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TRENDS IN NEBRASKA'S WAGE DISTRIBUTION

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Introduction

Wage growth has been a persistent challenge for the United States economy in recent decades (Mishel, 2013). Middle class wage growth has been weak while job polarization has widened the gap in wages between the highest and lowest paying jobs. Many argue that technological change and globalization are the two main economic factors behind these trends (Dietz, 2012). These problems have accelerated in the last decade, with U.S. real median wages in 2015 only slightly higher than wages in 2006.

These trends have also played out in Nebraska over the last decade. In this report, wage trends are examined for the two main metropolitan areas in Nebraska, state of Nebraska, and the nation. This report updates a 2015 report on the same topic co-authored by Brock Thompson and Eric Thompson.

Using national and sub-national data maintained by the U.S. Bureau of Labor Statistics, we examine whether (1) wages for higher skilled occupations have increased by more than wages for lower skilled occupations, and (2) the real standard of living of

workers increased by more than the Consumer Price Index for All Urban Consumers (CPI-U).

Methodology

Wage distribution data (10th, 25th, 50th, 75th, and 90th percentile) were collected from the Occupational Employment Statistics (OES) survey from May 2006 to May 2015 for each area. The 10-year percentage change for each point in the wage distribution was calculated for Lincoln, Omaha, Nebraska, and the United States, respectively. The OES survey is a semi-annual mail survey of non-farm establishments. The Bureau of Labor Statistics (BLS) produces the survey materials and randomly selects the establishments to be surveyed via mail. Data is obtained from businesses in every metropolitan and nonmetropolitan region in every state. Follow-up calls to non-respondents are used to raise survey response rates.

Table 1 shows nominal and real median wages for the U.S., Nebraska, and the Omaha and Lincoln Metropolitan Statistical Areas. Real wages are calculated based on the Consumer Price Index for All Urban Consumers (CPI-U). CPI-U values for each year are reported in Table 2.

Table 1-- Median Wages by Geography

Nominal	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Lincoln	13.99	14.28	14.65	14.81	14.99	15.26	15.67	16.15	16.52	16.99
Omaha	14.23	14.67	15.01	15.38	15.62	15.93	16.02	16.28	16.48	17.09
Nebraska	13.31	13.73	14.08	14.39	14.57	14.82	15.01	15.31	15.66	16.27
The U.S	14.61	15.10	15.57	15.95	16.27	16.57	16.71	16.97	17.09	17.40
CPI Adjustments	0.851	0.875	0.908	0.905	0.920	0.949	0.969	0.983	0.999	1.000
Real (2015 dollars)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Lincoln	16.44	16.32	16.13	16.36	16.29	16.08	16.17	16.43	16.54	16.99
Omaha	16.72	16.77	16.53	16.99	16.98	16.79	16.53	16.56	16.50	17.09
Nebraska	15.64	15.69	15.51	15.90	15.84	15.62	15.49	15.57	15.68	16.27
The U.S	17.17	17.26	17.15	17.62	17.68	17.46	17.24	17.26	17.11	17.40

Table 2: CPI for Inflation Adjustment Calculations

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2006-2015
CPI -U	201.6	207.3	215.3	214.5	218.1	224.9	229.6	233.0	236.3	237.0	17.57%
Adjustment Calculations	0.851	0.875	0.908	0.905	0.920	0.949	0.969	0.983	0.999	1.00	

Results

Figure 1 displays data from Table 1 on real median wages over the last ten years (2006-2015) in all four regions. Annual median wages have risen in nominal terms but as seen in Figure 1 growth is limited after adjusting for inflation. During the Great Recession in 2007-2008, real median income fell. Then, from late 2008 to early 2009, there was a jump in wages in all four regions due to a decline in price levels. After that, real median wages slowly declined until 2012. From 2012-2015, the Lincoln metropolitan area and the state of Nebraska followed a very similar pattern of steady increase. By contrast, in the Omaha metropolitan area and the United States as a whole, real median wage fell (by 0.36% and 0.87%

respectively) during 2013-2014 but rose significantly during 2014-2015 (by 2.72% and 1.70%, respectively).

