personal Income (\$)</b>	[BEA 2016]	54,627	71,835	58,278	51,731
1-Year Numeric Change		-871	-15,187	-3,473	+1,590
1-Year Percent Change		-1.6	-17.5	-5.6	+3.2
<b>Taxable Sales &amp; Purchases (in thsd \$)</b>	[TAX Q3 (JUL-SEP) 2017]	4,730,700.5	501,355.8	631,033.3	1,898,176.2
1-Year Numeric Change		+105,996.5	+108,430.1	+16,005.0	-86,833.1
1-Year Percent Change		+2.3	+27.6	+2.6	-4.4
<b>New Residential Construction (Housing Units)</b>	[CENS 2016]	3,981	353	276	3,352
1-Year Numeric Change		-2,275	-1,283	-393	-599
1-Year Percent Change		-36.4	-78.4	-58.7	-15.2

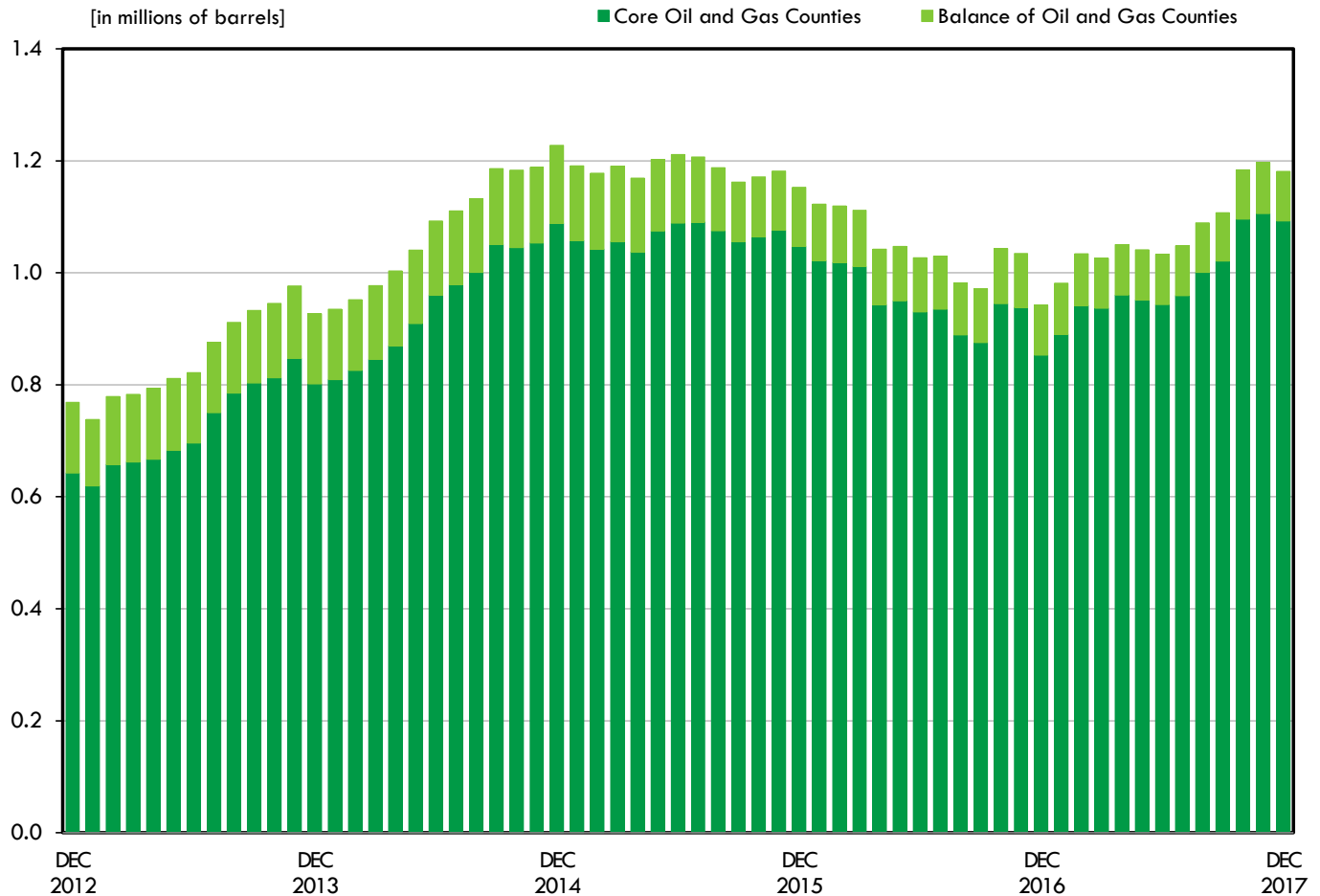
Sources: BEA U.S. Bureau of Economic Analysis; CENS U.S. Census Bureau; EGY U.S. Dept of Energy; LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics; OGD North Dakota Dept of Mineral Resources, Oil and Gas Division; OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report; QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages; TAX North Dakota Office of State Tax Commissioner; UI Labor Market Information Center, Job Service ND, Unemployment Insurance Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE DAILY OIL PRODUCTION (in barrels)

[OGD DEC 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NORTH DAKOTA	
1,092,750	92.5	88,569	7.5	1,181,319	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-12,736	-1.2	-2,921	-3.2	-15,657	-1.3
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+239,672	+28.1	-675	-0.8	+238,997	+25.4
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+450,277	+70.1	-37,421	-29.7	+412,856	+53.7

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	
991,467	91.7	89,577	8.3	1,081,044	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+19,973	+2.1	-57	-0.1	+19,916	+1.9
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+49,087	+5.2	-7,436	-7.7	+41,651	+4.0
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+435,601	+78.4	-19,033	-17.5	+416,568	+62.7

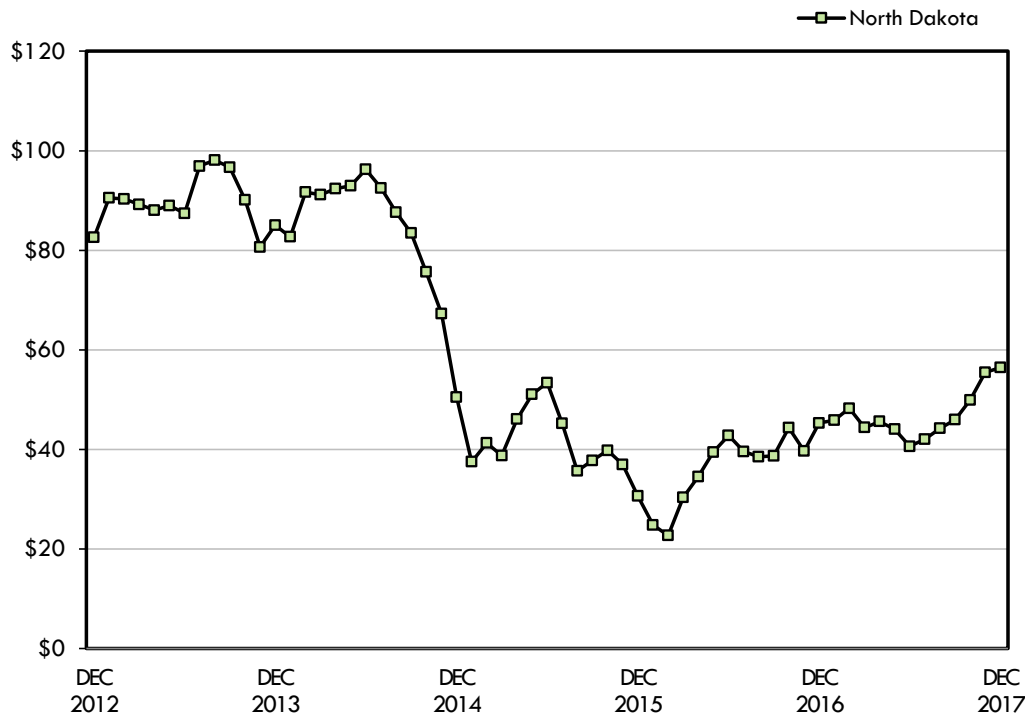
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## CRUDE OIL FIRST PURCHASE PRICE (\$ per barrel)

[EGY DEC 2017]



### NORTH DAKOTA

56.44

**M/M # CHG**    **M/M % CHG**

+0.95    +1.7

**Y/Y # CHG**    **Y/Y % CHG**

+11.12    +24.5

**5YR # CHG**    **5YR % CHG**

-26.18    -31.7

### 12 MO MOV AVG

46.92

**M/M # CHG**    **M/M % CHG**

+0.93    +2.0

**Y/Y # CHG**    **Y/Y % CHG**

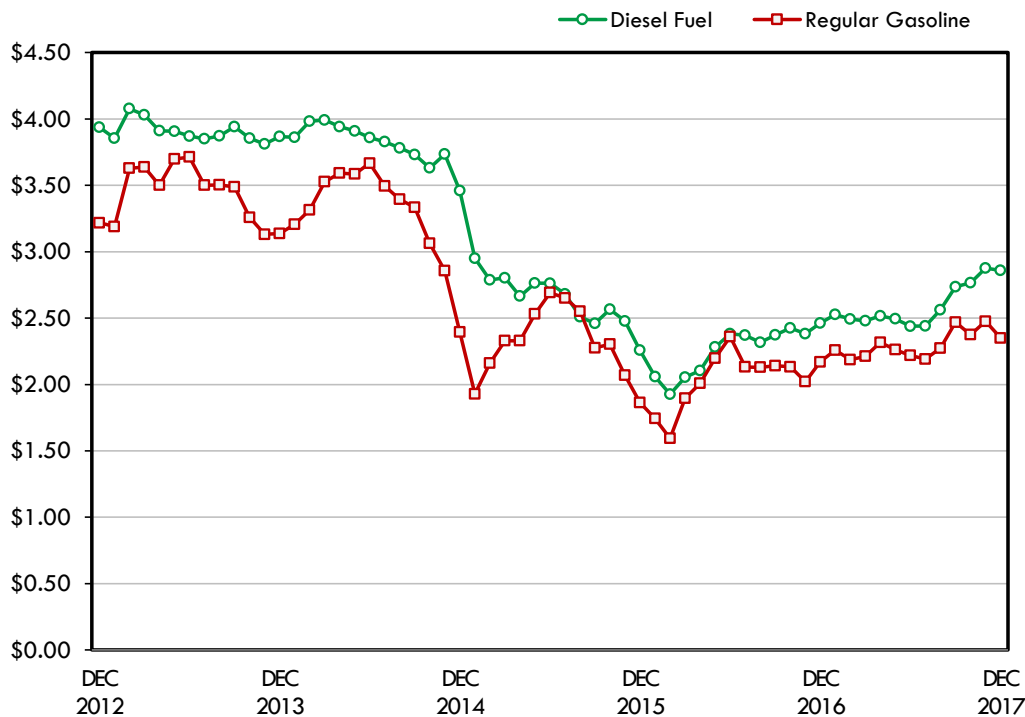
+10.18    +27.7

**5YR # CHG**    **5YR % CHG**

-37.26    -44.3

## AVERAGE MIDWEST RETAIL FUEL PRICES (\$ per gallon + taxes)

[EGY DEC 2017]



### REGULAR GASOLINE

2.35

**M/M # CHG**    **M/M % CHG**

-0.13    -5.1

**Y/Y # CHG**    **Y/Y % CHG**

+0.18    +8.3

**5YR # CHG**    **5YR % CHG**

-0.87    -27.0

### DIESEL FUEL

2.86

**M/M # CHG**    **M/M % CHG**

-0.02    -0.6

**Y/Y # CHG**    **Y/Y % CHG**

+0.40    +16.2

**5YR # CHG**    **5YR % CHG**

-1.08    -27.4

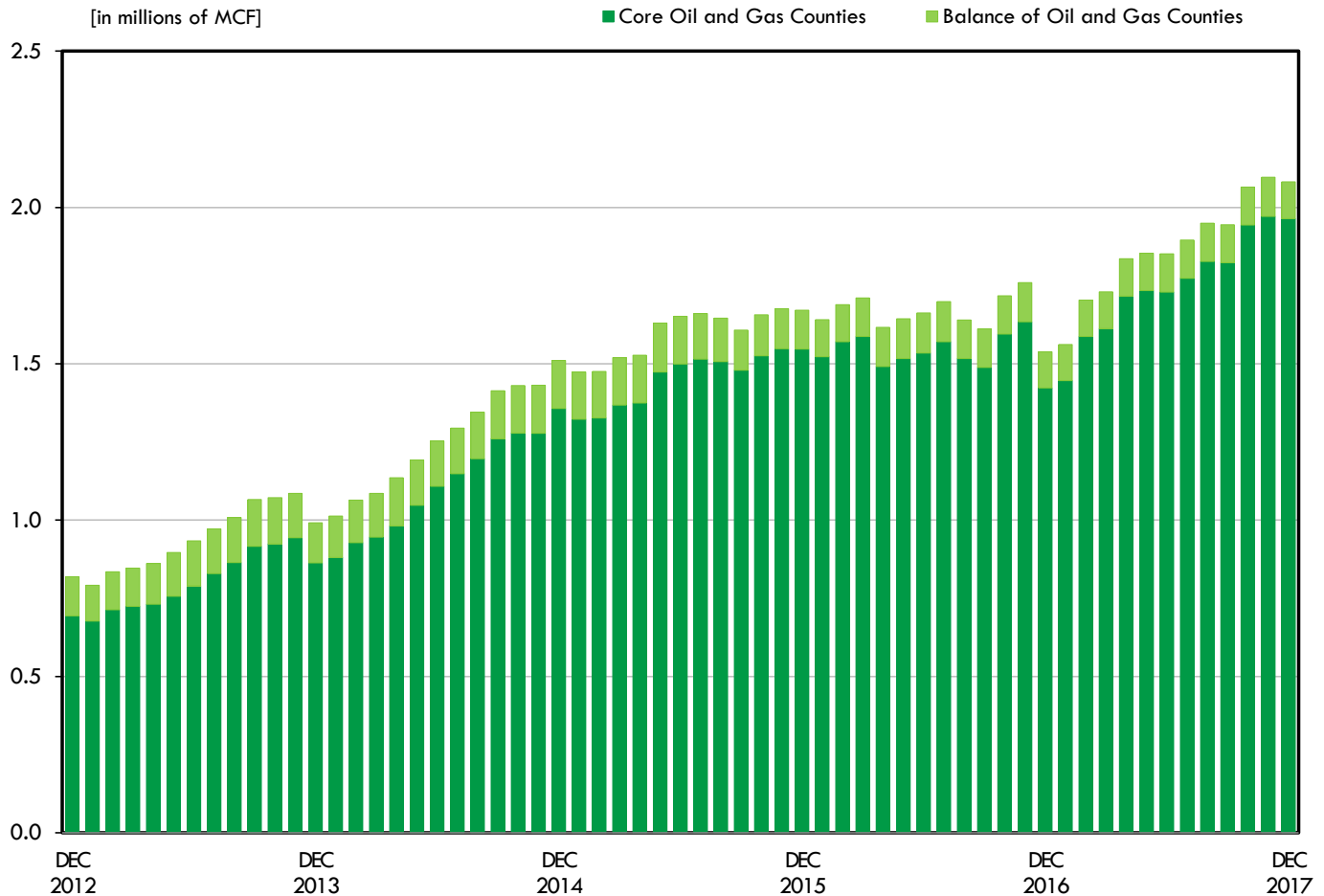
Sources: EGY U.S. Dept of Energy

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE DAILY GAS PRODUCTION (in MCF)

[OGD DEC 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NORTH DAKOTA	
1,964,052	94.4	117,471	5.6	2,081,522	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-7,543	-0.4	-7,374	-5.9	-14,918	-0.7
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+541,497	+38.1	+2,195	+1.9	+543,691	+35.4
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+1,270,743	+183.3	-7,842	-6.3	+1,262,900	+154.3

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	
1,760,728	93.6	120,261	6.4	1,880,989	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+45,124	+2.6	+182	+0.2	+45,306	+2.5
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+223,216	+14.5	-3,083	-2.5	+220,133	+13.3
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+1,162,575	+194.4	+11,593	+10.7	+1,174,168	+166.1

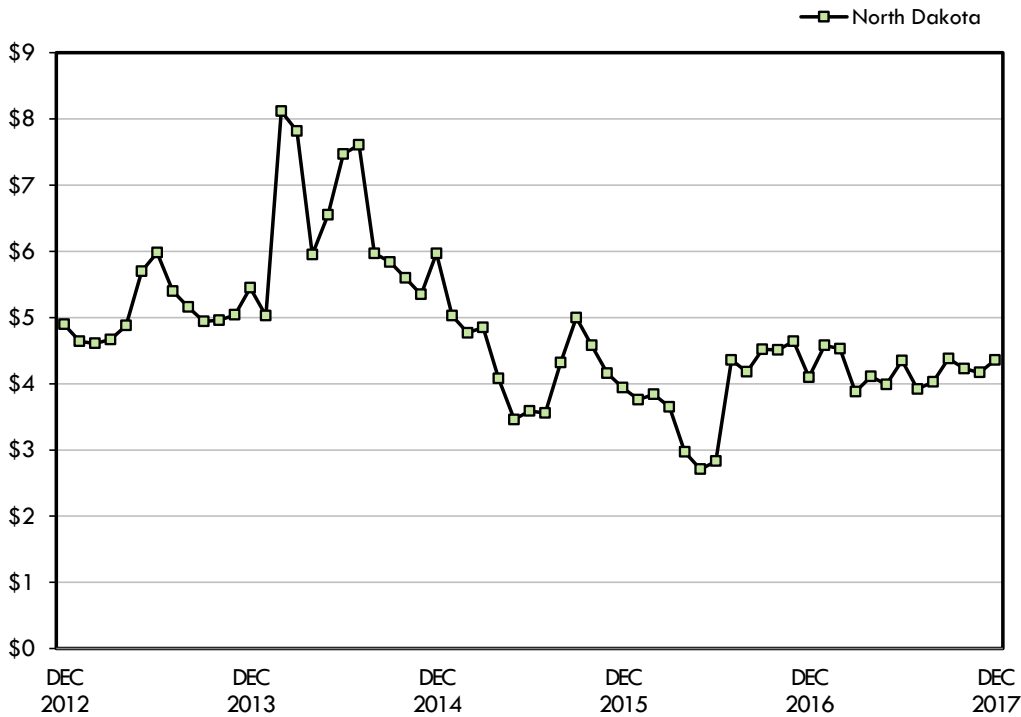
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## NATURAL GAS CITY GATE PRICE (\$ per MCF)

[EGY DEC 2017]



### NORTH DAKOTA

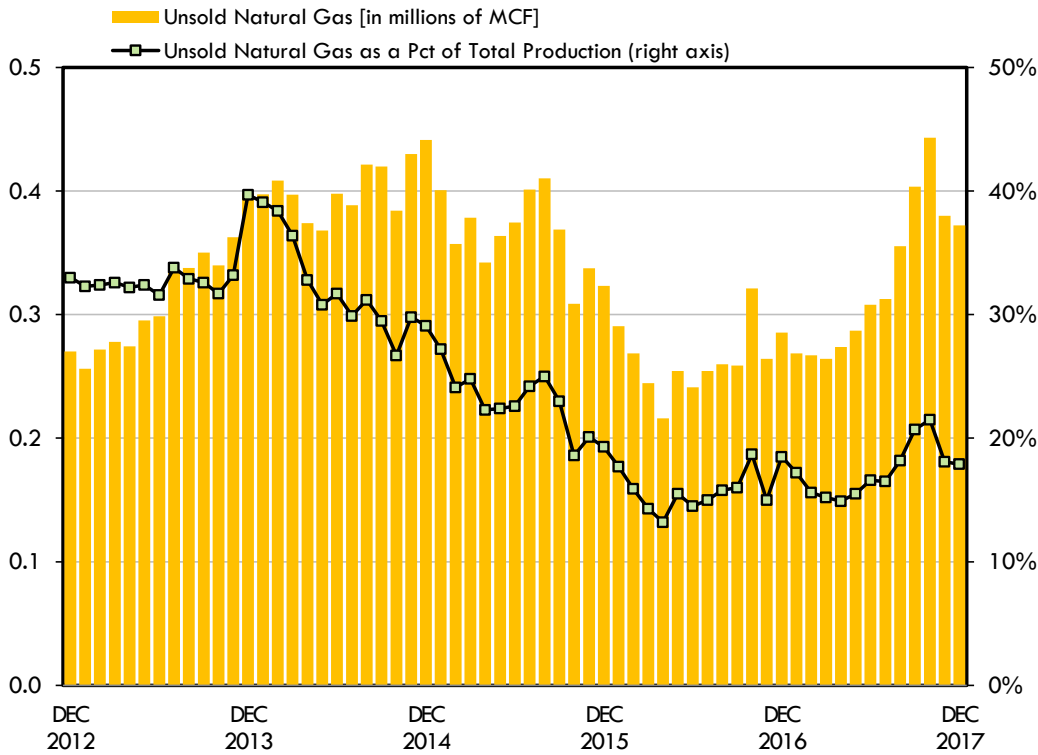
4.36	
M/M # CHG	M/M % CHG
+0.19	+4.6
Y/Y # CHG	Y/Y % CHG
+0.26	+6.3
5YR # CHG	5YR % CHG
-0.54	-11.0

### 12 MO MOV AVG

4.21	
M/M # CHG	M/M % CHG
+0.02	+0.5
Y/Y # CHG	Y/Y % CHG
+0.37	+9.6
5YR # CHG	5YR % CHG
+0.05	+1.2

## AVERAGE DAILY UNSOLD NATURAL GAS (in MCF)

[OGD DEC 2017]



### NORTH DAKOTA

372,102	
M/M # CHG	M/M % CHG
-7,848	-2.1
Y/Y # CHG	Y/Y % CHG
+86,743	+30.4
5YR # CHG	5YR % CHG
+101,974	+37.8

### PCT OF NAT GAS UNSOLD

17.9	
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### 12 MO MOV AVG

327,963	
M/M # CHG	M/M % CHG
+7,228	+2.3
Y/Y # CHG	Y/Y % CHG
+64,692	+24.6
5YR # CHG	5YR % CHG
+82,142	+33.4

### PCT OF NAT GAS UNSOLD

17.4	
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[natural gas that is flared into the atmosphere, leased for use at production site, or otherwise not marketed is considered unsold]

Sources: EGY U.S. Dept of Energy; OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

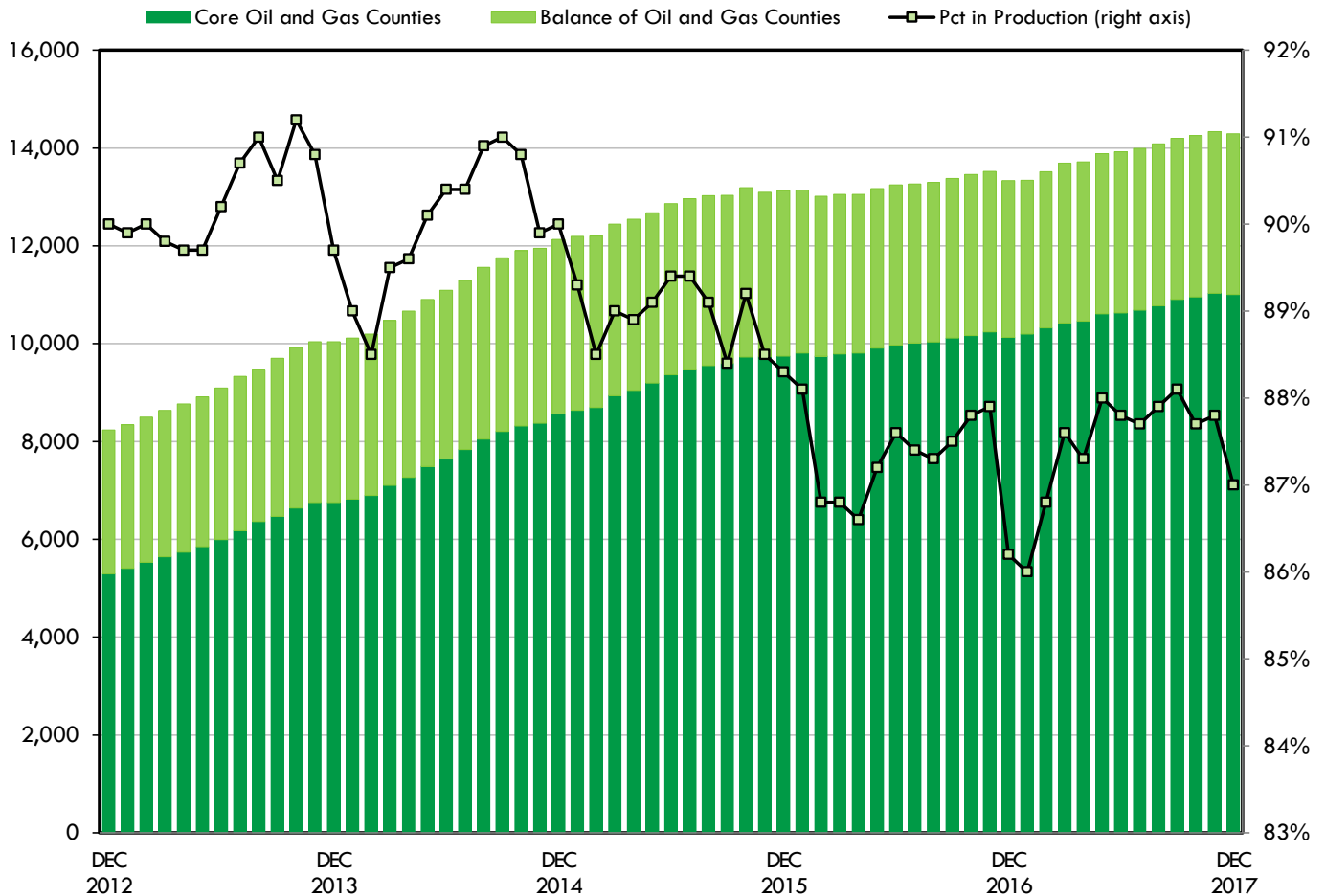
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## OIL AND GAS PRODUCTION WELLS

