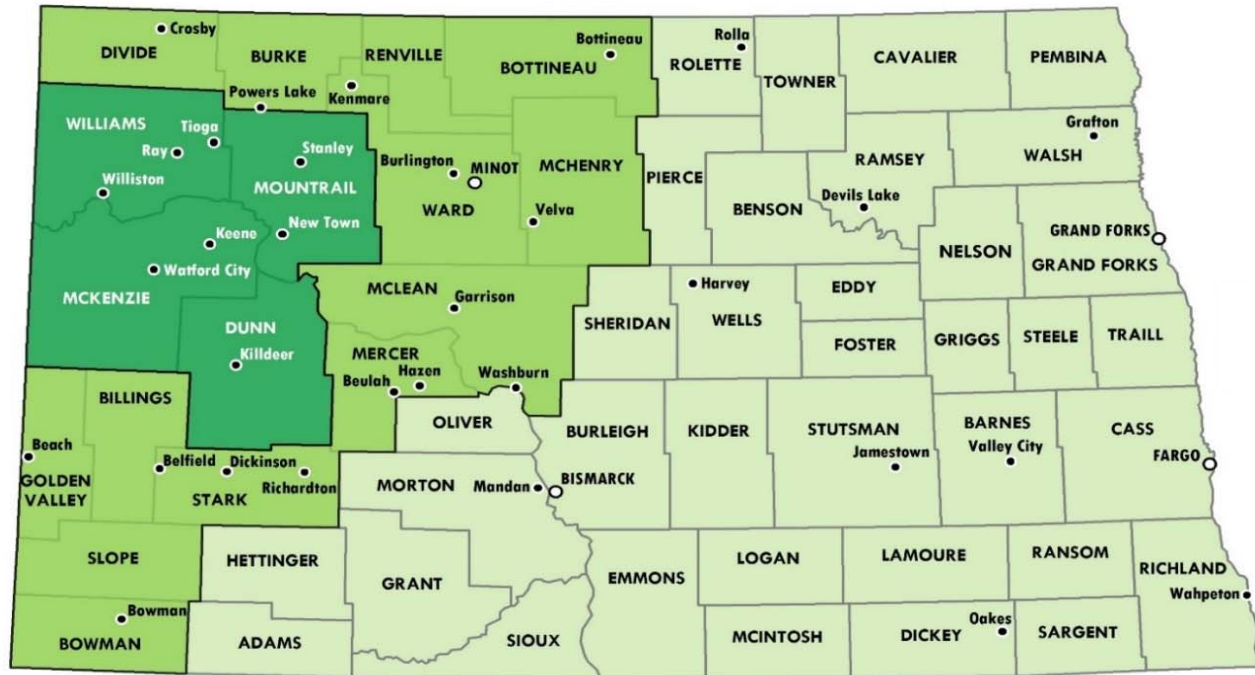


# NORTH DAKOTA'S OIL AND GAS ECONOMY

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 1,244,629 barrels of oil per day in May 2018, a change of +1.6 percent from the prior month and +19.6 percent from one year ago. Average daily gas production was at 2,318,754 MCF (thousand cubic feet) in May 2018, a change of +3.4 percent from the prior month and +25.1 percent from one year ago. Unsold natural gas accounted for 22.0 percent of all gas produced in May 2018. The four core oil and gas producing counties accounted for 94.5 percent of all oil and gas production in North Dakota. The transportation of Williston Basin oil via pipeline accounted for 72 percent of volume while rail accounted for 17 percent.

The number of oil and gas wells in production in North Dakota was 14,755 in May 2018, a change of +1.2 percent from the prior month and +6.3 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 121 oil and gas permits issued in North Dakota for May 2018, a change of +16.3 percent from the prior month and +21.0 percent from one year ago. The drilling rig count was 61 in May 2018, which is higher than the prior month's 60 count and higher than last year's 52 count. A vast majority (98.4 percent) of drilling rigs were located in the four core oil and gas producing counties.

The North Dakota crude oil first purchase price was \$65.72 per barrel in May 2018, a change of +5.2 percent from the prior month and +49.2 percent from one year ago. Retail fuel prices for regular gasoline in the Midwest region averaged \$2.77 per gallon (including taxes) in May 2018, which is +6.5 percent higher than last month and +22.5 percent higher than last year. Diesel fuel prices averaged \$3.18 per gallon in the Midwest region, which is +5.6 percent higher than last month and +27.5 percent higher than last year.

Data current as of August 8, 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 June 2018, up from 1.7 percent last month but down from 2.5 percent one year ago. The unemployment rate for the balance counties was 3.0 percent in June 2018, up from 2.5 percent last month but unchanged from 3.0 percent one year ago. North Dakota's unemployment rate for June 2018 was 2.9 percent. The rate for non oil counties was 3.0 percent.

There were 1,860 job openings in the core oil and gas producing counties in July 2018, a change of -5.6 percent from the prior month and +46.1 percent from one year ago. There were 1,971 job openings in the balance counties, a change of -7.5 percent from the prior month and +11.2 percent from one year ago. Together, the seventeen core and balance counties accounted for 29.9 percent of North Dakota's total job openings. The June 2018 rate of unemployed persons per job opening was 0.46 for core counties, while one year prior the rate was 0.82. The rate was 1.04 for balance counties, versus 1.21 one year prior. North Dakota's rate was 0.87.

There were 606 active résumés in the core oil and gas producing counties in July 2018, a change of -5.6 percent from the prior month and -15.4 percent from one year ago. There were 1,290 active résumés in the balance counties, a change of -7.7 percent from the prior month and -23.8 percent from one year ago. Together, core and balance counties accounted for 33.2 percent of North Dakota's total active résumés. The July 2018 rate of active résumés per job opening was 0.33 for core counties, while one year prior the rate was 0.56. The rate was 0.65 for balance counties, compared to 0.95 one year prior. North Dakota's rate was 0.45.

Employment in core oil and gas producing counties for Q4 (Oct-Dec) 2017 averaged 45,453, a change of +8.3 percent over the year for a difference of +3,499 jobs. For balance counties, employment was 68,003, a change of -1.3 percent over the year for a difference of -892 jobs. Over the year, North Dakota's change in average employment was -0.2 percent. Together, core and balance counties accounted for 27.1 percent of North Dakota's total employment. Jobs specifically in the Mining, Quarrying, and Oil and Gas Extraction industry accounted for 16.0 percent of total employment in the 17 oil and gas producing counties, up from 12.9 percent a year earlier.

Wages in core oil and gas producing counties for Q4 (Oct-Dec) 2017 totaled \$850,400,785, a change of +14.1 percent over the year. For balance counties, total wages were \$920,046,043, a change of +2.5 percent over the year. North Dakota's over-the-year change in total wages was +3.0 percent. Together, core and balance counties accounted for 32.2 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 21.4 percent a year earlier. Total wages in non oil and gas counties changed +1.2 percent over the year.

The average weekly wage in core oil and gas producing counties for Q4 (Oct-Dec) 2017 was \$1,439, a change of +5.3 percent over the year. For balance counties, the average weekly wage was \$1,041, a change of +3.9 percent over the year. The average weekly wage in core counties was 42.5 percent higher than the statewide average of \$1,010. For balance counties, the average weekly wage was 3.1 percent higher than the statewide average. The average weekly wage in non oil and gas counties was \$935, 7.4 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 \$1,994 and \$1,964, respectively.

Taxable sales and purchases in core oil and gas producing counties for Q1 (Jan-Mar) 2018 were \$448,198,276, a change of +30.4 percent over the year. For the balance of oil and gas counties, taxable sales and purchases were \$500,888,048, a change of +4.4 percent over the year. Taxable sales and purchases in non oil and gas counties recorded a change of -4.8 percent over the year.

Data current as of August 8, 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 MAY 2018]	1,244,629	1,165,113	79,516	***
1-Year Numeric Change		+203,634	+213,612	-9,978	***
1-Year Percent Change		+19.6	+22.5	-11.1	***
<b>Crude Oil First Purchase Price (\$ per barrel)</b>	[EGY MAY 2018]	65.72	***	***	***
1-Year Numeric Change		+21.66	***	***	***
1-Year Percent Change		+49.2	***	***	***
<b>Average Daily Gas Production (in MCF)</b>	[OGD MAY 2018]	2,318,754	2,201,040	117,714	***
1-Year Numeric Change		+465,226	+467,380	-2,153	***
1-Year Percent Change		+25.1	+27.0	-1.8	***
<b>Natural Gas City Gate Price (\$ per MCF)</b>	[EGY MAY 2018]	***	***	***	***
1-Year Numeric Change		***	***	***	***
1-Year Percent Change		***	***	***	***
<b>Oil and Gas Production Wells</b>	[OGD MAY 2018]	14,755	11,447	3,308	***
1-Year Numeric Change		+870	+837	+33	***
1-Year Percent Change		+6.3	+7.9	+1.0	***
<b>Drilling Rigs</b>	[OGD MAY 2018]	61	60	1	***
1-Year Numeric Change		+9	+10	-1	***
1-Year Percent Change		+17.3	+20.0	-50.0	***
<b>Oil and Gas Permits</b>	[OGD MAY 2018]	121	***	***	***
1-Year Numeric Change		+21	***	***	***
1-Year Percent Change		+21.0	***	***	***
<b>Population</b>	[CENS 2017]	755,393	60,627	143,283	551,483
1-Year Numeric Change		-155	-802	-2,562	+3,209
1-Year Percent Change		0.0	-1.3	-1.8	+0.6
<b>Labor Force</b>	[LAUS JUN 2018]	414,033	41,635	74,109	298,291
1-Year Numeric Change		-10,253	-1,001	-3,218	-6,031
1-Year Percent Change		-2.4	-2.3	-4.2	-2.0
<b>Unemployed</b>	[LAUS JUN 2018]	11,950	897	2,214	8,838
1-Year Numeric Change		+320	-153	-134	+606
1-Year Percent Change		+2.8	-14.6	-5.7	+7.4
<b>Unemployment Rate (%)</b>	[LAUS JUN 2018]	2.9	2.2	3.0	3.0
Same Month, 1 Year Ago		2.7	2.5	3.0	2.7

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 JUN 2018]	1,585	86	173	955
1-Year Numeric Change		-505	-59	-129	-56
1-Year Percent Change		-24.2	-40.7	-42.7	-5.5
<b>Job Openings</b>	[OJOR JUL 2018]	12,789	1,860	1,971	8,958
1-Year Numeric Change		+1,841	+587	+199	+1,055
1-Year Percent Change		+16.8	+46.1	+11.2	+13.3
<b>Unemployed per Job Opening</b>	[OJOR JUN 2018]	0.87	0.46	1.04	0.91
Same Month, 1 Year Ago		1.02	0.82	1.21	1.01
<b>Active Résumés</b>	[OJOR JUL 2018]	5,716	606	1,290	3,820
1-Year Numeric Change		-1,062	-110	-402	-550
1-Year Percent Change		-15.7	-15.4	-23.8	-12.6
<b>Active Résumés per Job Opening</b>	[OJOR JUL 2018]	0.45	0.33	0.65	0.43
Same Month, 1 Year Ago		0.62	0.56	0.95	0.55
<b>Average Employment</b>	[QCEW Q4 (OCT-DEC) 2017]	418,797	45,453	68,003	302,929
1-Year Numeric Change		-1,003	+3,499	-892	-3,083
1-Year Percent Change		-0.2	+8.3	-1.3	-1.0
<b>Business Establishments</b>	[QCEW Q4 (OCT-DEC) 2017]	32,012	3,669	5,881	21,680
1-Year Numeric Change		-158	-107	-90	+51
1-Year Percent Change		-0.5	-2.8	-1.5	+0.2
<b>Average Weekly Wage (\$)</b>	[QCEW Q4 (OCT-DEC) 2017]	1,010	1,439	1,041	935
1-Year Numeric Change		+32	+72	+39	+20
1-Year Percent Change		+3.3	+5.3	+3.9	+2.2
<b>Per Capita Personal Income (\$)</b>	[BEA 2016]	54,801	71,835	58,278	51,731
1-Year Numeric Change		-842	-15,187	-3,473	+1,590
1-Year Percent Change		-1.5	-17.5	-5.6	+3.2
<b>Taxable Sales &amp; Purchases (in thsd \$)</b>	[TAX Q1 (JAN-MAR) 2018]	4,049,427.4	448,198.3	500,888.0	1,460,506.0
1-Year Numeric Change		+353,003.5	+104,445.5	+20,972.1	-73,033.4
1-Year Percent Change		+9.5	+30.4	+4.4	-4.8
<b>New Residential Construction (Housing Units)</b>	[CENS 2017]	3,411	220	300	2,891
1-Year Numeric Change		-570	-133	+24	-461
1-Year Percent Change		-14.3	-37.7	+8.7	-13.8

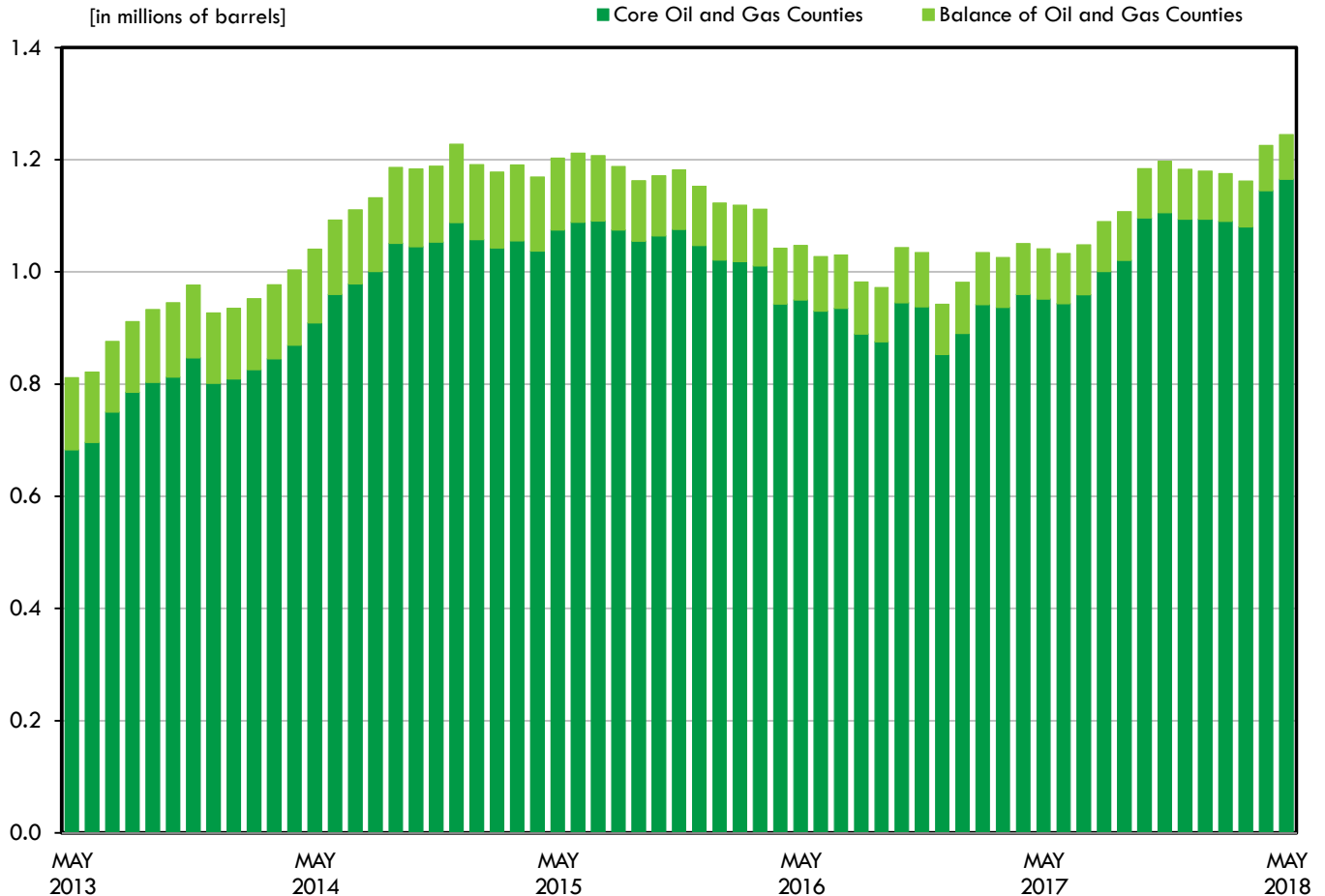
Sources: BEA U.S. Bureau of Economic Analysis; CENS U.S. Census Bureau; EGY U.S. Dept of Energy; LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics; OGD North Dakota Dept of Mineral Resources, Oil and Gas Division; OJOR Labor Market Information Center, Job Service 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

## AVERAGE DAILY OIL PRODUCTION (in barrels)

[OGD MAY 2018]



CORE COUNTIES		PCT OF ND	BALANCE COUNTIES		PCT OF ND	NORTH DAKOTA	
1,165,113	93.6	79,516	6.4	1,244,629			
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG		
+20,589	+1.8	-1,351	-1.7	+19,238	+1.6		
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG		
+213,612	+22.5	-9,978	-11.1	+203,634	+19.6		
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG		
+482,400	+70.7	-49,033	-38.1	+433,367	+53.4		
12 MO MOV AVG		PCT OF ND	12 MO MOV AVG		PCT OF ND	12 MO MOV AVG	
1,066,095	92.5	86,262	7.5	1,152,357			
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG		
+17,801	+1.7	-832	-1.0	+16,969	+1.5		
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG		
+145,665	+15.8	-6,937	-7.4	+138,728	+13.7		
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG		
+441,160	+70.6	-33,327	-27.9	+407,833	+54.8		

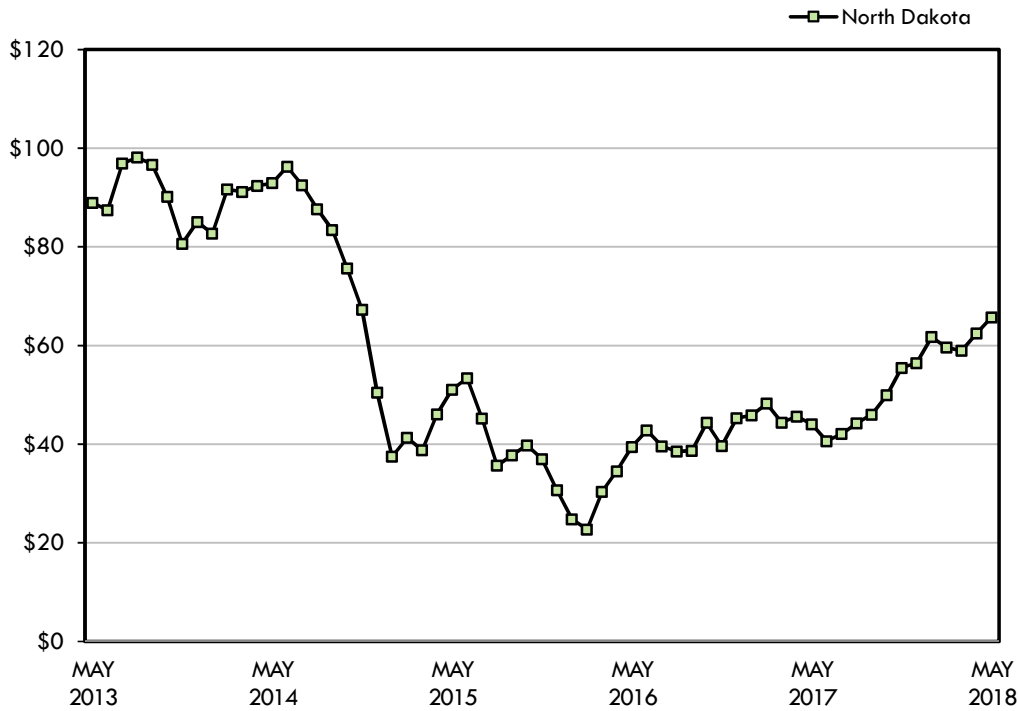
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

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

[EGY MAY 2018]



### NORTH DAKOTA

65.72

M/M # CHG	M/M % CHG
+3.24	+5.2
Y/Y # CHG	Y/Y % CHG
+21.66	+49.2
5YR # CHG	5YR % CHG
-23.25	-26.1

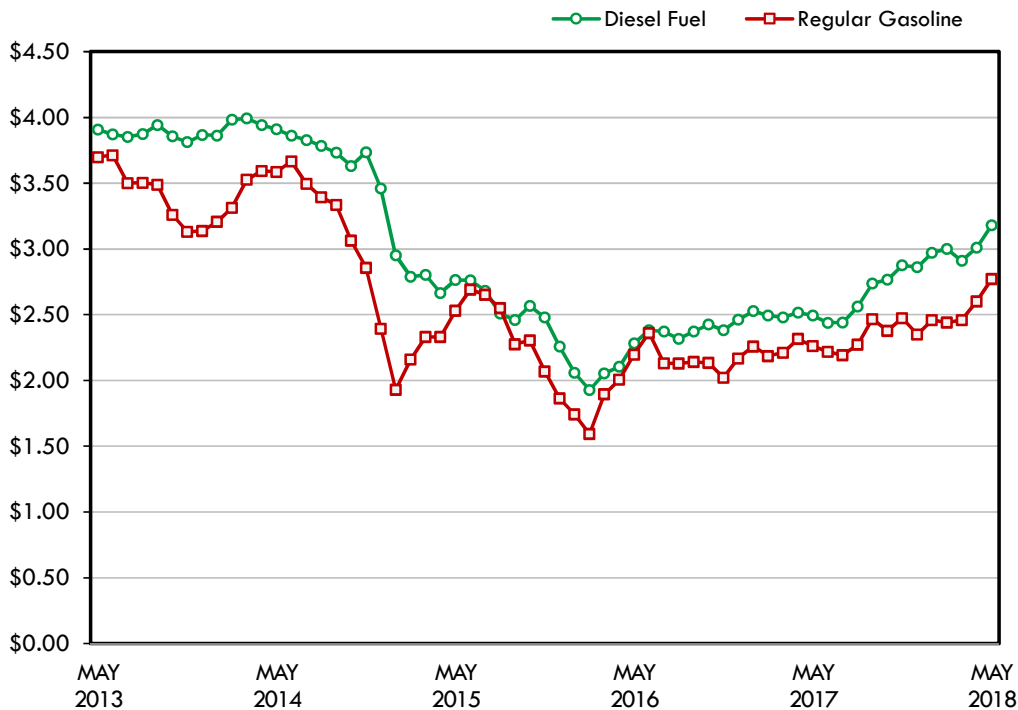
### 12 MO MOV AVG

53.61

M/M # CHG	M/M % CHG
+1.80	+3.5
Y/Y # CHG	Y/Y % CHG
+10.51	+24.4
5YR # CHG	5YR % CHG
-31.60	-37.1

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

[EGY MAY 2018]



### REGULAR GASOLINE

2.77

M/M # CHG	M/M % CHG
+0.17	+6.5
Y/Y # CHG	Y/Y % CHG
+0.51	+22.5
5YR # CHG	5YR % CHG
-0.93	-25.1

### DIESEL FUEL

3.18

M/M # CHG	M/M % CHG
+0.17	+5.6
Y/Y # CHG	Y/Y % CHG
+0.69	+27.5
5YR # CHG	5YR % CHG
-0.73	-18.6

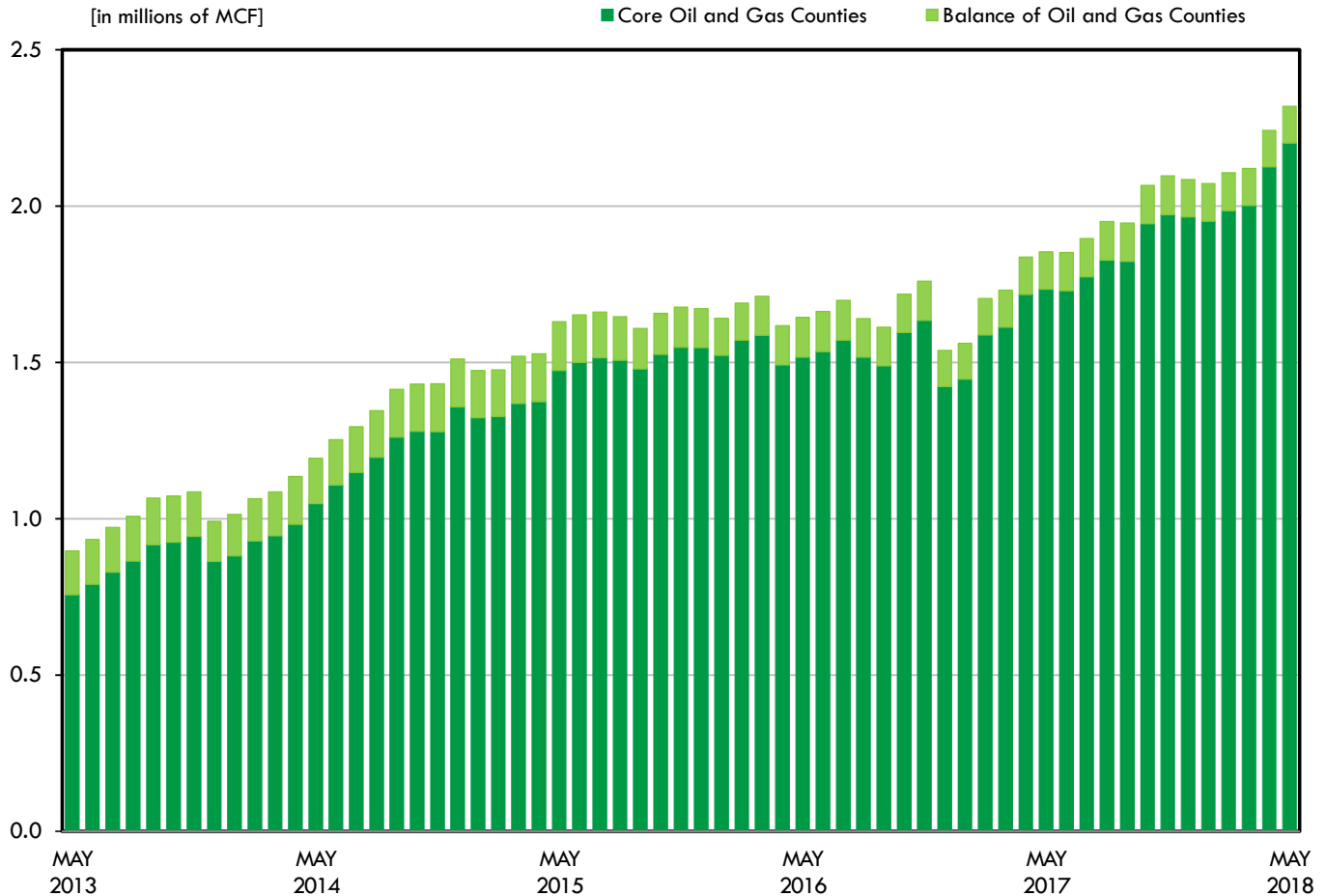
Sources: EGY U.S. Dept of Energy

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE DAILY GAS PRODUCTION (in MCF)

