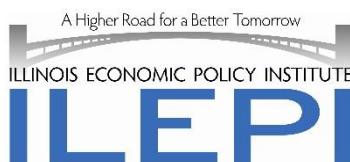


**THE MOST EQUAL AND
UNEQUAL JOBS IN ILLINOIS**
Occupational Employment Statistics



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THE MOST EQUAL AND UNEQUAL JOBS IN ILLINOIS: OCCUPATIONAL EMPLOYMENT STATISTICS

Economic Commentary #42

Introduction

Wage inequality is on the rise in Illinois. In the first ever historical analysis of Illinois inequality, the Illinois Economic Policy Institute (ILEPI) found that economic inequality in Illinois has risen to levels last seen in the Great Depression. The widening income disparity has been driven by the redistribution of wealth from labor to capital. In 1980, 63 percent of total state economic output went to Illinois workers, while capital's share was 31 percent. By 2013, labor compensation declined to 56 percent of Illinois' GDP and capital increased to 38 percent of the state's economy. ([Manzo, 2016](#)).

Income inequality in Illinois has particularly increased in the past few years. From 2009 to 2012, earnings for the top 1 percent increased by 34.5 percent, while incomes grew by just 0.2 percent for the bottom 99 percent of workers in Illinois. As a result, Illinois has become the 8th-most unequal state in America ([Sommeiller & Price, 2015](#)).

There can be both good and bad wage inequality. Workers need incentives to work hard, to invest in their own skills, and to be entrepreneurial. An occupation that has relatively high inequality in Illinois might still be a good job or career if workers earn more, on average, than their counterparts in other states. However, Illinois occupations that pay less than the national average and have relatively high wage disparities could reduce the incentive to work hard, limit consumer demand, and even have psychological costs ([Stiglitz, 2012](#)).

Conversely, there can be both good and bad wage equality. Reducing income disparities is correlated with higher life expectancy and lower mortality rates, especially among middle-aged white men ([Case & Deaton, 2015](#)). Lower income inequality could also increase consumer demand from workers in an occupation and improve happiness ([Sacks et al., 2012](#)). An occupation that has low inequality and high average wages in Illinois is an example of "good" wage equality. However, if workers in an occupation are relatively equal but earn less than the national average, the benefits of smaller wage gaps are likely to be very limited.

This ILEPI Economic Commentary explores the "*good equality*," "*good inequality*," "*bad equality*," and "*bad inequality*" jobs and careers in Illinois. The findings of the report can be summarized in three key takeaways:

1. Workers in *good equality* occupations are generally supported by labor unions and other pro-worker policies, including strong educational support and training programs. Construction occupations, law enforcement careers, and firefighting positions are well-represented in this group.
2. Politically-driven efforts to repeal the state's prevailing wage law or to weaken public sector unions would decimate a majority of the *good equality* occupations that remain for blue-collar workers in Illinois.
3. The waiter and waitress occupation in Illinois pays 7.1 percent less than the national average. Raising the state's minimum wage would benefit these 90,000 workers and lift them out of the *bad equality* category.

Data and Definitions

The Bureau of Labor Statistics (BLS) at the U.S. Department of Labor publishes *Occupational Employment Statistics* for every metropolitan area and state in the United States. The *Occupational Employment Statistics*, or OES, data surveys approximately 1.2 million business establishments over three years to estimate wage and salary information for hundreds of unique occupations (BLS, 2016a). For Illinois in May 2015, wage data for 527 occupations are available and can be compared to the national average.

The OES includes hourly wage data for the average worker, the median worker, and the Top 10 percent of earners in a given occupation. As a result, researchers can construct an income inequality index for each job or career. One of the most common measures of income inequality is called the “90-50 index,” which is the ratio between the 90th percentile (or the Top 10 percent of earners) and the 50th percentile (or the median worker). A higher value indicates greater income inequality. Comparing the 90-50 index for an occupation in Illinois to the same ratio in the broader United States can be a useful tool in determining whether the job is more or less equal in Illinois.

In general, workers earn more on average per hour in Illinois than in the rest of America. Even after accounting for the higher cost of living, the average worker in Illinois earns 2.4 percent more per hour than the average employee nationwide. Wage inequality between the Top 10 Percent of earners and the median worker is roughly the same in Illinois as the national average. Compared to the nation, incomes are 0.2 percent more unequal in Illinois – due in large part to the presence of a robust financial industry in Chicago.