[OGD DEC 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NORTH DAKOTA	
11,002	77.0	3,291	23.0	14,293	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-26	-0.2	-19	-0.6	-45	-0.3
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+877	+8.7	+79	+2.5	+956	+7.2
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+5,706	+107.7	+350	+11.9	+6,056	+73.5

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	
10,666	76.5	3,271	23.5	13,937	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+74	+0.7	+6	+0.2	+80	+0.6
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+688	+6.9	+4	+0.1	+692	+5.2
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+6,044	+130.8	+443	+15.7	+6,487	+87.1

[the percent of oil and gas wells in production is calculated by dividing total wells in production by total wells capable of production]

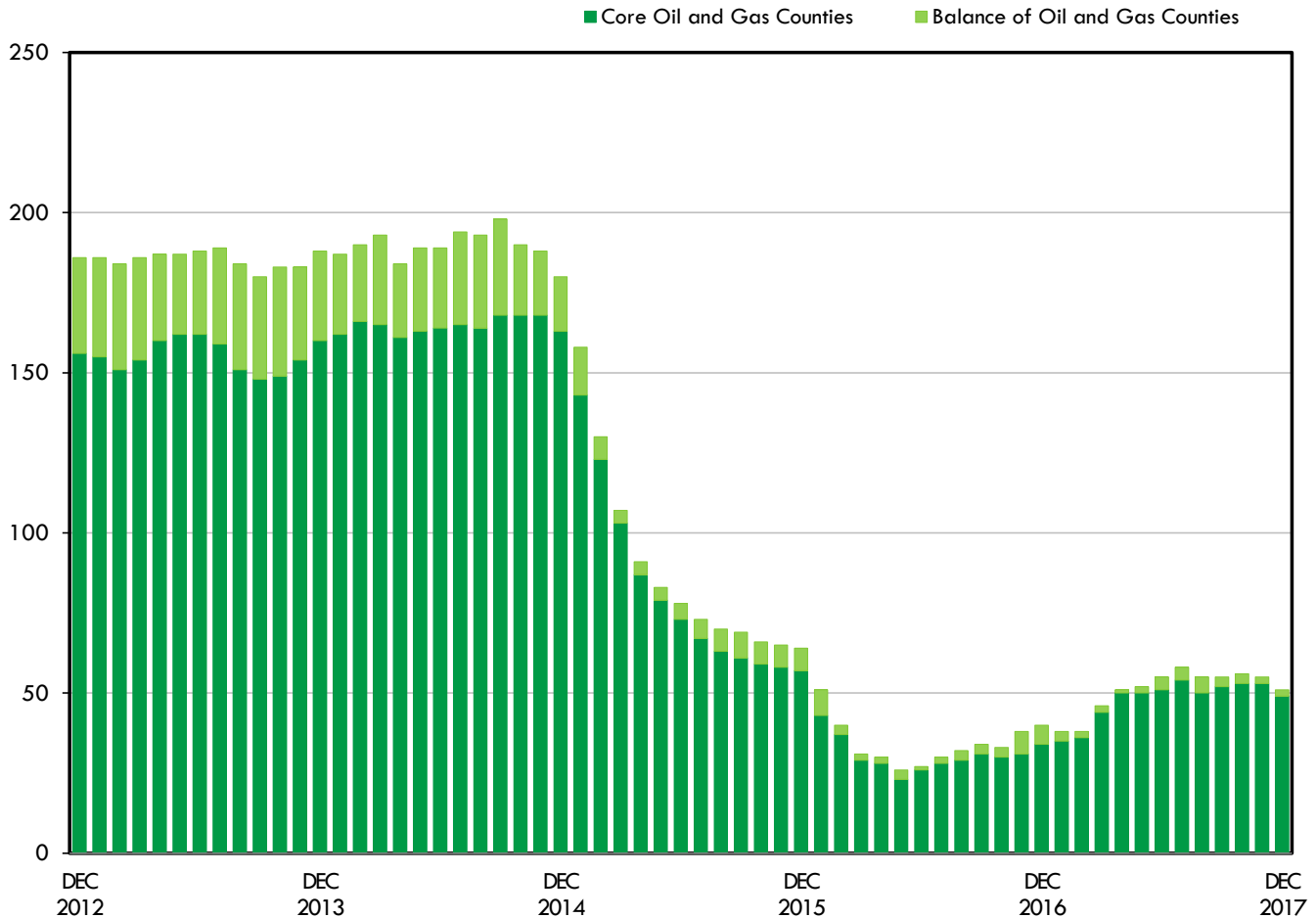
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## DRILLING RIGS

[OGD DEC 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NORTH DAKOTA	
49	96.1	2	3.9	51	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-4	-7.5	0	0.0	-4	-7.3
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+15	+44.1	-4	-66.7	+11	+27.5
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-107	-68.6	-28	-93.3	-135	-72.6

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	
48	94.1	3	5.9	51	
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+1	+2.1	0	0.0	+1	+2.0
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+17	+54.8	-1	-25.0	+16	+45.7
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-119	-71.3	-31	-91.2	-150	-74.6

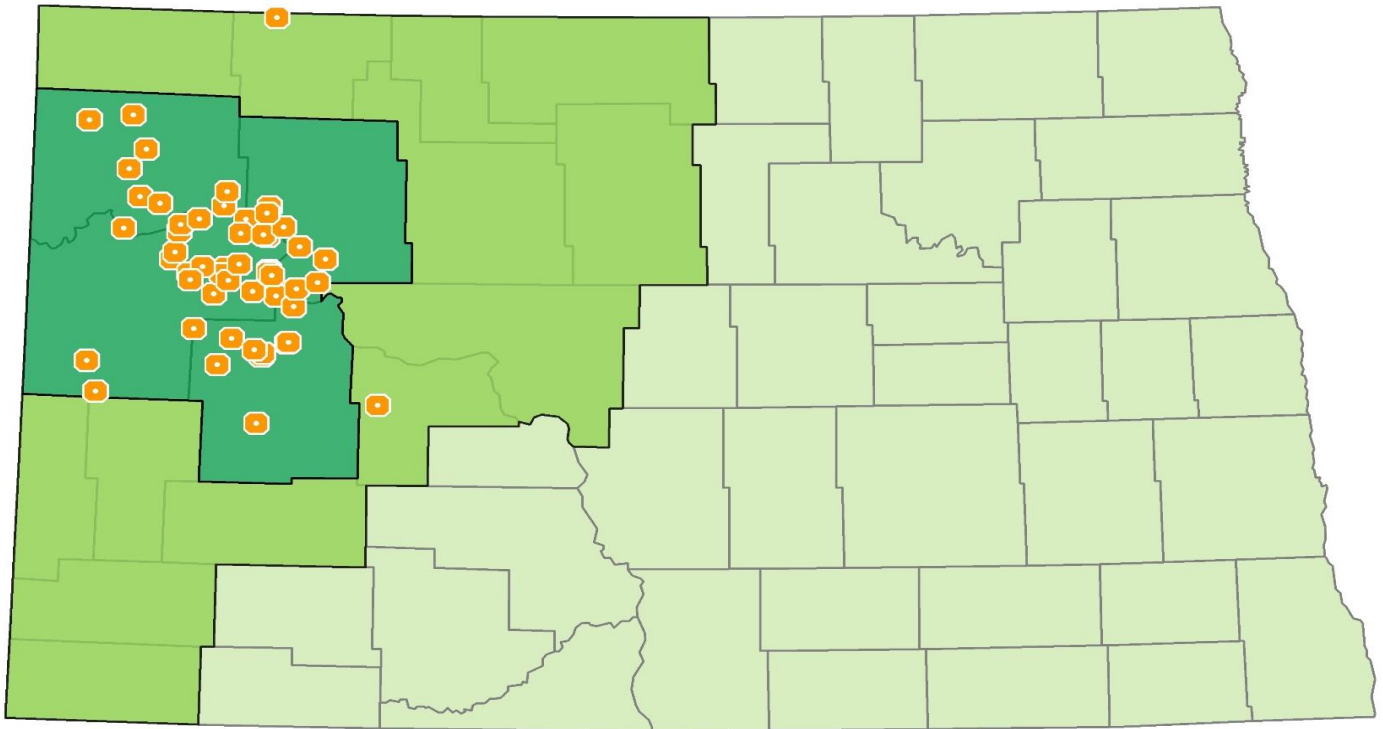
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

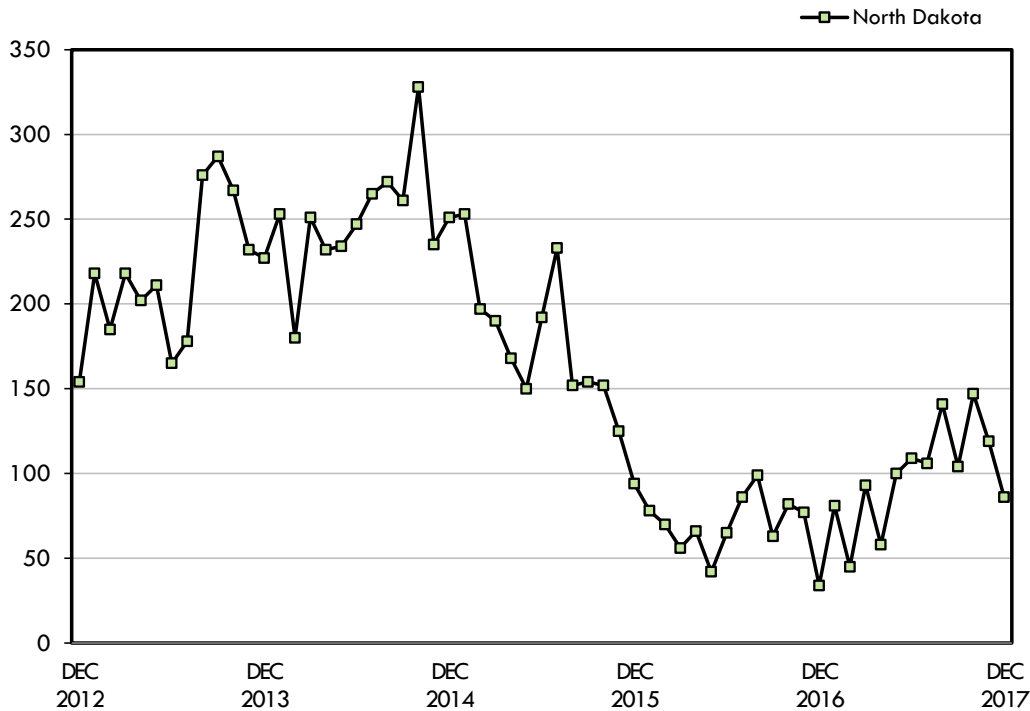
## DRILLING RIG LOCATIONS

[OGD DEC 2017]



## OIL AND GAS PERMITS

[OGD DEC 2017]



### NORTH DAKOTA

86

M/M # CHG	M/M % CHG
-33	-27.7
Y/Y # CHG	Y/Y % CHG
+52	+152.9
5YR # CHG	5YR % CHG
-68	-44.2

### 12 MO MOV AVG

99

M/M # CHG	M/M % CHG
+4	+4.2
Y/Y # CHG	Y/Y % CHG
+31	+45.6
5YR # CHG	5YR % CHG
-106	-51.7

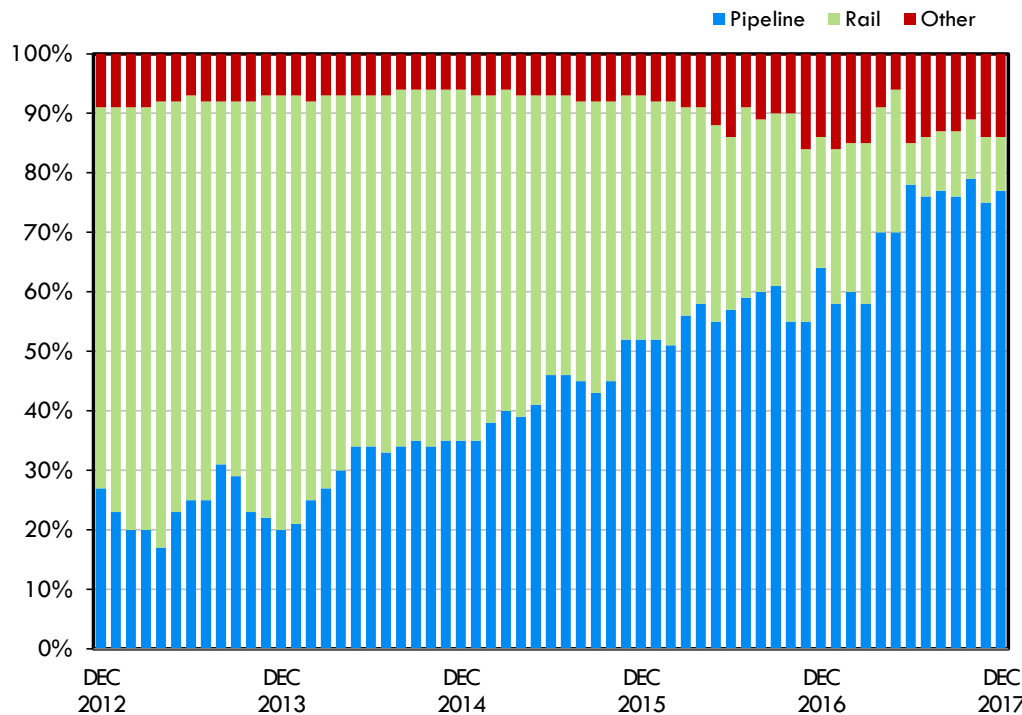
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## WILLISTON BASIN OIL TRANSPORTATION (% share)

[NDPA DEC 2017]



### PIPELINE

77

### 1 YEAR AGO

64

### 5 YEARS AGO

27

### RAIL

9

### 1 YEAR AGO

22

### 5 YEARS AGO

64

### OTHER

14

### 1 YEAR AGO

14

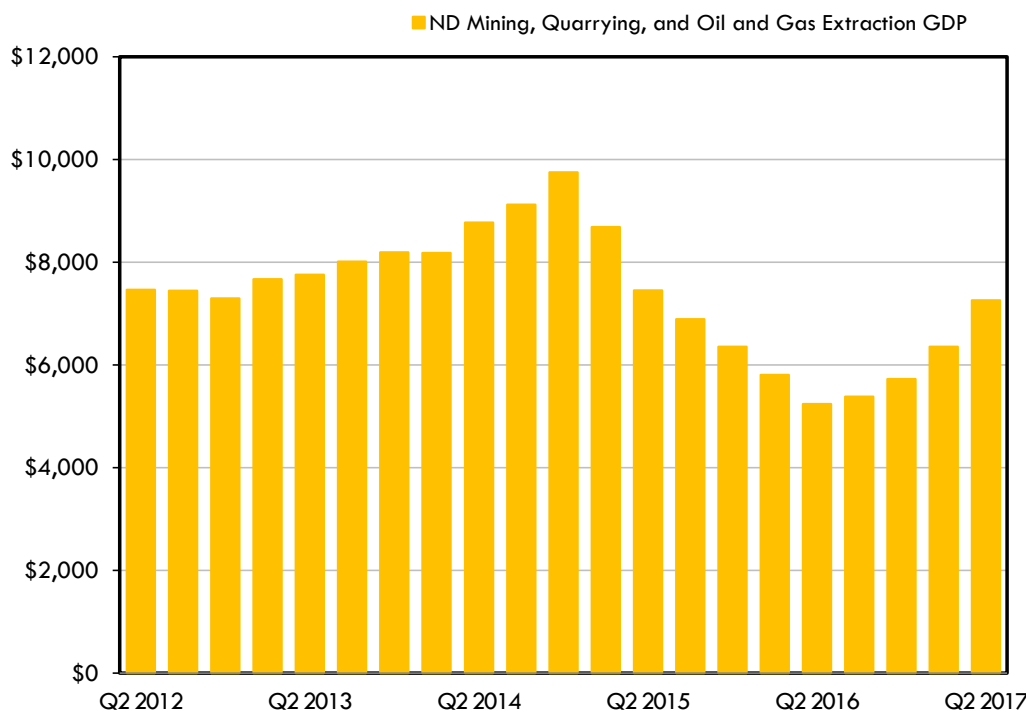
### 5 YEARS AGO

9

[Other includes the transportation of oil to refineries or by truck to Canadian pipeline terminals]

## REAL GROSS DOMESTIC PRODUCT (in millions 2009 chained \$)

[BEA Q2 (APR-JUN) 2017]



### NORTH DAKOTA

7,258

### Q/Q # CHG

+899

### Q/Q % CHG

+14.1

### Y/Y # CHG

+2,018

### Y/Y % CHG

+38.5

### 5YR # CHG

-205

### 5YR % CHG

-2.7

### 4 QTR MOV AVG

6,182

### Q/Q # CHG

+504

### Q/Q % CHG

+8.9

### Y/Y # CHG

+107

### Y/Y % CHG

+1.8

### 5YR # CHG

+302

### 5YR % CHG

+5.1

[GDP data are seasonally adjusted at annual rates]

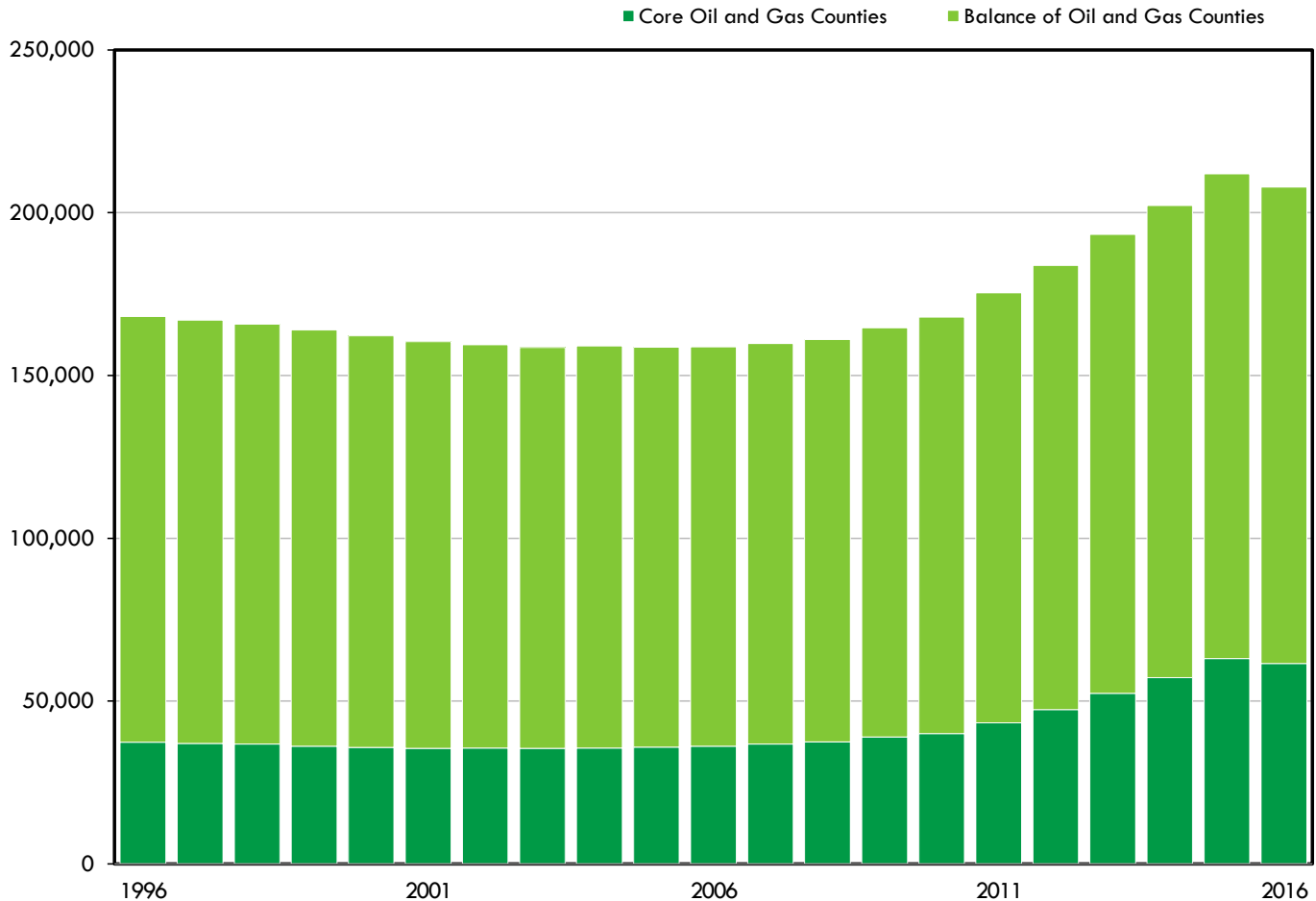
Sources: BEA U.S. Bureau of Economic Analysis; NDPA North Dakota Pipeline Authority

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## POPULATION

[CENS 2016]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
61,566	8.1	146,290	19.4	550,096	755,548
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-1,494	-2.4	-2,601	-1.7	+1.0	+0.1
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
+18,296	+42.3	+14,122	+10.7	+7.9	+10.3

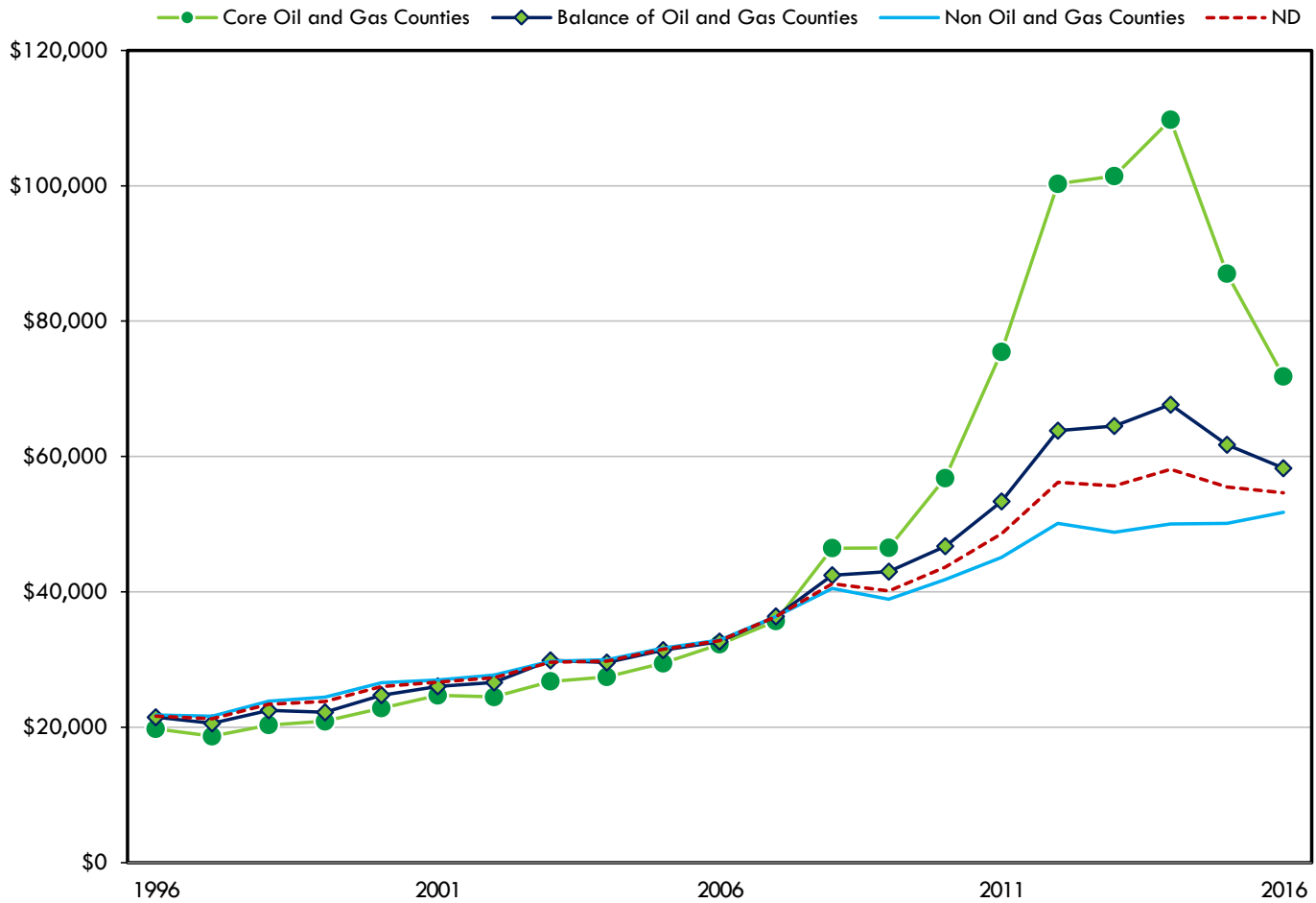
Sources: CENS U.S. Census Bureau

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## PER CAPITA PERSONAL INCOME (\$)

[BEA 2016]



CORE OIL AND GAS COUNTIES		BALANCE OIL AND GAS COUNTIES		NON OIL	N DAKOTA
71,835		58,278		51,731	54,627
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-15,187	-17.5	-3,473	-5.6	+3.2	-1.6
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-3,606	-4.8	+4,915	+9.2	+14.8	+12.4