[OGD MAY 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NORTH DAKOTA	
2,201,040	94.9	117,714	5.1	2,318,754	
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+75,731	+3.6	+930	+0.8	+76,661	+3.4
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+467,380	+27.0	-2,153	-1.8	+465,226	+25.1
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+1,444,294	+190.9	-21,898	-15.7	+1,422,395	+158.7

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	
1,941,372	94.1	120,951	5.9	2,062,323	
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+38,948	+2.0	-179	-0.1	+38,769	+1.9
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+369,734	+23.5	-320	-0.3	+369,414	+21.8
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+1,260,586	+185.2	+471	+0.4	+1,261,057	+157.4

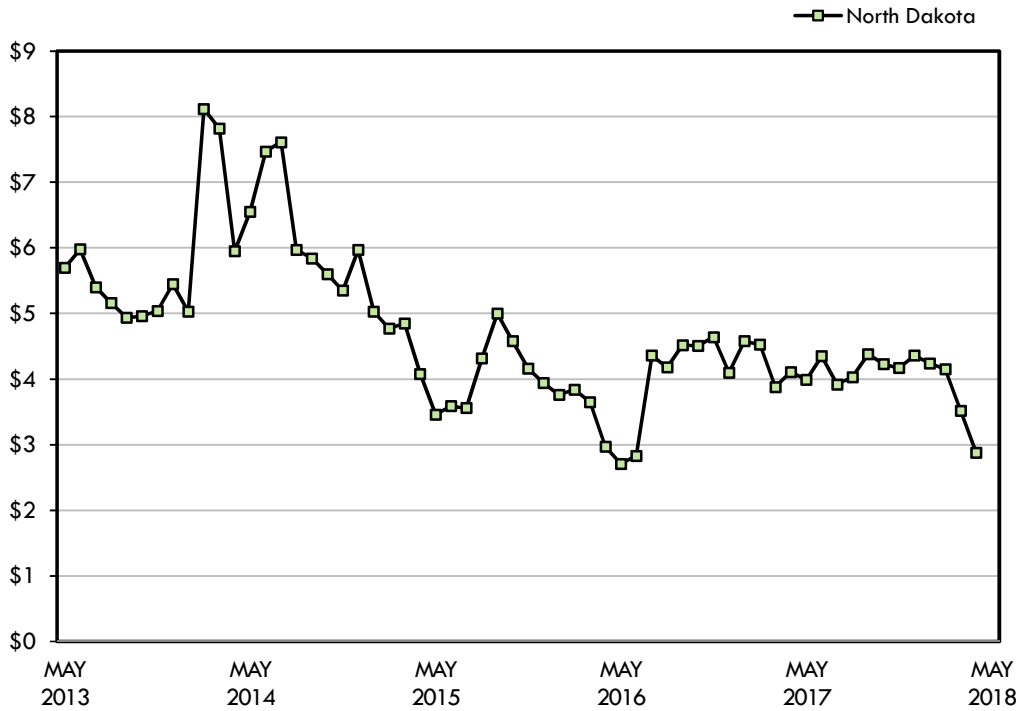
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

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

[EGY MAY 2018]



### NORTH DAKOTA

\*\*\*

**M/M # CHG**    **M/M % CHG**

\*\*\*            \*\*\*

**Y/Y # CHG**    **Y/Y % CHG**

\*\*\*            \*\*\*

**5YR # CHG**    **5YR % CHG**

\*\*\*            \*\*\*

### 12 MO MOV AVG

\*\*\*

**M/M # CHG**    **M/M % CHG**

\*\*\*            \*\*\*

**Y/Y # CHG**    **Y/Y % CHG**

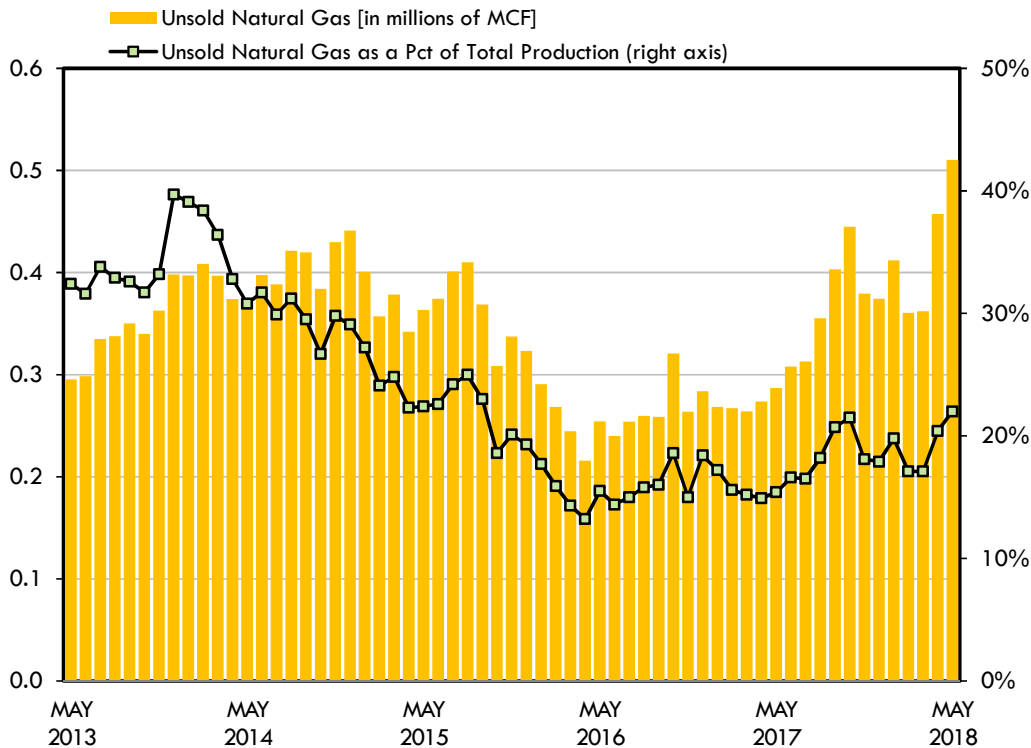
\*\*\*            \*\*\*

**5YR # CHG**    **5YR % CHG**

\*\*\*            \*\*\*

## AVERAGE DAILY UNSOLD NATURAL GAS (in MCF)

[OGD MAY 2018]



### NORTH DAKOTA

510,396

**M/M # CHG**    **M/M % CHG**

+53,009        +11.6

**Y/Y # CHG**    **Y/Y % CHG**

+223,442      +77.9

**5YR # CHG**    **5YR % CHG**

+215,059      +72.8

**PCT OF NAT GAS UNSOLD**

22.0

### 12 MO MOV AVG

390,099

**M/M # CHG**    **M/M % CHG**

+18,620        +5.0

**Y/Y # CHG**    **Y/Y % CHG**

+119,922      +44.4

**5YR # CHG**    **5YR % CHG**

+123,121      +46.1

**PCT OF NAT GAS UNSOLD**

18.9

[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

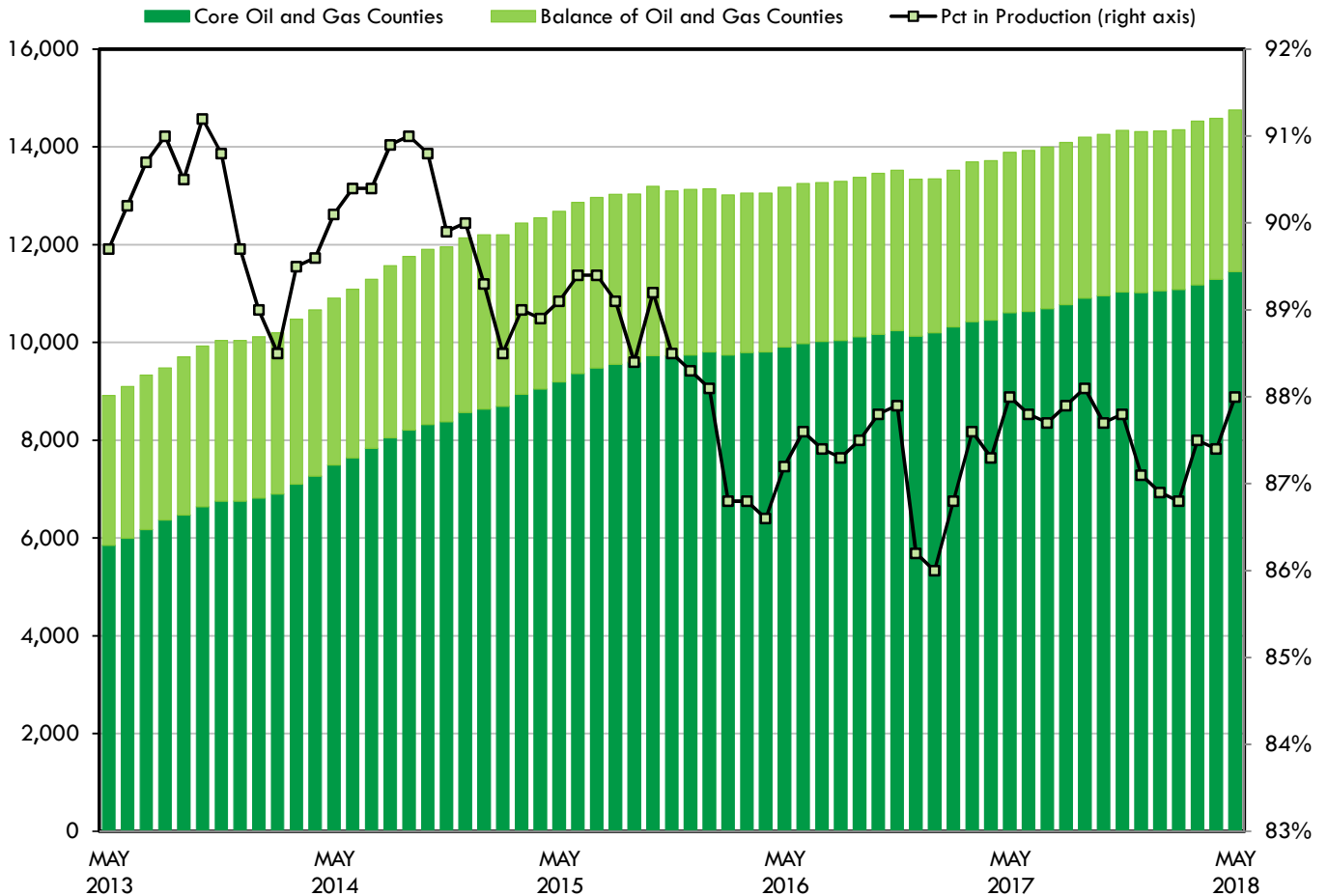
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## OIL AND GAS PRODUCTION WELLS

[OGD MAY 2018]



CORE COUNTIES		PCT OF ND		BALANCE COUNTIES		PCT OF ND		NORTH DAKOTA	
11,447	77.6	3,308	22.4	14,755					
<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>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+155	+1.4	+17	+0.5	+172	+1.2				
<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>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+837	+7.9	+33	+1.0	+870	+6.3				
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+5,595	+95.6	+245	+8.0	+5,840	+65.5				

12 MO MOV AVG		PCT OF ND		12 MO MOV AVG		PCT OF ND		12 MO MOV AVG	
11,004	76.9	3,300	23.1	14,304					
<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>	<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+70	+0.6	+3	+0.1	+73	+0.5				
<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>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+781	+7.6	+52	+1.6	+833	+6.2				
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
+5,771	+110.3	+364	+12.4	+6,135	+75.1				

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

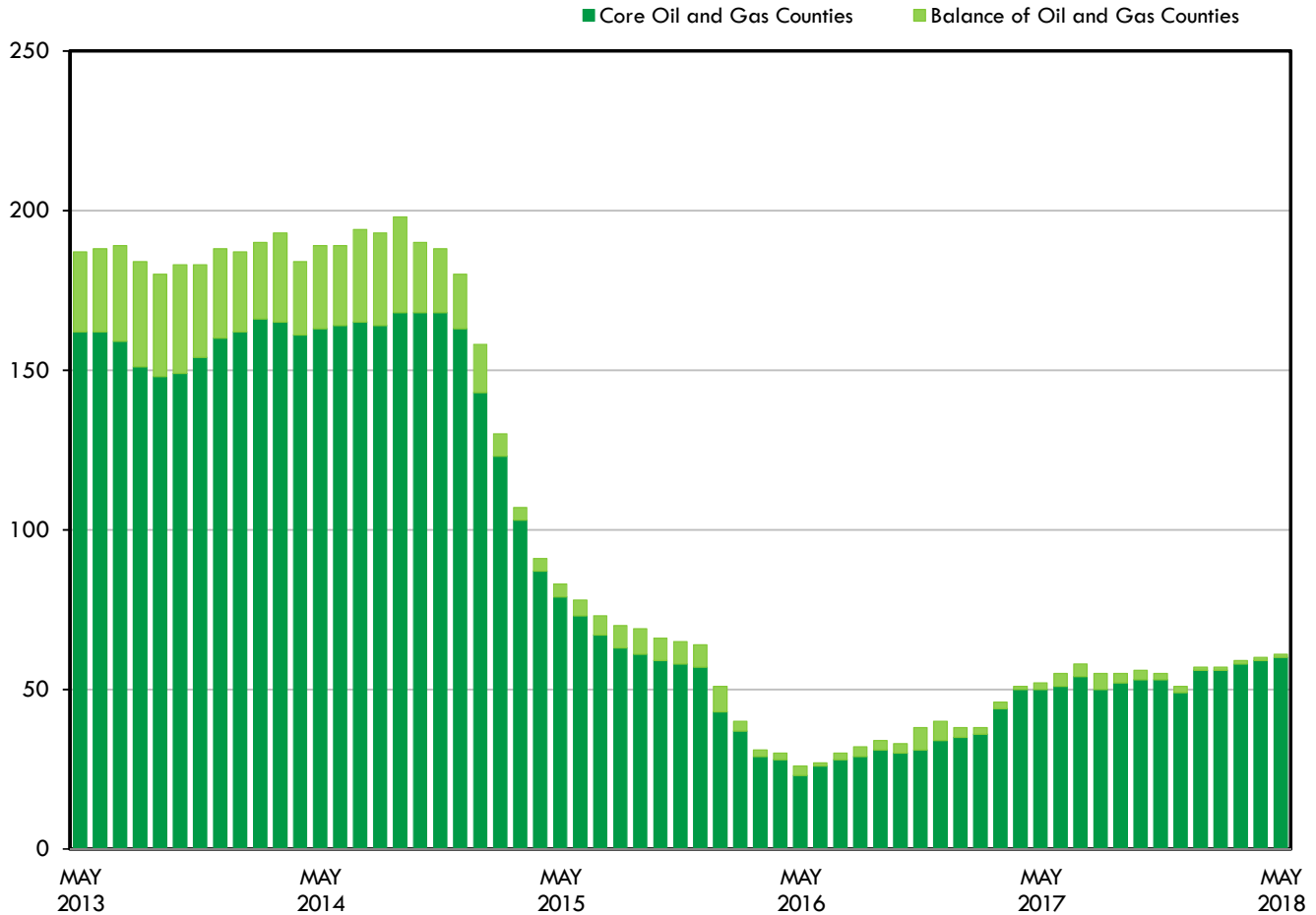
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

Data current as of August 8, 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 MAY 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NORTH DAKOTA	
60	98.4	1	1.6	61	
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+1	+1.7	0	0.0	+1	+1.7
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+10	+20.0	-1	-50.0	+9	+17.3
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-102	-63.0	-24	-96.0	-126	-67.4

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	
54	96.4	2	3.6	56	
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+1	+1.9	0	0.0	+1	+1.8
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+19	+54.3	-1	-33.3	+18	+47.4
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-108	-66.7	-28	-93.3	-136	-70.8

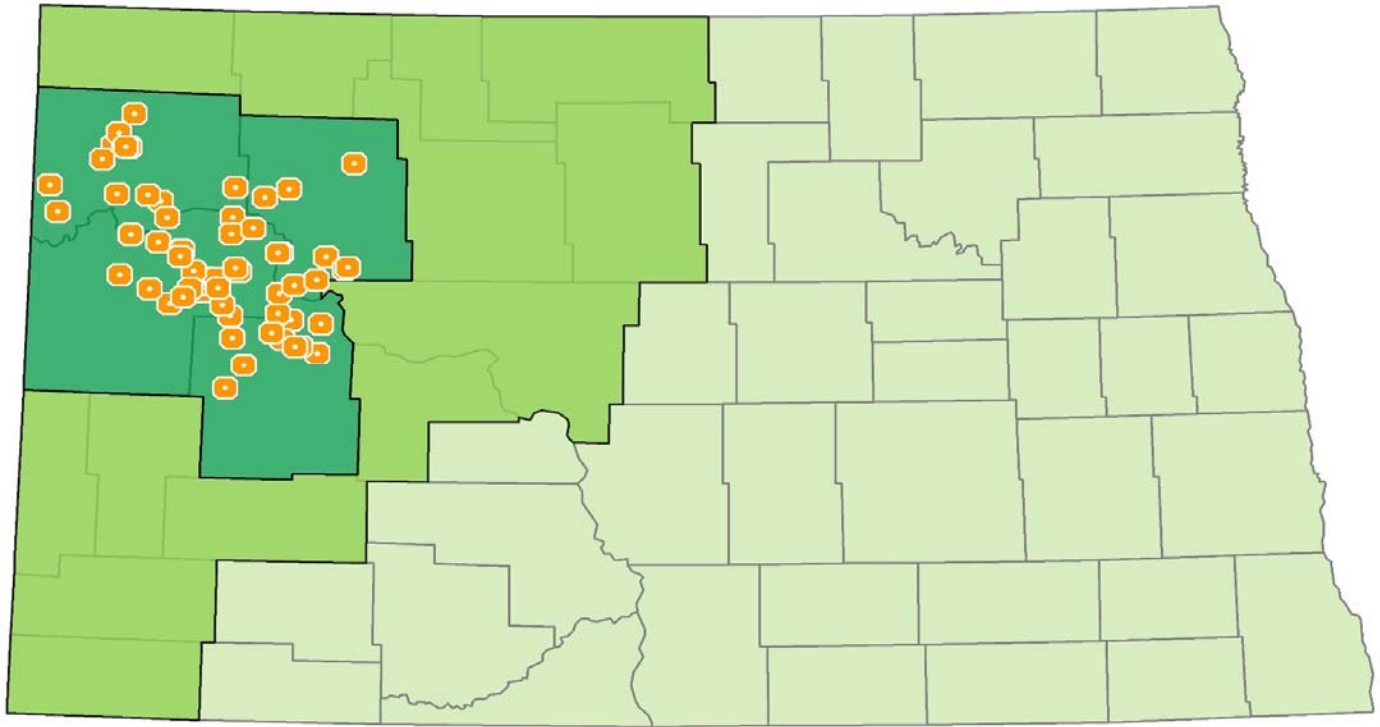
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

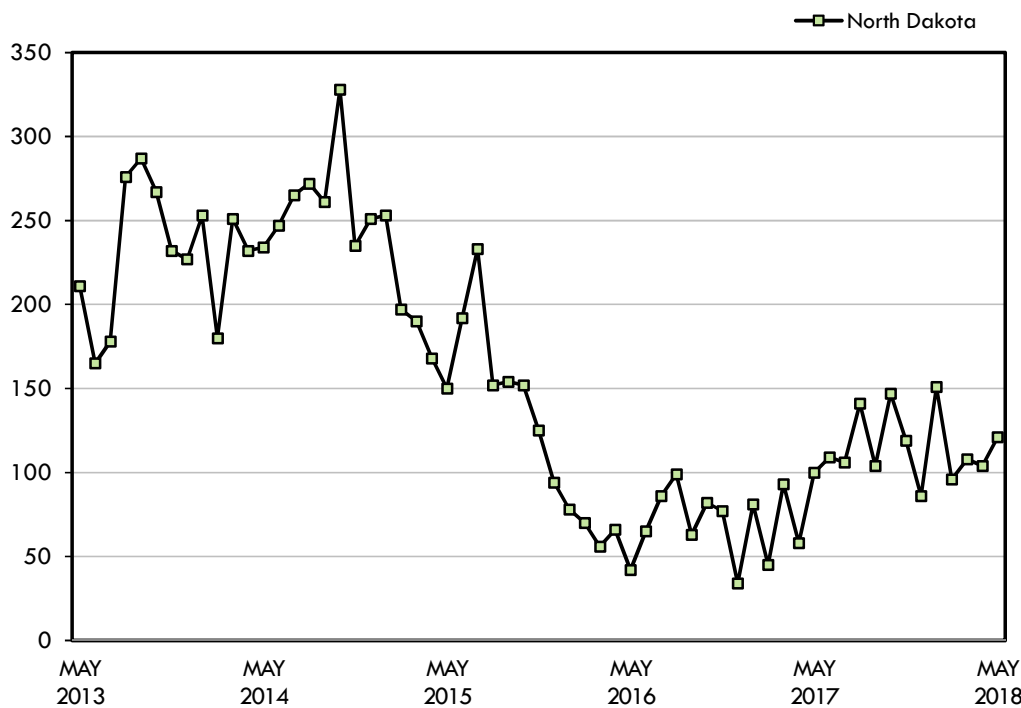
## DRILLING RIG LOCATIONS

[OGD MAY 2018]



## OIL AND GAS PERMITS

[OGD MAY 2018]



NORTH DAKOTA	
121	
<b>M/M # CHG</b>	<b>M/M % CHG</b>
+17	+16.3
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+21	+21.0
<b>5YR # CHG</b>	<b>5YR % CHG</b>
-90	-42.7
12 MO MOV AVG	
116	
<b>M/M # CHG</b>	<b>M/M % CHG</b>
+2	+1.8
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+42	+56.8
<b>5YR # CHG</b>	<b>5YR % CHG</b>
-108	-48.2

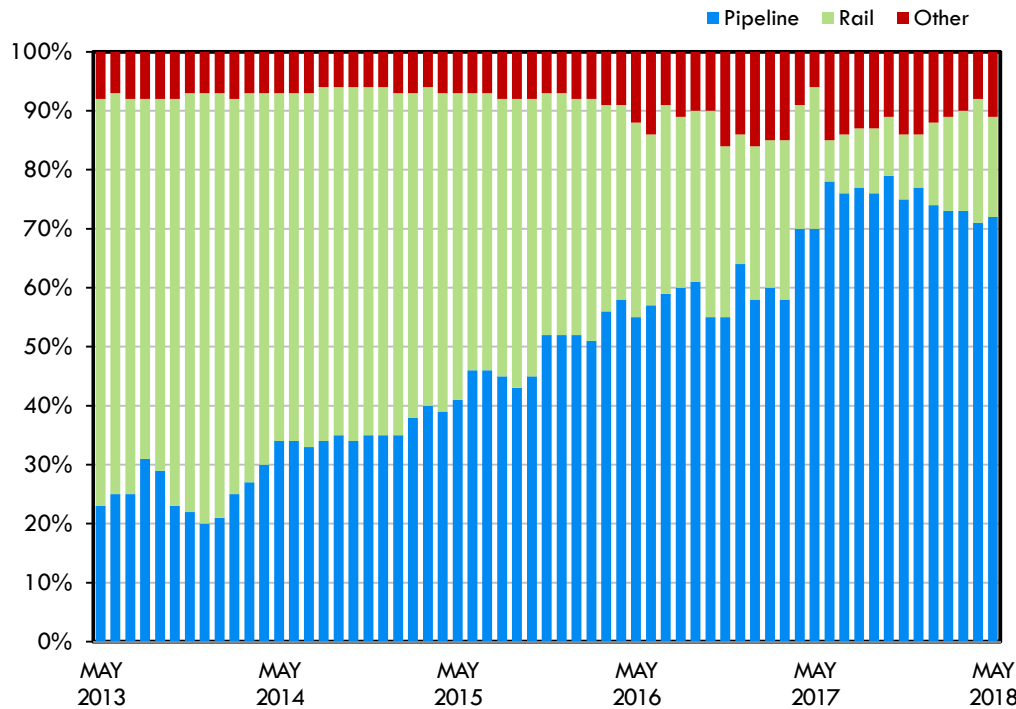
Sources: OGD North Dakota Dept of Mineral Resources, Oil and Gas Division