Most occupations in Illinois reflect levels of compensation that are paid in the national labor market. In 450 of the 527 occupations with available data, the cost-of-living-adjusted average hourly wage and the 90-50 occupational inequality index both fall within ± 5.0 percent of the national average. In this Economic Commentary, the Illinois Economic Policy Institute categorizes the remaining 77 occupations in Illinois. They are classified within one of four types of jobs:

1. *Good Equality*– 32 occupations with worker wages that are at least 5.0 percent higher than the national average and inequality that is at least 5.0 percent lower than the national average;
2. *Good Inequality* – 17 occupations with worker wages that are at least 5.0 percent higher than the national average but inequality that is at least 5.0 percent worse than the national average;
3. *Bad Equality*– 16 occupations with worker wages that are at least 5.0 percent lower than the national average but inequality that is at least 5.0 percent lower than the national average; or
4. *Bad Inequality* – 12 occupations with worker wages that are at least 5.0 percent lower than the national average and inequality that is at least 5.0 percent worse than the national average.

Good Equality: Jobs that Pay More and Have a Smaller Income Gap than the National Average

After accounting for the higher cost of living, there are 32 occupations in Illinois that have significantly higher wages and are significantly more equal than the national average (Figure 1). In these *good equality* occupations, employers pay workers at least 5.0 percent more per hour than the national average. In addition, the “90-50” inequality ratio for the job or career is at least 5.0 percent lower than the national average. The *good equality* occupations are generally among the most worker-friendly jobs in Illinois.

The vast majority of the *good equality* occupations in Illinois are in construction or protective services (Figure 1). Construction occupations account for 11 of the 32 *good equality* jobs, including 9 of the top 11. Blue-collar construction workers such as ironworkers, laborers, operating engineers, plumbers, electricians, and carpenters in Illinois all earn hourly wages that are over 20 percent more than the national average. Also included in the relatively high-wage, low-inequality classification are construction

supervisors and construction inspectors, indicating that the construction labor market is better-compensated overall in Illinois. The primary reasons for this are that construction workers in Illinois are among the highest-trained, most-productive in the country (Manzo & Bruno, 2015) and they are significantly more unionized (Manzo et al., 2016).

Similarly, 7 of the 32 *good equality* jobs are in protective services. Correctional officers, detectives, police officers, security guards, and supervisors of fire fighters are among those in relatively high-paid, low-inequality jobs. These occupations also tend to be highly unionized in Illinois (Manzo et al., 2016). Installation and repair occupations account for 3 jobs on the list. Various financial sector jobs and other white-collar occupations comprise the remaining *good equality* jobs in Illinois.

Figure 1: “Good Equality” Jobs in Illinois –Higher Wages and Lower Inequality – May 2015

#	Illinois Occupations: Good Equality (May 2015)	Jobs in Illinois	Average Wage: Illinois	Illinois Wage: Premium	Illinois 90-50 Index
	<i>Entire Economy</i>	5,852,710	\$24.02	2.38%	0.19%
1	Structural Iron & Steel Workers	2,750	\$39.25	47.65%	-36.23%
2	Operating Engineers & Construction Operators	10,470	\$34.40	44.26%	-24.56%
3	Sheet Metal Workers	3,490	\$34.28	41.71%	-29.96%
4	Construction Laborers	32,560	\$25.07	41.27%	-11.88%
5	Brickmasons & Blockmasons	3,360	\$34.55	37.49%	-24.87%
6	Psychiatric Technicians	5,740	\$23.45	33.13%	-21.97%
7	Stationary Engineers & Boiler Operators	3,230	\$38.45	30.91%	-18.29%
8	Plumbers, Pipefitters, & Steamfitters	16,620	\$34.71	29.73%	-24.01%
9	Correctional Officers & Jailers	13,610	\$27.88	26.68%	-26.27%
10	Electricians	22,220	\$33.57	24.35%	-22.46%
11	Carpenters	23,620	\$27.84	22.56%	-5.12%
12	Supervisors of Fire Fighting & Prevention Workers	3,490	\$43.67	19.94%	-14.56%
13	Probation Officers & Correctional Specialists	2,130	\$31.11	18.47%	-22.54%
14	Telecommunications Line Installers & Repairers	3,400	\$30.65	16.45%	-7.60%
15	Financial Examiners	2,480	\$49.53	15.50%	-14.94%
16	Detectives & Criminal Investigators	2,840	\$44.16	14.22%	-6.80%
17	Supervisors of Police & Detectives	6,030	\$47.51	14.01%	-21.36%
18	Survey Researchers	4,110	\$32.70	13.48%	-13.46%
19	Police & Sheriff's Patrol Officers	31,710	\$33.61	13.00%	-19.93%
20	Supervisors of Construction & Extraction Workers	11,000	\$36.54	12.60%	-8.83%
21	Adult Basic & Secondary Education Instructors	2,270	\$29.12	10.93%	-16.22%
22	Electrical Power-Line Installers & Repairers	3,200	\$35.13	10.17%	-11.94%
23	Tax Preparers	3,920	\$23.91	10.11%	-7.96%
24	Water & Wastewater Treatment Plant Operators	4,180	\$24.85	9.40%	-5.31%
25	Construction & Building Inspectors	2,400	\$31.83	9.20%	-9.00%
26	Reservation/Transportation Ticket Agents & Clerks	5,070	\$19.45	8.92%	-8.08%
27	Computer Network Architects	4,460	\$54.09	8.04%	-7.77%
28	Heating, Air, Refrigeration Mechanics & Installers	7,330	\$24.80	7.79%	-8.36%
29	Security Guards	49,250	\$14.88	7.69%	-8.38%
30	Industrial Machinery Mechanics	11,440	\$26.69	6.77%	-5.47%
31	Cost Estimators	7,120	\$33.25	5.65%	-5.18%
32	Compliance Officers	7,460	\$35.44	5.50%	-7.00%