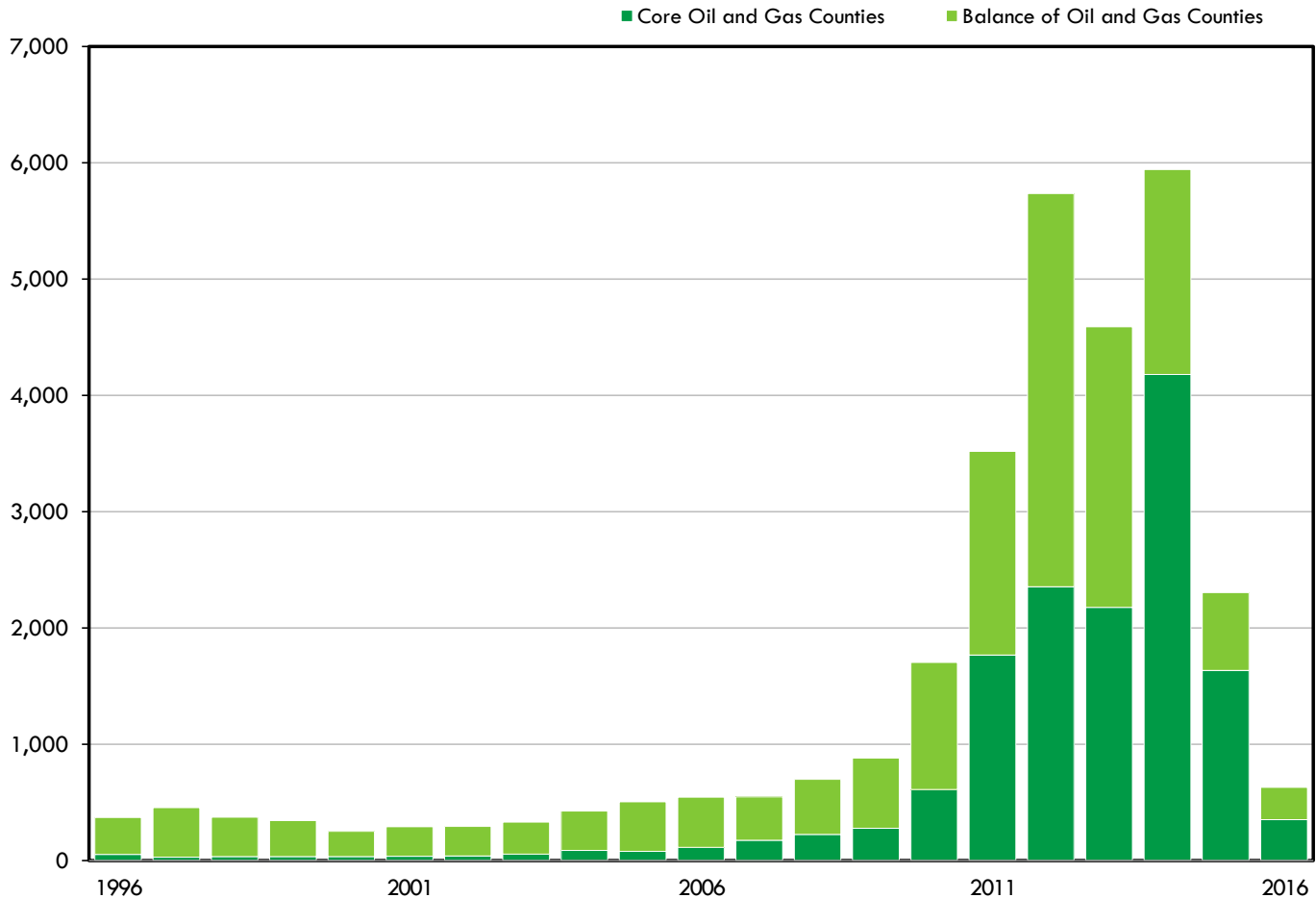
Sources: BEA U.S. Bureau of Economic Analysis

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## NEW RESIDENTIAL CONSTRUCTION (HOUSING UNITS)

[CENS 2016]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
353	8.9	276	6.9	3,352	3,981
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-1,283	-78.4	-393	-58.7	-15.2	-36.4
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-1,415	-80.0	-1,475	-84.2	+25.0	-35.8

[a residential building may consist of one or more housing units; a single-family home is considered one building and one housing unit, whereas a building of apartments is considered one building but multiple housing units]

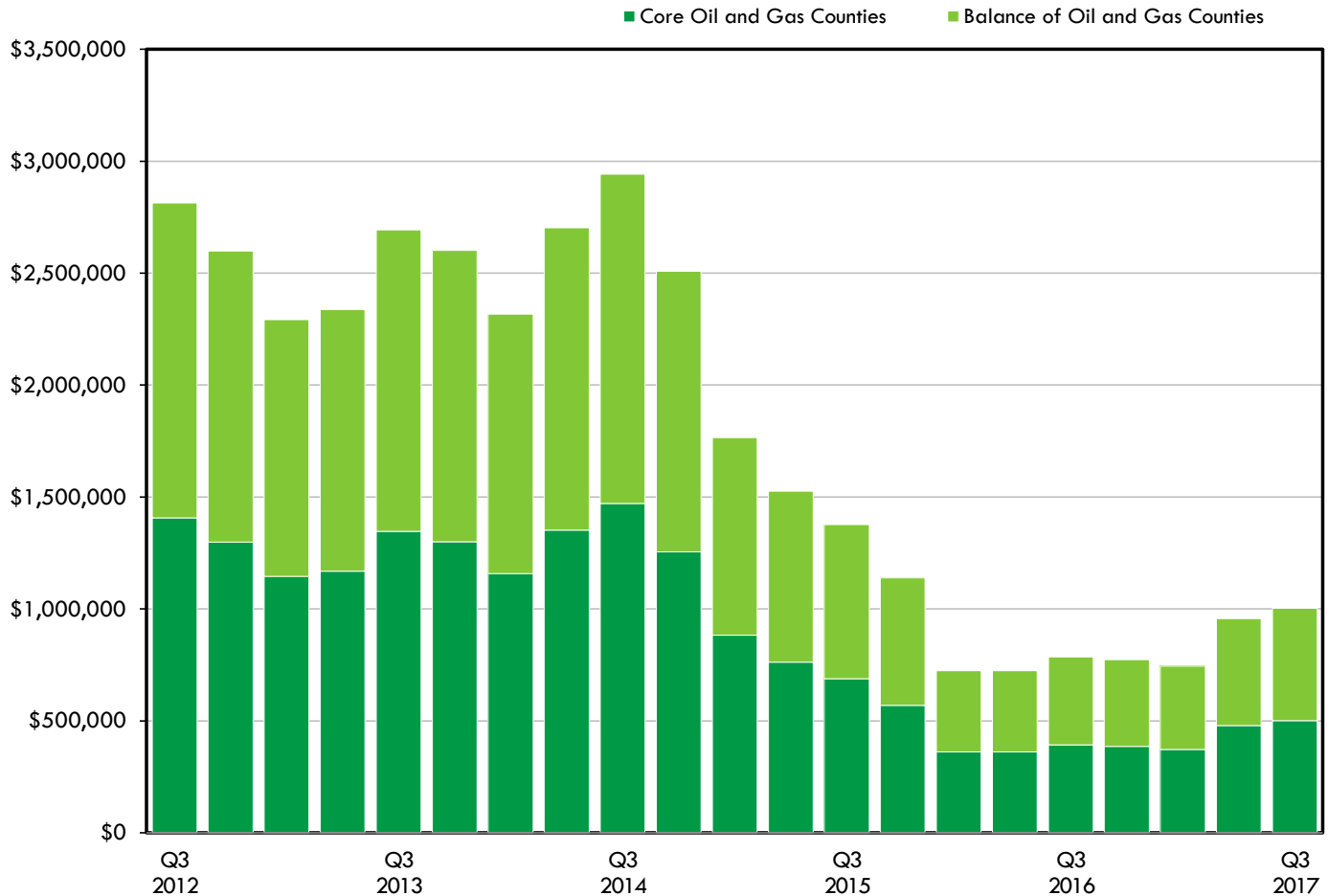
Sources: CENS U.S. Census Bureau

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## TAXABLE SALES & PURCHASES (in thousands \$)

[TAX Q3 (JUL-SEP) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
501,355.8	10.6	631,033.3	13.3	1,898,176.2	4,730,700.5
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
+22,965.1	+4.8	+13,124.0	+2.1	-1.9	+0.9
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
+108,430.1	+27.6	+16,005.0	+2.6	-4.4	+2.3
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-904,947.9	-64.3	-290,878.9	-31.6	-11.5	-30.2
4 QTR ROLL TOTAL	PCT OF ND	4 QTR ROLL TOTAL	PCT OF ND	4 QRT	4 QRT
1,738,599.2	9.9	2,301,433.6	13.1	7,323,821.3	17,546,424.0
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
+108,430.1	+6.7	+16,005.0	+0.7	-1.2	+0.6
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
+52,493.3	+3.1	-75,868.0	-3.2	-4.3	-4.1
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-3,381,876.8	-66.0	-1,082,960.1	-32.0	-8.4	-29.1

[North Dakota total includes out-of-state and consolidated taxable sales and purchases; change calculations based on unrounded data]

Sources: TAX orth Dakota Office of State Tax Commissioner

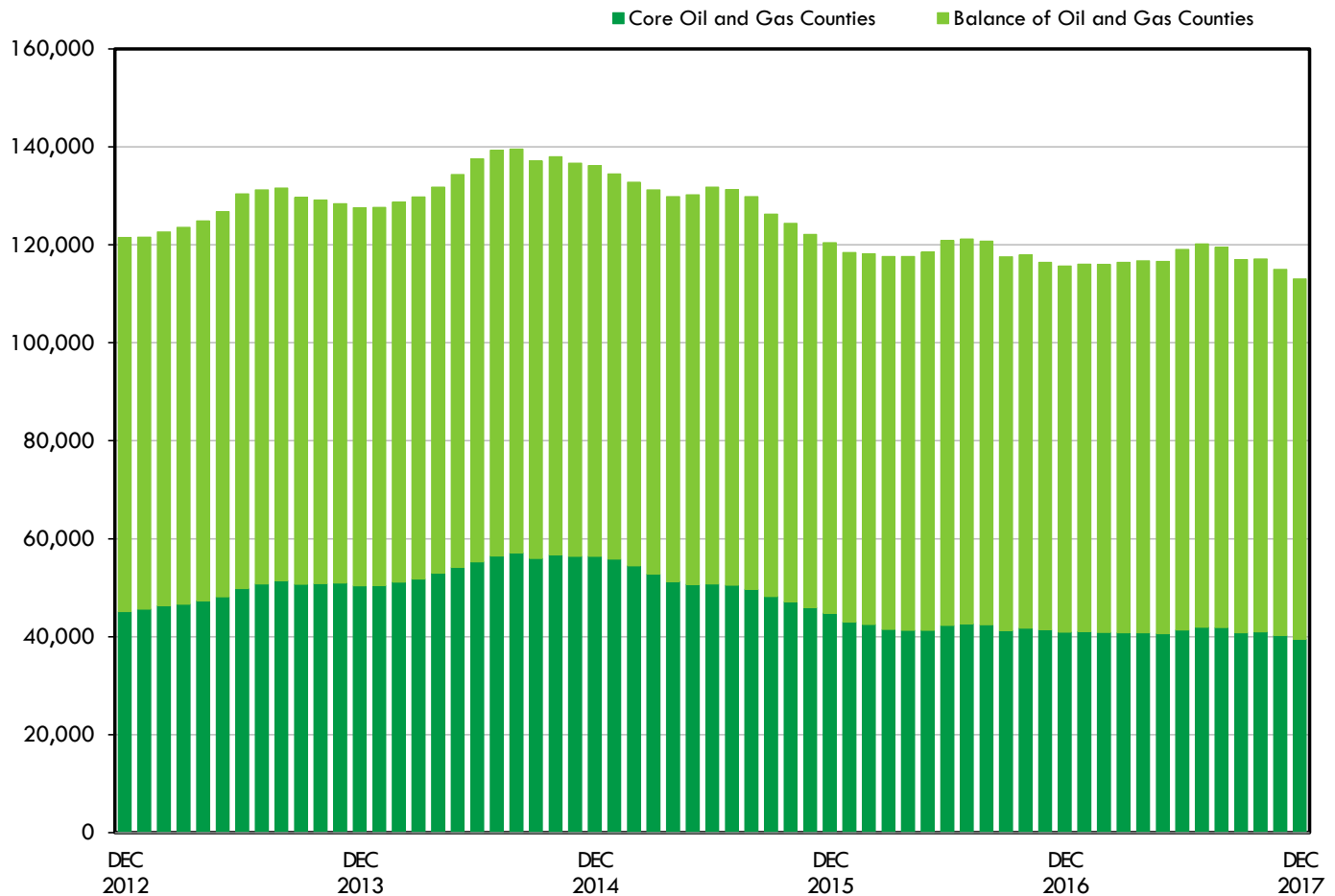
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## LABOR FORCE

[LAUS DEC 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
39,481	9.6	73,582	18.0	296,528	409,589
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
-774	-1.9	-1,126	-1.5	-0.8	-1.0
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-1,417	-3.5	-1,181	-1.6	-0.1	-0.7
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-5,624	-12.5	-2,799	-3.7	+7.5	+3.1
12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MMA	12 MMA
40,905	9.8	75,988	18.2	301,447	418,339
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
-118	-0.3	-98	-0.1	0.0	-0.1
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-948	-2.3	-555	-0.7	+1.2	+0.5
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-3,385	-7.6	-230	-0.3	+8.7	+5.1

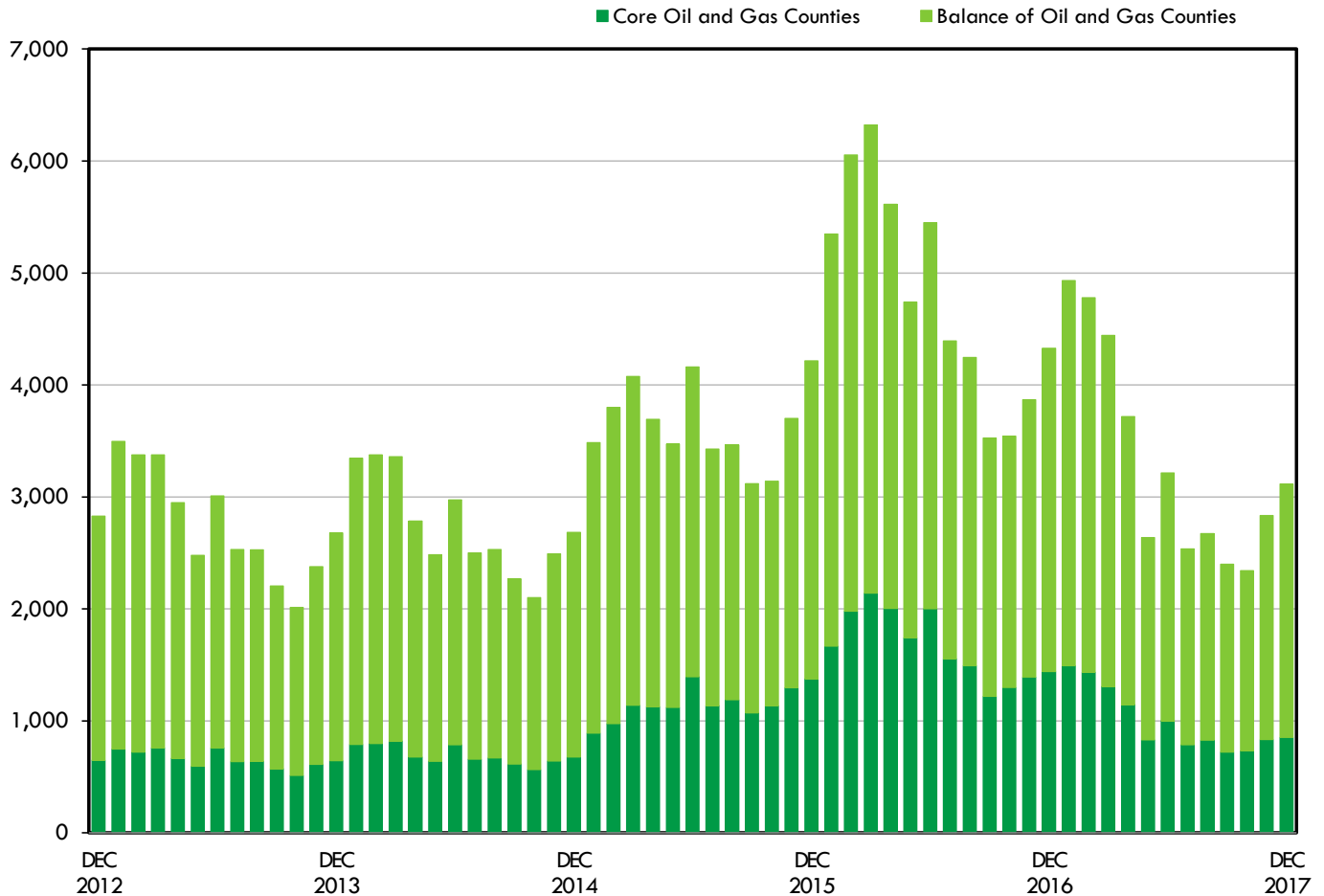
Sources: LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## UNEMPLOYED

[LAUS DEC 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
851	7.9	2,265	21.0	7,674	10,789
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
+19	+2.3	+263	+13.1	+17.2	+15.0
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-589	-40.9	-623	-21.6	-8.1	-14.9
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
+203	+31.3	+83	+3.8	-18.6	-12.0
12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MMA	12 MMA
996	9.3	2,306	21.6	7,397	10,699
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
-49	-4.7	-52	-2.2	-0.8	-1.4
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-664	-40.0	-820	-26.2	-11.7	-18.7
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
+422	+73.5	+219	+10.5	-22.4	-12.3

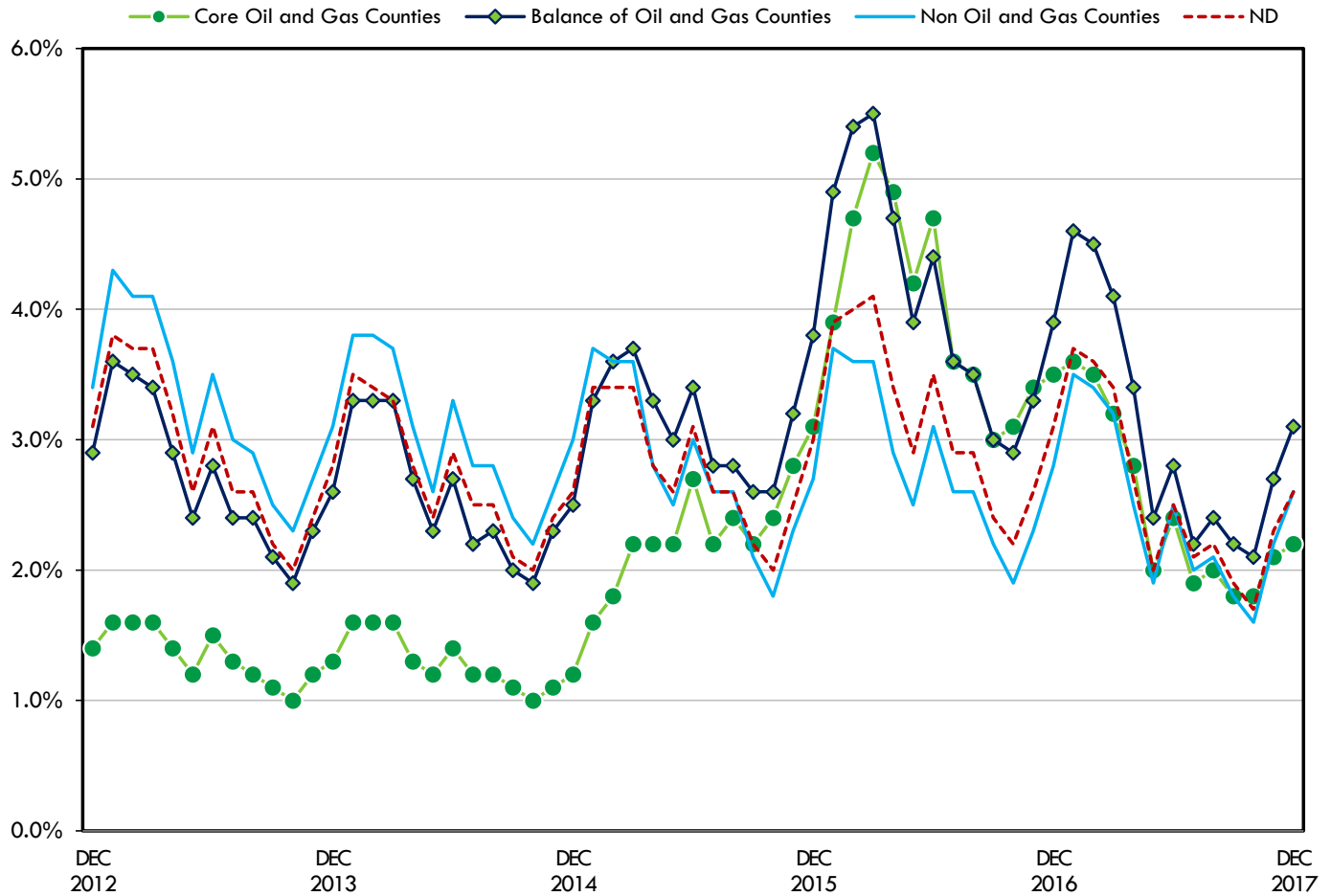
Sources: LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## UNEMPLOYMENT RATE (%)

[LAUS DEC 2017]



CORE OIL AND GAS COUNTIES		BALANCE OIL AND GAS COUNTIES		NON OIL		N DAKOTA	
	2.2		3.1		2.6		2.6
<b>PRIOR MONTH</b>		<b>PRIOR MONTH</b>		<b>PRIOR MO</b>		<b>PRIOR MO</b>	
	2.1		2.7		2.2		2.3
<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>	
	3.5		3.9		2.8		3.1
<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>	
	1.4		2.9		3.4		3.1
<b>12 MO MOV AVG</b>		<b>12 MO MOV AVG</b>		<b>12 MMA</b>		<b>12 MMA</b>	
	2.4		3.0		2.5		2.6
<b>PRIOR MONTH</b>		<b>PRIOR MONTH</b>		<b>PRIOR MO</b>		<b>PRIOR MO</b>	
	2.5		3.1		2.5		2.6
<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>	
	4.0		4.1		2.8		3.2
<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>	
	1.3		2.7		3.4		3.1

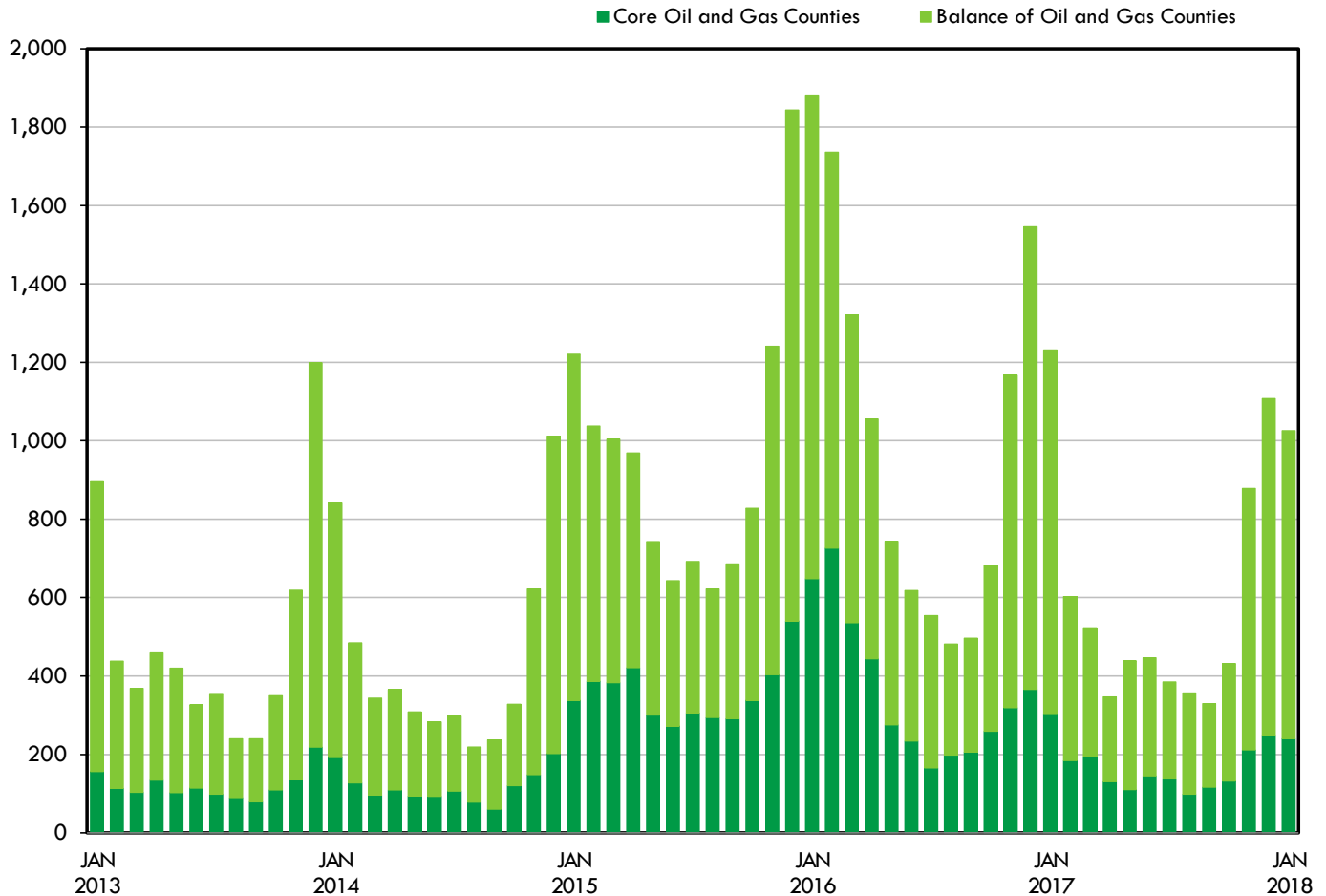
Sources: LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## INITIAL JOBLESS CLAIMS