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## WILLISTON BASIN OIL TRANSPORTATION (% share)

[NDPA MAY 2018]

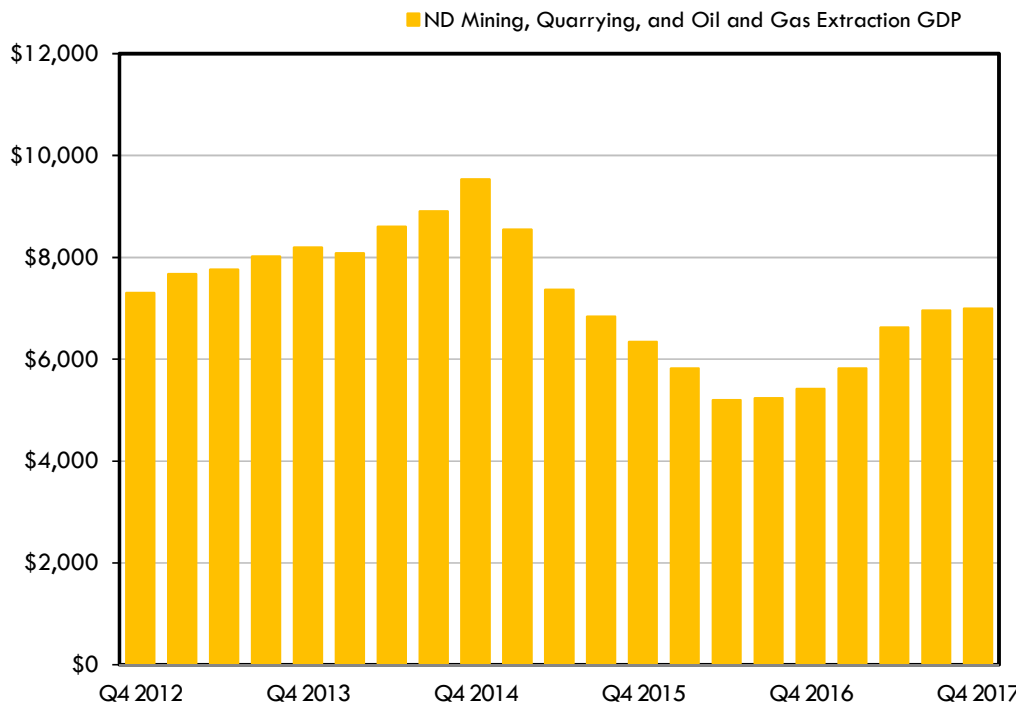


PIPELINE
72
1 YEAR AGO
70
5 YEARS AGO
23
RAIL
17
1 YEAR AGO
24
5 YEARS AGO
69
OTHER
11
1 YEAR AGO
6
5 YEARS AGO
8

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

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

[BEA Q4 (OCT-DEC) 2017]



NORTH DAKOTA	
6,991	
Q/Q # CHG	Q/Q % CHG
+36	+0.5
Y/Y # CHG	Y/Y % CHG
+1,574	+29.1
5YR # CHG	5YR % CHG
-310	-4.2
4 QTR MOV AVG	
6,598	
Q/Q # CHG	Q/Q % CHG
+393	+6.3
Y/Y # CHG	Y/Y % CHG
+1,181	+21.8
5YR # CHG	5YR % CHG
-484	-6.8

[GDP data are seasonally adjusted at annual rates]

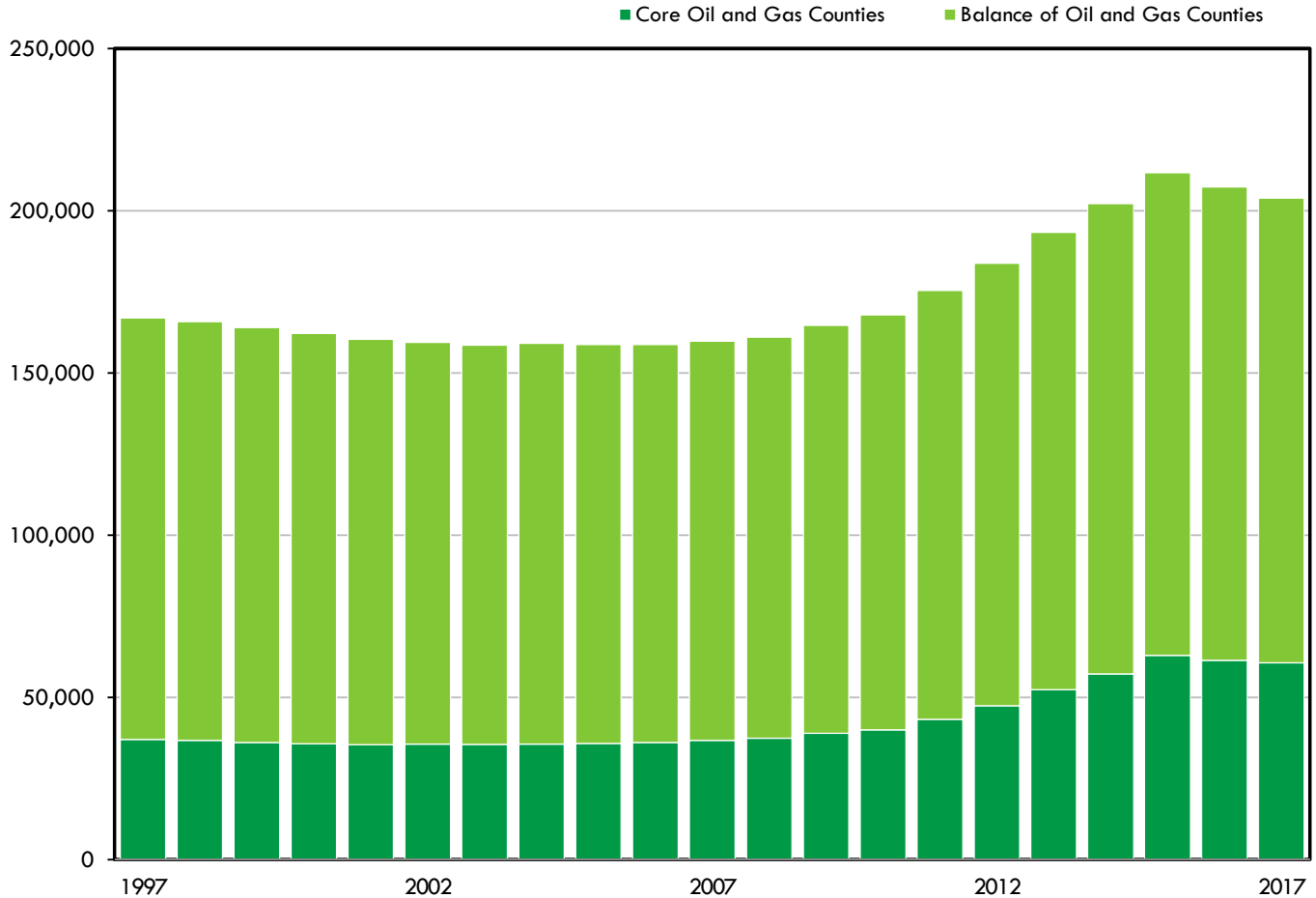
Sources: BEA U.S. Bureau of Economic Analysis; NDPA North Dakota Pipeline Authority

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## POPULATION

[CENS 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
60,627	8.0	143,283	19.0	551,483	755,393
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-802	-1.3	-2,562	-1.8	+0.6	0.0
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
+13,221	+27.9	+6,893	+5.1	+6.5	+7.7

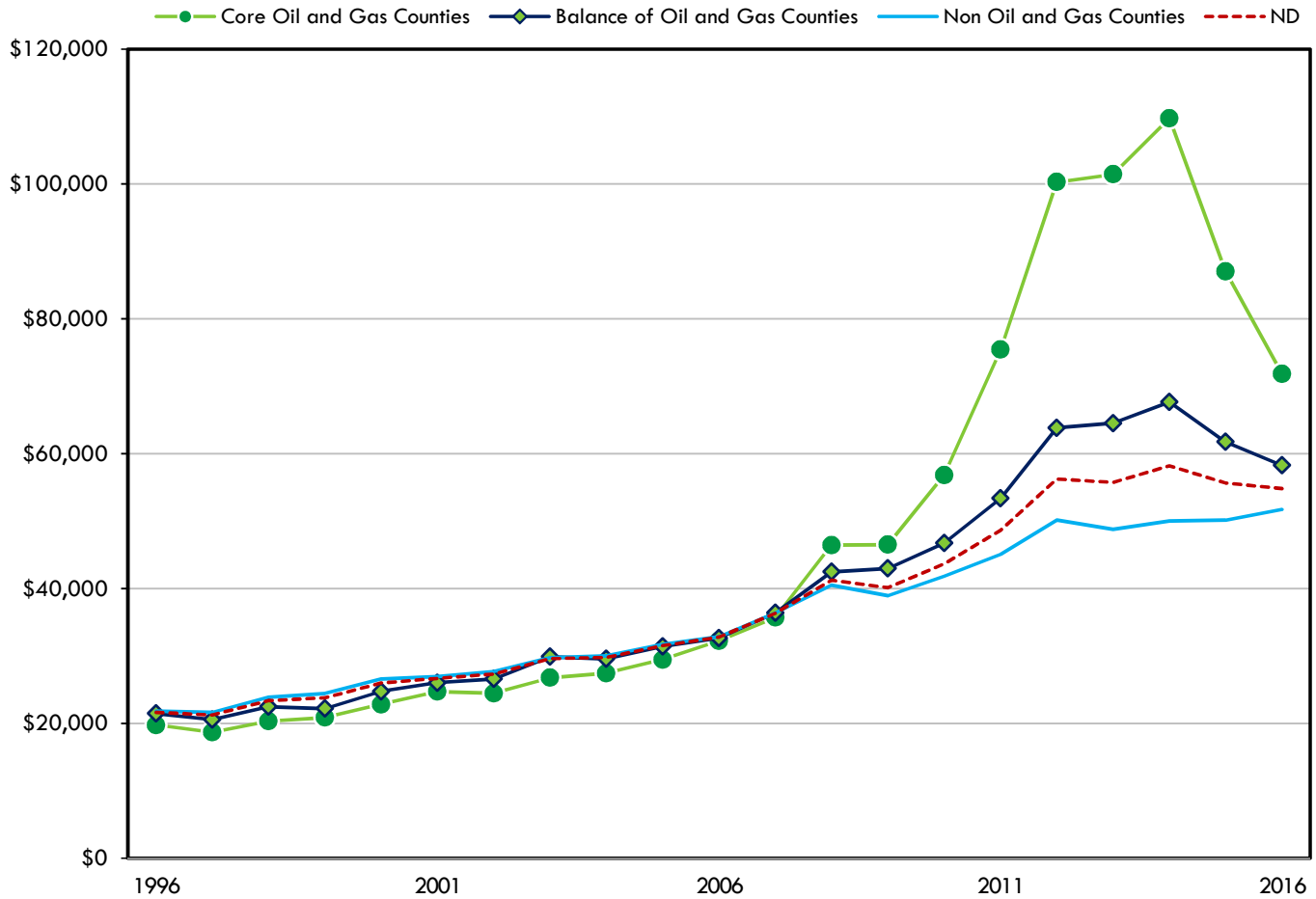
Sources: CENS U.S. Census Bureau

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# 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	54,801
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-15,187	-17.5	-3,473	-5.6	+3.2	-1.5
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-3,606	-4.8	+4,915	+9.2	+14.8	+12.7

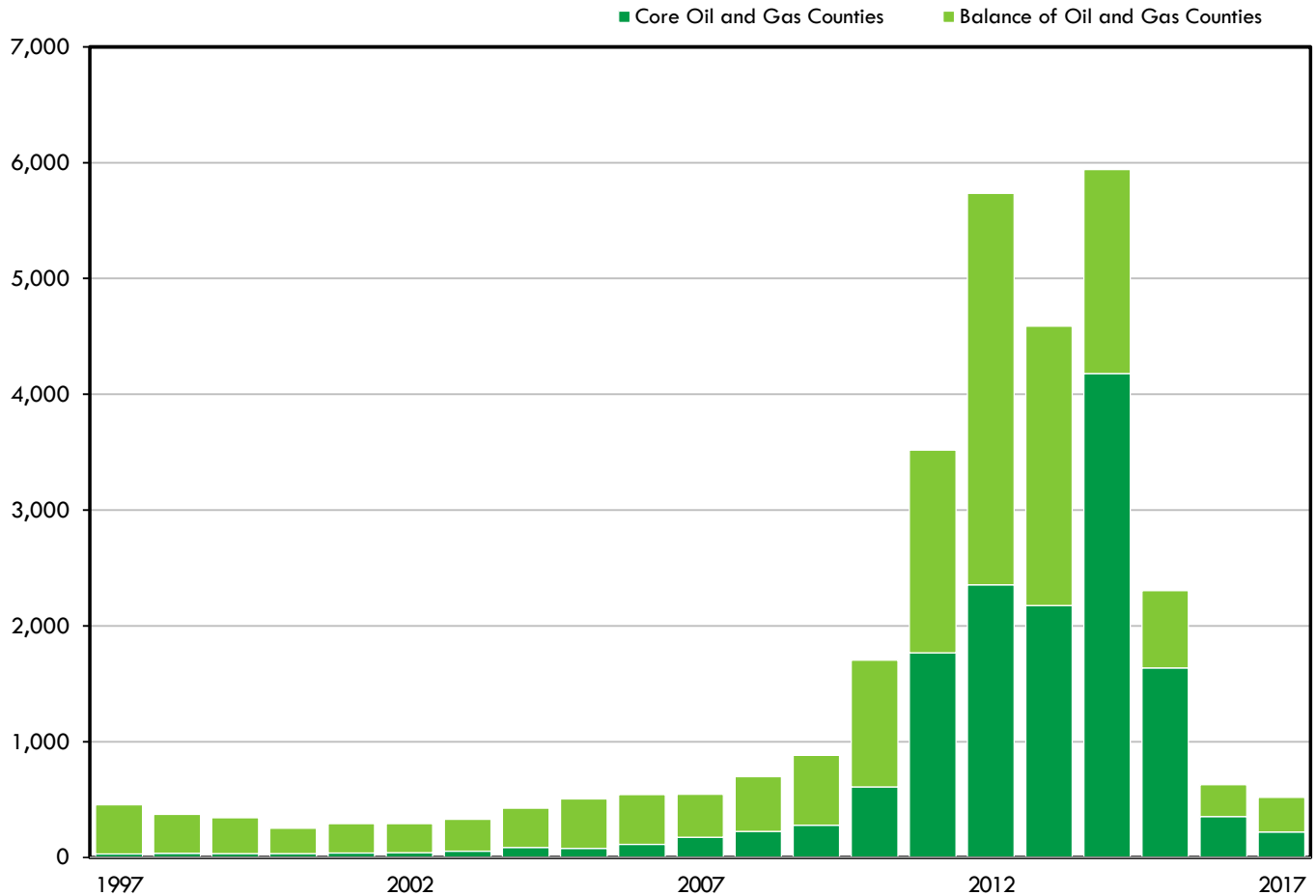
Sources: BEA U.S. Bureau of Economic Analysis

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## NEW RESIDENTIAL CONSTRUCTION (HOUSING UNITS)

[CENS 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND	NON OIL	N DAKOTA
220	6.4	300	8.8	2,891	3,411
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG	Y/Y % CHG	Y/Y % CHG
-133	-37.7	+24	+8.7	-13.8	-14.3
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG	5YR % CHG	5YR % CHG
-2,134	-90.7	-3,080	-91.1	-37.2	-67.0

[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]

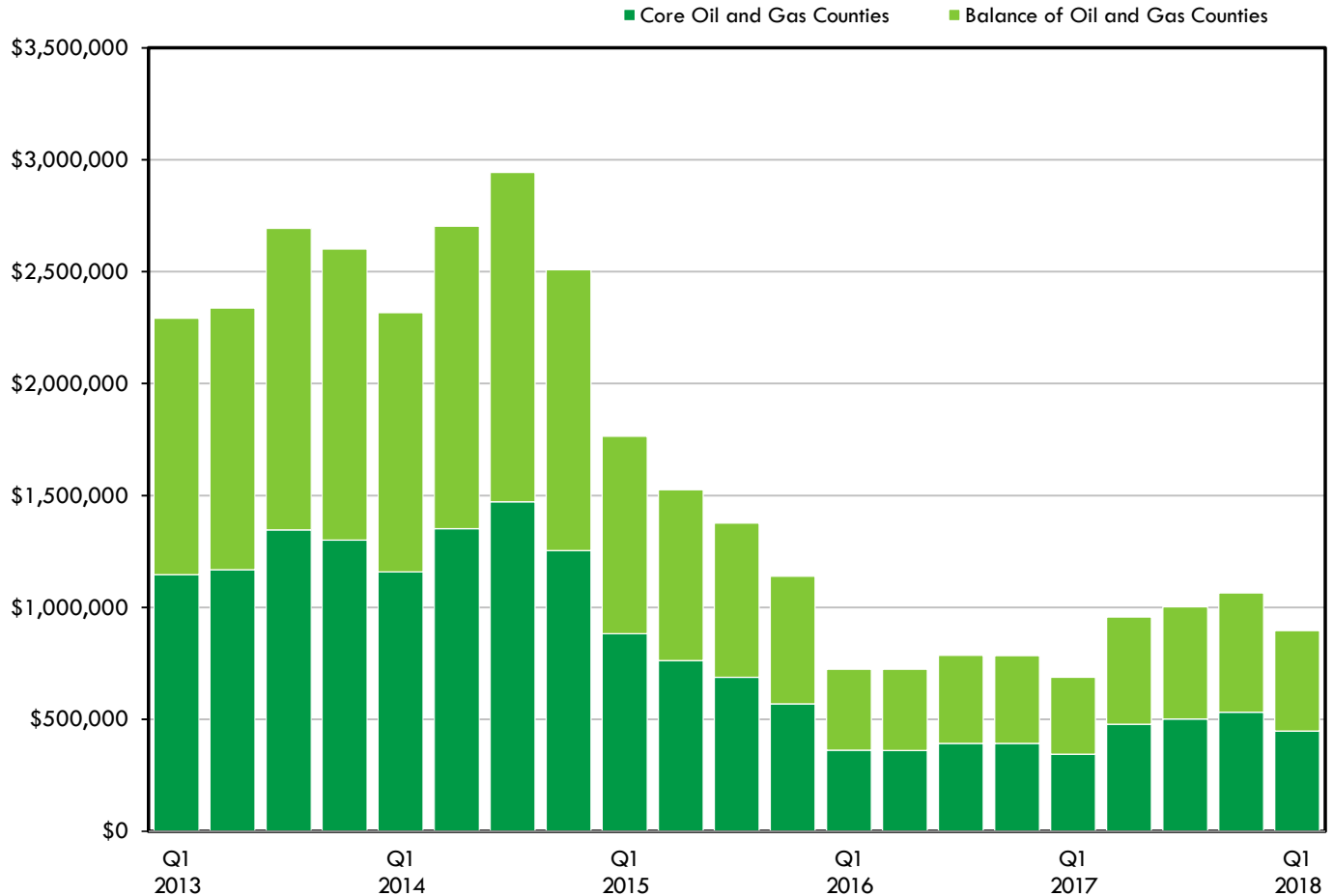
Sources: CENS U.S. Census Bureau

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

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

[TAX Q1 (JAN-MAR) 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
448,198.3	11.1	500,888.0	12.4
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG
-84,527.5	-15.9	-112,803.5	-18.4
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+104,445.5	+30.4	+20,972.1	+4.4
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-697,631.0	-60.9	-208,154.4	-29.4

NON OIL	N DAKOTA
1,460,506.0	4,049,427.4
Q/Q % CHG	Q/Q % CHG
-23.1	-15.2
Y/Y % CHG	Y/Y % CHG
-4.8	+9.5
5YR % CHG	5YR % CHG
-11.9	-25.7

4 QTR ROLL TOTAL	PCT OF ND	4 QTR ROLL TOTAL	PCT OF ND
1,960,670.6	10.7	2,363,522.2	13.0
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG
+104,445.5	+5.6	+20,972.1	+0.9
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+470,215.3	+31.5	+112,562.6	+5.0
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-3,224,810.9	-62.2	-1,030,415.6	-30.4

4 QRT	4 QRT
7,192,723.1	18,240,562.7
Q/Q % CHG	Q/Q % CHG
-1.0	+2.0
Y/Y % CHG	Y/Y % CHG
-3.2	+6.3
5YR % CHG	5YR % CHG
-11.1	-28.3

[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

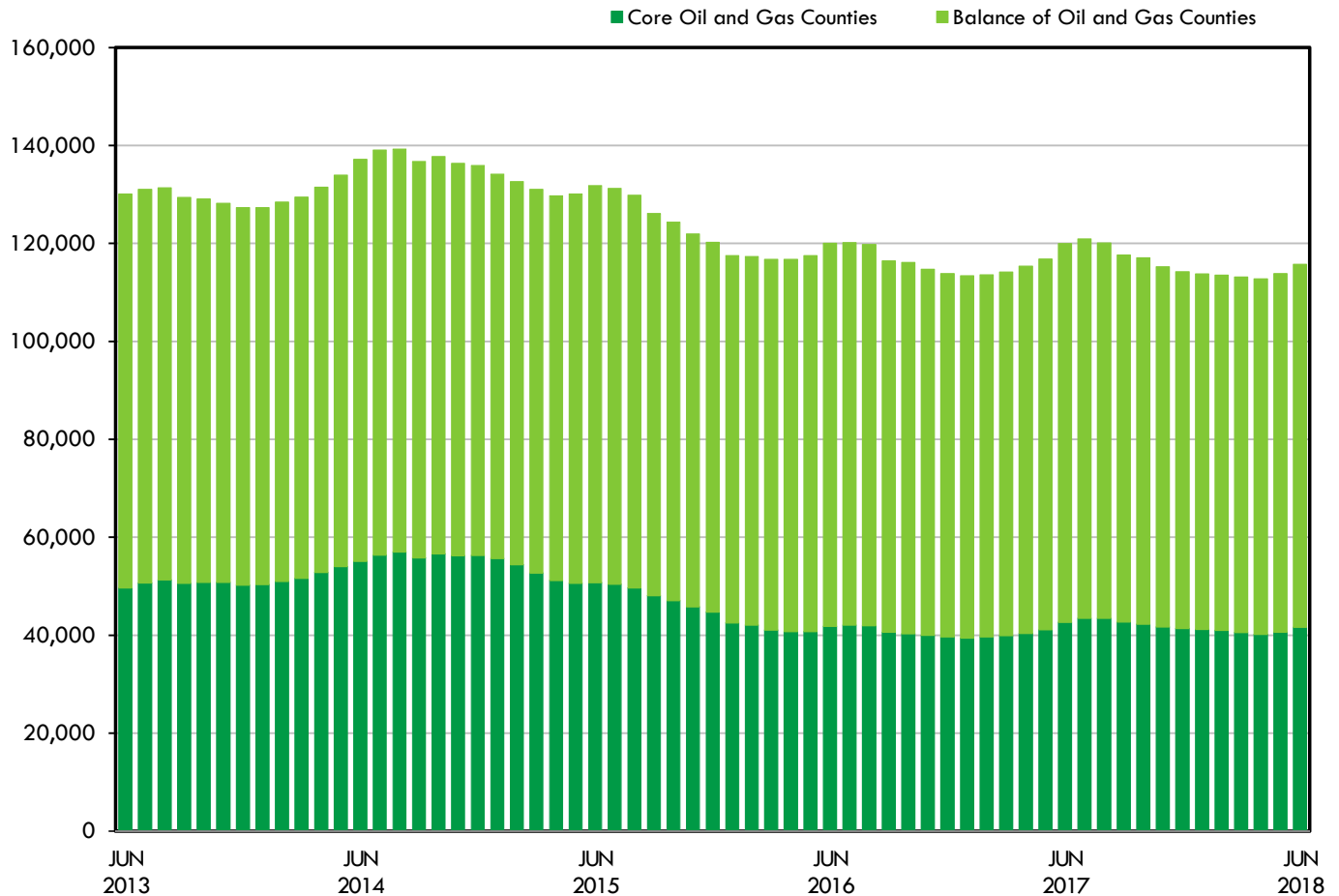
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## LABOR FORCE

[LAUS JUN 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
41,635	10.1	74,109	17.9
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+1,008	+2.5	+915	+1.3
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-1,001	-2.3	-3,218	-4.2
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-8,032	-16.2	-6,301	-7.8

