

Energy Development and Transmission Committee

Michael Ziesch

Labor Market Information

Oil & Gas Related Employment Update



Overview

- Update on process for compiling Oil & Gas and Related employment
- Current labor market data related to the Economy
 - Hub City information
- Anticipated changes to future percentages



Good morning Senator Wardner and members of the Energy Development and Transmission Committee. My name is Michael Ziesch and I am the manager of the Labor Market Information Center of Job Service North Dakota.

I was asked to present this morning on the process our staff use for compiling the Oil & Gas and Related employment for the state, one of the purposes of which is Hub City designation.

I will also present current labor market data and the influence of lower oil prices on the economy.

And finally, what may be expected going forward.

Research Status

- Work began after the 2013 legislative session
- Year one - identifying the industries related to Oil & Gas and compiling their employment and wages by worksite
- Year two - monitoring births and death of companies
- Year three - current period encompasses 2015 calendar year
 - Monitor births and deaths
 - Revisit ½ of the in-scope worksites to see if their activity has changed
 - If previously flagged as related to see if their percentage has changed
 - If previously flagged as unrelated to see if they now have a relationship with Oil & Gas



Our LMIC staff began work on compiling employment and wage data on worksites related to Oil & Gas beginning right after the 2013 legislative session. The first year was spent designing the research project and identifying worksites that would be in-scope. These worksites were then either administratively coded, or sent questionnaires to determine their relationship to the Oil & Gas. We provided first data for review in June 2013.

Year two involved monitoring births and deaths of companies to the state during the period that encompassed calendar year 2014.

Currently we are in year three of the research. We continue to monitor births and deaths. But, we are also going back and revisiting roughly ½ of the in-scope establishments. We will look to see if their status has changed. We want to know if any companies that previously had been involved in Oil & Gas activities have changed their business models. For instance, did a trucking company with part of their fleet operating in the patch now go back to exclusively hauling other products. As well, we will be researching companies who previously noted they were not associated with Oil & Gas to see if they now are.

Research Status

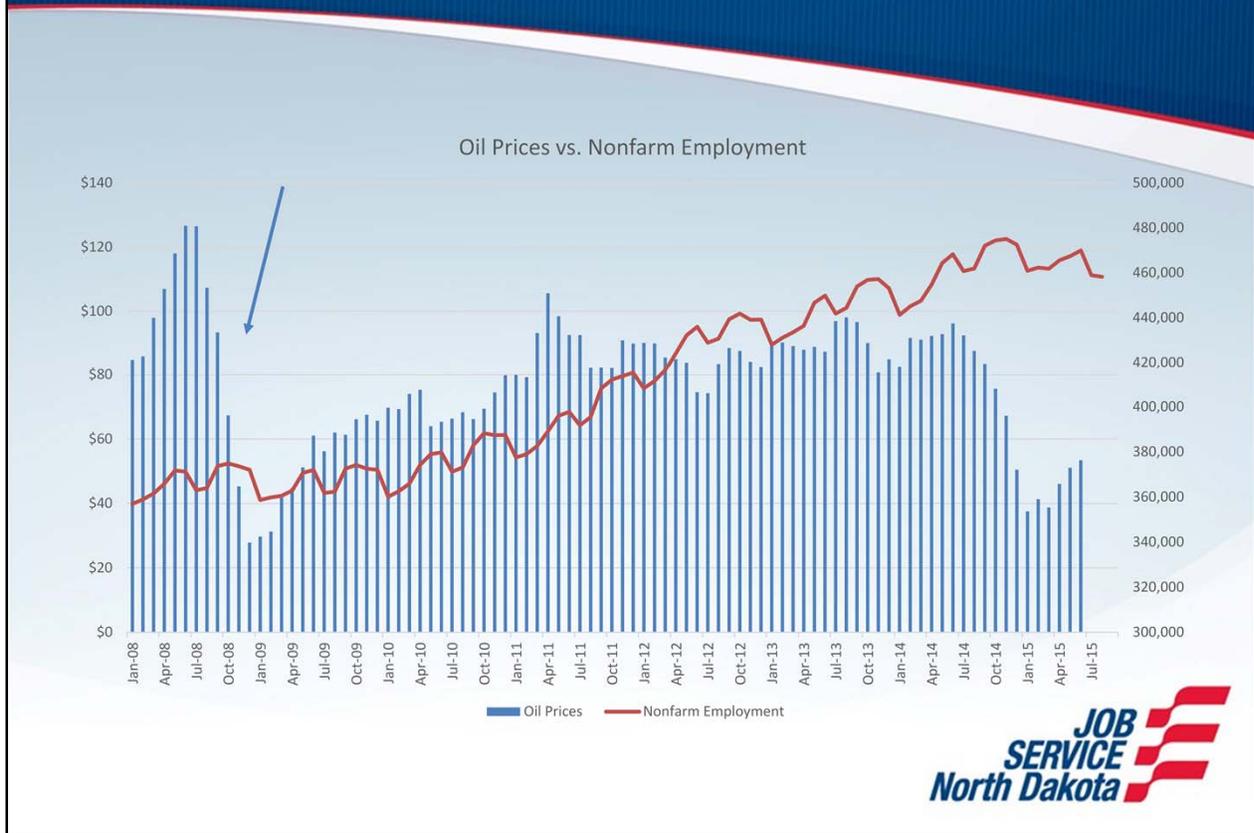
- At the onset there were 8,597 establishments identified as in-scope. That rose to 8,954 over the following year.
- Findings:

| | 2012 | 2013 | 2014 |
|-----------------------|-------|-------|-------|
| ND Private Employment | 14.3% | 15.3% | 16.7% |



Economic activity over the period we provided information for steadily increased. We were able to provide information on calendar year 2012 as a baseline. During the next year the percentage of the state's private employment that was identified as Oil & Gas Related rose a percentage point. The activity rose again into calendar year 2014, where it came in at 16.7%. In fact, all of calendar year 2014 came in strong for the state's economy. Even 1st quarter of 2015 was steady, even as oil prices began dropping in 4th quarter of prior year.

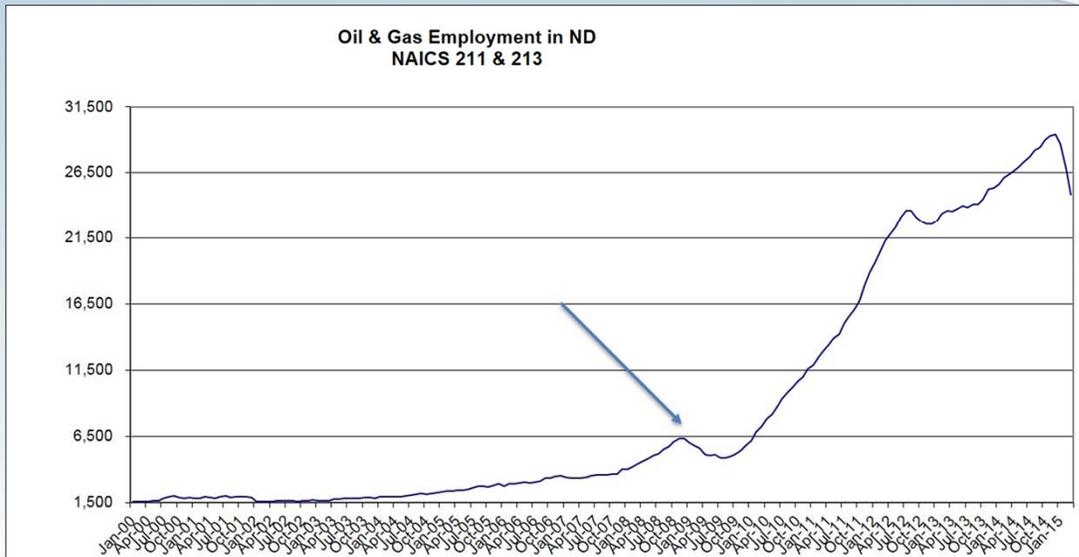
Impact of Oil Prices on Employment



The previous time period we saw a similar drop in oil prices occurred at the end of 2009. However, during that year there were about 5,300 workers involved in NAICS codes 211 & 213; which are the core Oil & Gas companies of exploration, support and production. This number rose to over 27,600 in 2014 as you can see on the next slide.