[UI JAN 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
240	5.1	786	16.8	3,006	4,682
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
-9	-3.6	-73	-8.5	-4.7	-6.8
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-64	-21.1	-142	-15.3	-7.9	-12.2
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
+84	+53.8	+46	+6.2	-2.7	+3.9
12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MMA	12 MMA
162	6.8	411	17.3	1,490	2,373
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
-6	-3.6	-12	-2.8	-1.5	-2.2
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-174	-51.8	-223	-35.2	-15.2	-25.0
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
+67	+70.5	+75	+22.3	-5.2	+5.9

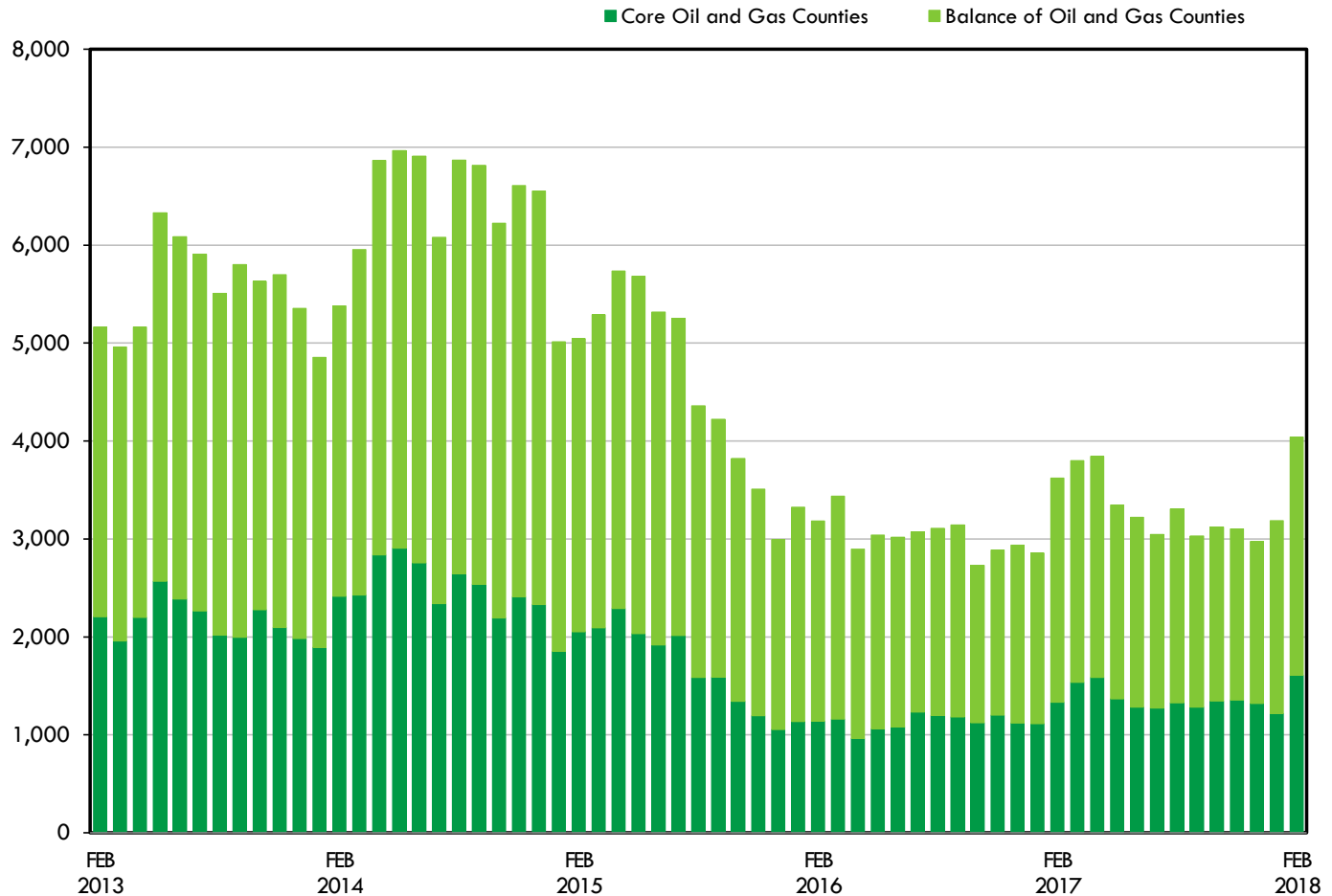
Sources: UI Labor Market Information Center, Job Service ND, Unemployment Insurance Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## JOB OPENINGS

[OJOR FEB 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
1,608	11.6	2,432	17.5
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+390	+32.0	+464	+23.6
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+275	+20.6	+143	+6.2
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-598	-27.1	-526	-17.8

NON OIL	N DAKOTA
9,833	13,873
M/M % CHG	M/M % CHG
+21.0	+22.7
Y/Y % CHG	Y/Y % CHG
+5.5	+7.2
5YR % CHG	5YR % CHG
+8.1	-2.7

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND
1,375	11.3	1,959	16.1
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+23	+1.7	+12	+0.6
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+227	+19.8	+44	+2.3
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-789	-36.5	-1,433	-42.2

12 MMA	12 MMA
8,854	12,188
M/M % CHG	M/M % CHG
+0.5	+0.6
Y/Y % CHG	Y/Y % CHG
-9.5	-5.1
5YR % CHG	5YR % CHG
-17.7	-25.3

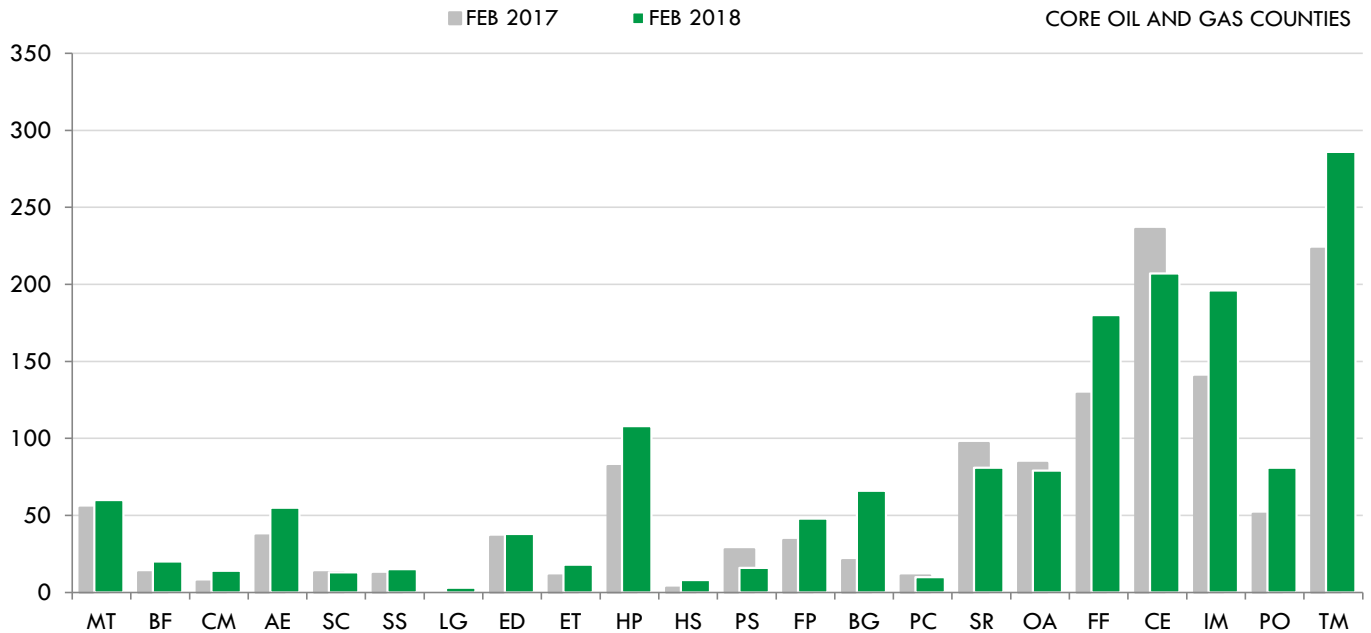
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## JOB OPENINGS BY OCCUPATION GROUP

[OJOR FEB 2018]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	OPENINGS FEB 2017	OPENINGS FEB 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	55	60	+5	+9.1	7.7
BF	[13] Business and Financial Operations	13	20	+7	+53.8	4.9
CM	[15] Computer and Mathematical	7	14	+7	+100.0	3.5
AE	[17] Architecture and Engineering	37	55	+18	+48.6	12.4
SC	[19] Life, Physical, and Social Science	13	13	0	0.0	10.4
SS	[21] Community and Social Service	12	15	+3	+25.0	8.2
LG	[23] Legal	0	3	+3	***	14.3
ED	[25] Education, Training, and Library	36	38	+2	+5.6	8.5
ET	[27] Arts, Design, Entertainment, Sports, and Media	11	18	+7	+63.6	7.2
HP	[29] Healthcare Practitioners and Technical	82	108	+26	+31.7	6.3
HS	[31] Healthcare Support	3	8	+5	+166.7	2.1
PS	[33] Protective Service	28	16	-12	-42.9	12.8
FP	[35] Food Preparation and Serving Related	34	48	+14	+41.2	7.2
BG	[37] Building and Grounds Cleaning and Maintenance	21	66	+45	+214.3	13.0
PC	[39] Personal Care and Service	11	10	-1	-9.1	3.0
SR	[41] Sales and Related	97	81	-16	-16.5	8.4
OA	[43] Office and Administrative Support	84	79	-5	-6.0	7.3
FF	[45] Farming, Fishing, and Forestry	129	180	+51	+39.5	12.8
CE	[47] Construction and Extraction	236	207	-29	-12.3	24.6
IM	[49] Installation, Maintenance, and Repair	140	196	+56	+40.0	28.5
PO	[51] Production	51	81	+30	+58.8	10.5
TM	[53] Transportation and Material Moving	223	286	+63	+28.3	21.9
NC	Unclassified	10	6	-4	-40.0	18.2
<b>TL</b>	<b>Total, All Occupations</b>	<b>1,333</b>	<b>1,608</b>	<b>+275</b>	<b>+20.6</b>	<b>11.6</b>

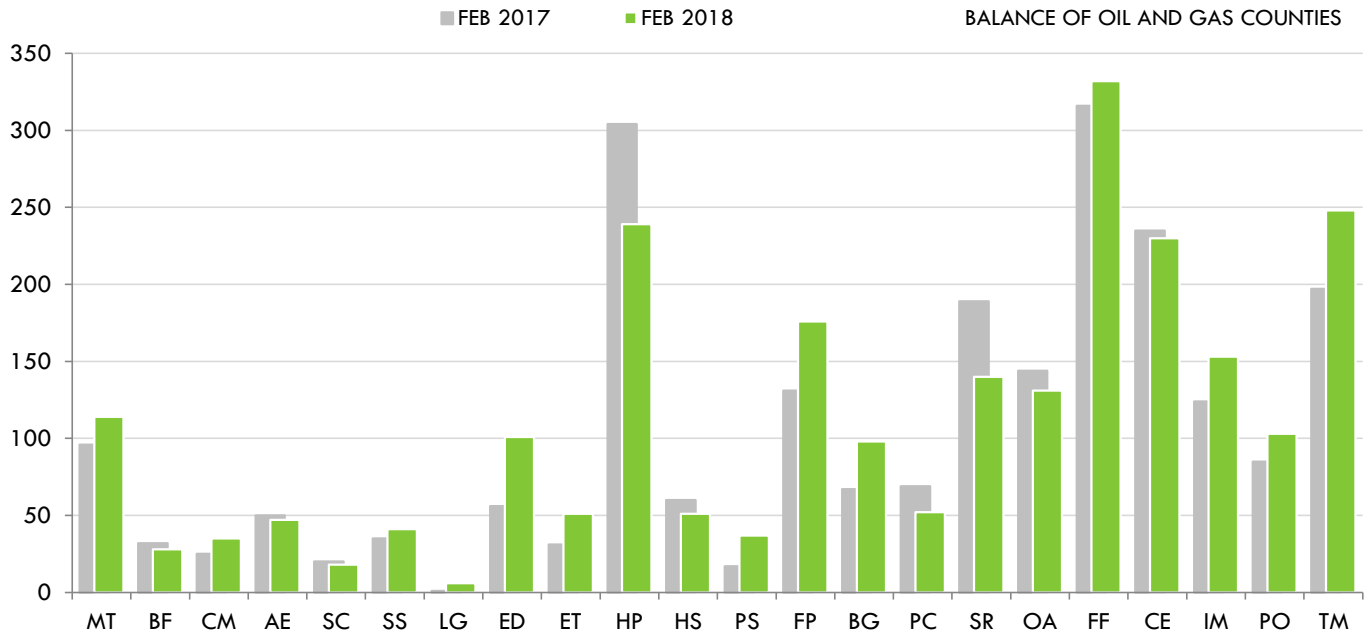
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## JOB OPENINGS BY OCCUPATION GROUP

[OJOR FEB 2018]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	OPENINGS FEB 2017	OPENINGS FEB 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	96	114	+18	+18.8	14.7
BF	[13] Business and Financial Operations	32	28	-4	-12.5	6.9
CM	[15] Computer and Mathematical	25	35	+10	+40.0	8.7
AE	[17] Architecture and Engineering	50	47	-3	-6.0	10.6
SC	[19] Life, Physical, and Social Science	20	18	-2	-10.0	14.4
SS	[21] Community and Social Service	35	41	+6	+17.1	22.5
LG	[23] Legal	1	6	+5	+500.0	28.6
ED	[25] Education, Training, and Library	56	101	+45	+80.4	22.5
ET	[27] Arts, Design, Entertainment, Sports, and Media	31	51	+20	+64.5	20.3
HP	[29] Healthcare Practitioners and Technical	304	239	-65	-21.4	14.0
HS	[31] Healthcare Support	60	51	-9	-15.0	13.2
PS	[33] Protective Service	17	37	+20	+117.6	29.6
FP	[35] Food Preparation and Serving Related	131	176	+45	+34.4	26.5
BG	[37] Building and Grounds Cleaning and Maintenance	67	98	+31	+46.3	19.3
PC	[39] Personal Care and Service	69	52	-17	-24.6	15.4
SR	[41] Sales and Related	189	140	-49	-25.9	14.5
OA	[43] Office and Administrative Support	144	131	-13	-9.0	12.1
FF	[45] Farming, Fishing, and Forestry	316	332	+16	+5.1	23.7
CE	[47] Construction and Extraction	235	230	-5	-2.1	27.3
IM	[49] Installation, Maintenance, and Repair	124	153	+29	+23.4	22.3
PO	[51] Production	85	103	+18	+21.2	13.3
TM	[53] Transportation and Material Moving	197	248	+51	+25.9	19.0
NC	Unclassified	5	1	-4	-80.0	3.0
<b>TL</b>	<b>Total, All Occupations</b>	<b>2,289</b>	<b>2,432</b>	<b>+143</b>	<b>+6.2</b>	<b>17.5</b>

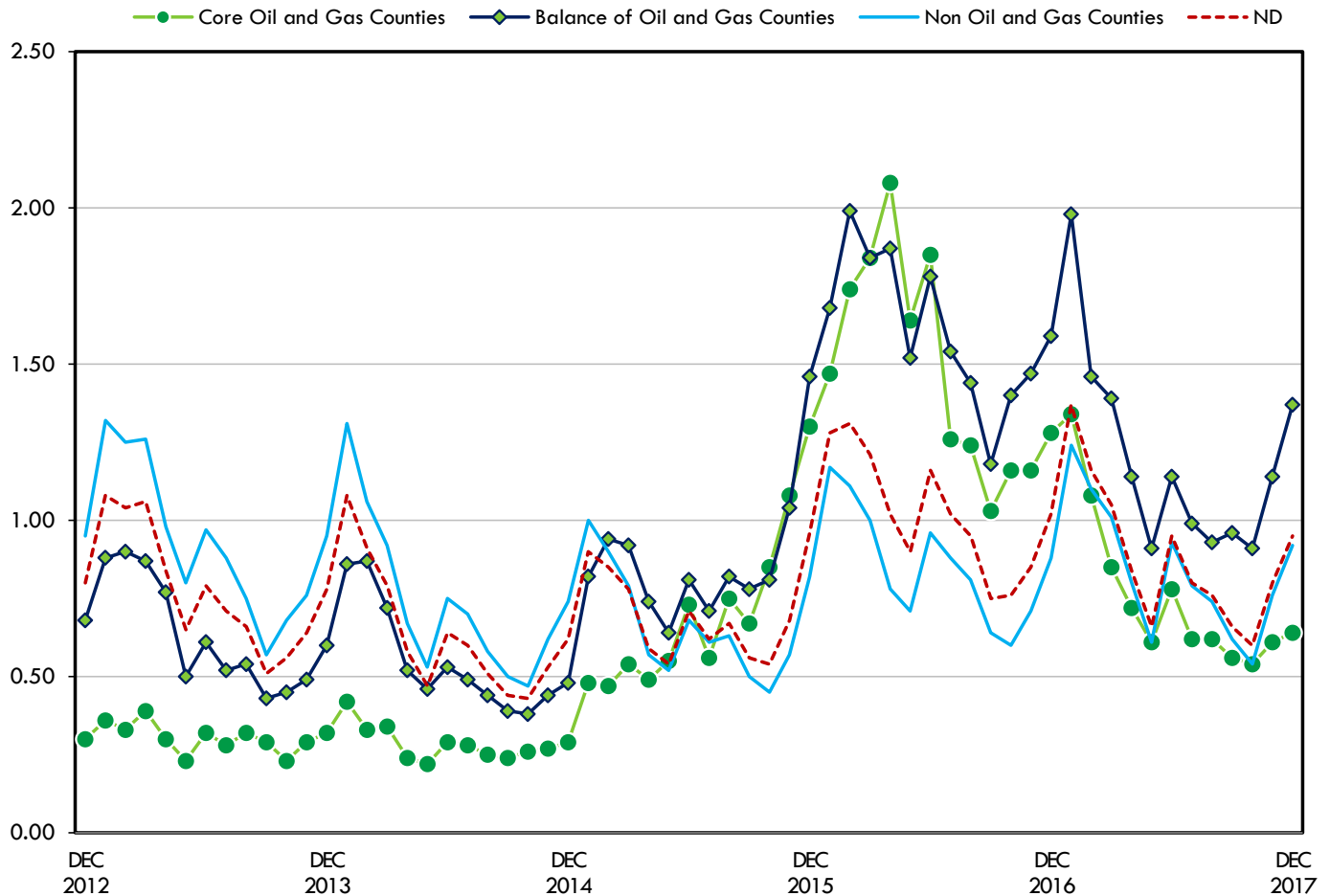
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## UNEMPLOYED PER JOB OPENING

[OJOR DEC 2017]



CORE OIL AND GAS COUNTIES		BALANCE OIL AND GAS COUNTIES		NON OIL		N DAKOTA	
	0.64		1.37		0.92		0.95
<b>PRIOR MONTH</b>		<b>PRIOR MONTH</b>		<b>PRIOR MO</b>		<b>PRIOR MO</b>	
	0.61		1.14		0.76		0.80
<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>	
	1.28		1.59		0.88		1.02
<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>	
	0.30		0.68		0.95		0.80
<b>12 MO MOV AVG</b>		<b>12 MO MOV AVG</b>		<b>12 MMA</b>		<b>12 MMA</b>	
	0.74		1.20		0.84		0.88
<b>PRIOR MONTH</b>		<b>PRIOR MONTH</b>		<b>PRIOR MO</b>		<b>PRIOR MO</b>	
	0.79		1.21		0.83		0.89
<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>	
	1.47		1.62		0.85		1.02
<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>	
	0.26		0.61		0.89		0.75

Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

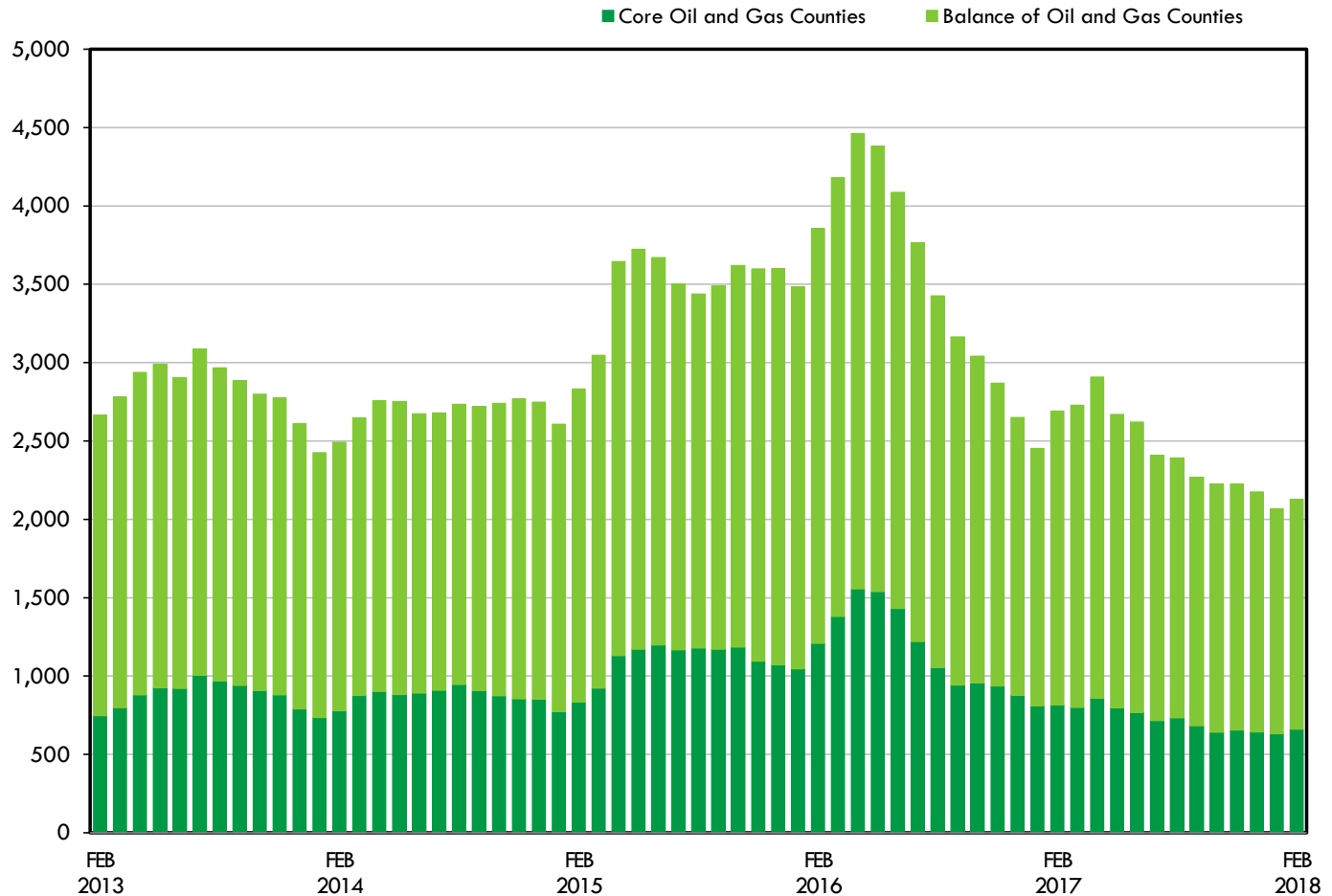
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RESUMÉS

[OJOR FEB 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
660	10.6	1,469	23.6	4,093	6,222
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
+29	+4.6	+31	+2.2	+3.4	+3.2
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-155	-19.0	-407	-21.7	-11.2	-14.8
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-87	-11.6	-450	-23.4	-34.5	-30.2
12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MMA	12 MMA
716	10.5	1,687	24.7	4,424	6,826
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M % CHG	M/M % CHG
-12	-1.6	-33	-1.9	-1.0	-1.3
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-410	-36.4	-618	-26.8	-2.9	-14.5
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-25	-3.4	-172	-9.3	-31.6	-24.7

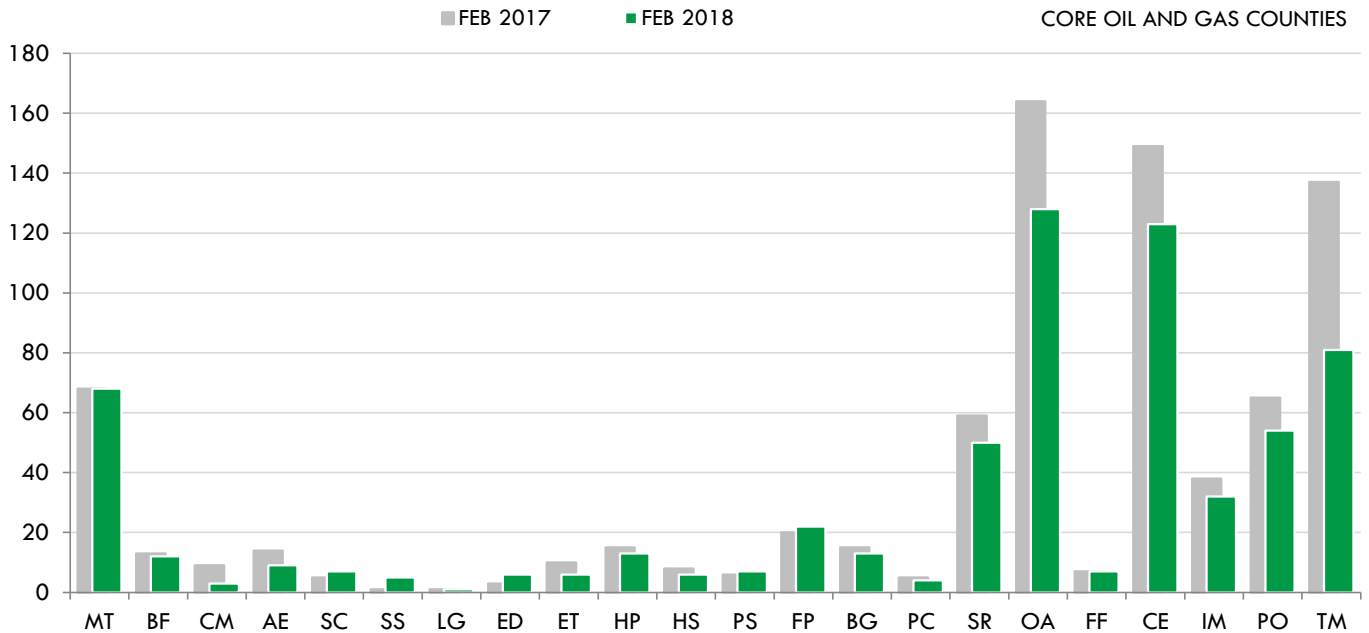
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RÉSUMÉS BY OCCUPATION GROUP