NON OIL	N DAKOTA
298,291	414,033
M/M % CHG	M/M % CHG
+1.3	+1.4
Y/Y % CHG	Y/Y % CHG
-2.0	-2.4
5YR % CHG	5YR % CHG
+4.5	-0.3

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND
41,685	10.1	73,966	18.0
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
-83	-0.2	-268	-0.4
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+1,045	+2.6	-1,562	-2.1
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-4,940	-10.6	-3,368	-4.4

12 MMA	12 MMA
296,275	411,924
M/M % CHG	M/M % CHG
-0.2	-0.2
Y/Y % CHG	Y/Y % CHG
-0.8	-0.7
5YR % CHG	5YR % CHG
+6.4	+2.3

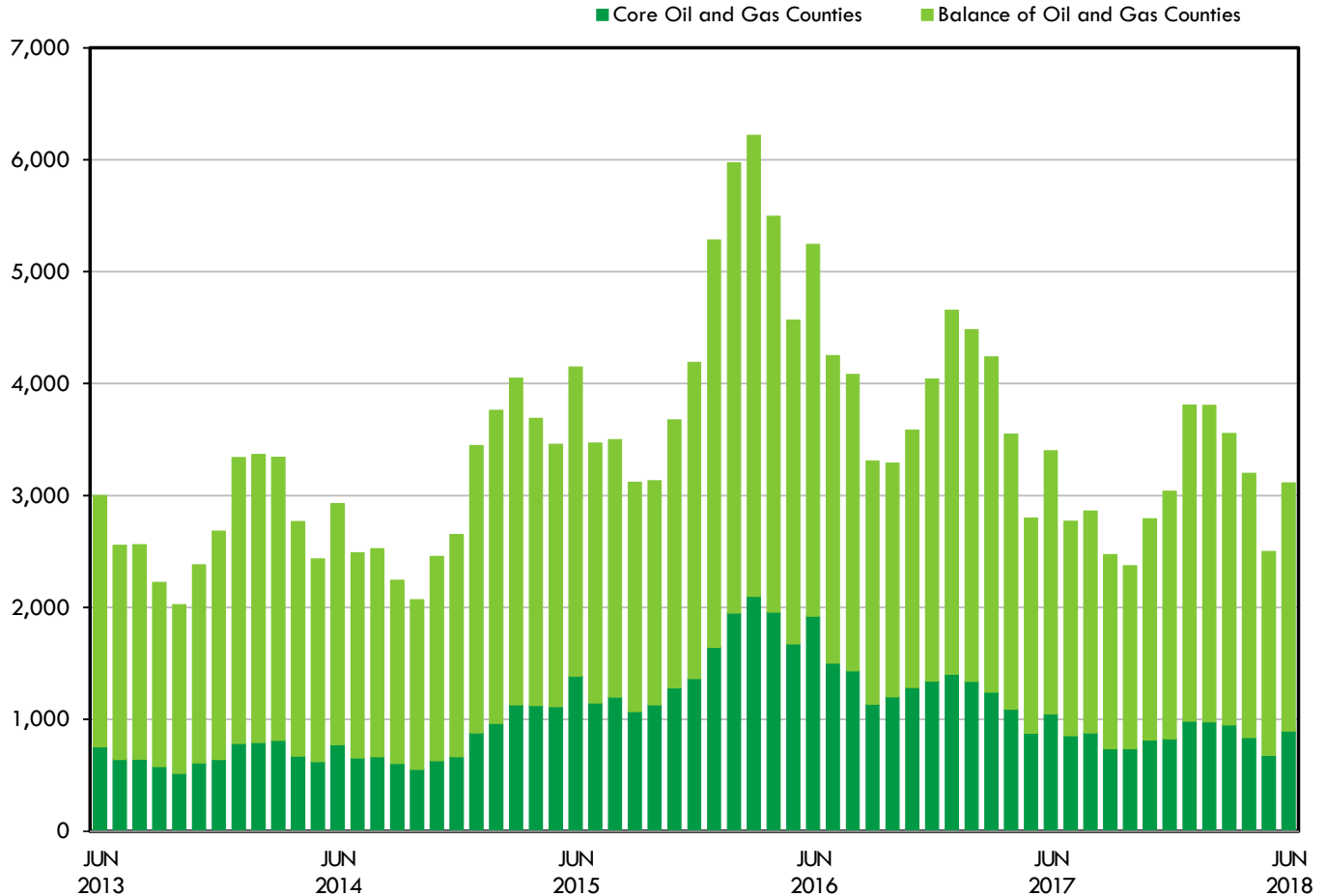
Sources: LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## UNEMPLOYED

[LAUS JUN 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
897	7.5	2,214	18.5
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
+219	+32.3	+392	+21.5
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-153	-14.6	-134	-5.7
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+141	+18.7	-29	-1.3

NON OIL	N DAKOTA
8,838	11,950
M/M % CHG	M/M % CHG
+36.0	+32.7
Y/Y % CHG	Y/Y % CHG
+7.4	+2.8
5YR % CHG	5YR % CHG
-10.8	-7.5

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND
848	7.9	2,175	20.2
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
-13	-1.5	-11	-0.5
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-395	-31.8	-388	-15.1
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+208	+32.5	+26	+1.2

12 MMA	12 MMA
7,719	10,743
M/M % CHG	M/M % CHG
+0.7	+0.3
Y/Y % CHG	Y/Y % CHG
+0.2	-6.6
5YR % CHG	5YR % CHG
-18.1	-12.1

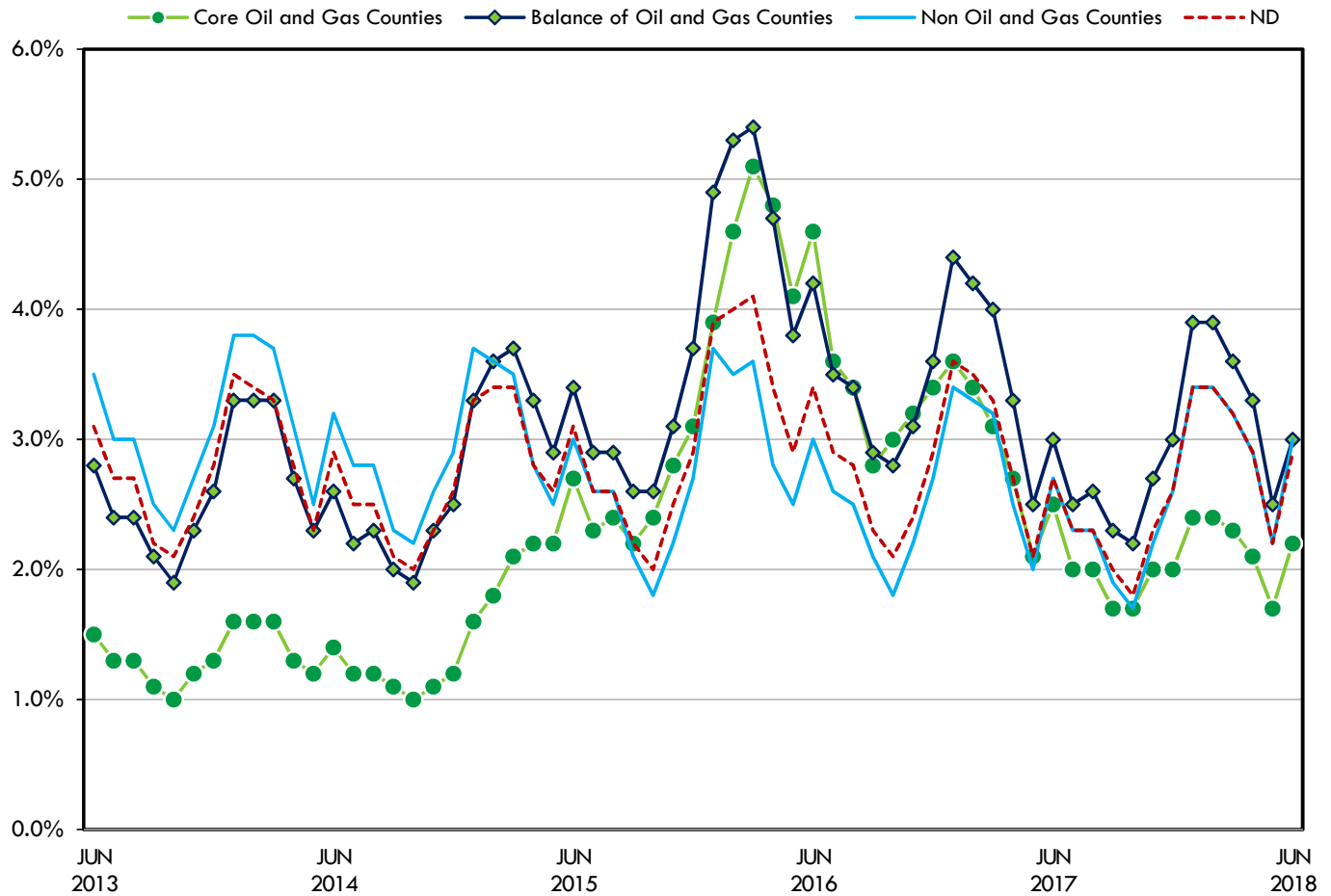
Sources: LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## UNEMPLOYMENT RATE (%)

[LAUS JUN 2018]



CORE OIL AND GAS COUNTIES	BALANCE OIL AND GAS COUNTIES	NON OIL	N DAKOTA
2.2	3.0	3.0	2.9
PRIOR MONTH	PRIOR MONTH	PRIOR MO	PRIOR MO
1.7	2.5	2.2	2.2
1 YR AGO	1 YR AGO	1 YR AGO	1 YR AGO
2.5	3.0	2.7	2.7
5 YRS AGO	5 YRS AGO	5 YRS AGO	5 YRS AGO
1.5	2.8	3.5	3.1
12 MO MOV AVG	12 MO MOV AVG	12 MMA	12 MMA
2.0	2.9	2.6	2.6
PRIOR MONTH	PRIOR MONTH	PRIOR MO	PRIOR MO
2.1	2.9	2.6	2.6
1 YR AGO	1 YR AGO	1 YR AGO	1 YR AGO
3.1	3.4	2.6	2.8
5 YRS AGO	5 YRS AGO	5 YRS AGO	5 YRS AGO
1.4	2.8	3.4	3.0

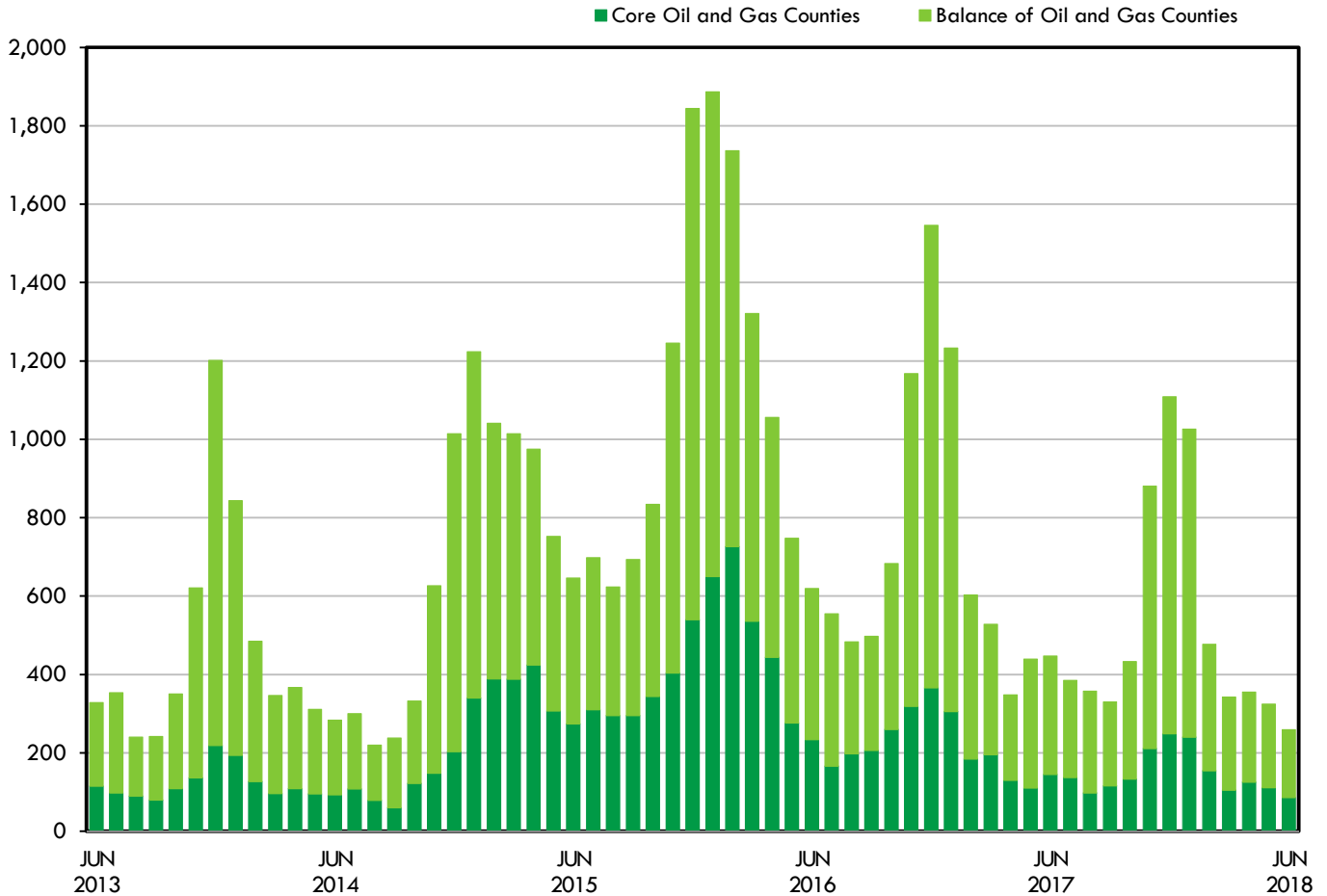
Sources: LAUS Labor Market Information Center, Job Service ND, Local Area Unemployment Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## INITIAL JOBLESS CLAIMS

[UI JUN 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
86	5.4	173	10.9
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
-25	-22.5	-40	-18.8
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-59	-40.7	-129	-42.7
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-29	-25.2	-40	-18.8

NON OIL	N DAKOTA
955	1,585
M/M % CHG	M/M % CHG
+15.1	+2.8
Y/Y % CHG	Y/Y % CHG
-5.5	-24.2
5YR % CHG	5YR % CHG
-4.8	-25.6

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND
147	5.3	376	13.7
M/M # CHG	M/M % CHG	M/M # CHG	M/M % CHG
-5	-3.3	-11	-2.8
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-68	-31.6	-119	-24.0
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+35	+31.3	+8	+2.2

12 MMA	12 MMA
1,440	2,748
M/M % CHG	M/M % CHG
-0.3	-1.5
Y/Y % CHG	Y/Y % CHG
-14.2	-23.7
5YR % CHG	5YR % CHG
-10.1	-13.2

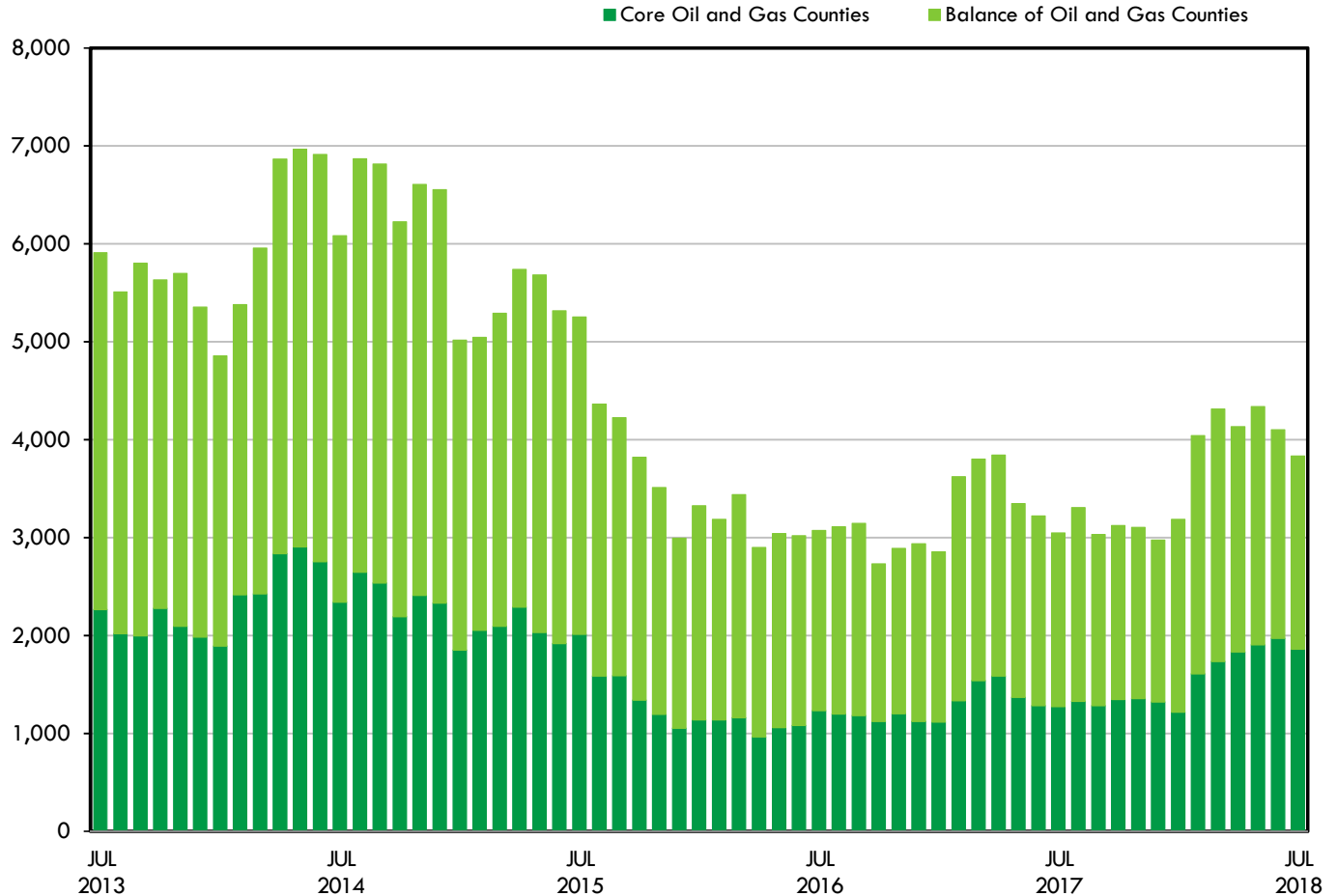
Sources: UI Labor Market Information Center, Job Service ND, Unemployment Insurance Statistics

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## JOB OPENINGS

[OJOR JUL 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
1,860	14.5	1,971	15.4
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-111	-5.6	-159	-7.5
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+587	+46.1	+199	+11.2
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-404	-17.8	-1,674	-45.9

NON OIL	N DAKOTA
8,958	12,789
<b>M/M % CHG</b>	<b>M/M % CHG</b>
-7.6	-7.3
<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
+13.3	+16.8
<b>5YR % CHG</b>	<b>5YR % CHG</b>
-6.5	-17.4

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND
1,563	12.1	2,060	16.0
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
+49	+3.2	+17	+0.8
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+286	+22.4	+125	+6.5
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-651	-29.4	-1,299	-38.7

12 MMA	12 MMA
9,271	12,894
<b>M/M % CHG</b>	<b>M/M % CHG</b>
+1.0	+1.2
<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
0.0	+3.3
<b>5YR % CHG</b>	<b>5YR % CHG</b>
-8.9	-18.1

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

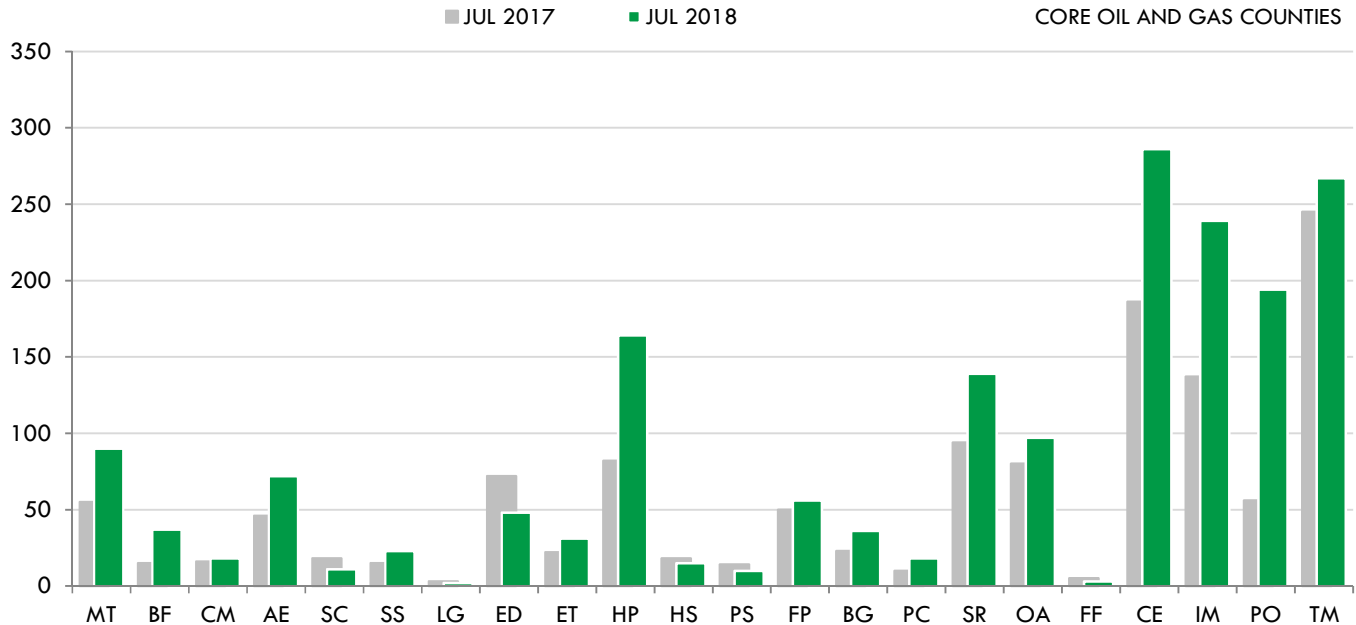
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## JOB OPENINGS BY OCCUPATION GROUP

[OJOR JUL 2018]

CORE OIL AND GAS COUNTIES



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	OPENINGS JUL 2017	OPENINGS JUL 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	55	90	+35	+63.6	11.6
BF	[13] Business and Financial Operations	15	37	+22	+146.7	8.2
CM	[15] Computer and Mathematical	16	18	+2	+12.5	4.9
AE	[17] Architecture and Engineering	46	72	+26	+56.5	18.4
SC	[19] Life, Physical, and Social Science	18	11	-7	-38.9	11.1
SS	[21] Community and Social Service	15	23	+8	+53.3	12.7
LG	[23] Legal	3	2	-1	-33.3	8.0
ED	[25] Education, Training, and Library	72	48	-24	-33.3	12.1
ET	[27] Arts, Design, Entertainment, Sports, and Media	22	31	+9	+40.9	10.7
HP	[29] Healthcare Practitioners and Technical	82	164	+82	+100.0	9.4
HS	[31] Healthcare Support	18	15	-3	-16.7	4.3
PS	[33] Protective Service	14	10	-4	-28.6	10.4
FP	[35] Food Preparation and Serving Related	50	56	+6	+12.0	8.9
BG	[37] Building and Grounds Cleaning and Maintenance	23	36	+13	+56.5	13.8
PC	[39] Personal Care and Service	10	18	+8	+80.0	5.6
SR	[41] Sales and Related	94	139	+45	+47.9	11.6
OA	[43] Office and Administrative Support	80	97	+17	+21.3	8.8
FF	[45] Farming, Fishing, and Forestry	5	3	-2	-40.0	1.7
CE	[47] Construction and Extraction	186	286	+100	+53.8	31.4
IM	[49] Installation, Maintenance, and Repair	137	239	+102	+74.5	27.8
PO	[51] Production	56	194	+138	+246.4	22.3
TM	[53] Transportation and Material Moving	245	267	+22	+9.0	21.6
NC	Unclassified	11	4	-7	-63.6	7.3
<b>TL</b>	<b>Total, All Occupations</b>	<b>1,273</b>	<b>1,860</b>	<b>+587</b>	<b>+46.1</b>	<b>14.5</b>