There is a time lag between change in price of oil and its impact on employment. That lag had been 6 months under vertical drilling, it expanded to about 13 months with directional drilling, and now appears to be moving back towards 6 months, as the price of oil drop in 4th quarter of 2014 began showing up on statistics in 2nd quarter of 2015.

Direct Oil & Gas Employment Through 1st Quarter 2015



Since the strong growth that began in the latter part of 2009, our peak employment month was December of 2014 at over 29,400 jobs. When I said earlier the impact of lower prices was not realized in 1st quarter of 2015 yet is because the industry generally has a seasonality to it, and the levels are quite similar to what prior year had in same quarter. Data from our covered employment and wage database are only available through 1st quarter of 2015. However we do have nonfarm estimates through August 2015. The statewide trend was displayed on the prior graph. However, a table with current data displaying the industry breakout is on the following slide.

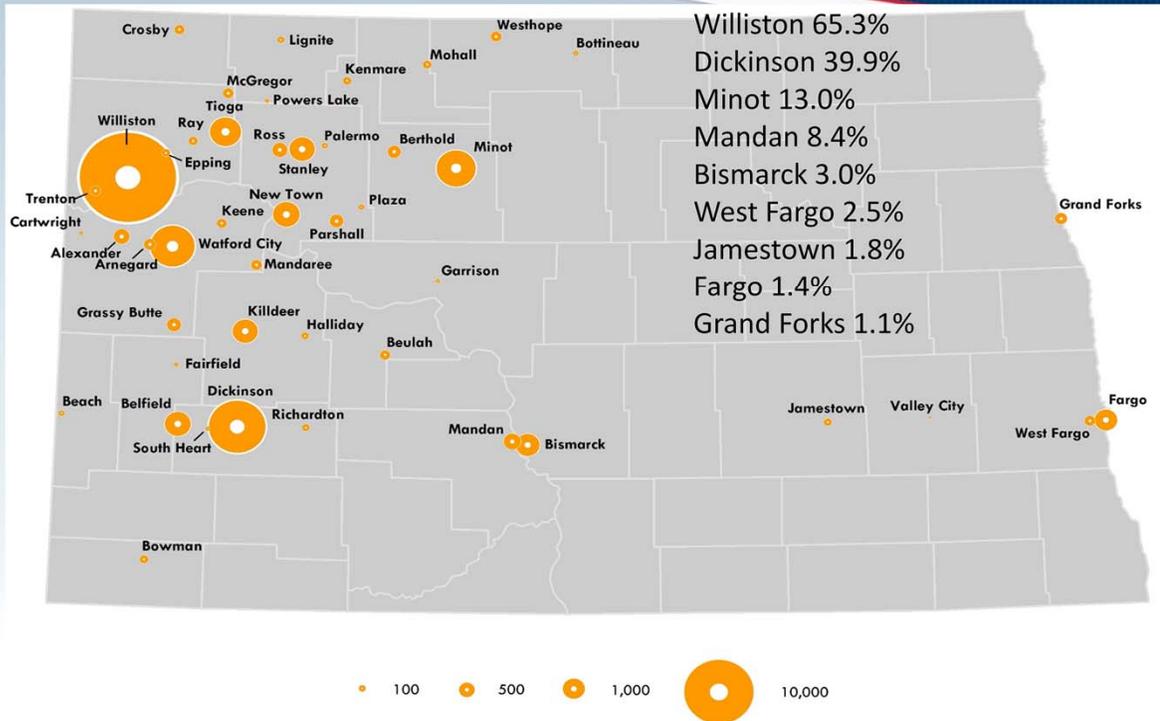
Current Nonfarm Employment

| NORTH DAKOTA | Aug-15 (p) | Jul-15 (r) | M/M Numeric Change | M/M Percent Change | Aug-14 | Y/Y Numeric Change | Y/Y Percent Change |
|--|---------------|---------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|
| Total Employment | 458,200 | 458,900 | -700 | -0.20% | 461,900 | -3,700 | -0.80% |
| Mining & Logging | 27,100 | 27,500 | -400 | -1.50% | 30,700 | -3,600 | -11.70% |
| Construction | 40,100 | 40,300 | -200 | -0.50% | 40,100 | 0 | 0.00% |
| Manufacturing | 26,200 | 25,900 | 300 | 1.20% | 26,400 | -200 | -0.80% |
| Wholesale Trade | 27,100 | 26,900 | 200 | 0.70% | 27,600 | -500 | -1.80% |
| Retail Trade | 51,300 | 51,600 | -300 | -0.60% | 50,700 | 600 | 1.20% |
| Transportation, Warehousing, & Utilities | 27,500 | 27,100 | 400 | 1.50% | 28,800 | -1,300 | -4.50% |
| Information | 6,800 | 6,700 | 100 | 1.50% | 6,900 | -100 | -1.40% |
| Financial Activities | 24,600 | 24,400 | 200 | 0.80% | 24,400 | 200 | 0.80% |
| Professional & Business Services | 37,000 | 37,600 | -600 | -1.60% | 37,400 | -400 | -1.10% |
| Educational & Health Services | 59,100 | 58,900 | 200 | 0.30% | 58,900 | 200 | 0.30% |
| Leisure & Hospitality | 41,500 | 41,800 | -300 | -0.70% | 41,600 | -100 | -0.20% |
| Other Services | 17,800 | 17,700 | 100 | 0.60% | 16,800 | 1,000 | 6.00% |
| Government | 72,100 | 72,500 | -400 | -0.60% | 71,600 | 500 | 0.70% |



As mentioned, this table displays the most recent data month for nonfarm employment estimates. The two industries most closely associated with the Bakken are Mining and Transportation. They show some of the adjustments made by energy companies.

Oil & Gas Related Employment by City