[OJOR FEB 2018]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	RÉSUMÉS FEB 2017	RÉSUMÉS FEB 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	68	68	0	0.0	10.4
BF	[13] Business and Financial Operations	13	12	-1	-7.7	5.0
CM	[15] Computer and Mathematical	9	3	-6	-66.7	1.5
AE	[17] Architecture and Engineering	14	9	-5	-35.7	6.9
SC	[19] Life, Physical, and Social Science	5	7	+2	+40.0	10.1
SS	[21] Community and Social Service	1	5	+4	+400.0	6.0
LG	[23] Legal	1	1	0	0.0	7.1
ED	[25] Education, Training, and Library	3	6	+3	+100.0	7.2
ET	[27] Arts, Design, Entertainment, Sports, and Media	10	6	-4	-40.0	6.8
HP	[29] Healthcare Practitioners and Technical	15	13	-2	-13.3	10.1
HS	[31] Healthcare Support	8	6	-2	-25.0	2.6
PS	[33] Protective Service	6	7	+1	+16.7	8.2
FP	[35] Food Preparation and Serving Related	20	22	+2	+10.0	8.1
BG	[37] Building and Grounds Cleaning and Maintenance	15	13	-2	-13.3	7.3
PC	[39] Personal Care and Service	5	4	-1	-20.0	3.9
SR	[41] Sales and Related	59	50	-9	-15.3	9.3
OA	[43] Office and Administrative Support	164	128	-36	-22.0	9.1
FF	[45] Farming, Fishing, and Forestry	7	7	0	0.0	8.6
CE	[47] Construction and Extraction	149	123	-26	-17.4	15.3
IM	[49] Installation, Maintenance, and Repair	38	32	-6	-15.8	9.8
PO	[51] Production	65	54	-11	-16.9	9.5
TM	[53] Transportation and Material Moving	137	81	-56	-40.9	13.1
NC	Unclassified	3	3	0	0.0	10.3
<b>TL</b>	<b>Total, All Occupations</b>	<b>815</b>	<b>660</b>	<b>-155</b>	<b>-19.0</b>	<b>9.5</b>

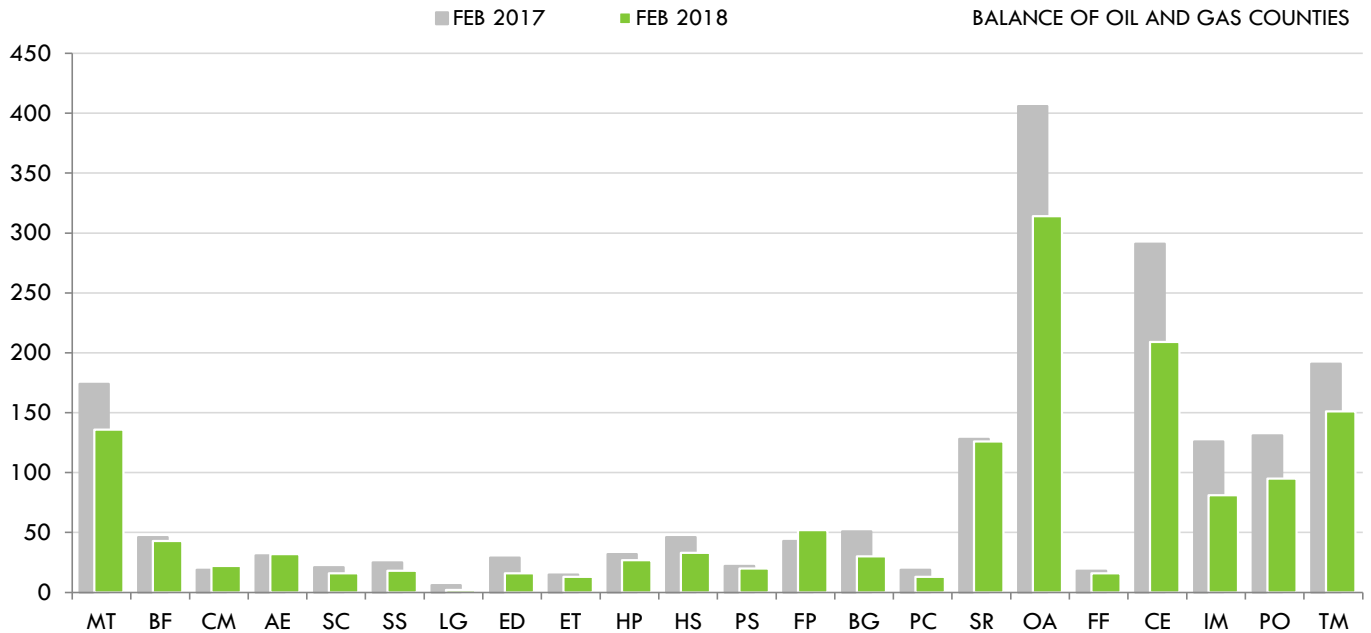
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RÉSUMÉS BY OCCUPATION GROUP

[OJOR FEB 2018]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	RÉSUMÉS FEB 2017	RÉSUMÉS FEB 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	174	136	-38	-21.8	20.9
BF	[13] Business and Financial Operations	46	43	-3	-6.5	17.9
CM	[15] Computer and Mathematical	19	22	+3	+15.8	10.9
AE	[17] Architecture and Engineering	31	32	+1	+3.2	24.6
SC	[19] Life, Physical, and Social Science	21	16	-5	-23.8	23.2
SS	[21] Community and Social Service	25	18	-7	-28.0	21.4
LG	[23] Legal	6	2	-4	-66.7	14.3
ED	[25] Education, Training, and Library	29	16	-13	-44.8	19.3
ET	[27] Arts, Design, Entertainment, Sports, and Media	15	13	-2	-13.3	14.8
HP	[29] Healthcare Practitioners and Technical	32	27	-5	-15.6	20.9
HS	[31] Healthcare Support	46	33	-13	-28.3	14.3
PS	[33] Protective Service	22	20	-2	-9.1	23.5
FP	[35] Food Preparation and Serving Related	43	52	+9	+20.9	19.2
BG	[37] Building and Grounds Cleaning and Maintenance	51	30	-21	-41.2	16.9
PC	[39] Personal Care and Service	19	13	-6	-31.6	12.7
SR	[41] Sales and Related	128	126	-2	-1.6	23.4
OA	[43] Office and Administrative Support	406	314	-92	-22.7	22.4
FF	[45] Farming, Fishing, and Forestry	18	16	-2	-11.1	19.8
CE	[47] Construction and Extraction	291	209	-82	-28.2	26.0
IM	[49] Installation, Maintenance, and Repair	126	81	-45	-35.7	24.7
PO	[51] Production	131	95	-36	-27.5	16.8
TM	[53] Transportation and Material Moving	191	151	-40	-20.9	24.5
NC	Unclassified	6	4	-2	-33.3	13.8
TL	<b>Total, All Occupations</b>	<b>1,876</b>	<b>1,469</b>	<b>-407</b>	<b>-21.7</b>	<b>21.2</b>

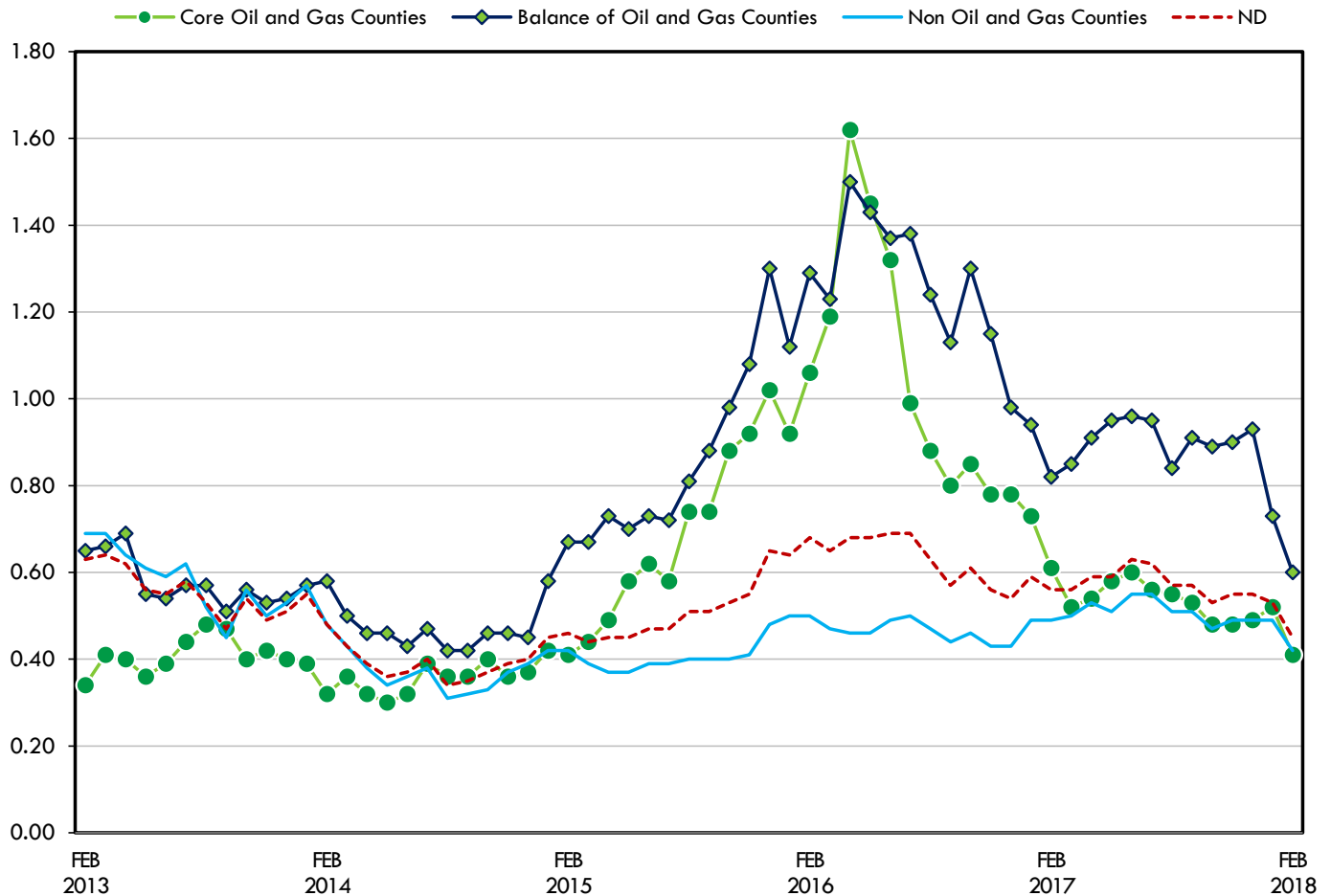
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RESUMES PER JOB OPENING

[OJOR FEB 2018]



CORE OIL AND GAS COUNTIES		BALANCE OIL AND GAS COUNTIES		NON OIL		N DAKOTA	
	0.41		0.60		0.42		0.45
<b>PRIOR MONTH</b>		<b>PRIOR MONTH</b>		<b>PRIOR MO</b>		<b>PRIOR MO</b>	
	0.52		0.73		0.49		0.53
<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>	
	0.61		0.82		0.49		0.56
<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>	
	0.34		0.65		0.69		0.63
<b>12 MO MOV AVG</b>		<b>12 MO MOV AVG</b>		<b>12 MMA</b>		<b>12 MMA</b>	
	0.52		0.86		0.50		0.56
<b>PRIOR MONTH</b>		<b>PRIOR MONTH</b>		<b>PRIOR MO</b>		<b>PRIOR MO</b>	
	0.54		0.88		0.51		0.57
<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>		<b>1 YR AGO</b>	
	0.98		1.20		0.47		0.62
<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>		<b>5 YRS AGO</b>	
	0.34		0.55		0.60		0.56

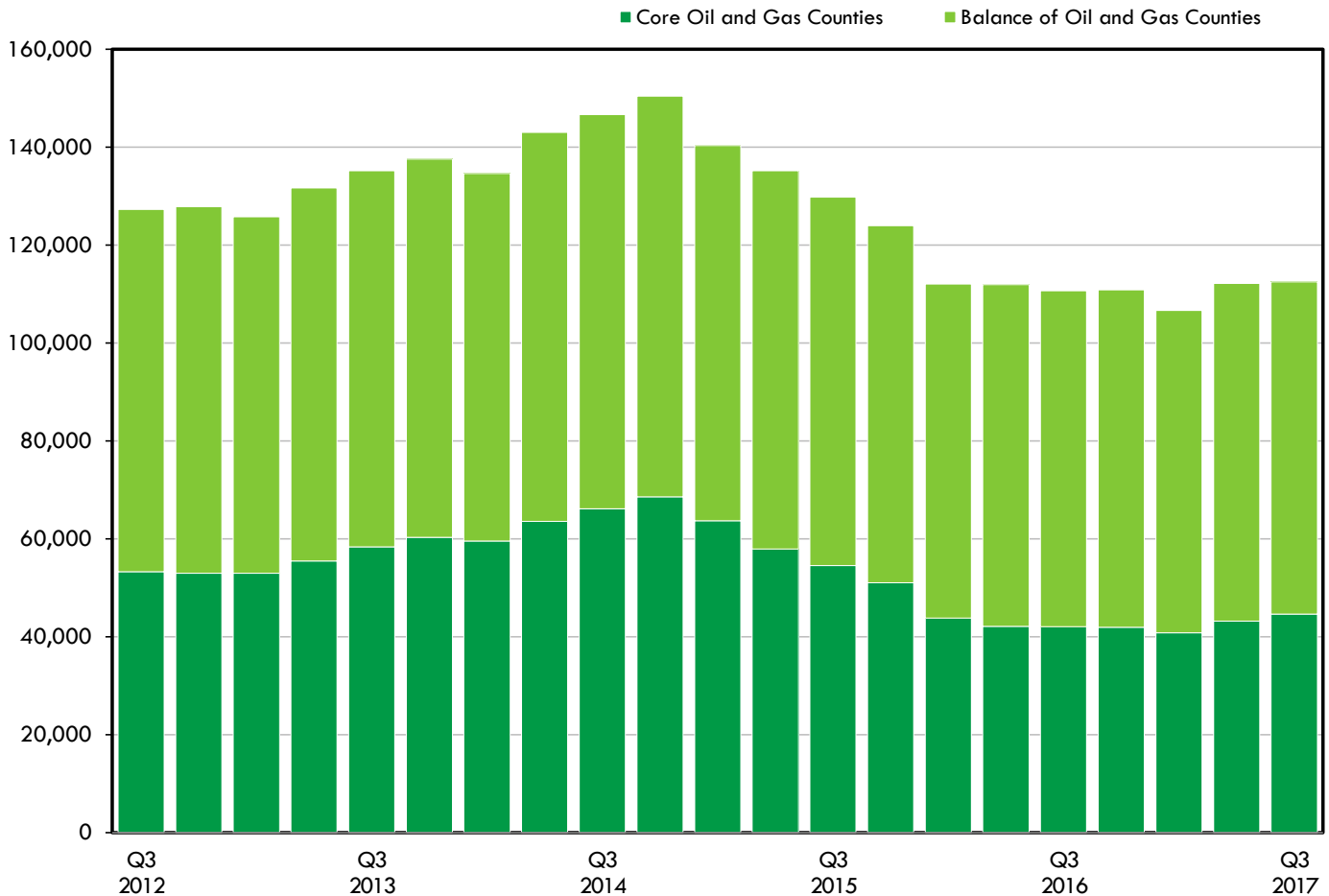
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE EMPLOYMENT

[QCEW Q3 (JUL-SEP) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
44,662	10.8	67,789	16.4	299,318	414,269
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG	Q/Q % CHG	Q/Q % CHG
+1,475	+3.4	-1,159	-1.7	-1.5	-1.0
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
+2,584	+6.1	-791	-1.2	-1.3	-0.9
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-8,653	-16.2	-6,124	-8.3	+3.8	-0.6
4 QTR MOV AVG	PCT OF ND	4 QTR MOV AVG	PCT OF ND	4 QMA	4 QMA
42,653	10.3	67,865	16.4	301,240	414,234
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG	Q/Q % CHG	Q/Q % CHG
+646	+1.5	-197	-0.3	-0.3	-0.2
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-2,119	-4.7	-1,996	-2.9	-0.6	-1.5
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-5,126	-10.7	-3,242	-4.6	+5.6	+2.3

[North Dakota total includes employment not assigned to a specific county]

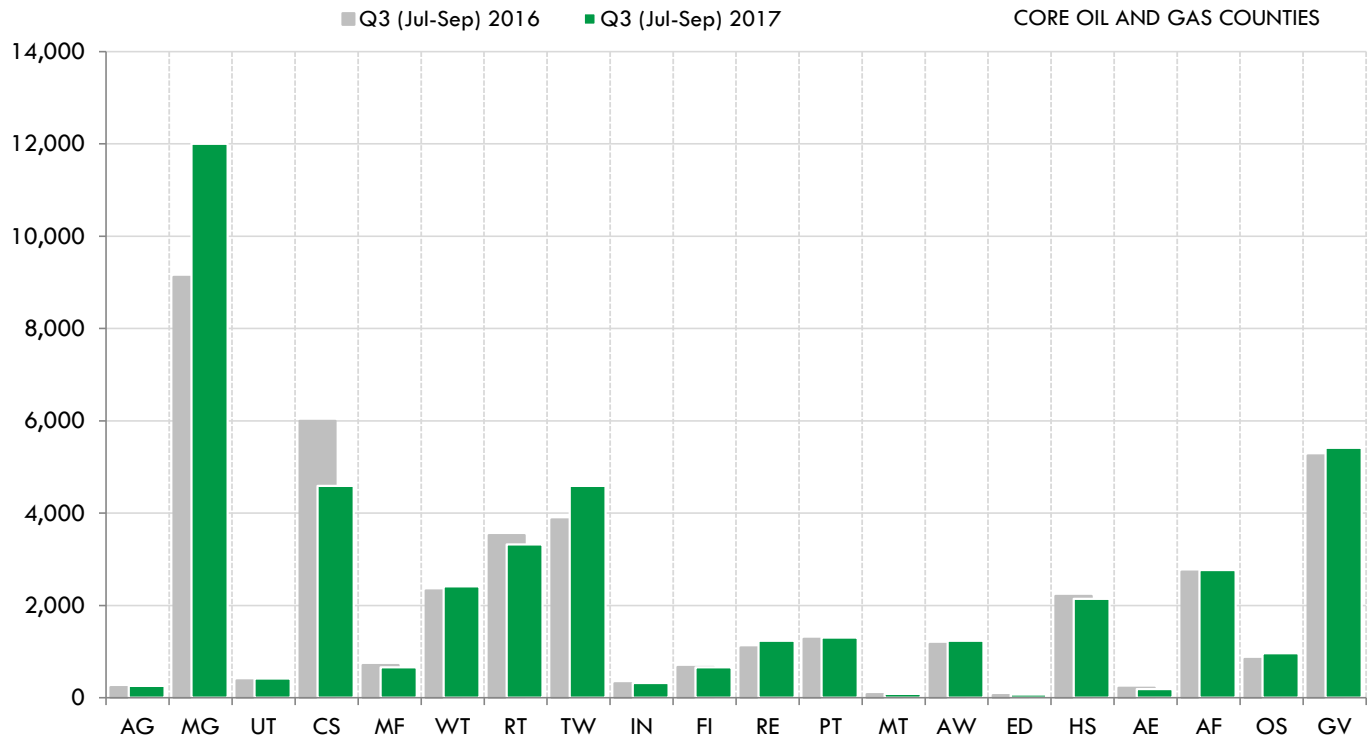
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE EMPLOYMENT BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	EMPLOY. Q3 2016	EMPLOY. Q3 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	230	259	+29	+12.6	5.4
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	9,120	12,003	+2,883	+31.6	63.5
UT	[22] Utilities	380	417	+37	+9.7	10.9
CS	[23] Construction	6,000	4,590	-1,410	-23.5	15.6
MF	[31-33] Manufacturing	710	660	-50	-7.0	2.6
WT	[42] Wholesale Trade	2,328	2,413	+85	+3.7	10.1
RT	[44-45] Retail Trade	3,523	3,323	-200	-5.7	7.0
TW	[48-49] Transportation and Warehousing	3,866	4,591	+725	+18.8	27.6
IN	[51] Information	317	322	+5	+1.6	5.0
FI	[52] Finance and Insurance	671	660	-11	-1.6	3.7
RE	[53] Real Estate and Rental and Leasing	1,093	1,239	+146	+13.4	23.2
PT	[54] Professional and Technical Services	1,280	1,307	+27	+2.1	8.2
MT	[55] Management of Companies and Enterprises	82	86	+4	+4.9	1.6
AW	[56] Administrative and Waste Services	1,168	1,237	+69	+5.9	8.9
ED	[61] Educational Services	58	72	+14	+24.1	2.9
HS	[62] Health Care and Social Assistance	2,208	2,146	-62	-2.8	3.6
AE	[71] Arts, Entertainment, and Recreation	220	188	-32	-14.5	3.7
AF	[72] Accommodation and Food Services	2,733	2,769	+36	+1.3	7.8
OS	[81] Other Services (except Government)	842	967	+125	+14.8	7.9
GV	Government	5,248	5,414	+166	+3.2	8.3
<b>TL</b>	<b>Total, All Industries</b>	<b>42,078</b>	<b>44,662</b>	<b>+2,584</b>	<b>+6.1</b>	<b>10.8</b>

[Government] includes employment for public schools, colleges, universities, and hospitals and tribal entities]

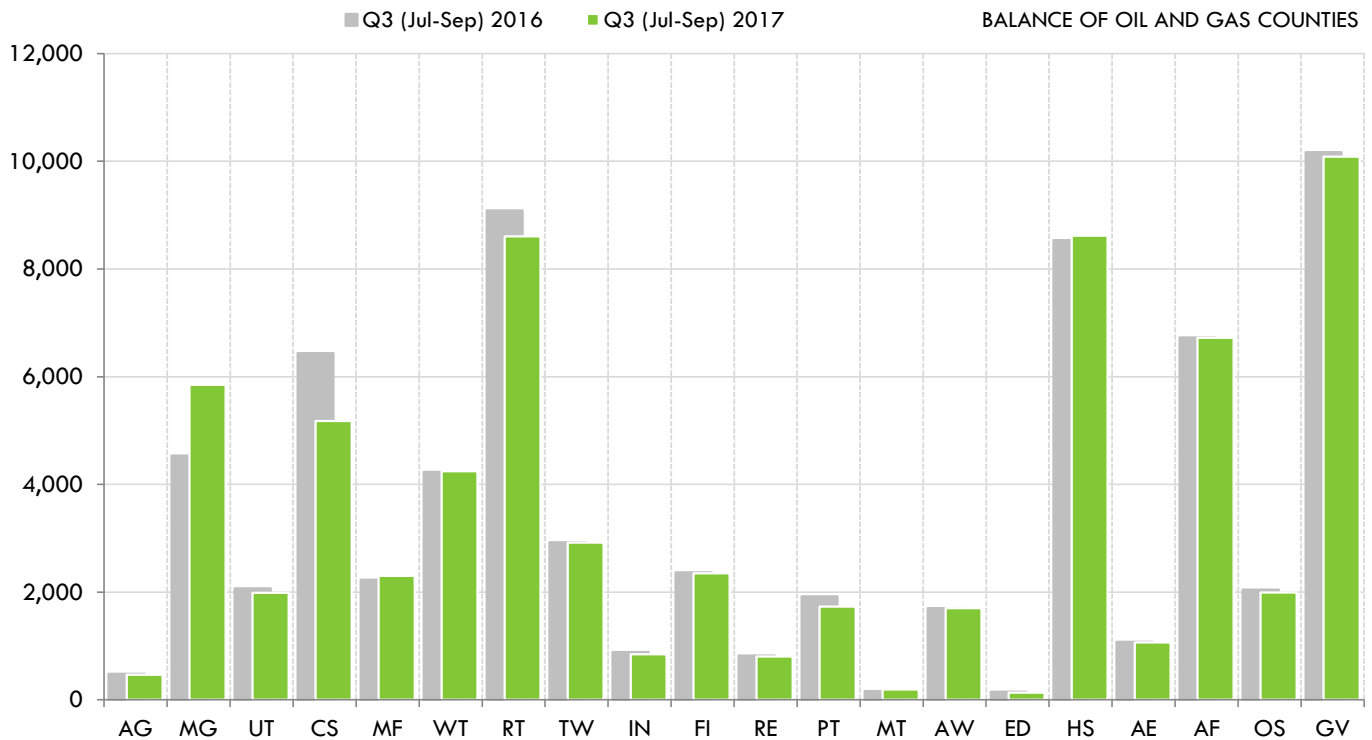
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE EMPLOYMENT BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	EMPLOY. Q3 2016	EMPLOY. Q3 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	486	467	-19	-3.9	9.7
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	4,538	5,851	+1,313	+28.9	30.9
UT	[22] Utilities	2,073	1,984	-89	-4.3	51.9
CS	[23] Construction	6,435	5,176	-1,259	-19.6	17.6
MF	[31-33] Manufacturing	2,229	2,300	+71	+3.2	9.2
WT	[42] Wholesale Trade	4,232	4,242	+10	+0.2	17.7
RT	[44-45] Retail Trade	9,086	8,609	-477	-5.2	18.2
TW	[48-49] Transportation and Warehousing	2,927	2,920	-7	-0.2	17.5
IN	[51] Information	887	846	-41	-4.6	13.0
FI	[52] Finance and Insurance	2,366	2,348	-18	-0.8	13.1
RE	[53] Real Estate and Rental and Leasing	823	803	-20	-2.4	15.1
PT	[54] Professional and Technical Services	1,921	1,731	-190	-9.9	10.9
MT	[55] Management of Companies and Enterprises	165	193	+28	+17.0	3.6
AW	[56] Administrative and Waste Services	1,702	1,701	-1	-0.1	12.3
ED	[61] Educational Services	152	131	-21	-13.8	5.4
HS	[62] Health Care and Social Assistance	8,533	8,621	+88	+1.0	14.5
AE	[71] Arts, Entertainment, and Recreation	1,075	1,067	-8	-0.7	21.1
AF	[72] Accommodation and Food Services	6,730	6,723	-7	-0.1	19.1
OS	[81] Other Services (except Government)	2,047	1,995	-52	-2.5	16.3
GV	Government	10,168	10,085	-83	-0.8	15.5
<b>TL</b>	<b>Total, All Industries</b>	<b>68,580</b>	<b>67,789</b>	<b>-791</b>	<b>-1.2</b>	<b>16.4</b>