Source: BLS, 2016b – “Occupational Profiles: State.”

Good Inequality: Jobs that Pay More but Have a Larger Income Gap than the National Average

There are also 17 occupations in Illinois that have significantly higher wages but are significantly more unequal than the national average (Figure 2). In these *good inequality* occupations, employers pay workers

at least 5.0 percent more per hour than the national average. The “90-50” inequality ratio for the job or career, however, is at least 5.0 percent worse than the national average. The *good inequality* occupations include well-paid positions, but they may be concentrated at the top of the income distribution or within one geographic area of the state.

The *good inequality* occupations are more diverse than the *good equality* jobs (Figure 2). Two construction occupations– roofers and painters– fall within this high-wage classification. Social workers, substitute teachers, and counselors also experience a better-paid but more-unequal job market in Illinois. Various automotive and transportation-related occupations also appear on this list.

Figure 2: “Good Inequality” Jobs in Illinois -Higher Wages and Higher Inequality – May 2015

#	Illinois Occupations: Good Inequality (May 2015)	Jobs in Illinois	Average Wage: Illinois	Illinois Wage Premium	Illinois 90-50 Index
	<i>Entire Economy</i>	5,852,710	\$24.02	2.38%	0.19%
1	Physical Therapist Aides	2,820	\$20.22	51.78%	38.71%
2	Crop, Nursery, Greenhouse Farmworkers & Laborers	2,670	\$14.57	35.58%	9.84%
3	Painters, Construction & Maintenance	8,250	\$26.19	33.05%	10.62%
4	Substitute Teachers	19,130	\$17.61	22.36%	18.86%
5	Child, Family, & School Social Workers	12,550	\$27.69	22.34%	10.40%
6	Emergency Medical Technicians & Paramedics	12,060	\$20.38	18.42%	61.87%
7	Mobile Heavy Equipment Mechanics, Except Engines	2,310	\$28.44	16.94%	18.30%
8	Amusement & Recreation Attendants	10,770	\$12.08	16.46%	27.53%
9	Roofers	5,070	\$22.64	14.72%	15.74%
10	Mental Health & Substance Abuse Social Workers	2,960	\$25.14	9.70%	17.43%
11	Financial Specialists, All Other	8,960	\$38.50	9.38%	6.76%
12	Heavy & Tractor-Trailer Truck Drivers	69,590	\$22.32	8.17%	5.72%
13	Ushers, Lobby Attendants, & Ticket Takers	4,600	\$11.04	7.90%	17.81%
14	Locomotive Engineers	2,820	\$31.04	7.68%	7.12%
15	Rehabilitation Counselors	3,440	\$19.71	6.70%	31.90%
16	Automotive & Watercraft Service Attendants	3,460	\$12.11	6.39%	17.67%
17	Automotive Service Technicians & Mechanics	25,080	\$20.96	5.99%	12.63%

Source: BLS, 2016b– “Occupational Profiles: State.”