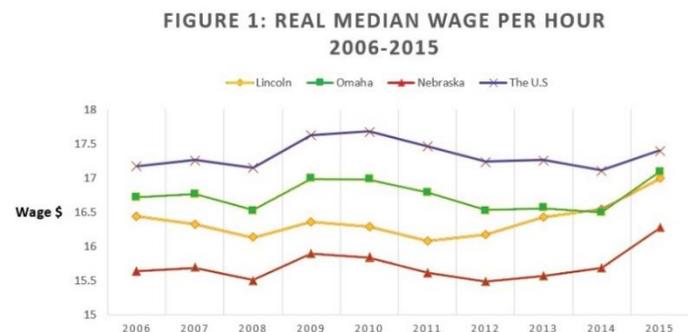
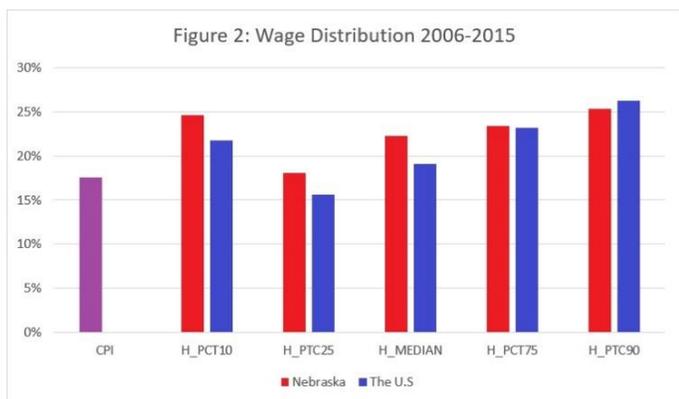


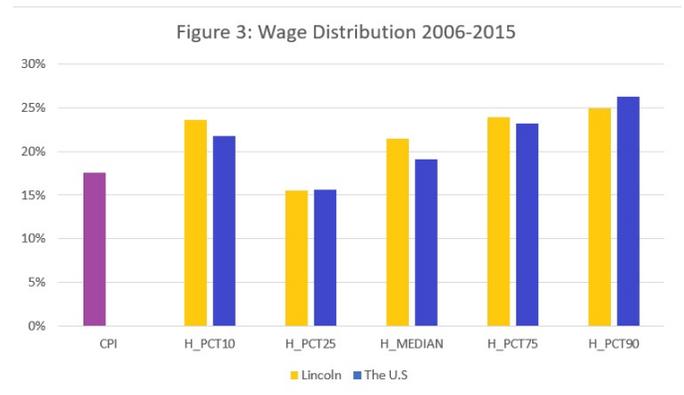
Figure 2 compares the increase in CPI with the increase in wages in Nebraska and the U.S. The bar graph shows the cumulative growth in nominal wages and prices from 2006 to 2015. Results are reported for the median wage workers as well as for other key points in the wage distribution. These are the 10th percentile (H_PCT10), the 25th percentile (H_PCT25), the median (H_MEDIAN), the 75th percentile (H_PCT75), and the 90th percentile (H_PCT90). The 10th percentile worker earns more than 10 percent of workers but less than 90 percent of workers. The figure shows that prices grew more than 17% over the last 10 years, which means that worker income would need to increase by that amount in order to keep up with inflation.

From 2006 to 2015, wage growth kept up with inflation throughout much of the wage distribution. The exception was workers at 25th percentile. Nationwide, the wages of these workers (15.59%) grew by less than inflation (17.51%). In Nebraska wage growth was slightly above inflation. But even in Nebraska the real wage growth of these “working class” workers was minimal.

Wage growth was stronger in other parts of the wage distribution. Wage growth has been solid for workers at the 75th or 90th percentile. Further, the wages of workers at the 10th percentile increased by much more than inflation in both Nebraska and the nation. Both high skill and low skill workers have experienced faster wage growth than middle skill workers during this period.



Figures 3 compares wage growth across the distribution between Lincoln and the U.S. Once again, there was poor wage growth for workers at the 25th percentile. From 2006 to 2015, the hourly wages of Lincoln workers at 25th percentile rose by just 15.54%, less than the 17.51% increase in prices. Wage growth for the 10th, 50th, 75th and 90th percentile worker in Lincoln exceeded inflation. Wage growth was slightly stronger in Lincoln than the United States for 10th, 50th and 75th percentile workers. The same cannot be said of Omaha, as seen in Figure 4.



Across all four geographies, the hourly wages of higher skilled workers who are at 75th and 90th percentile increased by more than the wages of lower middle class workers (those at the 25th percentile). In particular, 75th percentile workers’ wages grew by 23.95% in Lincoln, 22.77% in Omaha, 23.41% in Nebraska, and 23.18% nationwide.