This graphic shows employment by city in calendar year 2014. We do not have the detail available yet to gauge changes into the more current time period. When we get quarterly county level data in December for the covered employment for the first two quarters, we may be able to use that as a proxy, because these core cities tend to dominate the employment and wages of their counties. However, we will be losing the granularity of the Oil & Gas flagged worksites that is present in the true research. That will unfortunately be tied to June constraints. We would have to look at changes in larger industry rollups, such as changes in Mining & Transportation for the individual counties.

Cities in the heart of the Bakken will likely be affected most, as they have more direct “touch the pad” employment. Where some of the more remote geographic areas have related employment in related work. Also, areas with more stable employment such as refineries may also remain steady.

Outlook

- Employment peaked in 2014
- Shift was already occurring from Exploration (Rig Activity) to production related work
 - This would have taken less workers, but was exaggerated by change in price of oil
- Energy companies were quickly making other adjustments
 - Core Bakken focus
 - Reduced completion time
 - Multi well pads
 - Most powerful rigs
 - Most experienced crews
 - Fewer required truck loads



As mentioned earlier, employment in the current business cycle peaked in 4th quarter of 2014. The state added approximately 100,000 jobs between current month and 2009. The expectation was for a decrease in employment as activity transitioned from Exploration to Production. But, this was accelerated by price change.

The advances made by the sector all had an effect of needing fewer employees. And often times the first affected workers may have been super commuters, as some of the first adjustments would also have included altering over-time and premium pay such as speed and safety bonuses. This may have made the sacrifice required of the out-of-state worker on the nontraditional schedule to be viewed as not worth it. Although other jobs are still available in the state, including construction projects funded by the legislature, the economy has improved somewhat nationally. And all things being equal, workers tend to be geocentric and wish to be in their home areas. In current month, there are 17,420 open and available positions yet.

The efficiencies realized lately by oil companies may have lowered the price level where it is feasible to resume activity. But, I am not sure when that will occur, and it will likely come with a time lag. That concludes my testimony. I would be happy to answer questions that you may have. Thank you for your time today.