[Government] includes employment for public schools, colleges, universities, and hospitals and tribal entities]

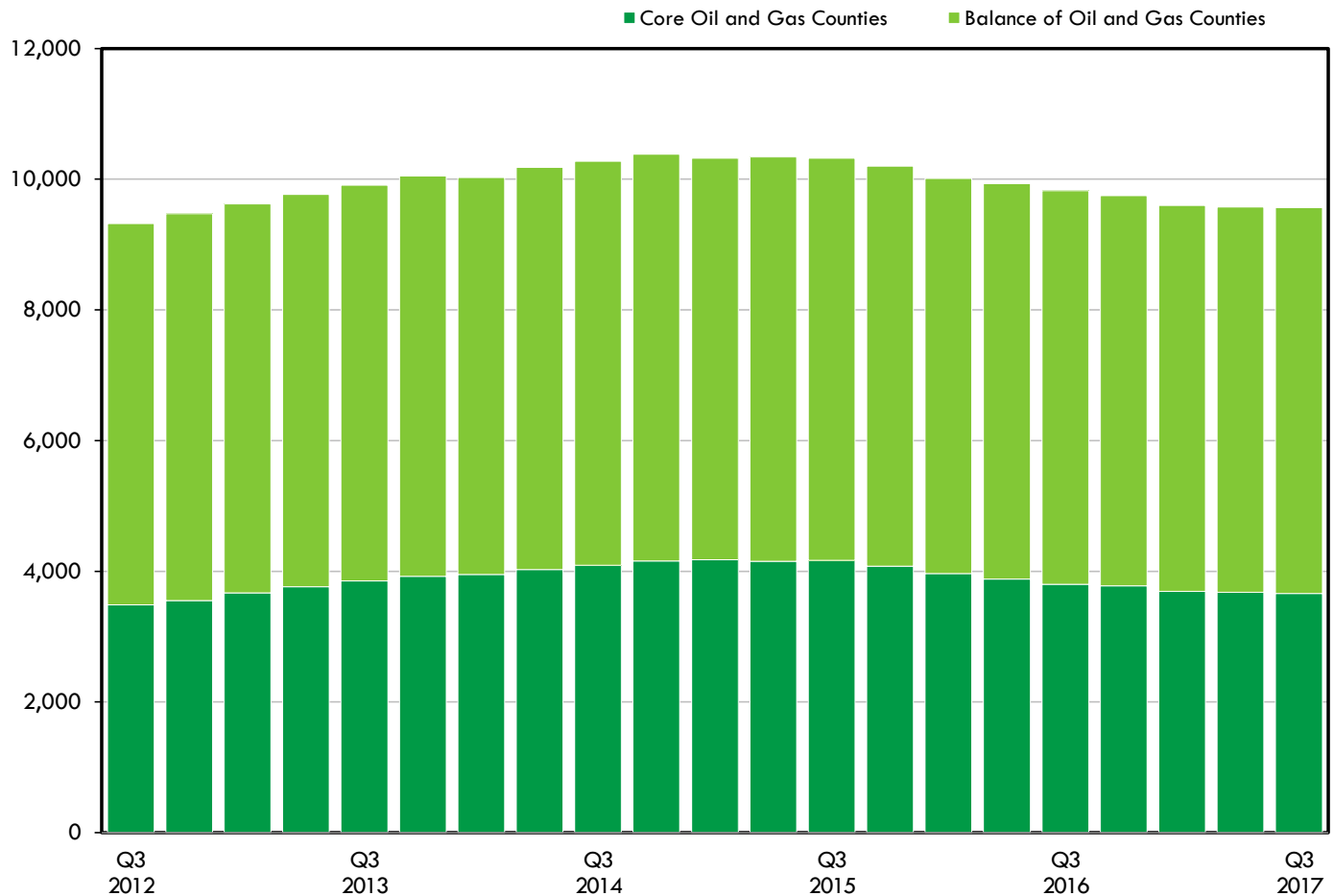
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## BUSINESS ESTABLISHMENTS

[QCEW Q3 (JUL-SEP) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
3,659	11.4	5,907	18.5	21,622	31,957
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
-19	-0.5	+13	+0.2	+0.2	+0.2
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-141	-3.7	-116	-1.9	+0.3	-0.6
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
+174	+5.0	+70	+1.2	+8.0	+7.3
4 QTR MOV AVG	PCT OF ND	4 QTR MOV AVG	PCT OF ND	4 QMA	4 QMA
3,701	11.6	5,920	18.5	21,570	31,955
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
-36	-1.0	-29	-0.5	+0.1	-0.1
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-229	-5.8	-141	-2.3	+0.9	-0.5
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
+552	+17.5	+294	+5.2	+9.1	+10.7

[North Dakota total includes business establishments not assigned to a specific county]

Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

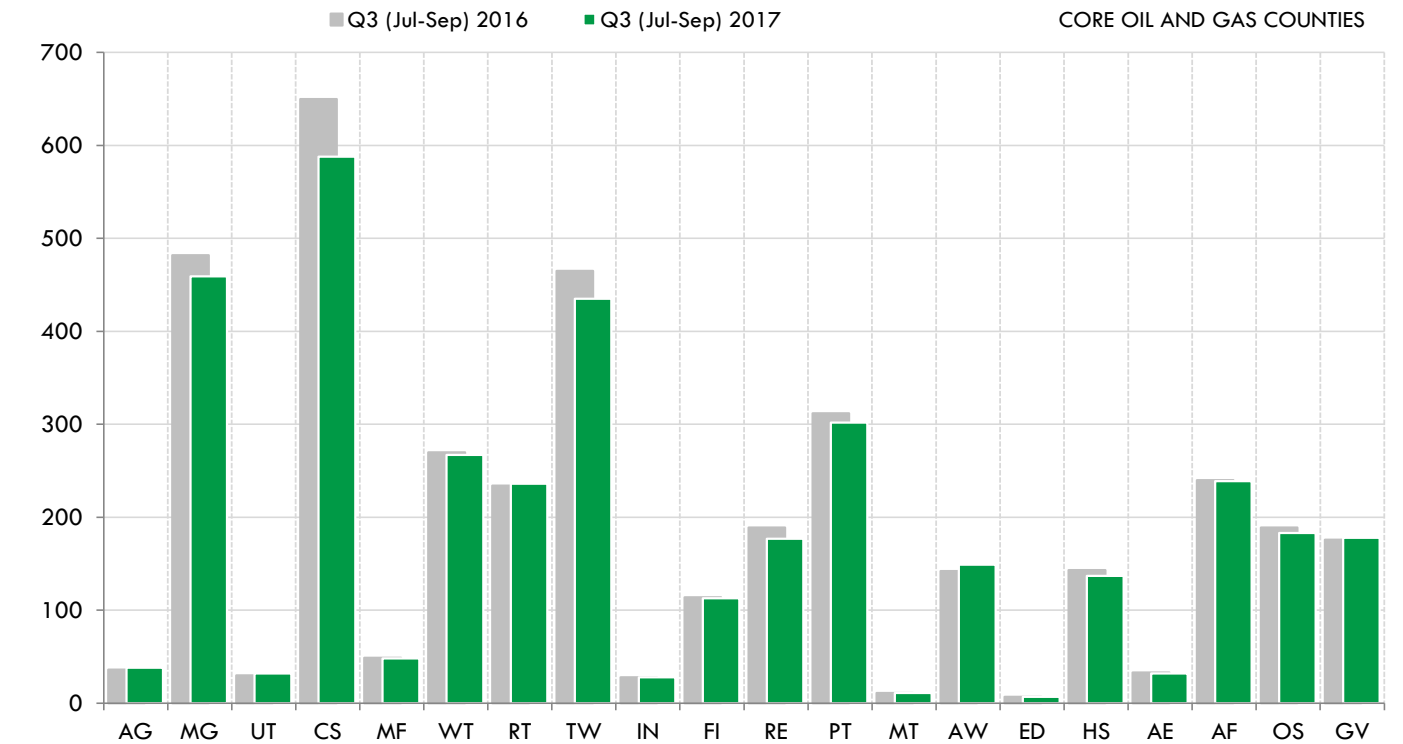
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## BUSINESS ESTABLISHMENTS BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	BUS. ESTAB. Q3 2016	BUS. ESTAB. Q3 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	36	38	+2	+5.6	4.0
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	482	459	-23	-4.8	56.7
UT	[22] Utilities	30	32	+2	+6.7	22.1
CS	[23] Construction	650	588	-62	-9.5	14.6
MF	[31-33] Manufacturing	49	48	-1	-2.0	5.9
WT	[42] Wholesale Trade	270	267	-3	-1.1	9.6
RT	[44-45] Retail Trade	234	236	+2	+0.9	7.6
TW	[48-49] Transportation and Warehousing	465	435	-30	-6.5	24.5
IN	[51] Information	28	28	0	0.0	7.1
FI	[52] Finance and Insurance	114	113	-1	-0.9	5.9
RE	[53] Real Estate and Rental and Leasing	189	177	-12	-6.3	16.5
PT	[54] Professional and Technical Services	312	302	-10	-3.2	10.6
MT	[55] Management of Companies and Enterprises	11	11	0	0.0	6.2
AW	[56] Administrative and Waste Services	142	149	+7	+4.9	7.8
ED	[61] Educational Services	7	7	0	0.0	3.4
HS	[62] Health Care and Social Assistance	143	137	-6	-4.2	6.0
AE	[71] Arts, Entertainment, and Recreation	33	32	-1	-3.0	7.1
AF	[72] Accommodation and Food Services	240	239	-1	-0.4	11.1
OS	[81] Other Services (except Government)	189	183	-6	-3.2	9.0
GV	Government	176	178	+2	+1.1	8.6
<b>TL</b>	<b>Total, All Industries</b>	<b>3,800</b>	<b>3,659</b>	<b>-141</b>	<b>-3.7</b>	<b>11.4</b>

[Government\* includes establishments for public schools, colleges, universities, and hospitals and tribal entities]

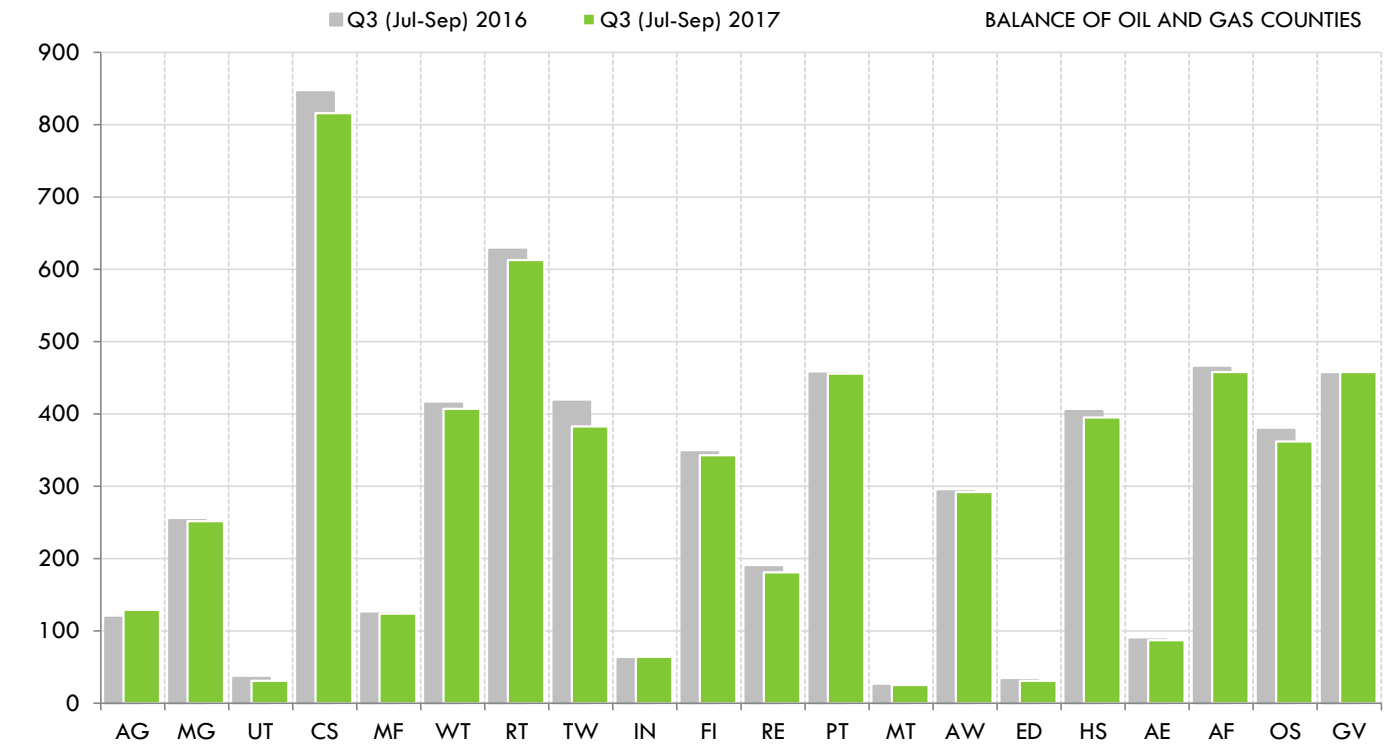
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## BUSINESS ESTABLISHMENTS BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	BUS. ESTAB. Q3 2016	BUS. ESTAB. Q3 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	118	129	+11	+9.3	13.5
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	253	252	-1	-0.4	31.1
UT	[22] Utilities	35	31	-4	-11.4	21.4
CS	[23] Construction	845	816	-29	-3.4	20.2
MF	[31-33] Manufacturing	124	124	0	0.0	15.4
WT	[42] Wholesale Trade	414	407	-7	-1.7	14.6
RT	[44-45] Retail Trade	627	613	-14	-2.2	19.7
TW	[48-49] Transportation and Warehousing	417	383	-34	-8.2	21.6
IN	[51] Information	61	64	+3	+4.9	16.1
FI	[52] Finance and Insurance	347	343	-4	-1.2	18.0
RE	[53] Real Estate and Rental and Leasing	188	181	-7	-3.7	16.9
PT	[54] Professional and Technical Services	456	456	0	0.0	15.9
MT	[55] Management of Companies and Enterprises	24	25	+1	+4.2	14.0
AW	[56] Administrative and Waste Services	293	292	-1	-0.3	15.3
ED	[61] Educational Services	32	31	-1	-3.1	15.0
HS	[62] Health Care and Social Assistance	404	395	-9	-2.2	17.2
AE	[71] Arts, Entertainment, and Recreation	88	87	-1	-1.1	19.2
AF	[72] Accommodation and Food Services	464	458	-6	-1.3	21.3
OS	[81] Other Services (except Government)	378	362	-16	-4.2	17.8
GV	Government	455	458	+3	+0.7	22.2
<b>TL</b>	<b>Total, All Industries</b>	<b>6,023</b>	<b>5,907</b>	<b>-116</b>	<b>-1.9</b>	<b>18.5</b>

[Government includes establishments for public schools, colleges, universities, and hospitals and tribal entities]

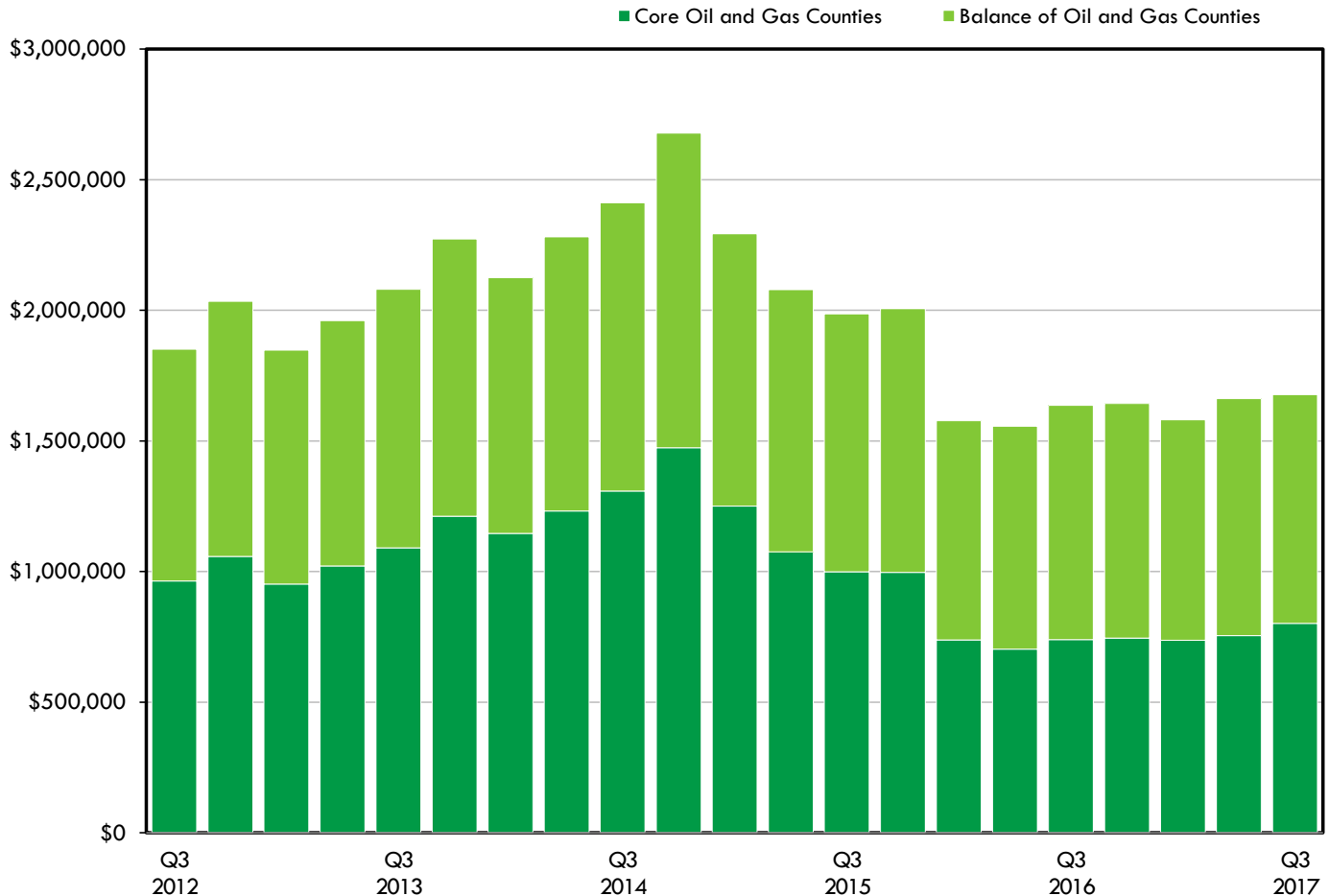
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## TOTAL WAGES (in thousands \$)

[QCEW Q3 (JUL-SEP) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
801,147.2	15.6	875,309.3	17.1	3,413,206.6	5,133,669.5
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG	Q/Q % CHG	Q/Q % CHG
+47,031.4	+6.2	-31,945.5	-3.5	-2.0	-1.0
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
+61,592.7	+8.3	-20,751.3	-2.3	-2.9	-2.2
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-162,542.4	-16.9	-11,890.4	-1.3	+19.5	+8.5
4 QTR ROLL TOTAL	PCT OF ND	4 QTR ROLL TOTAL	PCT OF ND	4 QRT	4 QRT
3,037,101.3	14.7	3,524,189.0	17.1	13,921,746.5	20,668,303.1
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG	Q/Q % CHG	Q/Q % CHG
+61,592.7	+2.1	-20,751.3	-0.6	-0.7	-0.6
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-139,755.8	-4.4	-73,755.3	-2.0	+0.8	-0.7
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-442,165.7	-12.7	+153,933.5	+4.6	+23.4	+13.6

[North Dakota total includes wages not assigned to a specific county; change calculations based on unrounded data]

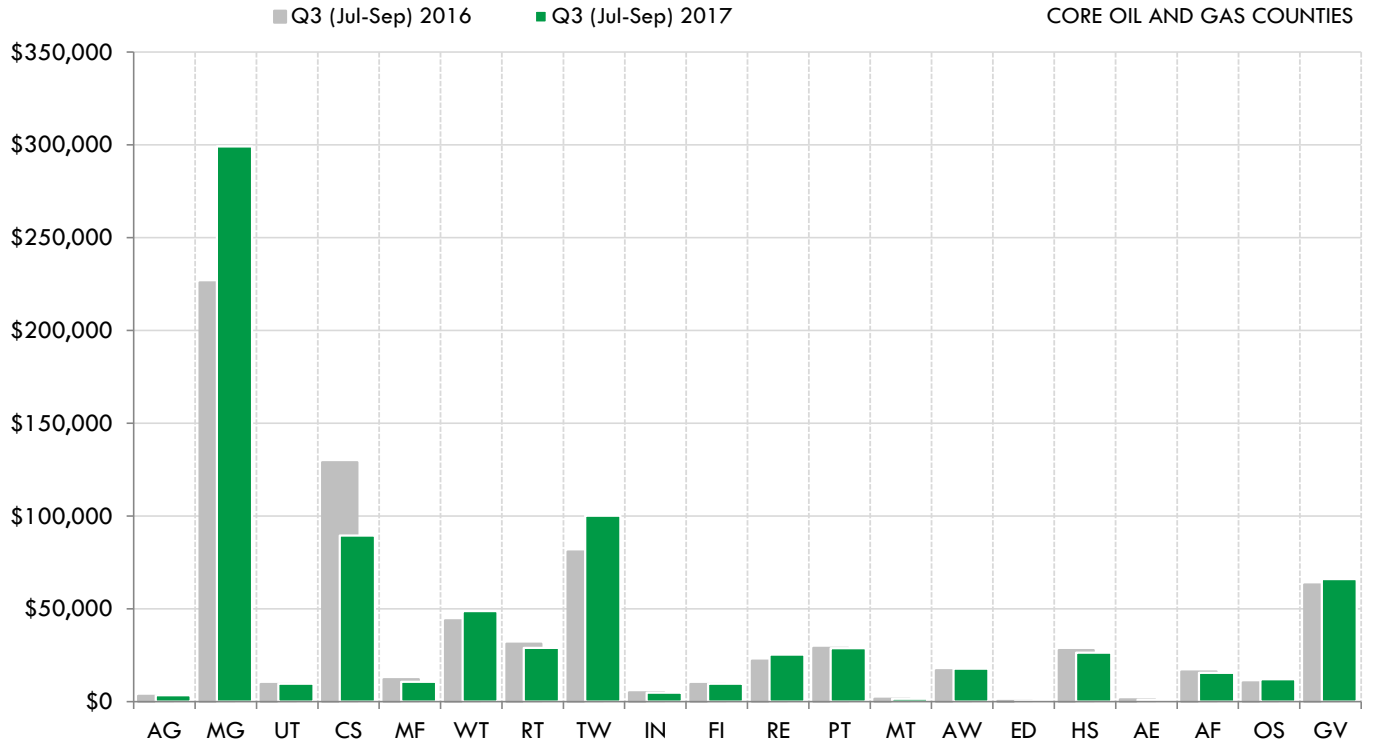
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## TOTAL WAGES (in thousands \$) BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	TTL WAGES Q3 2016	TTL WAGES Q3 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	3,140.7	3,447.1	+306.5	+9.8	6.7
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	225,929.0	299,166.0	+73,236.9	+32.4	64.4
UT	[22] Utilities	9,481.7	9,748.1	+266.4	+2.8	10.5
CS	[23] Construction	129,114.5	89,485.2	-39,629.2	-30.7	19.7
MF	[31-33] Manufacturing	12,098.7	10,676.3	-1,422.4	-11.8	3.4
WT	[42] Wholesale Trade	43,852.4	48,817.5	+4,965.1	+11.3	12.9
RT	[44-45] Retail Trade	31,353.2	28,954.5	-2,398.7	-7.7	8.1
TW	[48-49] Transportation and Warehousing	80,948.9	100,216.9	+19,268.0	+23.8	39.5
IN	[51] Information	5,107.7	4,974.2	-133.5	-2.6	4.1
FI	[52] Finance and Insurance	9,548.3	9,676.8	+128.5	+1.3	3.7
RE	[53] Real Estate and Rental and Leasing	22,213.4	25,405.8	+3,192.4	+14.4	37.7
PT	[54] Professional and Technical Services	29,043.2	28,938.9	-104.3	-0.4	10.6
MT	[55] Management of Companies and Enterprises	1,653.5	1,709.1	+55.6	+3.4	1.7
AW	[56] Administrative and Waste Services	16,899.0	17,764.2	+865.2	+5.1	13.7
ED	[61] Educational Services	401.1	464.8	+63.7	+15.9	2.2
HS	[62] Health Care and Social Assistance	27,756.3	26,528.5	-1,227.8	-4.4	3.5
AE	[71] Arts, Entertainment, and Recreation	1,213.0	1,155.1	-57.9	-4.8	5.4
AF	[72] Accommodation and Food Services	16,247.9	15,642.9	-605.0	-3.7	10.0
OS	[81] Other Services (except Government)	10,421.0	12,222.4	+1,801.4	+17.3	11.9
GV	Government	63,131.0	66,153.0	+3,022.0	+4.8	8.7
<b>TL</b>	<b>Total, All Industries</b>	<b>739,554.4</b>	<b>801,147.2</b>	<b>+61,592.7</b>	<b>+8.3</b>	<b>15.6</b>