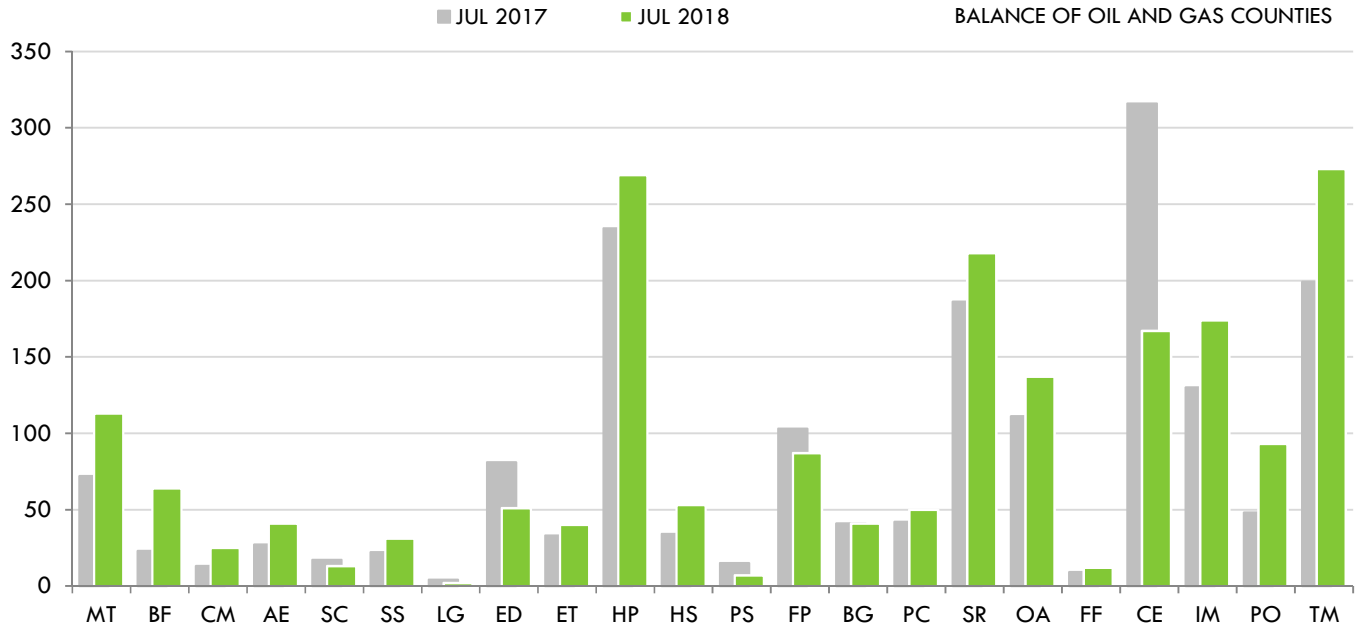
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

Data current as of August 8, 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 JUL 2018]



ABBR	[2-DIGIT SOC CODE]	OCCUPATION GROUP	OPENINGS JUL 2017	OPENINGS JUL 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11]	Management	72	113	+41	+56.9	14.6
BF	[13]	Business and Financial Operations	23	64	+41	+178.3	14.2
CM	[15]	Computer and Mathematical	13	25	+12	+92.3	6.8
AE	[17]	Architecture and Engineering	27	41	+14	+51.9	10.5
SC	[19]	Life, Physical, and Social Science	17	13	-4	-23.5	13.1
SS	[21]	Community and Social Service	22	31	+9	+40.9	17.1
LG	[23]	Legal	4	2	-2	-50.0	8.0
ED	[25]	Education, Training, and Library	81	51	-30	-37.0	12.8
ET	[27]	Arts, Design, Entertainment, Sports, and Media	33	40	+7	+21.2	13.8
HP	[29]	Healthcare Practitioners and Technical	234	269	+35	+15.0	15.5
HS	[31]	Healthcare Support	34	53	+19	+55.9	15.2
PS	[33]	Protective Service	15	7	-8	-53.3	7.3
FP	[35]	Food Preparation and Serving Related	103	87	-16	-15.5	13.8
BG	[37]	Building and Grounds Cleaning and Maintenance	41	41	0	0.0	15.8
PC	[39]	Personal Care and Service	42	50	+8	+19.0	15.4
SR	[41]	Sales and Related	186	218	+32	+17.2	18.2
OA	[43]	Office and Administrative Support	111	137	+26	+23.4	12.4
FF	[45]	Farming, Fishing, and Forestry	9	12	+3	+33.3	6.8
CE	[47]	Construction and Extraction	316	167	-149	-47.2	18.3
IM	[49]	Installation, Maintenance, and Repair	130	174	+44	+33.8	20.3
PO	[51]	Production	48	93	+45	+93.8	10.7
TM	[53]	Transportation and Material Moving	199	273	+74	+37.2	22.1
NC		Unclassified	12	10	-2	-16.7	18.2
TL		<b>Total, All Occupations</b>	<b>1,772</b>	<b>1,971</b>	<b>+199</b>	<b>+11.2</b>	<b>15.4</b>

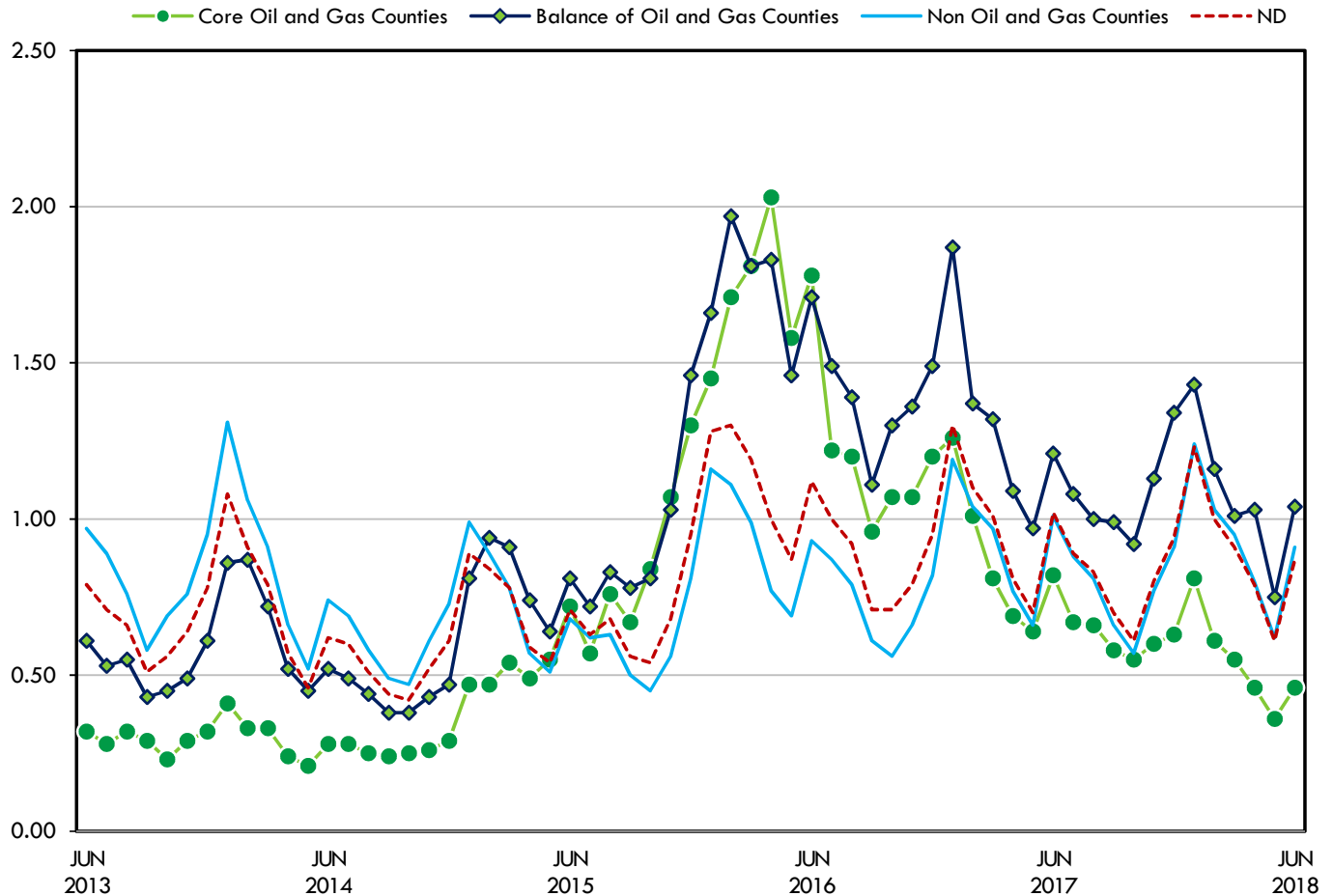
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## UNEMPLOYED PER JOB OPENING

[OJOR JUN 2018]



CORE OIL AND GAS COUNTIES	BALANCE OIL AND GAS COUNTIES	NON OIL	N DAKOTA
0.46	1.04	0.91	0.87
<b>PRIOR MONTH</b>	<b>PRIOR MONTH</b>	<b>PRIOR MO</b>	<b>PRIOR MO</b>
0.36	0.75	0.62	0.61
<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>
0.82	1.21	1.01	1.02
<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>
0.32	0.61	0.97	0.79
<b>12 MO MOV AVG</b>	<b>12 MO MOV AVG</b>	<b>12 MMA</b>	<b>12 MMA</b>
0.56	1.06	0.84	0.84
<b>PRIOR MONTH</b>	<b>PRIOR MONTH</b>	<b>PRIOR MO</b>	<b>PRIOR MO</b>
0.59	1.08	0.85	0.85
<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>
0.98	1.32	0.82	0.91
<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>
0.29	0.64	0.92	0.77

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

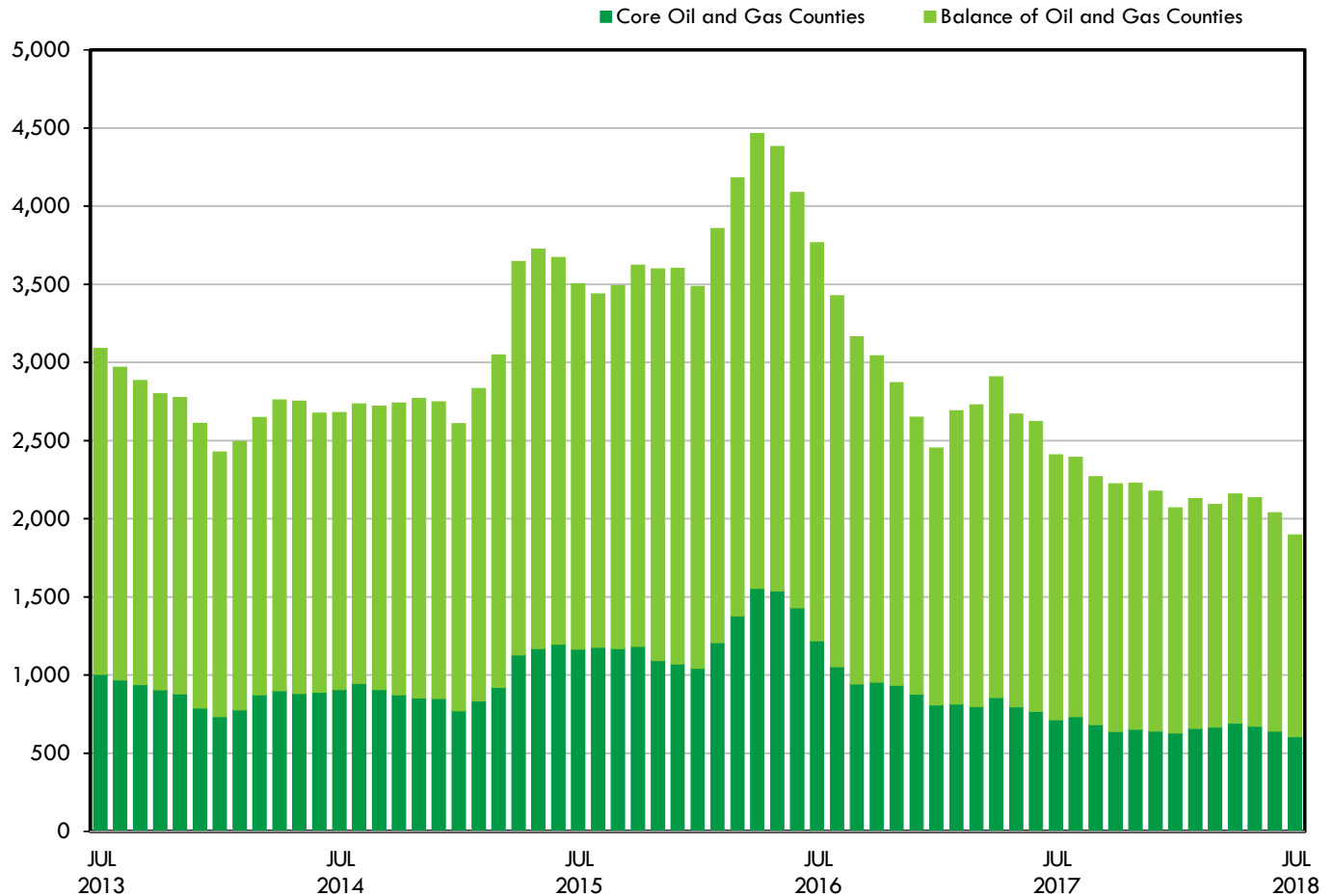
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RESUMÉS

[OJOR JUL 2018]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
606	10.6	1,290	22.6
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-36	-5.6	-107	-7.7
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
-110	-15.4	-402	-23.8
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-398	-39.6	-795	-38.1

NON OIL	N DAKOTA
3,820	5,716
<b>M/M % CHG</b>	<b>M/M % CHG</b>
-5.4	-5.9
<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-12.6	-15.7
<b>5YR % CHG</b>	<b>5YR % CHG</b>
-35.6	-36.6

12 MO MOV AVG	PCT OF ND	12 MO MOV AVG	PCT OF ND
661	10.5	1,490	23.6
<b>M/M # CHG</b>	<b>M/M % CHG</b>	<b>M/M # CHG</b>	<b>M/M % CHG</b>
-9	-1.3	-33	-2.2
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
-200	-23.2	-452	-23.3
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-153	-18.8	-431	-22.4

12 MMA	12 MMA
4,171	6,321
<b>M/M % CHG</b>	<b>M/M % CHG</b>
-1.1	-1.4
<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-7.7	-13.7
<b>5YR % CHG</b>	<b>5YR % CHG</b>
-32.2	-28.8

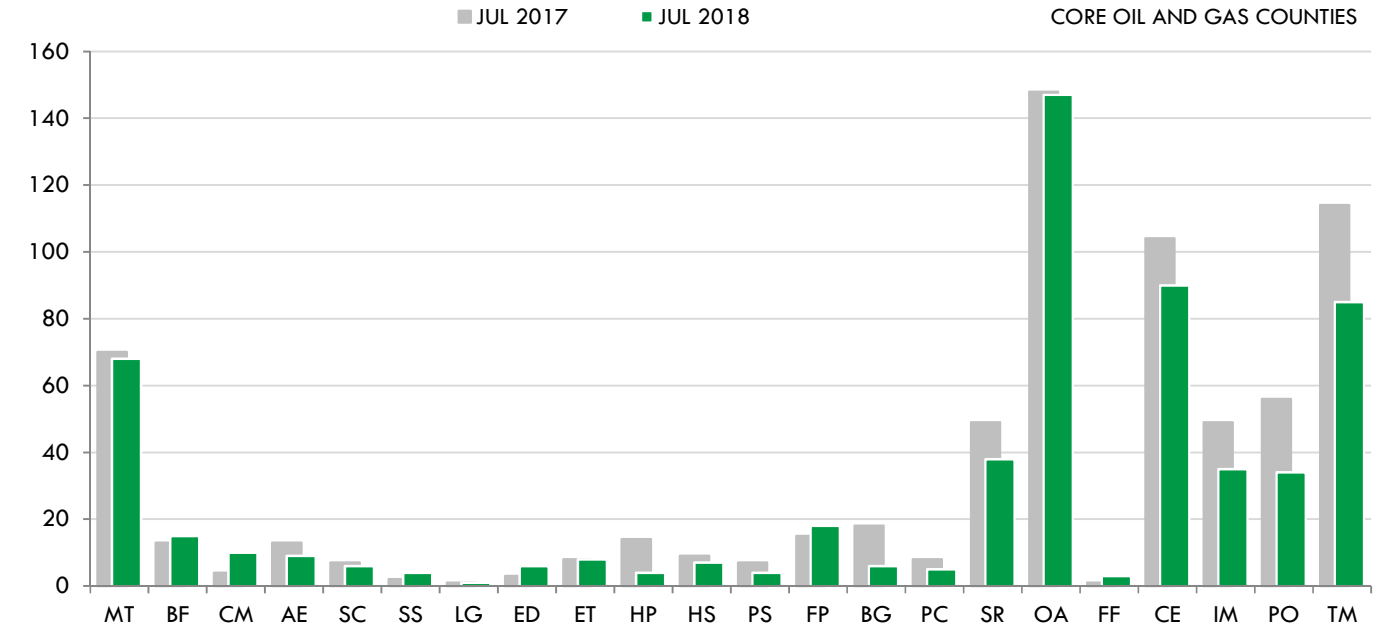
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RÉSUMÉS BY OCCUPATION GROUP

[OJOR JUL 2018]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	RÉSUMÉS JUL 2017	RÉSUMÉS JUL 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	70	68	-2	-2.9	12.2
BF	[13] Business and Financial Operations	13	15	+2	+15.4	7.7
CM	[15] Computer and Mathematical	4	10	+6	+150.0	6.5
AE	[17] Architecture and Engineering	13	9	-4	-30.8	11.1
SC	[19] Life, Physical, and Social Science	7	6	-1	-14.3	13.3
SS	[21] Community and Social Service	2	4	+2	+100.0	5.5
LG	[23] Legal	1	1	0	0.0	4.0
ED	[25] Education, Training, and Library	3	6	+3	+100.0	6.5
ET	[27] Arts, Design, Entertainment, Sports, and Media	8	8	0	0.0	9.1
HP	[29] Healthcare Practitioners and Technical	14	4	-10	-71.4	4.0
HS	[31] Healthcare Support	9	7	-2	-22.2	3.3
PS	[33] Protective Service	7	4	-3	-42.9	5.3
FP	[35] Food Preparation and Serving Related	15	18	+3	+20.0	6.9
BG	[37] Building and Grounds Cleaning and Maintenance	18	6	-12	-66.7	4.5
PC	[39] Personal Care and Service	8	5	-3	-37.5	4.4
SR	[41] Sales and Related	49	38	-11	-22.4	8.4
OA	[43] Office and Administrative Support	148	147	-1	-0.7	10.7
FF	[45] Farming, Fishing, and Forestry	1	3	+2	+200.0	5.7
CE	[47] Construction and Extraction	104	90	-14	-13.5	18.0
IM	[49] Installation, Maintenance, and Repair	49	35	-14	-28.6	13.8
PO	[51] Production	56	34	-22	-39.3	8.5
TM	[53] Transportation and Material Moving	114	85	-29	-25.4	19.0
NC	Unclassified	3	3	0	0.0	11.5
<b>TL</b>	<b>Total, All Occupations</b>	<b>716</b>	<b>606</b>	<b>-110</b>	<b>-15.4</b>	<b>10.6</b>

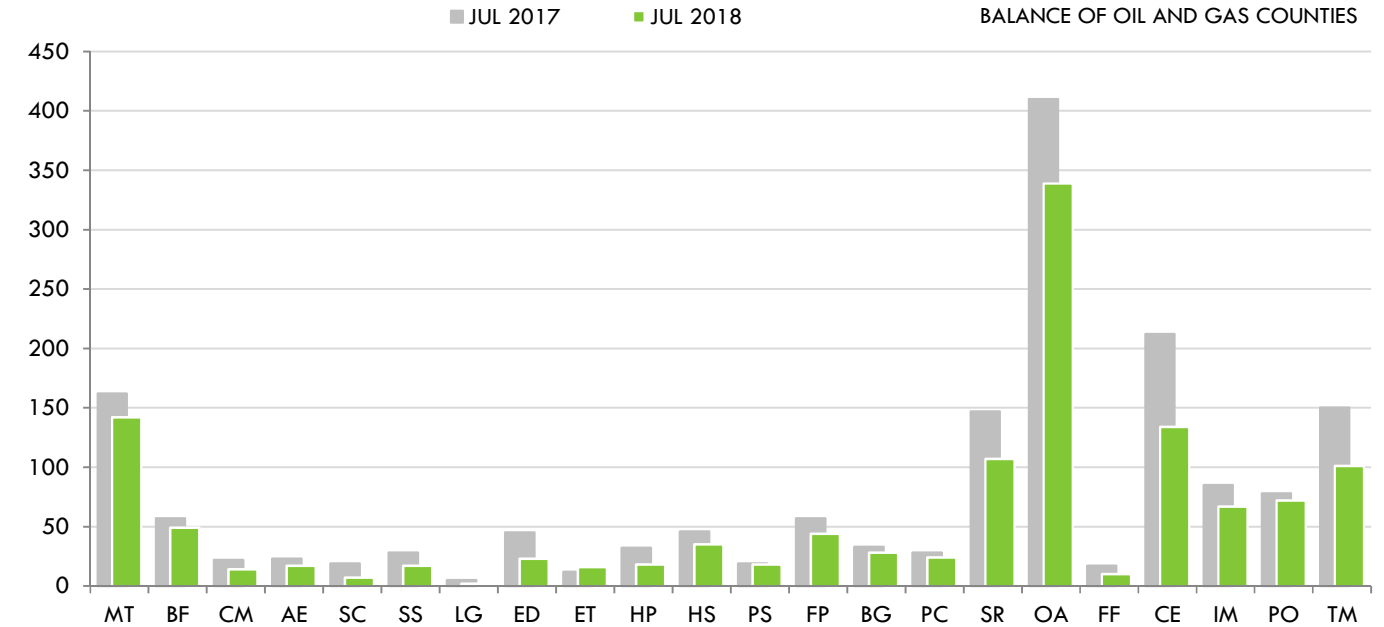
Sources: OJOR Labor Market Information Center, Job Service ND, Online Job Openings Report

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RÉSUMÉS BY OCCUPATION GROUP

[OJOR JUL 2018]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	RÉSUMÉS JUL 2017	RÉSUMÉS JUL 2018	NUM CHG	PCT CHG	PCT OF ND TOTAL
MT	[11] Management	162	142	-20	-12.3	25.4
BF	[13] Business and Financial Operations	57	49	-8	-14.0	25.3
CM	[15] Computer and Mathematical	22	14	-8	-36.4	9.2
AE	[17] Architecture and Engineering	23	17	-6	-26.1	21.0
SC	[19] Life, Physical, and Social Science	19	7	-12	-63.2	15.6
SS	[21] Community and Social Service	28	17	-11	-39.3	23.3
LG	[23] Legal	5	2	-3	-60.0	8.0
ED	[25] Education, Training, and Library	45	23	-22	-48.9	25.0
ET	[27] Arts, Design, Entertainment, Sports, and Media	12	16	+4	+33.3	18.2
HP	[29] Healthcare Practitioners and Technical	32	18	-14	-43.8	18.0
HS	[31] Healthcare Support	46	35	-11	-23.9	16.5
PS	[33] Protective Service	19	18	-1	-5.3	23.7
FP	[35] Food Preparation and Serving Related	57	44	-13	-22.8	16.9
BG	[37] Building and Grounds Cleaning and Maintenance	33	28	-5	-15.2	20.9
PC	[39] Personal Care and Service	28	24	-4	-14.3	21.1
SR	[41] Sales and Related	147	107	-40	-27.2	23.6
OA	[43] Office and Administrative Support	410	339	-71	-17.3	24.6
FF	[45] Farming, Fishing, and Forestry	17	10	-7	-41.2	18.9
CE	[47] Construction and Extraction	212	134	-78	-36.8	26.8
IM	[49] Installation, Maintenance, and Repair	85	67	-18	-21.2	26.4
PO	[51] Production	78	72	-6	-7.7	18.0
TM	[53] Transportation and Material Moving	150	101	-49	-32.7	22.6
NC	Unclassified	5	6	+1	+20.0	23.1
<b>TL</b>	<b>Total, All Occupations</b>	<b>1,692</b>	<b>1,290</b>	<b>-402</b>	<b>-23.8</b>	<b>22.6</b>