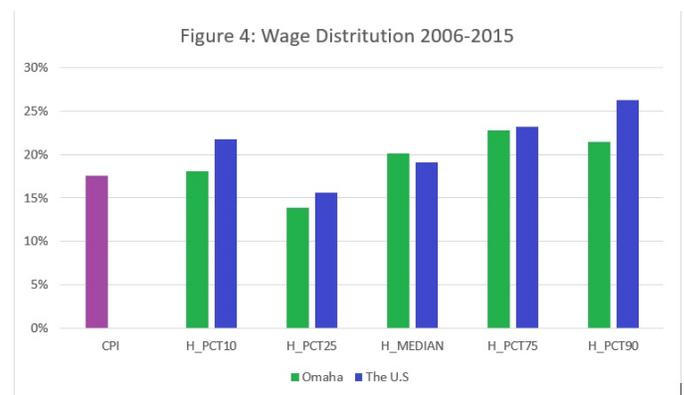


Figure 5 displays data from Table 1 on real median wages over the last three years (2012-2015) in all four regions. The Lincoln metropolitan areas and the state of Nebraska share a similar pattern of steady

increase in all three years. The Omaha metropolitan area and the U.S share the same pattern of a decline in 2013-2014 followed by a significant increase in 2014-2015.

**FIGURE 5: REAL MEDIAN WAGE PER HOUR
2012-2015**

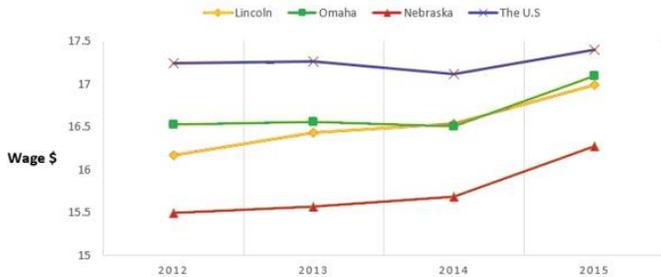
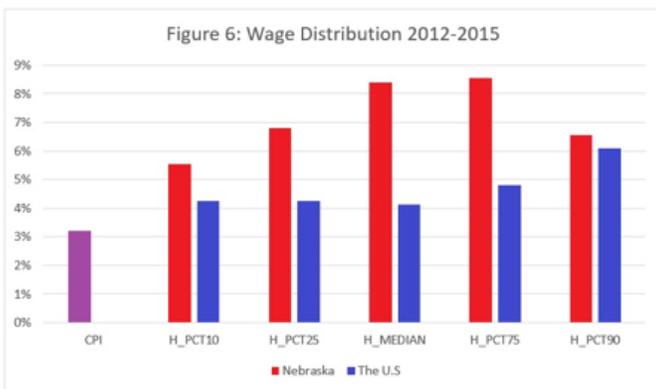


Figure 6 compares the increase in CPI with the increase in wages in Nebraska and the U.S for the past three years (2012-2015). The figure shows that prices grew more than 3.2% over the last 3 years, which means that worker income would need to increase by that amount in order to keep up with the price increases. Fortunately, the income of workers in all five percentiles for both Nebraska and the U.S have increased by more than 3.2%. The increase ranged from 4.13% to 8.56%. Nebraska wage growth doubled or nearly doubled the nation in the 25th percentile, the 50th percentile and the 75th percentile, with the workers in the 75th percentile enjoying the highest rise in hourly wages.

Figure 6: Wage Distribution 2012-2015



Conclusions

Over the last decade, there were common trends in wage growth in Lincoln, Omaha, and Nebraska, as well as in the United States. Growth in real median hourly wages was mixed, and sometimes negative. In particular, the wages of lower middle class employees have not always kept up with inflation. At the same time, wages grew solidly for workers at the top of the wage distribution.

Wage growth was weakest for people at 25th percentile. In Omaha their wages increased by 13.90% while the increases were 15.54%, 18.11%, and 15.59% in Lincoln, Nebraska, and the United States, respectively. At 10th percentile, wages grew up 18.09% in Omaha, the increases were 23.61%, 24.65%, 21.74% in Lincoln, Nebraska, and nationwide, respectively.

If we look more specifically at the last three years, wage growth was stronger. Wages grew faster than inflation across the wage distribution, especially in Nebraska statewide. Wage growth was strong for the 25th, 50th and 75th percentile worker in Nebraska over the last three years.

Overall, results show that in the last decade the U.S. economy has failed to provide real wage gains for workers in the lower middle class. These trends may reflect both changes in the quality of the workforce as well as labor saving technology. Trends also may reflect the impact of the “Great Recession” of 2007 to 2009. On the other hand, it is a positive trend that wage growth has exceeded inflation in other parts of the wage distribution. The Bureau of Business Research will continue to monitor new wage growth across the distribution as data is released each spring.

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