[Government includes wages for public schools, colleges, universities, and hospitals and tribal entities; change calculations based on unrounded data]

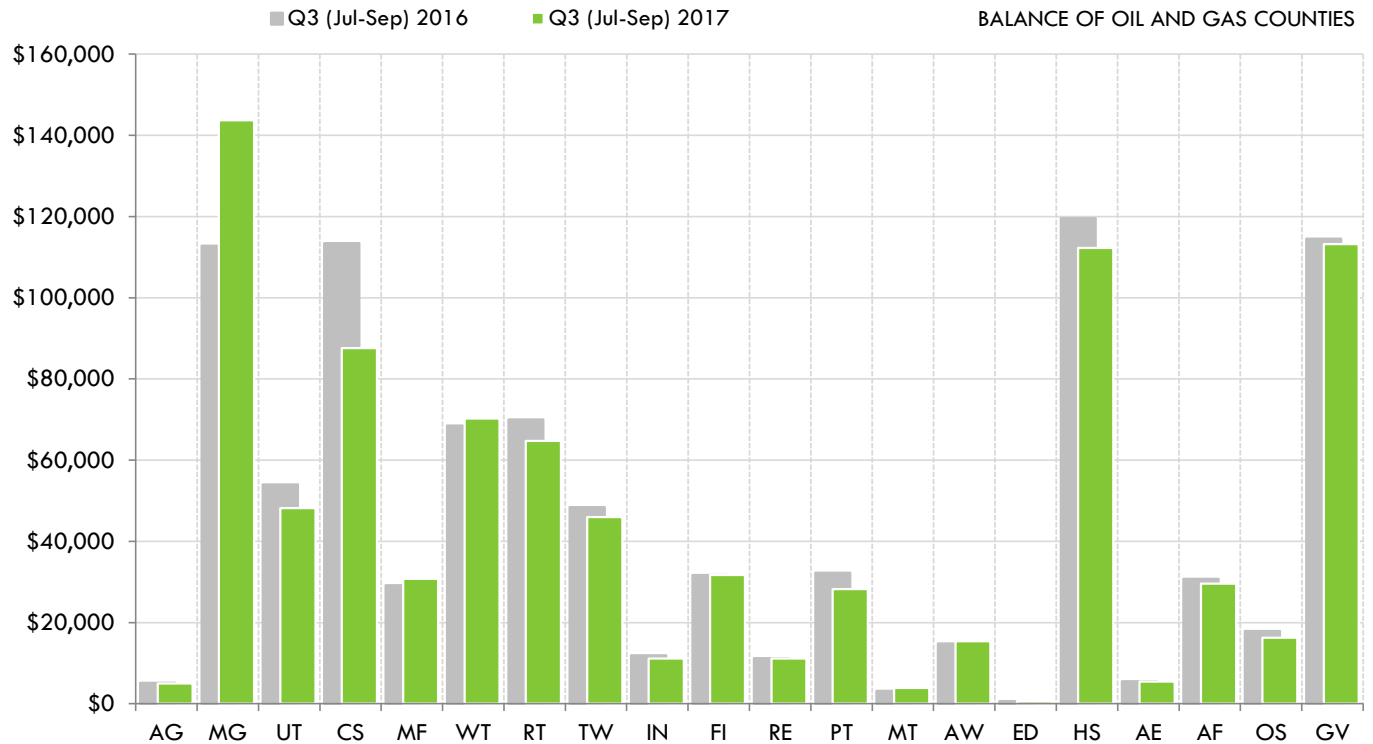
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## TOTAL WAGES (in thousands \$) BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	TTL WAGES Q3 2016	TTL WAGES Q3 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	5,189.0	5,031.5	-157.5	-3.0	9.8
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	112,824.3	143,734.7	+30,910.4	+27.4	30.9
UT	[22] Utilities	54,044.8	48,163.2	-5,881.6	-10.9	52.1
CS	[23] Construction	113,474.1	87,556.7	-25,917.4	-22.8	19.2
MF	[31-33] Manufacturing	29,205.2	30,803.1	+1,597.9	+5.5	9.7
WT	[42] Wholesale Trade	68,496.6	70,281.6	+1,785.0	+2.6	18.6
RT	[44-45] Retail Trade	70,034.5	64,754.7	-5,279.8	-7.5	18.2
TW	[48-49] Transportation and Warehousing	48,443.8	45,955.1	-2,488.7	-5.1	18.1
IN	[51] Information	11,940.7	11,114.9	-825.7	-6.9	9.1
FI	[52] Finance and Insurance	31,753.9	31,694.6	-59.2	-0.2	12.2
RE	[53] Real Estate and Rental and Leasing	11,222.4	11,149.5	-72.9	-0.6	16.6
PT	[54] Professional and Technical Services	32,243.0	28,237.8	-4,005.2	-12.4	10.4
MT	[55] Management of Companies and Enterprises	3,210.3	3,932.8	+722.5	+22.5	4.0
AW	[56] Administrative and Waste Services	14,875.5	15,436.4	+560.9	+3.8	11.9
ED	[61] Educational Services	698.4	681.0	-17.4	-2.5	3.2
HS	[62] Health Care and Social Assistance	119,599.6	112,263.3	-7,336.3	-6.1	15.0
AE	[71] Arts, Entertainment, and Recreation	5,538.6	5,495.9	-42.8	-0.8	25.7
AF	[72] Accommodation and Food Services	30,787.0	29,549.3	-1,237.7	-4.0	19.0
OS	[81] Other Services (except Government)	17,899.6	16,269.2	-1,630.5	-9.1	15.9
GV	Government	114,579.4	113,204.1	-1,375.3	-1.2	14.8
<b>TL</b>	<b>Total, All Industries</b>	<b>896,060.6</b>	<b>875,309.3</b>	<b>-20,751.3</b>	<b>-2.3</b>	<b>17.1</b>

[\*Government\* includes wages for public schools, colleges, universities, and hospitals and tribal entities; change calculations based on unrounded data]

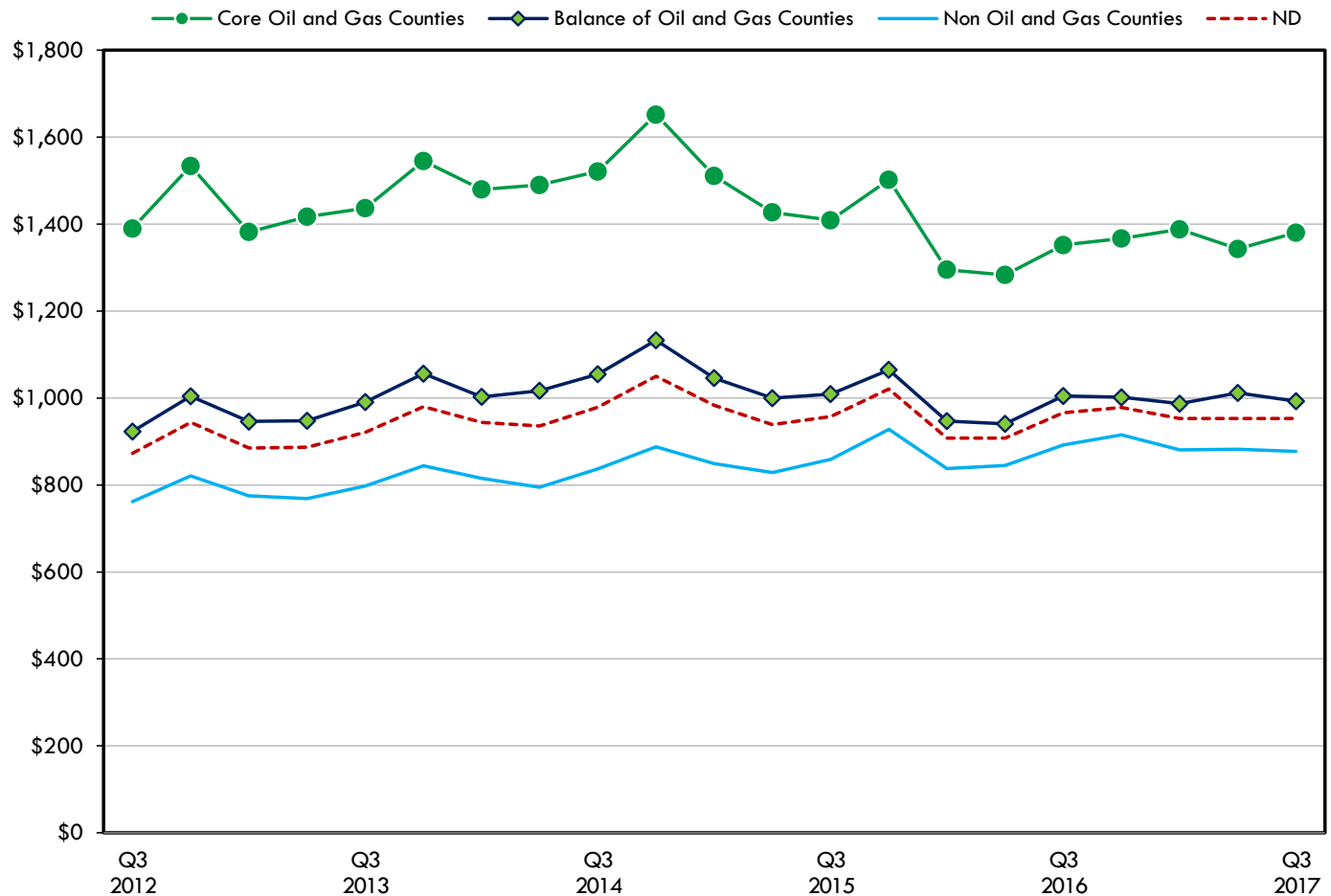
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE WEEKLY WAGE (\$)

[QCEW Q3 (JUL-SEP) 2017]



CORE OIL AND GAS COUNTIES		BALANCE OIL AND GAS COUNTIES		NON OIL	N DAKOTA
1,380		993		877	953
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
+37	+2.8	-19	-1.9	-0.6	0.0
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
+28	+2.1	-12	-1.2	-1.7	-1.3
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-10	-0.7	+70	+7.6	+15.1	+9.2
4 QTR MOV AVG		4 QTR MOV AVG		4 QMA	4 QMA
1,370		999		889	959
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
+7	+0.5	-3	-0.3	-0.4	-0.4
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
+12	+0.9	+9	+0.9	+1.5	+0.8
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-31	-2.2	+88	+9.7	+16.8	+11.0

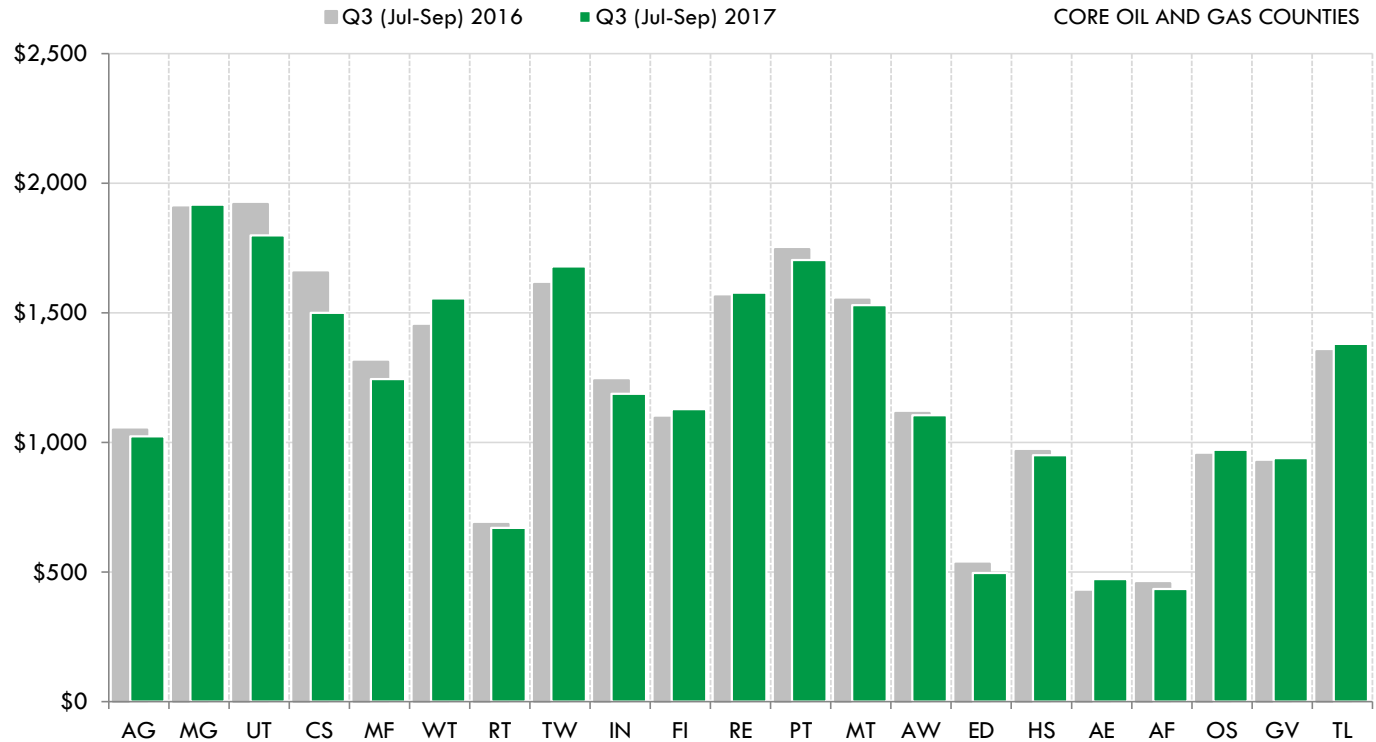
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE WEEKLY WAGE (\$) BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	WKLY WAGE Q3 2016	WKLY WAGE Q3 2017	NUM CHG	PCT CHG	ND AVG Q3 2017
AG	[11] Agriculture, Forestry, Fishing and Hunting	1,050	1,024	-26	-2.5	824
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	1,906	1,917	+11	+0.6	1,892
UT	[22] Utilities	1,919	1,798	-121	-6.3	1,861
CS	[23] Construction	1,655	1,500	-155	-9.4	1,191
MF	[31-33] Manufacturing	1,311	1,244	-67	-5.1	975
WT	[42] Wholesale Trade	1,449	1,556	+107	+7.4	1,217
RT	[44-45] Retail Trade	685	670	-15	-2.2	577
TW	[48-49] Transportation and Warehousing	1,611	1,679	+68	+4.2	1,171
IN	[51] Information	1,239	1,188	-51	-4.1	1,454
FI	[52] Finance and Insurance	1,095	1,128	+33	+3.0	1,115
RE	[53] Real Estate and Rental and Leasing	1,563	1,577	+14	+0.9	972
PT	[54] Professional and Technical Services	1,745	1,703	-42	-2.4	1,316
MT	[55] Management of Companies and Enterprises	1,551	1,529	-22	-1.4	1,430
AW	[56] Administrative and Waste Services	1,113	1,105	-8	-0.7	720
ED	[61] Educational Services	532	497	-35	-6.6	673
HS	[62] Health Care and Social Assistance	967	951	-16	-1.7	971
AE	[71] Arts, Entertainment, and Recreation	424	473	+49	+11.6	325
AF	[72] Accommodation and Food Services	457	435	-22	-4.8	339
OS	[81] Other Services (except Government)	952	972	+20	+2.1	647
GV	Government	925	940	+15	+1.6	901
TL	<b>Total, All Industries</b>	<b>1,352</b>	<b>1,380</b>	<b>+28</b>	<b>+2.1</b>	<b>953</b>

[Government\* includes wages for public schools, colleges, universities, and hospitals and tribal entities]

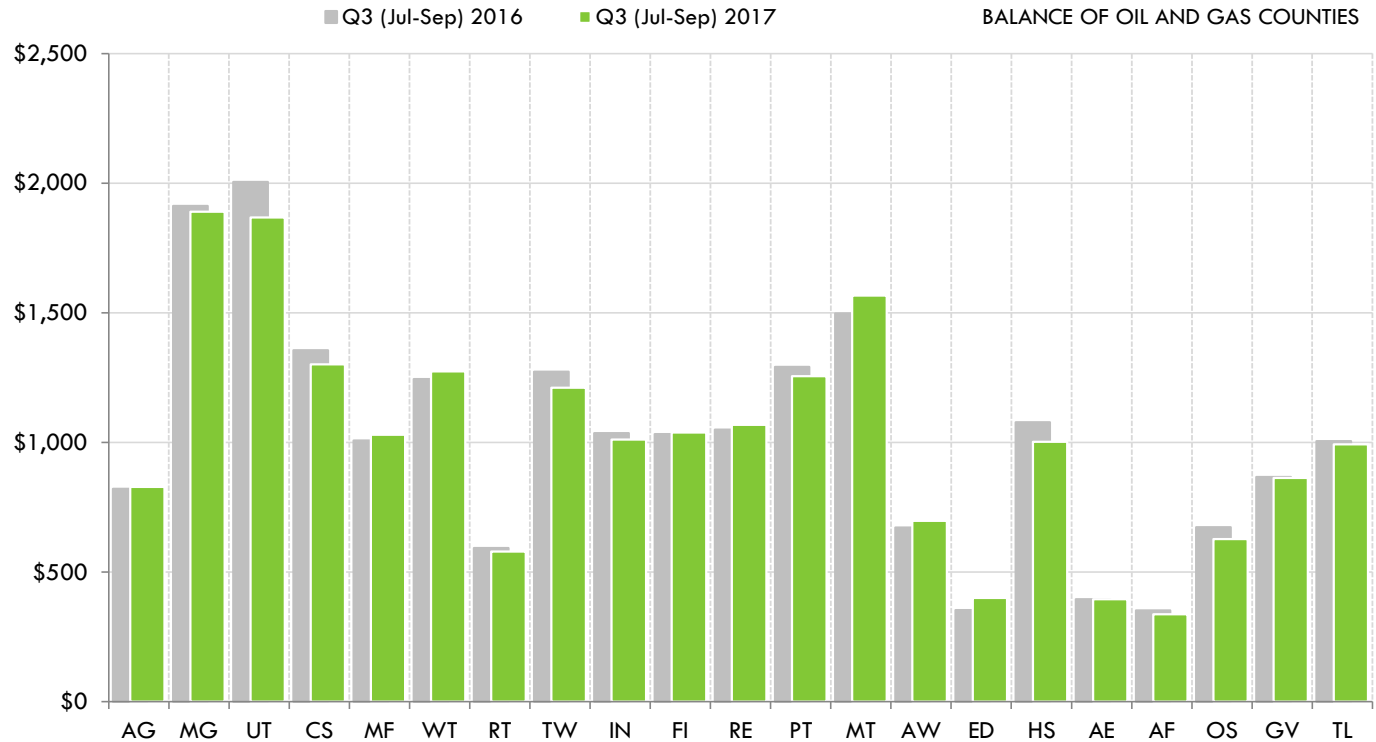
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE WEEKLY WAGE (\$) BY INDUSTRY

[QCEW Q3 (JUL-SEP) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	WKLY WAGE Q3 2016	WKLY WAGE Q3 2017	NUM CHG	PCT CHG	ND AVG Q3 2017
AG	[11] Agriculture, Forestry, Fishing and Hunting	821	829	+8	+1.0	824
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	1,912	1,890	-22	-1.2	1,892
UT	[22] Utilities	2,005	1,867	-138	-6.9	1,861
CS	[23] Construction	1,356	1,301	-55	-4.1	1,191
MF	[31-33] Manufacturing	1,008	1,030	+22	+2.2	975
WT	[42] Wholesale Trade	1,245	1,274	+29	+2.3	1,217
RT	[44-45] Retail Trade	593	579	-14	-2.4	577
TW	[48-49] Transportation and Warehousing	1,273	1,211	-62	-4.9	1,171
IN	[51] Information	1,036	1,011	-25	-2.4	1,454
FI	[52] Finance and Insurance	1,032	1,038	+6	+0.6	1,115
RE	[53] Real Estate and Rental and Leasing	1,049	1,068	+19	+1.8	972
PT	[54] Professional and Technical Services	1,291	1,255	-36	-2.8	1,316
MT	[55] Management of Companies and Enterprises	1,497	1,567	+70	+4.7	1,430
AW	[56] Administrative and Waste Services	672	698	+26	+3.9	720
ED	[61] Educational Services	353	400	+47	+13.3	673
HS	[62] Health Care and Social Assistance	1,078	1,002	-76	-7.1	971
AE	[71] Arts, Entertainment, and Recreation	396	396	0	0.0	325
AF	[72] Accommodation and Food Services	352	338	-14	-4.0	339
OS	[81] Other Services (except Government)	673	627	-46	-6.8	647
GV	Government	867	863	-4	-0.5	901
TL	<b>Total, All Industries</b>	<b>1,005</b>	<b>993</b>	<b>-12</b>	<b>-1.2</b>	<b>953</b>

[Government\* includes wages for public schools, colleges, universities, and hospitals and tribal entities]

Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

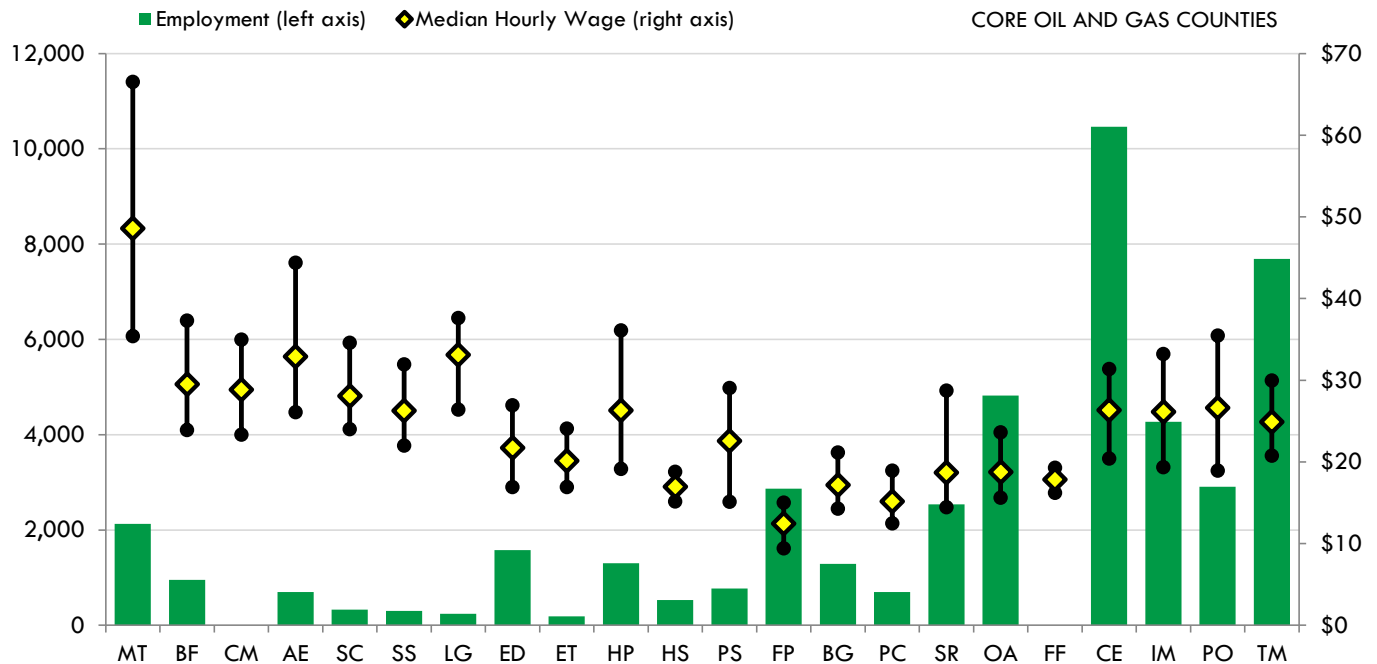
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## EMPLOYMENT AND HOURLY WAGES (\$) BY OCCUPATION GROUP