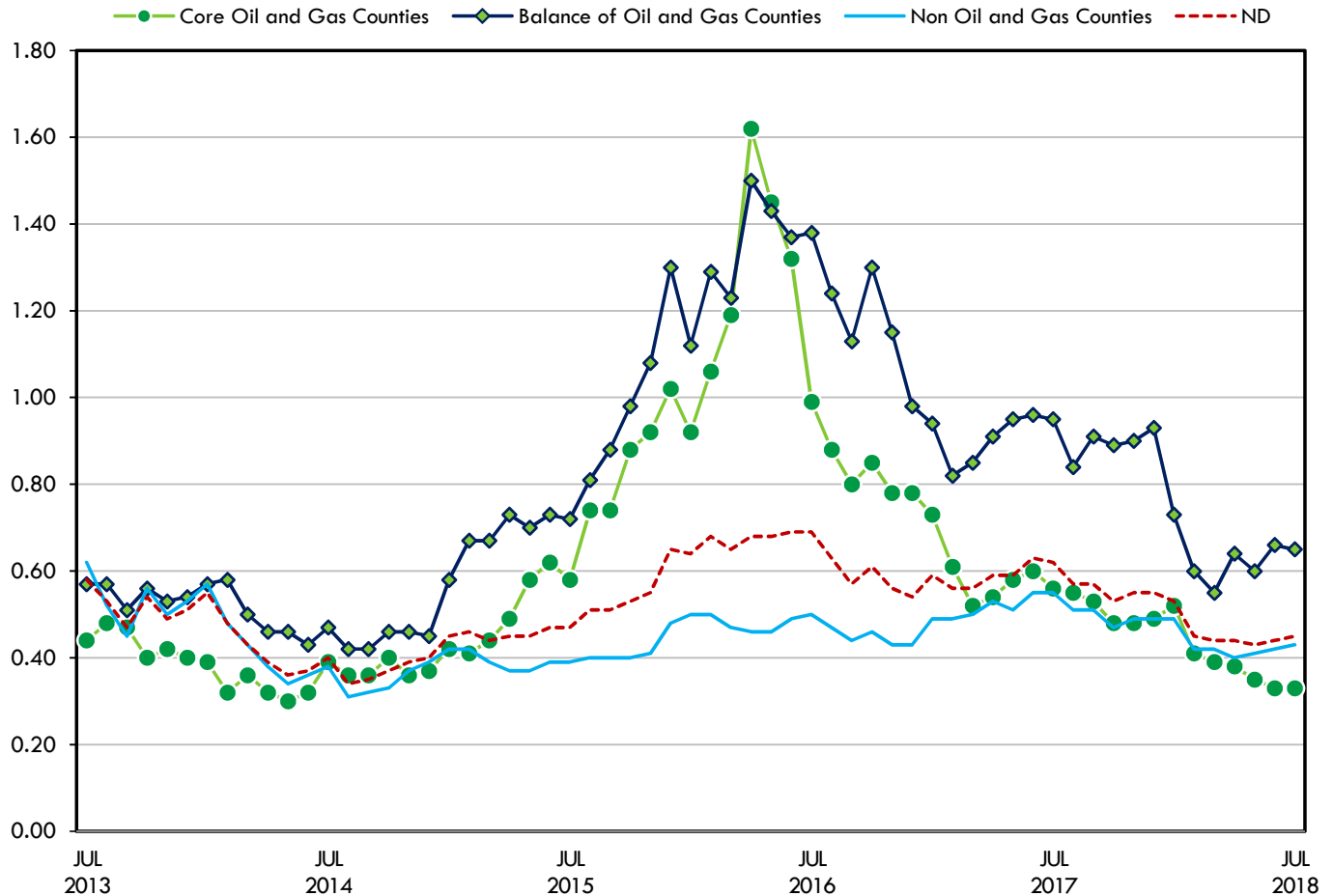
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## ACTIVE RESUMES PER JOB OPENING

[OJOR JUL 2018]



CORE OIL AND GAS COUNTIES	BALANCE OIL AND GAS COUNTIES	NON OIL	N DAKOTA
0.33	0.65	0.43	0.45
<b>PRIOR MONTH</b>	<b>PRIOR MONTH</b>	<b>PRIOR MO</b>	<b>PRIOR MO</b>
0.33	0.66	0.42	0.44
<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>
0.56	0.95	0.55	0.62
<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>
0.44	0.57	0.62	0.58
<b>12 MO MOV AVG</b>	<b>12 MO MOV AVG</b>	<b>12 MMA</b>	<b>12 MMA</b>
0.42	0.72	0.45	0.49
<b>PRIOR MONTH</b>	<b>PRIOR MONTH</b>	<b>PRIOR MO</b>	<b>PRIOR MO</b>
0.44	0.75	0.46	0.50
<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>	<b>1 YR AGO</b>
0.67	1.00	0.49	0.59
<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>	<b>5 YRS AGO</b>
0.37	0.57	0.60	0.56

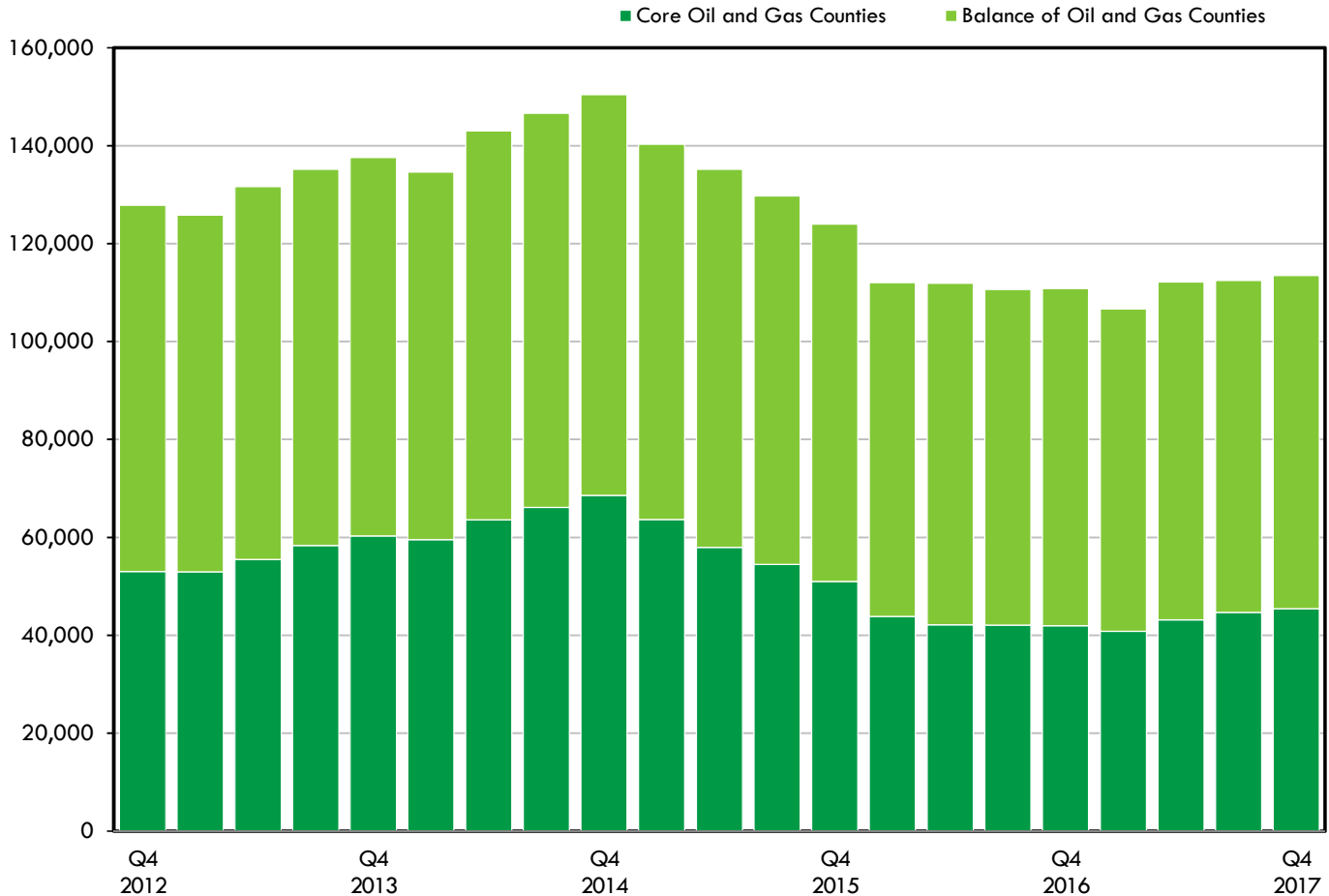
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE EMPLOYMENT

[QCEW Q4 (OCT-DEC) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
45,453	10.9	68,003	16.2
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>
+757	+1.7	+206	+0.3
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+3,499	+8.3	-892	-1.3
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-7,550	-14.2	-6,825	-9.1

NON OIL	N DAKOTA
302,929	418,797
<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
+1.2	+1.0
<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-1.0	-0.2
<b>5YR % CHG</b>	<b>5YR % CHG</b>
+3.2	-1.0

4 QTR MOV AVG	PCT OF ND	4 QTR MOV AVG	PCT OF ND
43,535	10.5	67,644	16.3
<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>	<b>Q/Q # CHG</b>	<b>Q/Q % CHG</b>
+874	+2.0	-223	-0.3
<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>	<b>Y/Y # CHG</b>	<b>Y/Y % CHG</b>
+1,031	+2.4	-1,207	-1.8
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>
-7,041	-13.9	-5,096	-7.0

4 QMA	4 QMA
300,513	414,039
<b>Q/Q % CHG</b>	<b>Q/Q % CHG</b>
-0.3	-0.1
<b>Y/Y % CHG</b>	<b>Y/Y % CHG</b>
-0.7	-0.7
<b>5YR % CHG</b>	<b>5YR % CHG</b>
+4.6	+0.6

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

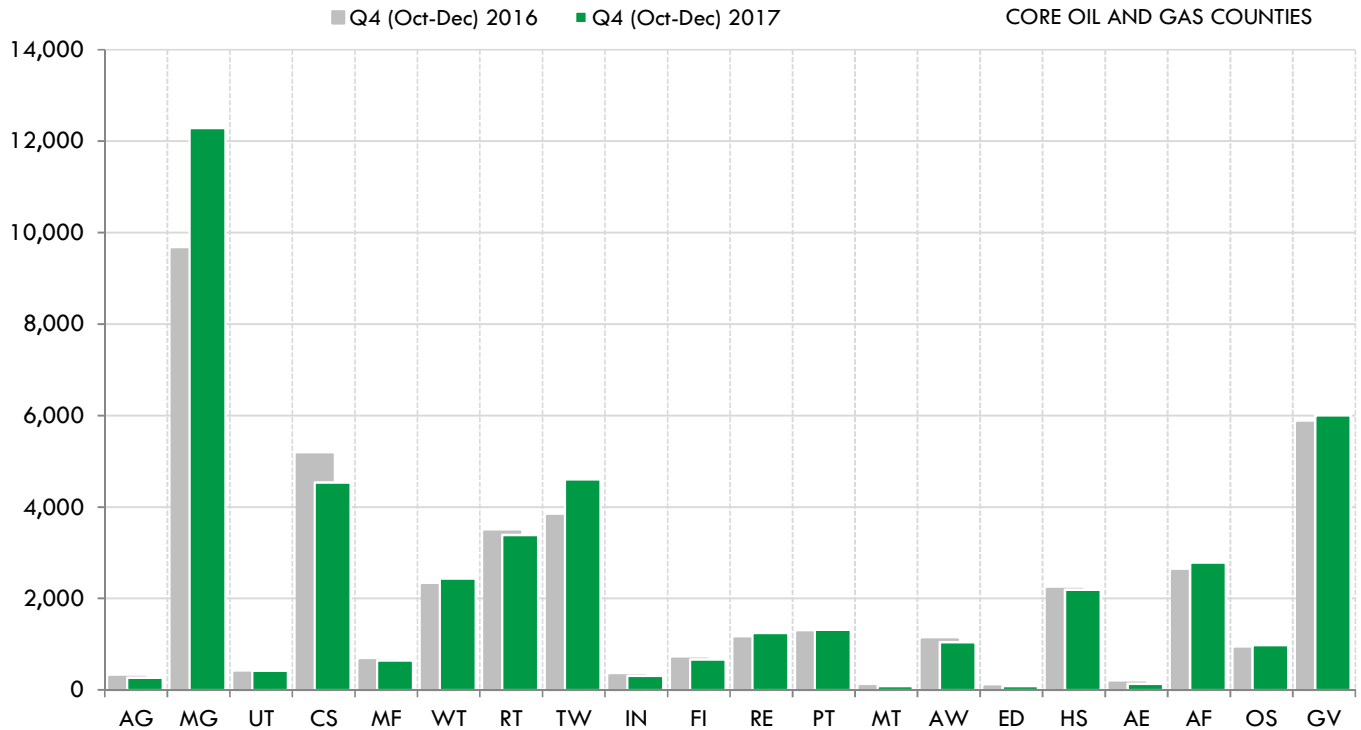
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE EMPLOYMENT BY INDUSTRY

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	EMPLOY. Q4 2016	EMPLOY. Q4 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	285	271	-14	-4.9	5.1
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	9,630	12,290	+2,660	+27.6	64.5
UT	[22] Utilities	376	420	+44	+11.7	11.1
CS	[23] Construction	5,143	4,539	-604	-11.7	17.1
MF	[31-33] Manufacturing	645	646	+1	+0.2	2.6
WT	[42] Wholesale Trade	2,288	2,437	+149	+6.5	10.2
RT	[44-45] Retail Trade	3,459	3,387	-72	-2.1	7.0
TW	[48-49] Transportation and Warehousing	3,802	4,603	+801	+21.1	26.9
IN	[51] Information	317	309	-8	-2.5	4.8
FI	[52] Finance and Insurance	680	664	-16	-2.4	3.7
RE	[53] Real Estate and Rental and Leasing	1,124	1,248	+124	+11.0	23.6
PT	[54] Professional and Technical Services	1,253	1,317	+64	+5.1	8.3
MT	[55] Management of Companies and Enterprises	80	87	+7	+8.8	1.6
AW	[56] Administrative and Waste Services	1,100	1,044	-56	-5.1	8.1
ED	[61] Educational Services	75	87	+12	+16.0	3.3
HS	[62] Health Care and Social Assistance	2,206	2,195	-11	-0.5	3.7
AE	[71] Arts, Entertainment, and Recreation	155	137	-18	-11.6	3.1
AF	[72] Accommodation and Food Services	2,600	2,786	+186	+7.2	8.0
OS	[81] Other Services (except Government)	898	984	+86	+9.6	8.1
GV	Government	5,840	6,004	+164	+2.8	8.3
<b>TL</b>	<b>Total, All Industries</b>	<b>41,954</b>	<b>45,453</b>	<b>+3,499</b>	<b>+8.3</b>	<b>10.9</b>

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

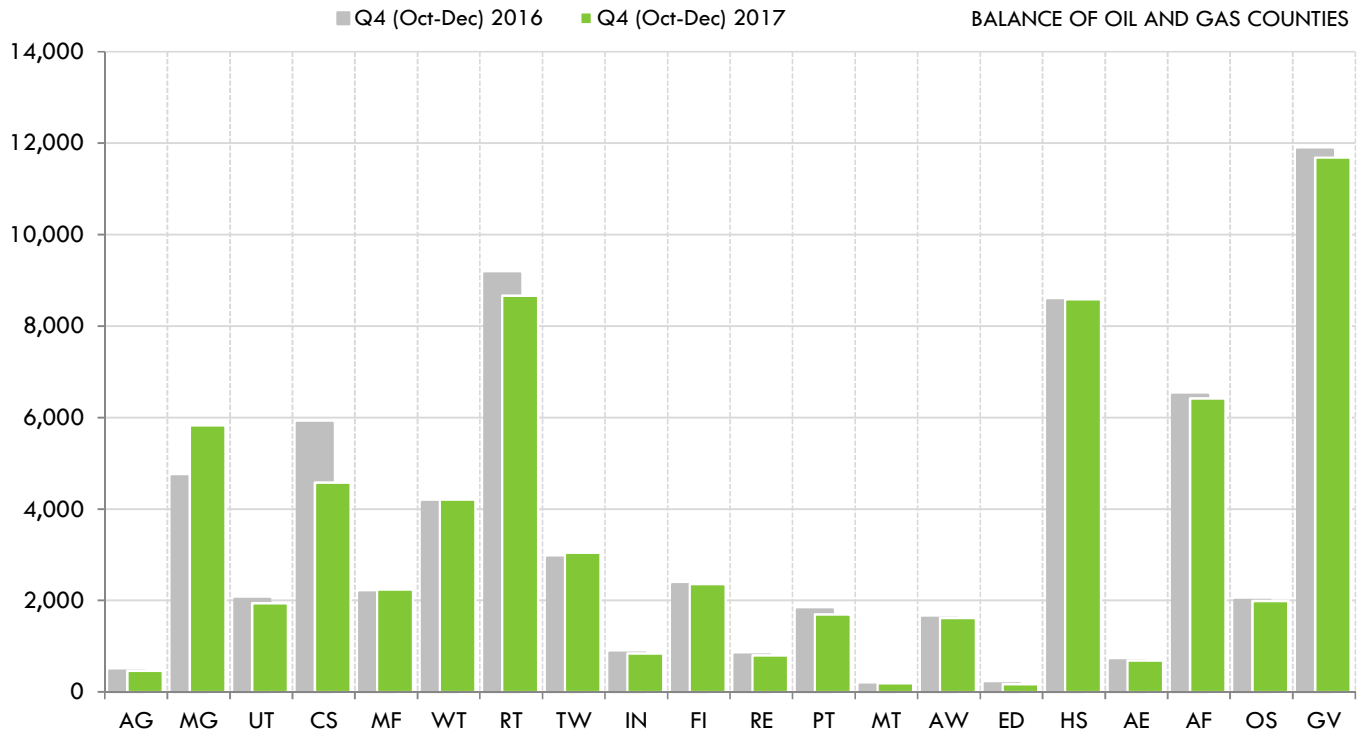
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE EMPLOYMENT BY INDUSTRY

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	EMPLOY. Q4 2016	EMPLOY. Q4 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	462	464	+2	+0.4	8.7
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	4,711	5,828	+1,117	+23.7	30.6
UT	[22] Utilities	2,029	1,943	-86	-4.2	51.3
CS	[23] Construction	5,877	4,577	-1,300	-22.1	17.3
MF	[31-33] Manufacturing	2,174	2,239	+65	+3.0	8.9
WT	[42] Wholesale Trade	4,154	4,209	+55	+1.3	17.7
RT	[44-45] Retail Trade	9,146	8,665	-481	-5.3	18.0
TW	[48-49] Transportation and Warehousing	2,931	3,045	+114	+3.9	17.8
IN	[51] Information	859	841	-18	-2.1	13.1
FI	[52] Finance and Insurance	2,356	2,360	+4	+0.2	13.1
RE	[53] Real Estate and Rental and Leasing	814	798	-16	-2.0	15.1
PT	[54] Professional and Technical Services	1,799	1,697	-102	-5.7	10.7
MT	[55] Management of Companies and Enterprises	159	188	+29	+18.2	3.5
AW	[56] Administrative and Waste Services	1,620	1,616	-4	-0.2	12.6
ED	[61] Educational Services	181	171	-10	-5.5	6.5
HS	[62] Health Care and Social Assistance	8,557	8,587	+30	+0.4	14.4
AE	[71] Arts, Entertainment, and Recreation	691	685	-6	-0.9	15.6
AF	[72] Accommodation and Food Services	6,497	6,415	-82	-1.3	18.4
OS	[81] Other Services (except Government)	2,011	1,988	-23	-1.1	16.3
GV	Government	11,863	11,687	-176	-1.5	16.1
<b>TL</b>	<b>Total, All Industries</b>	<b>68,895</b>	<b>68,003</b>	<b>-892</b>	<b>-1.3</b>	<b>16.2</b>

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

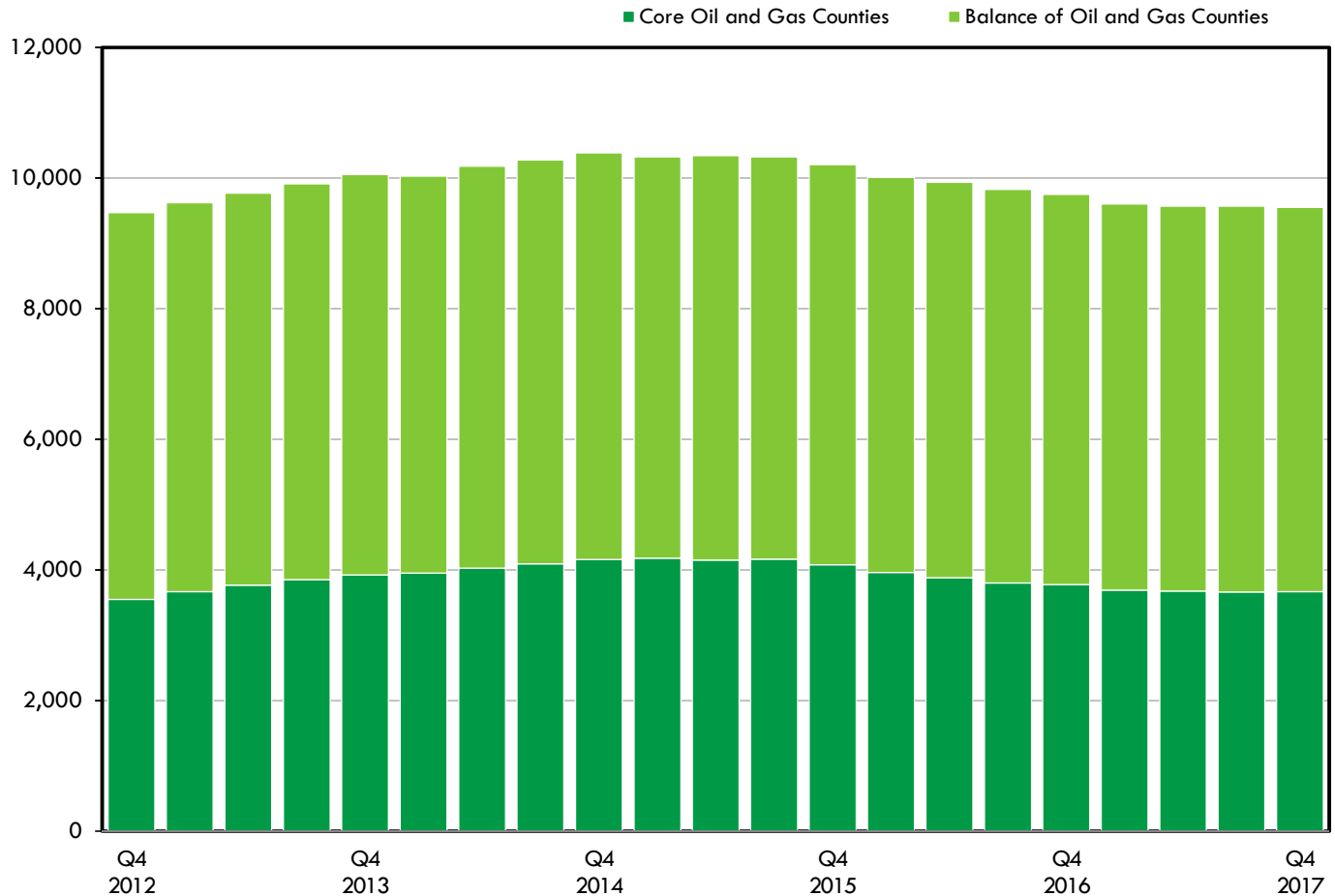
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

Data current as of August 8, 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 Q4 (OCT-DEC) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
3,669	11.5	5,881	18.4
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG
+8	+0.2	-26	-0.4
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-107	-2.8	-90	-1.5
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+119	+3.4	-38	-0.6

NON OIL	N DAKOTA
21,680	32,012
Q/Q % CHG	Q/Q % CHG
+0.2	+0.1
Y/Y % CHG	Y/Y % CHG
+0.2	-0.5
5YR % CHG	5YR % CHG
+7.4	+6.2

4 QTR MOV AVG	PCT OF ND	4 QTR MOV AVG	PCT OF ND
3,675	11.5	5,897	18.5
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG
-26	-0.7	-23	-0.4
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
-180	-4.7	-126	-2.1
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
+333	+10.0	+149	+2.6

4 QMA	4 QMA
21,585	31,919
Q/Q % CHG	Q/Q % CHG
+0.1	-0.1
Y/Y % CHG	Y/Y % CHG
+0.5	-0.5
5YR % CHG	5YR % CHG
+8.4	+8.6

[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

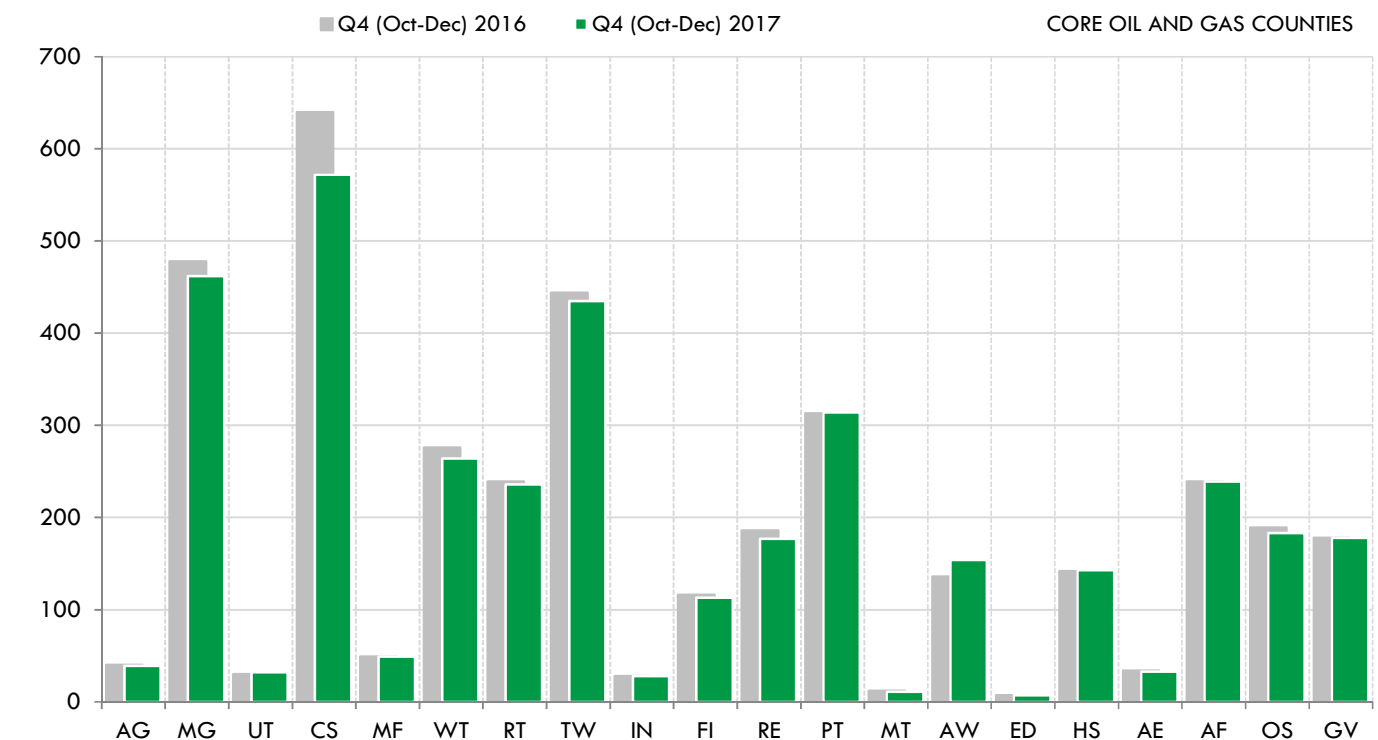
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## BUSINESS ESTABLISHMENTS BY INDUSTRY

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	BUS. ESTAB. Q4 2016	BUS. ESTAB. Q4 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	40	39	-1	-2.5	4.0
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	478	462	-16	-3.3	56.9
UT	[22] Utilities	30	32	+2	+6.7	21.9
CS	[23] Construction	640	572	-68	-10.6	14.4
MF	[31-33] Manufacturing	49	49	0	0.0	6.1
WT	[42] Wholesale Trade	276	264	-12	-4.3	9.4
RT	[44-45] Retail Trade	239	236	-3	-1.3	7.6
TW	[48-49] Transportation and Warehousing	444	435	-9	-2.0	24.6
IN	[51] Information	28	28	0	0.0	7.1
FI	[52] Finance and Insurance	116	113	-3	-2.6	5.9
RE	[53] Real Estate and Rental and Leasing	186	177	-9	-4.8	16.5
PT	[54] Professional and Technical Services	313	314	+1	+0.3	10.9
MT	[55] Management of Companies and Enterprises	12	11	-1	-8.3	6.1
AW	[56] Administrative and Waste Services	136	154	+18	+13.2	7.9
ED	[61] Educational Services	7	7	0	0.0	3.3
HS	[62] Health Care and Social Assistance	142	143	+1	+0.7	6.2
AE	[71] Arts, Entertainment, and Recreation	34	33	-1	-2.9	7.2
AF	[72] Accommodation and Food Services	239	239	0	0.0	11.1
OS	[81] Other Services (except Government)	189	183	-6	-3.2	9.0
GV	Government	178	178	0	0.0	8.6
<b>TL</b>	<b>Total, All Industries</b>	<b>3,776</b>	<b>3,669</b>	<b>-107</b>	<b>-2.8</b>	<b>11.5</b>

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

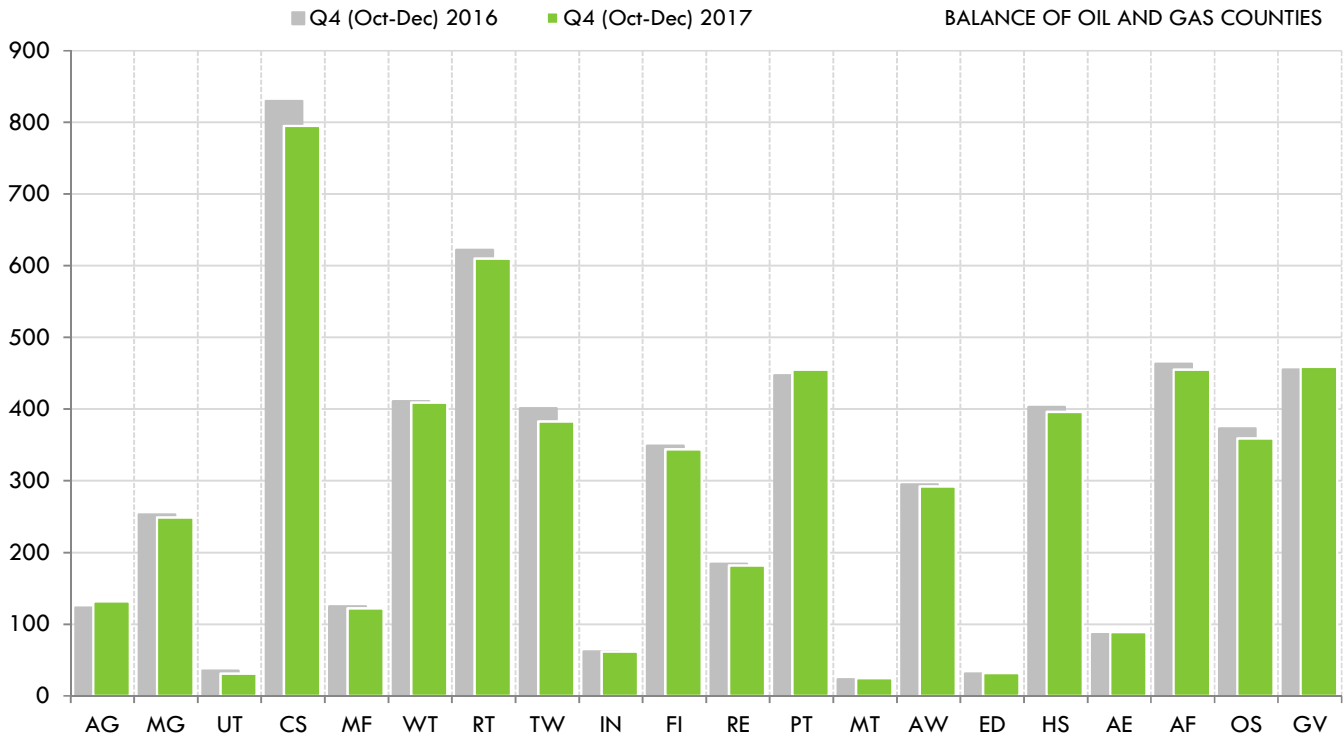
Sources: QCEW Labor Market Information Center, Job Service ND, Quarterly Census of Employment and Wages

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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## BUSINESS ESTABLISHMENTS BY INDUSTRY

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	BUS. ESTAB. Q4 2016	BUS. ESTAB. Q4 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	123	132	+9	+7.3	13.6
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	253	249	-4	-1.6	30.7
UT	[22] Utilities	35	31	-4	-11.4	21.2
CS	[23] Construction	830	795	-35	-4.2	20.0
MF	[31-33] Manufacturing	125	122	-3	-2.4	15.1
WT	[42] Wholesale Trade	411	409	-2	-0.5	14.6
RT	[44-45] Retail Trade	622	610	-12	-1.9	19.6
TW	[48-49] Transportation and Warehousing	401	383	-18	-4.5	21.7
IN	[51] Information	62	62	0	0.0	15.7
FI	[52] Finance and Insurance	349	344	-5	-1.4	17.9
RE	[53] Real Estate and Rental and Leasing	184	182	-2	-1.1	16.9
PT	[54] Professional and Technical Services	447	455	+8	+1.8	15.8
MT	[55] Management of Companies and Enterprises	23	25	+2	+8.7	13.9
AW	[56] Administrative and Waste Services	295	292	-3	-1.0	15.0
ED	[61] Educational Services	31	32	+1	+3.2	15.2
HS	[62] Health Care and Social Assistance	403	396	-7	-1.7	17.1
AE	[71] Arts, Entertainment, and Recreation	86	89	+3	+3.5	19.3
AF	[72] Accommodation and Food Services	463	455	-8	-1.7	21.1
OS	[81] Other Services (except Government)	373	359	-14	-3.8	17.7
GV	Government	455	459	+4	+0.9	22.2
<b>TL</b>	<b>Total, All Industries</b>	<b>5,971</b>	<b>5,881</b>	<b>-90</b>	<b>-1.5</b>	<b>18.4</b>

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

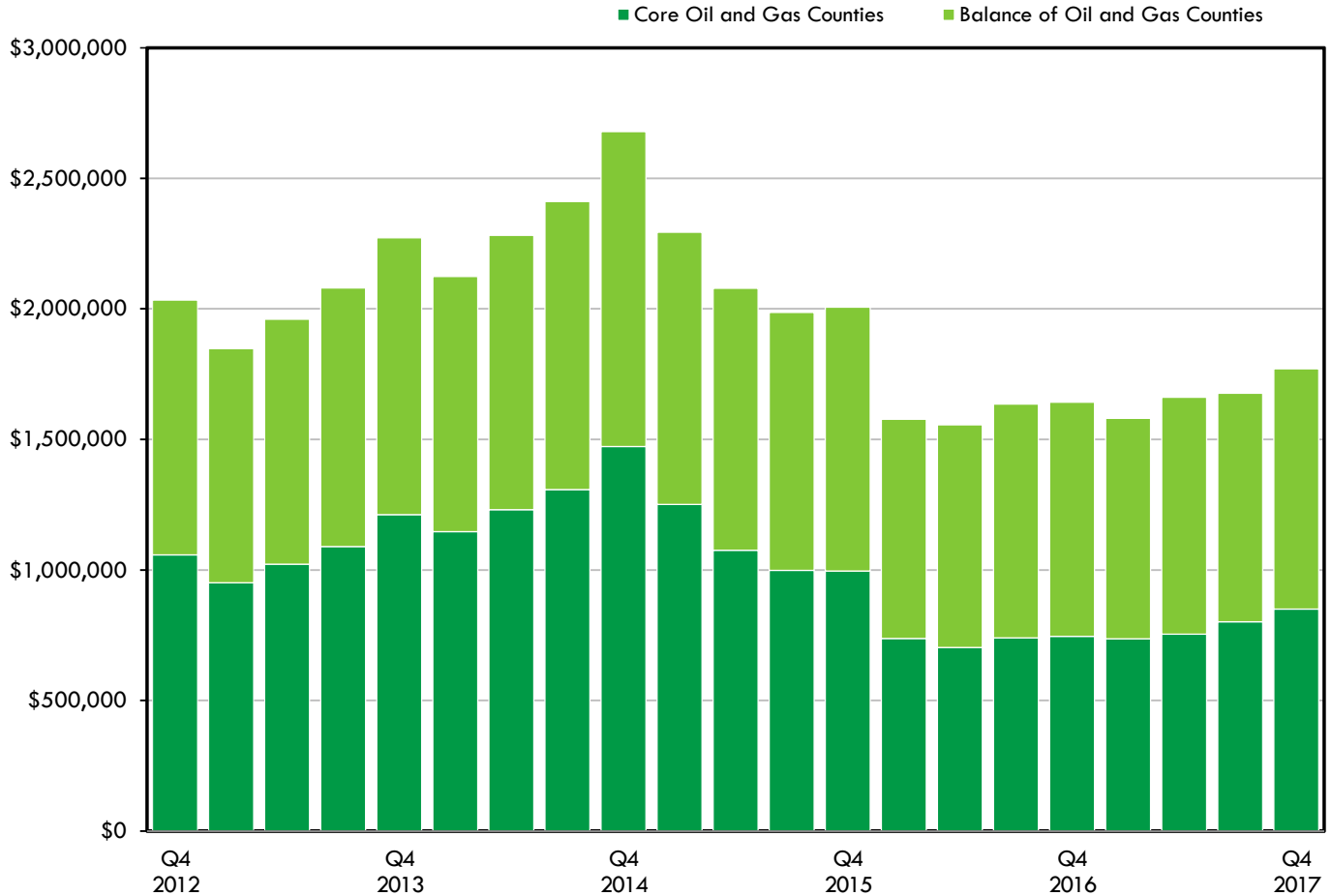
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## TOTAL WAGES (in thousands \$)

[QCEW Q4 (OCT-DEC) 2017]



CORE COUNTIES	PCT OF ND	BALANCE COUNTIES	PCT OF ND
850,400.8	15.5	920,046.0	16.7
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG
+48,834.3	+6.1	+44,759.6	+5.1
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+105,078.8	+14.1	+22,643.9	+2.5
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-206,868.6	-19.6	-56,353.6	-5.8

NON OIL	N DAKOTA
3,682,559.8	5,499,889.7
Q/Q % CHG	Q/Q % CHG
+7.9	+7.1
Y/Y % CHG	Y/Y % CHG
+1.2	+3.0
5YR % CHG	5YR % CHG
+17.6	+6.0

4 QTR ROLL TOTAL	PCT OF ND	4 QTR ROLL TOTAL	PCT OF ND
3,142,596.0	15.1	3,546,810.0	17.0
Q/Q # CHG	Q/Q % CHG	Q/Q # CHG	Q/Q % CHG
+105,078.8	+3.5	+22,643.9	+0.6
Y/Y # CHG	Y/Y % CHG	Y/Y # CHG	Y/Y % CHG
+216,832.9	+7.4	+61,062.8	+1.8
5YR # CHG	5YR % CHG	5YR # CHG	5YR % CHG
-612,041.0	-16.3	+6,495.6	+0.2

4 QRT	4 QRT
13,967,584.9	20,831,630.1
Q/Q % CHG	Q/Q % CHG
+0.3	+0.8
Y/Y % CHG	Y/Y % CHG
+1.6	+2.1
5YR % CHG	5YR % CHG
+21.2	+10.2

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

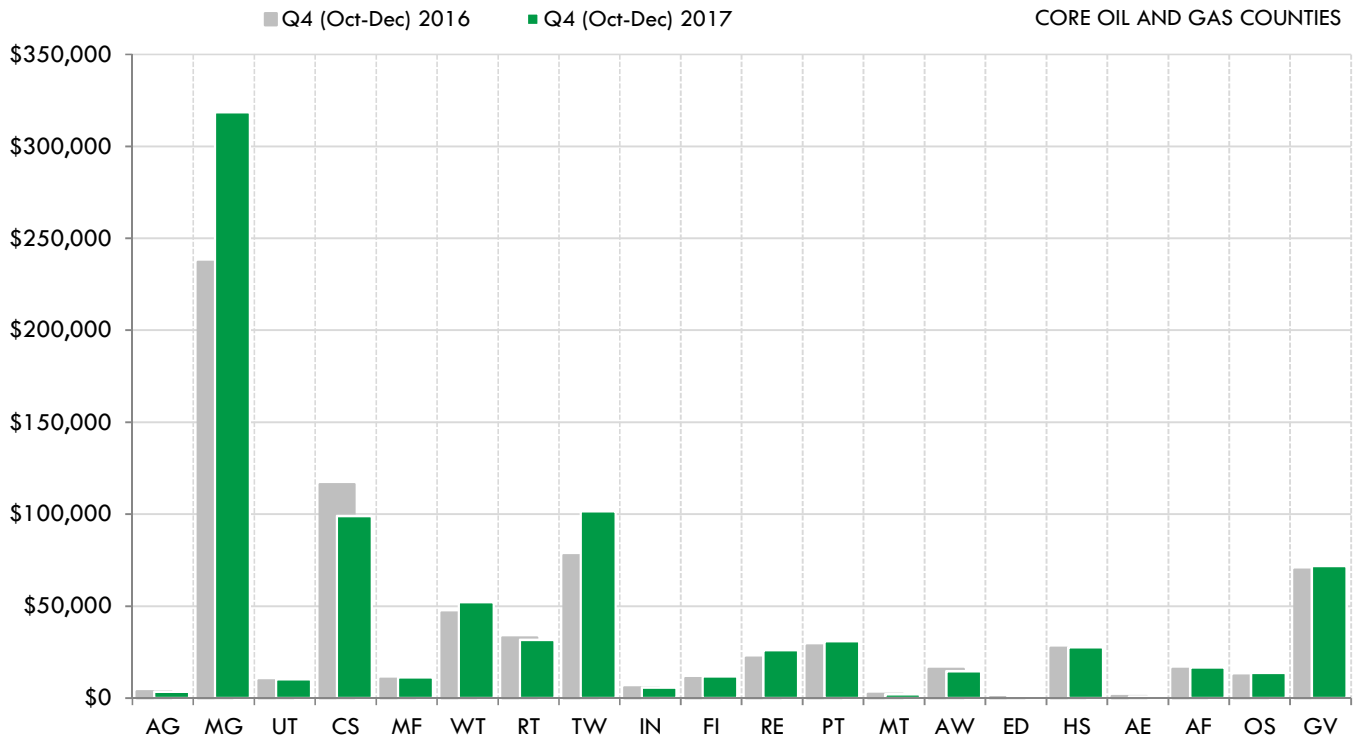
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

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

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	TTL WAGES Q4 2016	TTL WAGES Q4 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	3,638.3	3,401.1	-237.1	-6.5	5.1
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	237,090.1	318,555.3	+81,465.2	+34.4	65.3
UT	[22] Utilities	9,549.0	10,307.5	+758.5	+7.9	10.8
CS	[23] Construction	116,190.8	99,012.3	-17,178.5	-14.8	21.7
MF	[31-33] Manufacturing	10,497.5	11,315.7	+818.2	+7.8	3.2
WT	[42] Wholesale Trade	46,510.7	52,204.9	+5,694.2	+12.2	12.6
RT	[44-45] Retail Trade	32,811.1	31,631.6	-1,179.5	-3.6	8.3
TW	[48-49] Transportation and Warehousing	77,662.0	101,615.7	+23,953.7	+30.8	38.2
IN	[51] Information	5,801.3	5,729.9	-71.3	-1.2	5.6
FI	[52] Finance and Insurance	10,693.7	11,775.9	+1,082.2	+10.1	3.9
RE	[53] Real Estate and Rental and Leasing	21,917.9	26,016.4	+4,098.5	+18.7	37.2
PT	[54] Professional and Technical Services	28,455.7	30,900.7	+2,445.0	+8.6	9.8
MT	[55] Management of Companies and Enterprises	2,205.7	2,151.1	-54.5	-2.5	2.0
AW	[56] Administrative and Waste Services	15,900.8	14,555.1	-1,345.7	-8.5	11.3
ED	[61] Educational Services	411.8	511.5	+99.7	+24.2	2.3
HS	[62] Health Care and Social Assistance	27,329.0	27,631.9	+302.9	+1.1	3.5
AE	[71] Arts, Entertainment, and Recreation	1,003.8	929.3	-74.6	-7.4	5.2
AF	[72] Accommodation and Food Services	15,817.7	16,659.5	+841.8	+5.3	10.6
OS	[81] Other Services (except Government)	12,130.4	13,714.6	+1,584.2	+13.1	12.8
GV	Government	69,704.8	71,780.8	+2,076.1	+3.0	8.3
<b>TL</b>	<b>Total, All Industries</b>	<b>745,322.0</b>	<b>850,400.8</b>	<b>+105,078.8</b>	<b>+14.1</b>	<b>15.5</b>

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

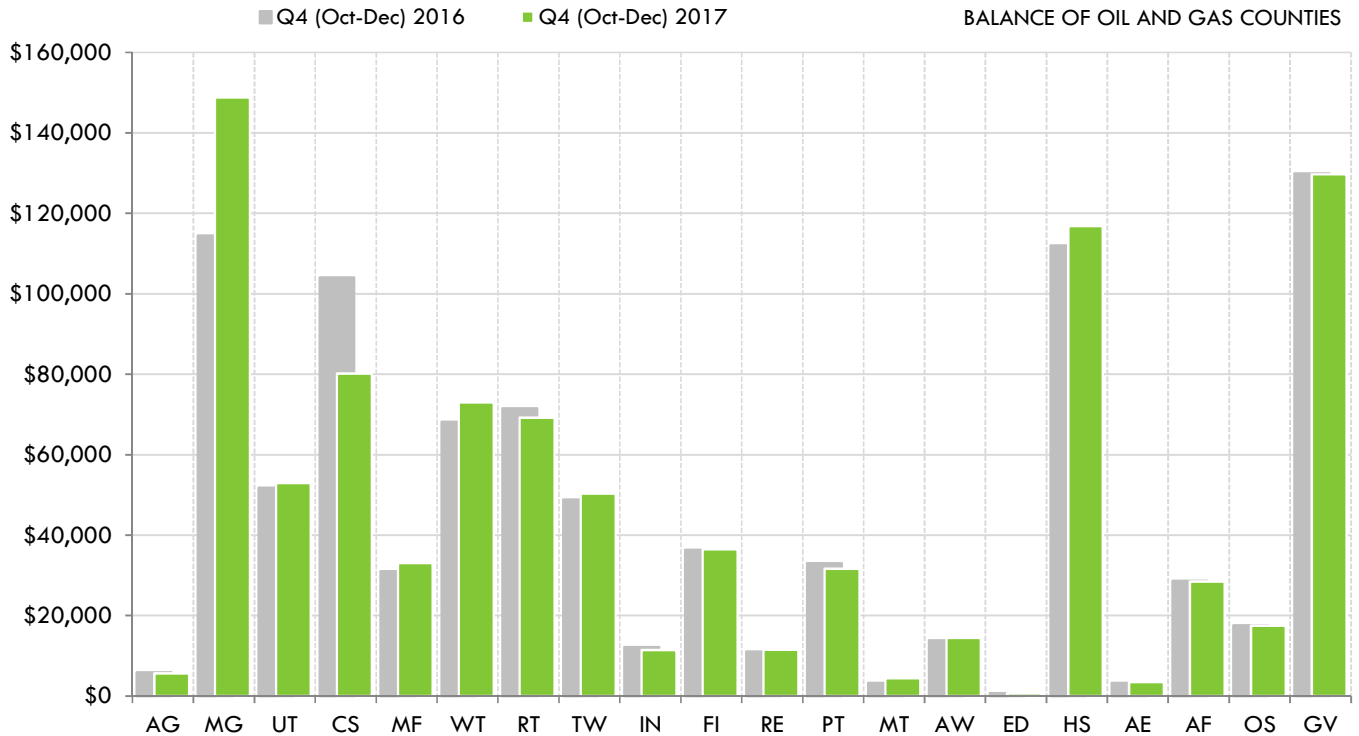
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

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

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	TTL WAGES Q4 2016	TTL WAGES Q4 2017	NUM CHG	PCT CHG	PCT OF ND TOTAL
AG	[11] Agriculture, Forestry, Fishing and Hunting	5,890.7	5,649.0	-241.7	-4.1	8.4
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	114,440.5	148,772.1	+34,331.5	+30.0	30.5
UT	[22] Utilities	51,779.8	52,976.8	+1,197.0	+2.3	55.3
CS	[23] Construction	104,037.8	80,173.1	-23,864.7	-22.9	17.5
MF	[31-33] Manufacturing	30,997.0	33,110.1	+2,113.1	+6.8	9.4
WT	[42] Wholesale Trade	68,136.9	73,013.0	+4,876.0	+7.2	17.7
RT	[44-45] Retail Trade	71,517.2	69,223.0	-2,294.2	-3.2	18.2
TW	[48-49] Transportation and Warehousing	48,794.6	50,360.7	+1,566.1	+3.2	18.9
IN	[51] Information	12,174.8	11,447.3	-727.5	-6.0	11.2
FI	[52] Finance and Insurance	36,345.4	36,528.2	+182.8	+0.5	12.2
RE	[53] Real Estate and Rental and Leasing	11,047.4	11,502.7	+455.4	+4.1	16.4
PT	[54] Professional and Technical Services	33,025.1	31,673.5	-1,351.6	-4.1	10.1
MT	[55] Management of Companies and Enterprises	3,253.9	4,449.5	+1,195.7	+36.7	4.2
AW	[56] Administrative and Waste Services	13,802.6	14,502.3	+699.7	+5.1	11.3
ED	[61] Educational Services	730.9	733.6	+2.8	+0.4	3.3
HS	[62] Health Care and Social Assistance	111,997.4	116,799.9	+4,802.5	+4.3	14.7
AE	[71] Arts, Entertainment, and Recreation	3,281.6	3,488.8	+207.3	+6.3	19.4
AF	[72] Accommodation and Food Services	28,656.8	28,437.4	-219.4	-0.8	18.1
OS	[81] Other Services (except Government)	17,578.9	17,530.5	-48.4	-0.3	16.3
GV	Government	129,912.9	129,674.4	-238.5	-0.2	15.0
<b>TL</b>	<b>Total, All Industries</b>	<b>897,402.1</b>	<b>920,046.0</b>	<b>+22,643.9</b>	<b>+2.5</b>	<b>16.7</b>