[OES 2016]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	EMPLOY. 2016	25th PCTL WAGE	MEDIAN WAGE	75th PCTL WAGE	ND MEDIAN
MT	[11] Management	2,130	35.39	48.59	66.53	41.96
BF	[13] Business and Financial Operations	950	23.89	29.53	37.29	27.40
CM	[15] Computer and Mathematical	***	23.34	28.87	34.97	30.59
AE	[17] Architecture and Engineering	700	26.10	32.93	44.39	31.24
SC	[19] Life, Physical, and Social Science	330	24.02	28.09	34.58	27.68
SS	[21] Community and Social Service	300	22.01	26.28	31.96	22.49
LG	[23] Legal	240	26.42	33.12	37.63	32.25
ED	[25] Education, Training, and Library	1,580	16.92	21.72	26.94	21.58
ET	[27] Arts, Design, Entertainment, Sports, and Media	190	16.91	20.15	24.08	16.86
HP	[29] Healthcare Practitioners and Technical	1,300	19.14	26.33	36.12	27.31
HS	[31] Healthcare Support	530	15.15	16.99	18.78	15.32
PS	[33] Protective Service	770	15.14	22.60	29.06	19.24
FP	[35] Food Preparation and Serving Related	2,870	9.42	12.48	15.02	10.88
BG	[37] Building and Grounds Cleaning and Maintenance	1,290	14.29	17.19	21.16	13.26
PC	[39] Personal Care and Service	700	12.47	15.17	18.92	13.08
SR	[41] Sales and Related	2,540	14.45	18.72	28.74	14.51
OA	[43] Office and Administrative Support	4,820	15.63	18.76	23.64	16.49
FF	[45] Farming, Fishing, and Forestry	***	16.23	17.86	19.29	16.38
CE	[47] Construction and Extraction	10,460	20.43	26.34	31.39	23.68
IM	[49] Installation, Maintenance, and Repair	4,270	19.34	26.16	33.22	23.87
PO	[51] Production	2,910	18.93	26.64	35.48	18.54
TM	[53] Transportation and Material Moving	7,690	20.78	24.92	29.96	19.66
<b>TL</b>	<b>Total, All Occupations</b>	<b>46,760</b>	<b>17.37</b>	<b>23.77</b>	<b>30.74</b>	<b>18.83</b>

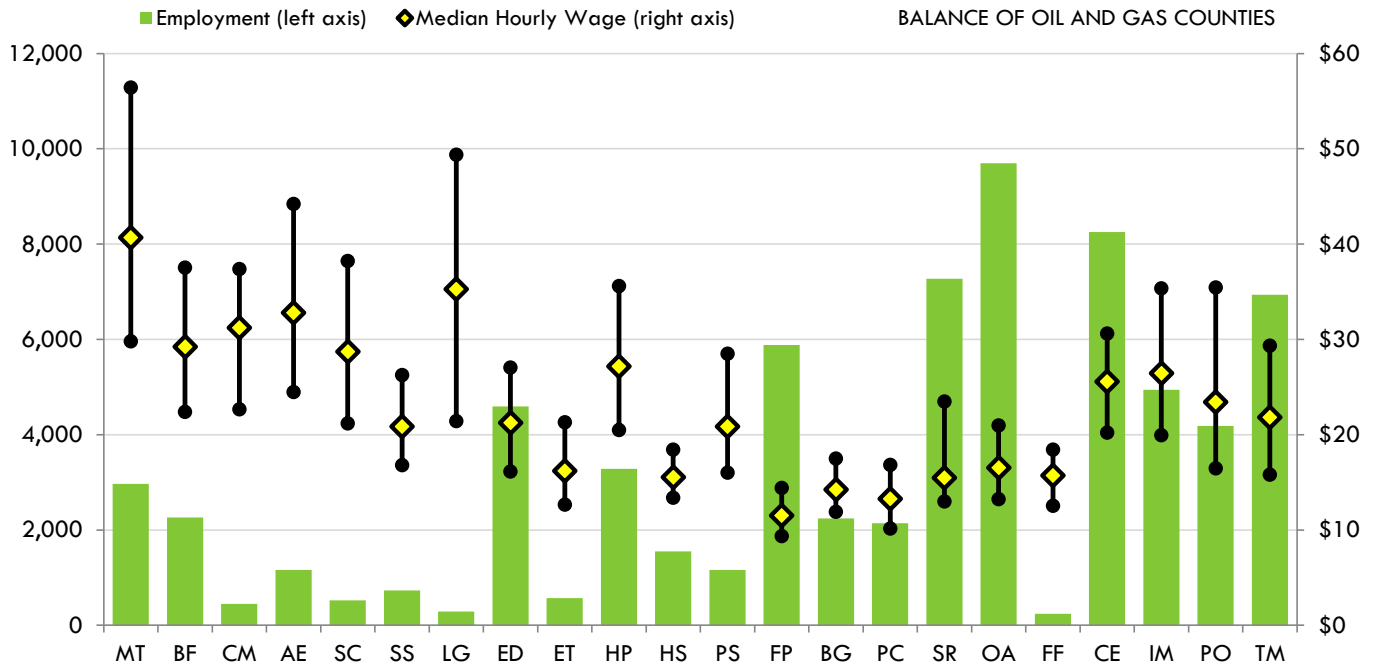
Sources: OES Labor Market Information Center, Job Service ND, Occupational Employment Statistics

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## EMPLOYMENT AND HOURLY WAGES (\$) BY OCCUPATION GROUP

[OES 2016]



ABBR	[2-DIGIT SOC CODE]	OCCUPATION GROUP	EMPLOY. 2016	25th PCTL WAGE	MEDIAN WAGE	75th PCTL WAGE	ND MEDIAN
MT	[11]	Management	2,970	29.79	40.68	56.43	41.96
BF	[13]	Business and Financial Operations	2,260	22.39	29.24	37.55	27.40
CM	[15]	Computer and Mathematical	450	22.66	31.22	37.38	30.59
AE	[17]	Architecture and Engineering	1,160	24.49	32.80	44.22	31.24
SC	[19]	Life, Physical, and Social Science	520	21.18	28.72	38.22	27.68
SS	[21]	Community and Social Service	730	16.81	20.86	26.27	22.49
LG	[23]	Legal	290	21.42	35.28	49.37	32.25
ED	[25]	Education, Training, and Library	4,590	16.15	21.25	27.06	21.58
ET	[27]	Arts, Design, Entertainment, Sports, and Media	570	12.65	16.21	21.32	16.86
HP	[29]	Healthcare Practitioners and Technical	3,280	20.49	27.19	35.60	27.31
HS	[31]	Healthcare Support	1,550	13.39	15.56	18.44	15.32
PS	[33]	Protective Service	1,160	16.01	20.86	28.49	19.24
FP	[35]	Food Preparation and Serving Related	5,880	9.36	11.53	14.43	10.88
BG	[37]	Building and Grounds Cleaning and Maintenance	2,240	11.90	14.25	17.49	13.26
PC	[39]	Personal Care and Service	2,140	10.16	13.28	16.82	13.08
SR	[41]	Sales and Related	7,270	12.98	15.50	23.49	14.51
OA	[43]	Office and Administrative Support	9,700	13.23	16.56	20.96	16.49
FF	[45]	Farming, Fishing, and Forestry	240	12.53	15.74	18.44	16.38
CE	[47]	Construction and Extraction	8,250	20.21	25.57	30.61	23.68
IM	[49]	Installation, Maintenance, and Repair	4,940	19.95	26.47	35.37	23.87
PO	[51]	Production	4,180	16.47	23.43	35.45	18.54
TM	[53]	Transportation and Material Moving	6,940	15.81	21.83	29.36	19.66
<b>TL</b>		<b>Total, All Occupations</b>	<b>71,330</b>	<b>14.24</b>	<b>19.94</b>	<b>28.82</b>	<b>18.83</b>

Sources: OES Labor Market Information Center, Job Service ND, Occupational Employment Statistics

Data current as of March 7, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

This report was produced either in whole or in part with Department of Labor-funded Workforce Information Grants (WIGS).

## LOCAL AREA UNEMPLOYMENT STATISTICS (LAUS)

The Local Area Unemployment Statistics (LAUS) program produces monthly and annual employment, unemployment, and labor force data for North Dakota and its many substate areas by place of residence. These estimates are key indicators of local economic conditions. The LAUS program is a federal-state cooperative effort between the Job Service North Dakota Labor Market Information Center and the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Under the cooperative agreement, the BLS is responsible for the concepts, definitions, technical procedures, validation, and publication of the estimates that the Job Service North Dakota Labor Market Information Center prepares. Rounding may affect additivity.

**LABOR FORCE.** The noninstitutionalized resident civilian population ages 16 and older either employed (part-time or full-time) or unemployed but actively seeking employment. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

**UNEMPLOYED.** All persons who had no employment during the reference week (week that includes the 12<sup>th</sup> of the month), were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed. Not all persons 16 years and older are unemployed if not working. One must be actively looking and available for work in order to qualify. Otherwise, these persons are not in the labor force. Unemployed persons are always counted at their place of residence as opposed to place of previous employment, if any. Unemployed persons may be so by virtue of being laid off or having quit a job. A person does not have to be receiving unemployment benefits to be counted as unemployed. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

**UNEMPLOYMENT RATE.** The unemployment rate represents the number unemployed as a percent of the labor force. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

## NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES, OIL AND GAS DIVISION

**AVERAGE DAILY OIL PRODUCTION.** Average daily oil production is estimated by taking total monthly oil production and dividing by the number of days in a month.

**AVERAGE DAILY GAS PRODUCTION.** Average daily gas production is estimated by taking total monthly gas production and dividing by the number of days in a month.

**OIL AND GAS PRODUCTION WELLS.** Monthly count of oil and gas wells in production.

**DRILLING RIGS.** Monthly count of active drilling rigs. Active drilling rig counts are extracted mid-week of the week that includes the 15<sup>th</sup> of the month. The drilling rig location map is based on a ND Dept of Mineral Resources GIS database which is updated less frequently and may not match the monthly mid-week count.

**OIL AND GAS PERMITS.** Monthly count of oil and gas permits issued.

## NORTH DAKOTA OFFICE OF STATE TAX COMMISSIONER

**TAXABLE SALES AND PURCHASES.** Taxable sales and purchases are reported by businesses to North Dakota's Office of State Tax Commissioner on quarterly or monthly sales tax returns. Taxable sales are gross sales less nontaxable sales. Businesses must remit sales tax on taxable sales. Taxable purchases are taxable goods purchased by businesses for their own use on which they did not pay sales tax to suppliers. Also included are purchases of goods to be installed into real property by contractors who did not pay sales tax to suppliers. Businesses and contractors must pay use tax on these goods. Individuals purchasing items over the Internet on which sales tax is not charged, are obligated to report "taxable purchases" and remit the appropriate use tax. The four-quarter rolling total calculation is the summation of the reference quarter plus the three most recent quarters.

## NORTH DAKOTA PIPELINE AUTHORITY

**WILLISTON BASIN OIL TRANSPORTATION.** A monthly estimate of the share of Williston Basin oil production using various to-market transportation options.

## OCCUPATIONAL EMPLOYMENT STATISTICS (OES)

The Occupational Employment Statistics (OES) program administers a semiannual survey measuring annual employment and wage rates by occupation for wage and salary workers in nonfarm establishments in North Dakota. The source of the data is workers covered by state unemployment insurance (UI) laws and federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program, which covers an estimated 95 percent of all North Dakota workers. Supplemental sources are used for "noncovered" industries. OES categorizes workers into nearly 800 detailed occupations based on the 2010 Standard Occupational Classification (SOC) system; together, these detailed occupations make up 22 of the 23 SOC major occupational groups. The OES program is a federal-state cooperative effort between the Job Service North Dakota Labor Market Information Center and the U.S. Department of Labor's Bureau of

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## OCCUPATIONAL EMPLOYMENT STATISTICS (OES) cont'd

Labor Statistics (BLS). Under the cooperative agreement, the BLS is responsible for the concepts, definitions, technical procedures, validation, and publication of the estimates that the Job Service North Dakota Labor Market Information Center prepares. Rounding may affect additivity. Data are subject to confidentiality restrictions.

**EMPLOYMENT.** Occupational employment is the estimate of total wage and salary employment in an occupation. OES defines employment as the number of workers who can be classified as full- or part-time employees, including workers on paid vacations or other types of paid leave; workers on unpaid short-term absences; salaried officers, executives, and staff members of incorporated firms; employees temporarily assigned to other units; and employees for whom the reporting unit is their permanent duty station, regardless of whether that unit prepares their paycheck. OES employment does not include the self-employed, owners and partners in unincorporated firms, household workers, or unpaid family workers.

**WAGE DATA.** OES wage rates are straight-time, gross pay, exclusive of premium pay. Base rate; cost-of-living allowances; guaranteed pay; hazardous-duty pay; incentive pay, including commissions and production bonuses; and tips are included. Excluded are overtime pay, severance pay, shift differentials, nonproduction bonuses, employer cost for supplementary benefits, and tuition reimbursements. OES wage rates do not include the self-employed, owners and partners in unincorporated firms, household workers, or unpaid family workers.

**25TH PERCENTILE WAGE.** The 25th percentile wage is the estimated 25th percentile of the distribution of wages based on data collected from employers in all industries; 25 percent of workers in an occupation earn less than this wage and 75 percent earn more than this wage.

**50TH PERCENTILE (MEDIAN) WAGE.** The 50th percentile (median) wage is the estimated 50th percentile of the distribution of wages based on data collected from employers in all industries; 50 percent of workers in an occupation earn less than this wage and 50 percent earn more than this wage. The median is less likely to be influenced by outliers within the wage distribution.

**75TH PERCENTILE WAGE.** The 75th percentile wage is the estimated 75th percentile of the distribution of wages based on data collected from employers in all industries; 25 percent of workers in an occupation earn more than this wage and 75 percent earn less than this wage.

## ONLINE JOB OPENINGS REPORT (OJOR)

The Online Job Openings Report (OJOR) is a monthly summary of North Dakota job openings and active résumés and provides a timely overview of the latest supply/demand dynamic. The report involves the collection, processing, and dissemination of open and available online job openings posted by employers and active online résumés posted by job candidates. Job Service North Dakota compiles and publishes the OJOR.

**JOB OPENINGS.** Job openings include all open and available online openings during the reference period. This figure may include openings posted no more than 90 days prior but still active during the reference period, as well as new openings. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

**ACTIVE RÉSUMÉS.** Active résumés are all online résumés that have been created or otherwise modified during the reference period. This figure includes résumés posted no more than 90 days prior but still active during the reference period, as well as new résumés. Active résumés may include those created by out-of-state candidates. Candidates may post multiple online résumés so active résumés should not be interpreted as an individual candidate count. Active résumés are not necessarily an indicator of unemployment since candidates posting résumés may or may not be unemployed. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

**ACTIVE RÉSUMÉS PER JOB OPENING.** North Dakota's state-level and substate rates of active résumés per job opening are calculated by taking the number of in-state active résumés and dividing by job openings. In order to get a more localized measure of potential labor supply, only in-state active résumés (i.e. résumés tied to a North Dakota address) were used to calculate this rate; out-of-state active résumés are excluded from this calculation. A rate less than one indicates more job openings than in-state active résumés; a rate greater than one indicates more in-state active résumés than job openings. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

**UNEMPLOYED PER JOB OPENING.** North Dakota's state-level and substate rates of unemployed per job opening are calculated by taking the number of unemployed persons from the Local Area Unemployment Statistics (LAUS) program and dividing by job openings. A rate less than one indicates more job openings than local labor supply; a rate greater than one indicates more local labor supply than job openings. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

## QUARTERLY CENSUS OF EMPLOYMENT AND WAGES (QCEW)

The Quarterly Census of Employment and Wages (QCEW) program produces quarterly and annual establishment, employment, and wage data by industry for North Dakota and its 53 counties by place of work. The source of the data is workers covered by state unemployment insurance (UI) laws and federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program, which covers an estimated 95 percent of all North Dakota workers. The QCEW program is a federal-state cooperative effort between the Job Service North Dakota Labor Market Information Center and the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Under the cooperative agreement, the BLS is responsible for the concepts, definitions, technical procedures, validation, and publication of the data that the Job Service North Dakota Labor Market Information Center prepares. Occasionally, an establishment's county designation cannot be

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## QUARTERLY CENSUS OF EMPLOYMENT AND WAGES (QCEW) cont'd

determined and is subsequently coded as 'unclassified.' While these establishments may not have a county designation, they are industry coded and included in the state-level detail. Unclassified establishments are the reason the county totals may not add up to the statewide total. Rounding may affect additivity. Data are subject to confidentiality restrictions.

**AVERAGE EMPLOYMENT.** A near-census count of employed persons during the reference week (week that includes the 12<sup>th</sup> of the month) whose employment is covered by North Dakota's unemployment insurance program. Generally excluded from coverage in North Dakota are the self-employed (farm and nonfarm sectors); farms that employ less than ten workers for less than 20 weeks in a calendar year; all railroad transportation employment; student workers; individuals working for religious organizations or church-related elementary and secondary schools; elected public officials at the federal, state, or local levels of government; and most domestic and private household workers. Data are extracted from quarterly contribution reports filed by employers. Employment represents a count of jobs rather than workers, counting jobs at the place of business. Multiple jobholders are counted for each job. The quarterly average is the average of three months of a calendar quarter. The four-quarter moving average calculation is the average of the reference quarter plus the three most recent quarters.

**AVERAGE WEEKLY WAGES.** Wages represent total compensation paid during the calendar quarter, regardless of when services were performed. Included in wages are pay for vacation and other paid leave, bonuses, stock options, tips, the cash value of meals and lodging, and in some states, contributions to deferred compensation plans (such as 401(k) plans). For quarterly data, average weekly wages are calculated by dividing the average quarterly wage by 13 (the standard number of weeks in a quarter). The four-quarter moving average calculation is the average of the reference quarter plus the three most recent quarters.

**BUSINESS ESTABLISHMENTS.** A business establishment is defined as the smallest operating business unit for which information can be provided on the cost of resources, materials, labor, and capital employed to produce output. An establishment is generally a single, physical location where business is conducted or where services or industrial operations are performed (e.g. store, factory, farm, etc.). Business establishment counts are a unique count of worksites for a reference period (e.g. quarter or year). The four-quarter moving average calculation is the average of the reference quarter plus the three most recent quarters.

**TOTAL WAGES.** Total wages are the summation of all wages paid during a quarter (3-month period). The four-quarter rolling total calculation is the summation of the reference quarter plus the three most recent quarters.

## SOC CODE AND OCCUPATIONAL GROUP STRUCTURE

The Occupational Employment Statistics (OES) program categorizes workers into nearly 800 detailed occupations based on the Standard Occupational Classification (SOC) system. These detailed occupations make up 22 of the 23 SOC major occupational groups (OES does not survey military occupations). For reference, below are the 23 major occupational groups along with a select sample of detailed occupations that fall within each respective group.

[11] MANAGEMENT. Managers, Education Administrators, Farmers and Ranchers, Human Resource Managers

[13] BUSINESS AND FINANCIAL OPERATIONS. Accountants, Auditors, Loan Officers, Tax Preparers

[15] COMPUTER AND MATHEMATICAL. Computer Programmers, Computer and Network Administrators, Web Developers, Statisticians

[17] ARCHITECTURE AND ENGINEERING. Engineers, Drafters, Architects, Surveyors

[19] LIFE, PHYSICAL, AND SOCIAL SCIENCE. Biologists, Chemists, Economists

[21] COMMUNITY AND SOCIAL SERVICE. Social Workers, Clergy, Counselors, Social and Human Service Assistants

[23] LEGAL. Lawyers, Court Reporters, Judges, Magistrate Judges, Magistrates, Paralegal and Legal Assistants

[25] EDUCATION, TRAINING, AND LIBRARY. Elementary School Teachers, Secondary School Teachers, Special Education Teachers, Librarians

[27] ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA. Musicians and Singers, Photographers, Reporters and Correspondents, Umpires, Referees

[29] HEALTHCARE PRACTITIONERS AND TECHNICAL. Physicians and Surgeons, Dentists, Pharmacists, Registered Nurses, EMTs and Paramedics, Chiropractors

[31] HEALTHCARE SUPPORT. Home Health Aides, Medical Assistants, Medical Transcriptionists, Nursing Aides and Orderlies

[33] PROTECTIVE SERVICE. Correctional Officers, Firefighters, Police and Sheriff's Patrol Officers, Lifeguards

[35] FOOD PREPARATION AND SERVING RELATED. Cooks, Bartenders, Waiters and Waitresses, Counter Attendants, Dishwashers

# NORTH DAKOTA'S OIL AND GAS ECONOMY

## SOC CODE AND OCCUPATIONAL GROUP STRUCTURE

[37] BUILDING AND GROUNDS CLEANING AND MAINTENANCE. Janitors and Cleaners, Landscaping and Groundskeeping Workers, Maids and Housekeeping Cleaners

[39] PERSONAL CARE AND SERVICE. Childcare Workers, Hairdressers, Hairstylists, Fitness Trainers, Personal and Home Care Aides

[41] SALES AND RELATED. Cashiers, Retail Salespersons, Insurance Sales Agents, Telemarketers

[43] OFFICE AND ADMINISTRATIVE SUPPORT. Secretaries and Administrative Assistants, Office Clerks, Receptionists, Tellers

[45] FARMING, FISHING, AND FORESTRY. Farmworkers and Laborers, Graders and Sorters of Agricultural Products, Hunters and Trappers

[47] CONSTRUCTION AND EXTRACTION. Carpenters, Electricians, Plumbers, Roofers, Oil and Gas Roustabouts

[49] INSTALLATION, MAINTENANCE, AND REPAIR. Automotive Body Repairers, Mechanics, Electrical Power-Line Installers, Wind Turbine Service Technicians

[51] PRODUCTION. Assemblers and Fabricators, Machinists, Tool and Die Makers, Welders, Cutters, Solderers, Brazers

[53] TRANSPORTATION AND MATERIAL MOVING. Airline Pilots, Bus Drivers, Truck Drivers, Industrial Truck and Tractor Operators, Packers and Packagers

[55] MILITARY SPECIFIC. Aircrew Officers, Infantry, Radar and Sonar Technicians, Special Forces

## UNEMPLOYMENT INSURANCE STATISTICS

Unemployment insurance is a program for the accumulation of funds paid by employers to be used for the payment of unemployment insurance to workers during periods of unemployment which is beyond the worker's control. Unemployment insurance replaces a part of the worker's wage loss if he becomes eligible for payments and serves as an economic stabilizer by maintaining an individual's purchasing power when unemployed. The program covers more than 95 percent of employment in the state. Job Service North Dakota administers the state's unemployment insurance program

INITIAL JOBLESS CLAIMS. An initial jobless claim is any notice of unemployment filed to request a determination of entitlement to and eligibility for unemployment compensation, or to begin a second or subsequent period of unemployment compensation within a benefit year period or eligibility. An initial jobless claim may or may not lead to actual unemployment compensation, but it can be a leading economic indicator of the relative strength or weakness of the labor market. The twelve-month moving average calculation is the average of the reference month plus the eleven most recent months.

## U.S. BUREAU OF ECONOMIC ANALYSIS (BEA)

PER CAPITA PERSONAL INCOME. Per capita personal income is the ratio of the measure of the residence-adjusted total personal income to population estimates. It is an arithmetic mean of personal income (usually expressed in dollars) per person. When new estimates are published, prior time periods may be revised.

REAL GROSS DOMESTIC PRODUCT (GDP). Real Gross Domestic Product is an inflation-adjusted measurement of a state's economic output using chained 2009 dollars. It is the sum of the value added in production by labor and capital from all industries in a state. When new estimates are published, prior time periods may be revised.

## U.S. CENSUS BUREAU

POPULATION. The decennial population is the "official" population count tallied in conjunction with the national census conducted every ten years on April 1st. Years ending in '0' (e.g. 2000, 2010, etc.) denote decennial population counts; all other years are intercensal population estimates. Intercensal population estimates are the number of people living in an area as of a specified point in time, usually July 1st of any year. Intercensal population estimates are calculated using a component of change model that incorporates information on natural increase (births, deaths) and net migration (net domestic migration, net international migration) that has occurred in an area since the latest decennial census. When new estimates are published, prior years may be revised.

NEW RESIDENTIAL CONSTRUCTION (HOUSING UNITS). The Building Permits Survey (BPS) is conducted by the U.S. Census Bureau and provides statistics on new residential construction of privately-owned housing units authorized by building permits. The statistics are based on reports that are submitted by local building permit officials in response to a voluntary mail survey. A residential housing unit is a house, an apartment, a group of rooms, or a single room intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from the outside of the building or through a common hall. Housing units exclude group quarters (dormitories, rooming houses, etc.), transient accommodations (transient hotels, motels, tourist courts, etc.), moved or relocated buildings, and housing units created in an existing residential or nonresidential structure. Units in assisted living facilities are considered to be housing units, however, units in nursing homes are not considered to be housing units.

# NORTH DAKOTA'S OIL AND GAS ECONOMY

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## U.S. DEPARTMENT OF ENERGY, U.S. ENERGY INFORMATION ADMINISTRATION

**CRUDE OIL FIRST PURCHASE PRICE.** An equity (not custody) transaction involving an arms-length transfer of ownership of crude oil associated with the physical removal of the crude oil from a property (lease) for the first time. A first purchase normally occurs at the time and place of ownership transfer where the crude oil volume sold is measured and recorded on a run ticket or other similar physical evidence of purchase. The reported cost is the actual amount paid by the purchaser, allowing for any adjustments (deductions or premiums) passed on to the producer or royalty owner. Purchase prices are represented as dollars per barrel.

**NATURAL GAS CITY GATE PRICE.** City gate prices represent the total cost paid by gas distribution companies for gas received at the point where the gas is physically transferred from a pipeline company or transmission system. This price is intended to reflect all charges for the acquisition, storage, and transportation of gas as well as other charges associated with obtaining the gas for sale to consumers. Prices are represented as dollars per thousand cubic feet.

**AVERAGE RETAIL FUEL PRICES.** Every Monday, the U.S. Department of Energy surveys a sample of about 1,200 gasoline and diesel fuel retail outlets collecting retail prices for all three grades of gasoline and cash self-serve on-highway diesel for both conventional and reformulated areas. The reported price includes all taxes and is the pump price paid by a consumer as of 8:00 A.M. Monday. This price represents the self-serve price except in areas having only full-serve. The regular gasoline data in this report represent the price in conventional areas (i.e. excludes reformulated areas). The diesel data in this report represent the price of ultra low sulfur diesel (ULSD) which contains less than 15 parts-per-million sulfur. Monthly data are simple averages of the weekly data. North Dakota-specific fuel prices are not available from the U.S. Department of Energy, therefore the Midwest PADD 2 average is used in this report.