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

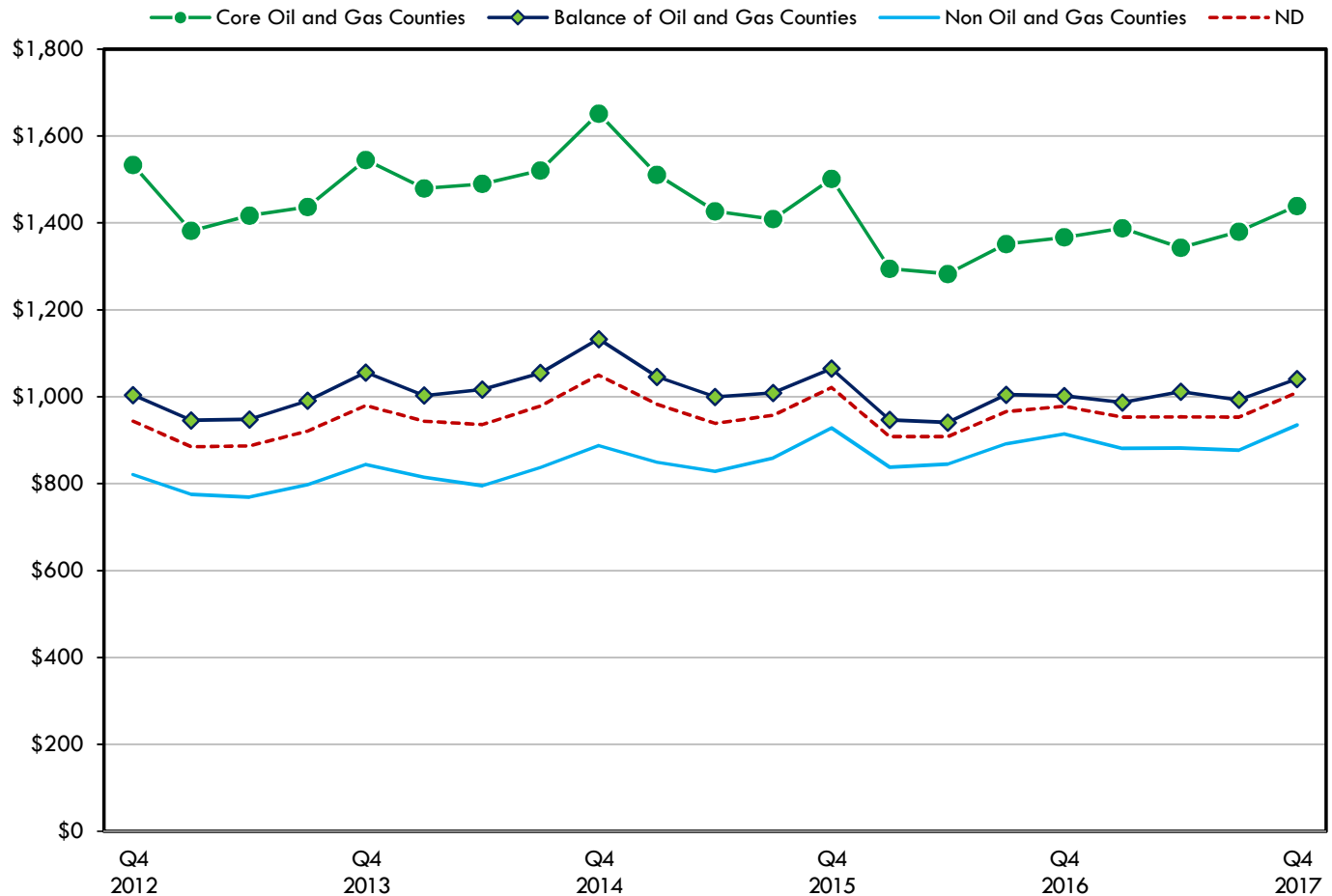
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE WEEKLY WAGE (\$)

[QCEW Q4 (OCT-DEC) 2017]



CORE OIL AND GAS COUNTIES		BALANCE OIL AND GAS COUNTIES		NON OIL	N DAKOTA
1,439		1,041		935	1,010
<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>
+59	+4.3	+48	+4.8	+6.6	+6.0
<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>
+72	+5.3	+39	+3.9	+2.2	+3.3
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-95	-6.2	+37	+3.7	+13.9	+7.0
4 QTR MOV AVG		4 QTR MOV AVG		4 QMA	4 QMA
1,388		1,008		894	968
<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>
+18	+1.3	+9	+0.9	+0.6	+0.8
<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>
+64	+4.8	+34	+3.5	+2.4	+3.0
<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR # CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>	<b>5YR % CHG</b>
-37	-2.6	+73	+7.8	+15.8	+9.6

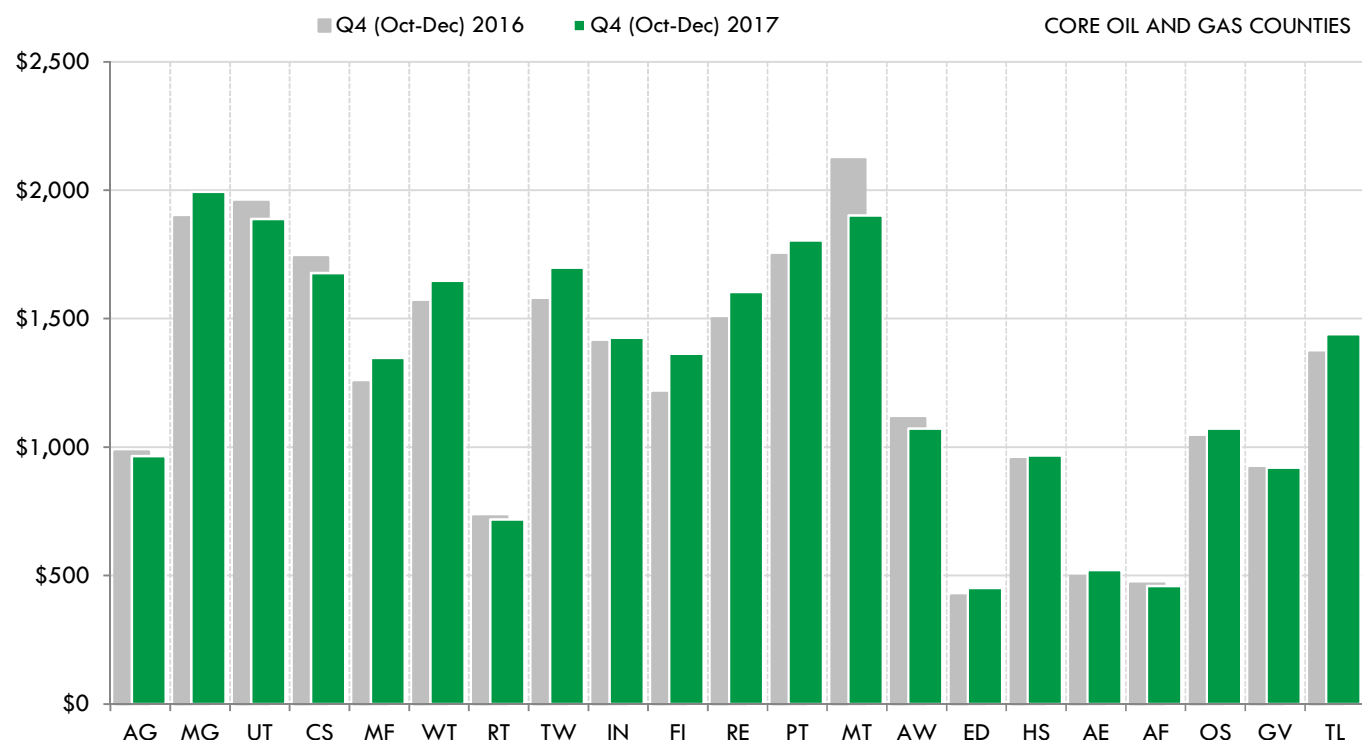
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE WEEKLY WAGE (\$) BY INDUSTRY

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	WKLY WAGE Q4 2016	WKLY WAGE Q4 2017	NUM CHG	PCT CHG	ND AVG Q4 2017
AG	[11] Agriculture, Forestry, Fishing and Hunting	982	965	-17	-1.7	961
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	1,894	1,994	+100	+5.3	1,970
UT	[22] Utilities	1,954	1,888	-66	-3.4	1,945
CS	[23] Construction	1,738	1,678	-60	-3.5	1,329
MF	[31-33] Manufacturing	1,252	1,347	+95	+7.6	1,070
WT	[42] Wholesale Trade	1,564	1,648	+84	+5.4	1,333
RT	[44-45] Retail Trade	730	718	-12	-1.6	607
TW	[48-49] Transportation and Warehousing	1,571	1,698	+127	+8.1	1,196
IN	[51] Information	1,408	1,426	+18	+1.3	1,220
FI	[52] Finance and Insurance	1,210	1,364	+154	+12.7	1,279
RE	[53] Real Estate and Rental and Leasing	1,500	1,604	+104	+6.9	1,016
PT	[54] Professional and Technical Services	1,747	1,805	+58	+3.3	1,530
MT	[55] Management of Companies and Enterprises	2,121	1,902	-219	-10.3	1,524
AW	[56] Administrative and Waste Services	1,112	1,072	-40	-3.6	771
ED	[61] Educational Services	422	452	+30	+7.1	650
HS	[62] Health Care and Social Assistance	953	968	+15	+1.6	1,029
AE	[71] Arts, Entertainment, and Recreation	498	522	+24	+4.8	315
AF	[72] Accommodation and Food Services	468	460	-8	-1.7	345
OS	[81] Other Services (except Government)	1,039	1,072	+33	+3.2	680
GV	Government	918	920	+2	+0.2	916
<b>TL</b>	<b>Total, All Industries</b>	<b>1,367</b>	<b>1,439</b>	<b>+72</b>	<b>+5.3</b>	<b>1,010</b>

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

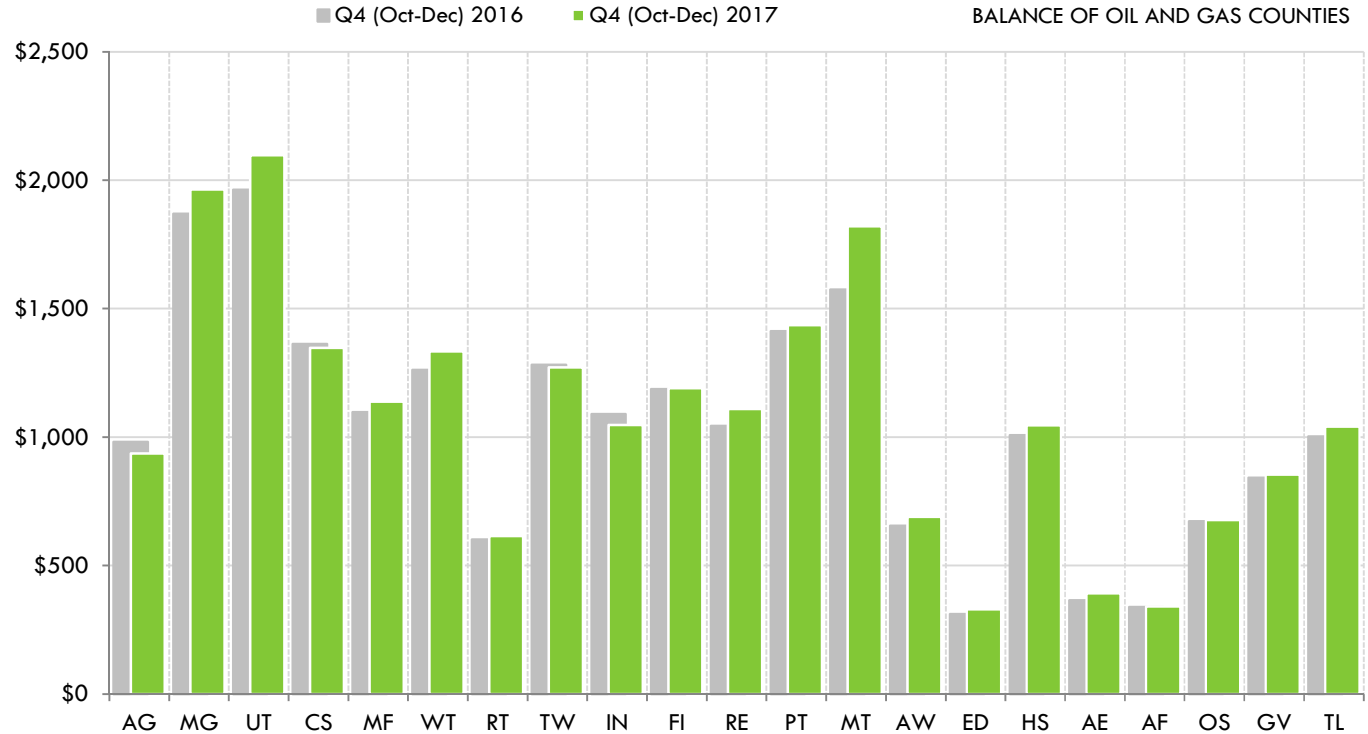
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# NORTH DAKOTA'S OIL AND GAS ECONOMY

## AVERAGE WEEKLY WAGE (\$) BY INDUSTRY

[QCEW Q4 (OCT-DEC) 2017]



ABBR	[2-DIGIT NAICS CODE] INDUSTRY	WKLY WAGE Q4 2016	WKLY WAGE Q4 2017	NUM CHG	PCT CHG	ND AVG Q4 2017
AG	[11] Agriculture, Forestry, Fishing and Hunting	981	937	-44	-4.5	961
MG	[21] Mining, Quarrying, and Oil and Gas Extraction	1,869	1,964	+95	+5.1	1,970
UT	[22] Utilities	1,963	2,097	+134	+6.8	1,945
CS	[23] Construction	1,362	1,347	-15	-1.1	1,329
MF	[31-33] Manufacturing	1,097	1,138	+41	+3.7	1,070
WT	[42] Wholesale Trade	1,262	1,334	+72	+5.7	1,333
RT	[44-45] Retail Trade	602	615	+13	+2.2	607
TW	[48-49] Transportation and Warehousing	1,281	1,272	-9	-0.7	1,196
IN	[51] Information	1,090	1,047	-43	-3.9	1,220
FI	[52] Finance and Insurance	1,187	1,191	+4	+0.3	1,279
RE	[53] Real Estate and Rental and Leasing	1,044	1,109	+65	+6.2	1,016
PT	[54] Professional and Technical Services	1,412	1,436	+24	+1.7	1,530
MT	[55] Management of Companies and Enterprises	1,574	1,821	+247	+15.7	1,524
AW	[56] Administrative and Waste Services	655	690	+35	+5.3	771
ED	[61] Educational Services	311	330	+19	+6.1	650
HS	[62] Health Care and Social Assistance	1,007	1,046	+39	+3.9	1,029
AE	[71] Arts, Entertainment, and Recreation	365	392	+27	+7.4	315
AF	[72] Accommodation and Food Services	339	341	+2	+0.6	345
OS	[81] Other Services (except Government)	672	678	+6	+0.9	680
GV	Government	842	854	+12	+1.4	916
<b>TL</b>	<b>Total, All Industries</b>	<b>1,002</b>	<b>1,041</b>	<b>+39</b>	<b>+3.9</b>	<b>1,010</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

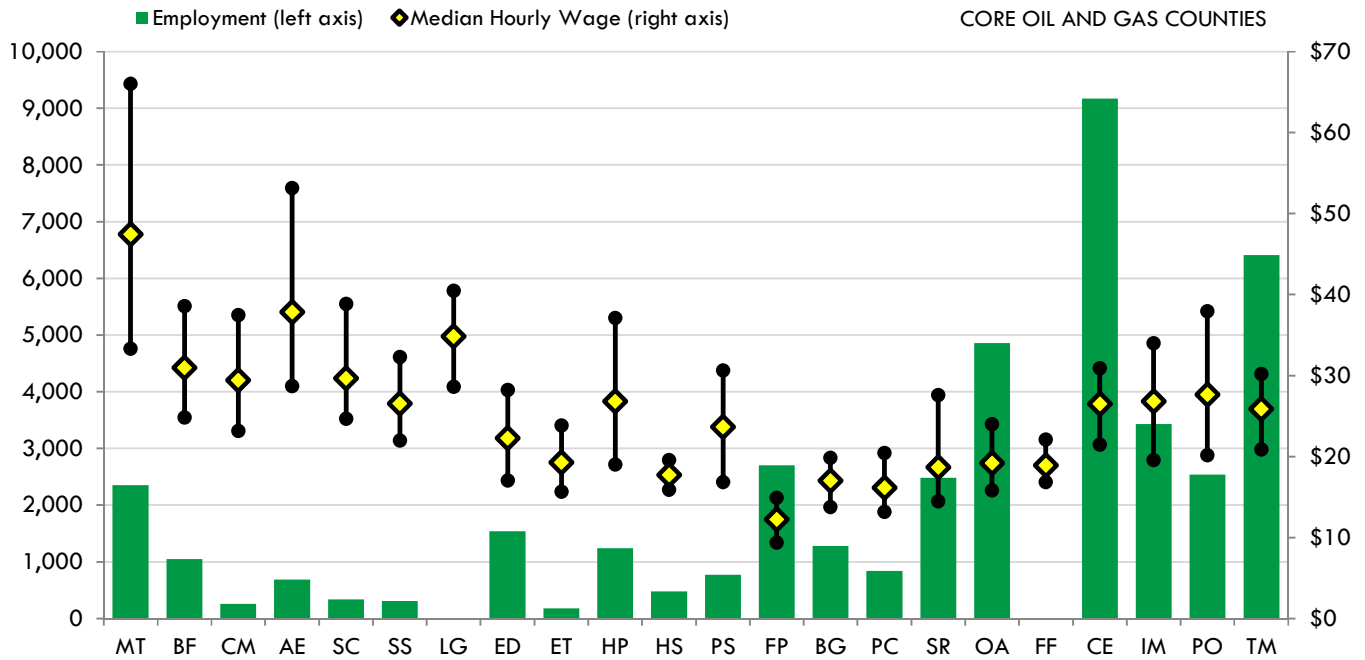
Data current as of August 8, 2018. Data are not seasonally adjusted, unless noted. Asterisks (\*\*\*) indicate data cannot be released due to reliability, availability or confidentiality restrictions.



# NORTH DAKOTA'S OIL AND GAS ECONOMY

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

[OES 2017]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	EMPLOY. 2017	25th PCTL WAGE	MEDIAN WAGE	75th PCTL WAGE	ND MEDIAN
MT	[11] Management	2,350	33.35	47.44	66.03	41.98
BF	[13] Business and Financial Operations	1,050	24.85	30.99	38.61	28.42
CM	[15] Computer and Mathematical	260	23.19	29.42	37.47	30.18
AE	[17] Architecture and Engineering	690	28.73	37.87	53.16	32.43
SC	[19] Life, Physical, and Social Science	340	24.69	29.69	38.88	29.28
SS	[21] Community and Social Service	310	22.00	26.55	32.32	23.56
LG	[23] Legal	***	28.65	34.85	40.48	32.57
ED	[25] Education, Training, and Library	1,540	17.06	22.27	28.23	21.88
ET	[27] Arts, Design, Entertainment, Sports, and Media	180	15.68	19.26	23.85	17.41
HP	[29] Healthcare Practitioners and Technical	1,240	19.05	26.82	37.15	28.26
HS	[31] Healthcare Support	480	15.90	17.73	19.58	16.10
PS	[33] Protective Service	770	16.85	23.67	30.65	20.83
FP	[35] Food Preparation and Serving Related	2,700	9.39	12.24	14.91	11.09
BG	[37] Building and Grounds Cleaning and Maintenance	1,280	13.80	17.01	19.85	13.80
PC	[39] Personal Care and Service	840	13.18	16.16	20.44	13.51
SR	[41] Sales and Related	2,480	14.51	18.69	27.60	14.52
OA	[43] Office and Administrative Support	4,860	15.85	19.21	24.03	17.07
FF	[45] Farming, Fishing, and Forestry	***	16.85	18.91	22.12	16.93
CE	[47] Construction and Extraction	9,170	21.48	26.52	30.93	24.46
IM	[49] Installation, Maintenance, and Repair	3,430	19.60	26.82	34.00	24.11
PO	[51] Production	2,540	20.19	27.66	37.95	18.11
TM	[53] Transportation and Material Moving	6,410	20.91	25.89	30.20	19.79
<b>TL</b>	<b>Total, All Occupations</b>	<b>43,220</b>	<b>17.60</b>	<b>24.15</b>	<b>30.97</b>	<b>19.25</b>

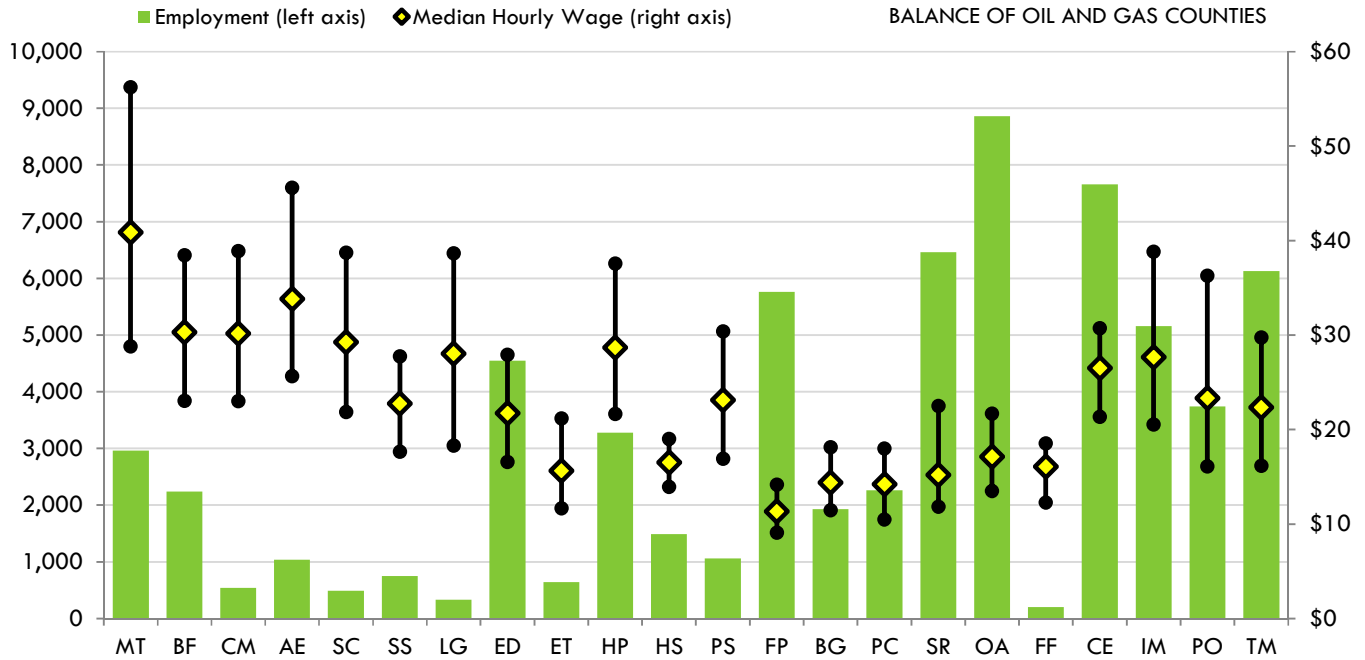
Sources: OES Labor Market Information Center, Job Service ND, Occupational Employment Statistics

Data current as of August 8, 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 2017]



ABBR	[2-DIGIT SOC CODE] OCCUPATION GROUP	EMPLOY. 2017	25th PCTL WAGE	MEDIAN WAGE	75th PCTL WAGE	ND MEDIAN
MT	[11] Management	2,960	28.83	40.89	56.24	41.98
BF	[13] Business and Financial Operations	2,240	23.07	30.31	38.48	28.42
CM	[15] Computer and Mathematical	540	23.02	30.18	38.89	30.18
AE	[17] Architecture and Engineering	1,040	25.68	33.84	45.60	32.43
SC	[19] Life, Physical, and Social Science	490	21.88	29.25	38.74	29.28
SS	[21] Community and Social Service	750	17.67	22.76	27.76	23.56
LG	[23] Legal	330	18.30	28.03	38.68	32.57
ED	[25] Education, Training, and Library	4,550	16.60	21.73	27.94	21.88
ET	[27] Arts, Design, Entertainment, Sports, and Media	640	11.69	15.64	21.20	17.41
HP	[29] Healthcare Practitioners and Technical	3,280	21.68	28.68	37.57	28.26
HS	[31] Healthcare Support	1,490	13.93	16.53	19.01	16.10
PS	[33] Protective Service	1,060	16.94	23.13	30.39	20.83
FP	[35] Food Preparation and Serving Related	5,760	9.10	11.35	14.17	11.09
BG	[37] Building and Grounds Cleaning and Maintenance	1,930	11.46	14.39	18.13	13.80
PC	[39] Personal Care and Service	2,260	10.49	14.23	18.01	13.51
SR	[41] Sales and Related	6,460	11.84	15.19	22.53	14.52
OA	[43] Office and Administrative Support	8,860	13.52	17.13	21.71	17.07
FF	[45] Farming, Fishing, and Forestry	200	12.30	16.07	18.55	16.93
CE	[47] Construction and Extraction	7,660	21.36	26.52	30.75	24.46
IM	[49] Installation, Maintenance, and Repair	5,160	20.55	27.66	38.85	24.11
PO	[51] Production	3,740	16.13	23.33	36.31	18.11
TM	[53] Transportation and Material Moving	6,130	16.17	22.36	29.77	19.79
<b>TL</b>	<b>Total, All Occupations</b>	<b>67,530</b>	<b>14.33</b>	<b>20.62</b>	<b>29.49</b>	<b>19.25</b>

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

Data current as of August 8, 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 in this report exclude 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.