Bad Equality: Jobs that Pay Less but Have a Smaller Income Gap than the National Average

On the other hand, there are jobs that are significantly more equal than the national average, but worker wages are relatively lower than the national average (Figure 3). These 16 occupations are classified as *bad equality* jobs. In these *bad equality* occupations, employers pay workers at least 5.0 percent less per hour than the national average and the “90-50” inequality ratio for the job or career is at least 5.0 percent lower than the national average.

The *bad equality* occupations mainly include white-collar jobs (Figure 3). While credit analysts, editors, app developers, veterinarians, market research specialists, and vocational college professors all generally earn a good living in Illinois, their wages are lower than the national average. The waiter and waitress occupation is the largest *bad equality* job in Illinois. With inequality that is 19.3 percent lower than the national average, waiters and waitresses are more equal, but they are equally poor – earning an average income of just \$10.39 an hour from wages and tips. Improving unionization in the food industry or raising the minimum wage in Illinois would lift waiters, waitresses, and food cooking machine operators out of the *bad equality* category of occupations.

Figure 3: “Bad Equality” Jobs in Illinois – Lower Wages and Lower Inequality – May 2015

#	Illinois Occupations: Bad Equality (May 2015)	Jobs in Illinois	Average Wage: Illinois	Illinois Wage Premium	Illinois 90-50 Index
	<i>Entire Economy</i>	5,852,710	\$24.02	2.38%	0.19%
1	Dietetic Technicians	2,800	\$11.60	-18.14%	-6.14%
2	Credit Analysts	2,920	\$32.60	-15.79%	-7.81%
3	Photographers	2,150	\$16.79	-14.18%	-25.90%
4	Opticians, Dispensing	3,190	\$15.52	-13.18%	-5.65%
5	Editors	4,760	\$27.57	-12.54%	-16.29%
6	Self-Enrichment Education Teachers	7,990	\$18.13	-11.83%	-5.87%
7	Software Developers, Applications	26,040	\$43.76	-11.79%	-5.43%
8	Veterinarians	2,640	\$42.87	-10.81%	-7.78%
9	Sales & Related Workers, All Other	4,470	\$17.80	-9.58%	-13.02%
10	Market Research Analysts & Marketing Specialists	18,470	\$30.82	-9.37%	-5.95%
11	Paper Goods Machine Setters, Operators, & Tenders	4,050	\$16.43	-8.97%	-7.33%
12	Vocational Education Teachers, Postsecondary	4,650	\$24.39	-7.44%	-8.01%
13	Waiters & Waitresses	89,450	\$10.39	-7.07%	-19.29%
14	Food Cooking Machine Operators & Tenders	3,510	\$13.39	-6.31%	-6.47%
15	Manicurists & Pedicurists	2,780	\$10.81	-5.78%	-16.73%
16	Welding, Soldering, & Brazing Machine Setters	2,530	\$17.30	-5.21%	-6.79%

Source: BLS, 2016b – “Occupational Profiles: State.”

Bad Inequality: Jobs that Pay Less and Have a Larger Income Gap than the National Average

Finally, the *bad inequality* occupations are generally in the worst classification (Figure 4). In these 12 occupations, employers pay workers at least 5.0 percent less per hour than the national average and the “90-50” inequality ratio for the job or career is at least 5.0 percent worse than the national average.

Figure 4: “Bad Inequality” Jobs in Illinois – Lower Wages and Higher Inequality – May 2015

#	Illinois Occupations: Bad Inequality (May 2015)	Jobs in Illinois	Average Wage: Illinois	Illinois Wage Premium	Illinois 90-50 Index
	<i>Entire Economy</i>	5,852,710	\$24.02	2.38%	0.19%
1	Administrative Services Managers	16,490	\$37.30	-19.01%	6.47%
2	Managers, All Other	39,360	\$47.51	-12.03%	9.15%
3	Atmospheric & Space Scientists	3,210	\$38.77	-11.49%	18.05%
4	Social & Community Service Managers	4,130	\$30.37	-9.92%	6.10%
5	Interviewers, Except Eligibility & Loan	4,900	\$14.63	-8.50%	5.39%
6	Machinists	32,040	\$18.85	-7.84%	7.82%
7	Purchasing Managers	4,300	\$51.13	-7.74%	5.32%
8	Audio & Video Equipment Technicians	2,180	\$20.92	-7.61%	7.31%
9	Insurance Sales Agents	15,780	\$29.16	-7.32%	26.46%
10	Librarians	5,740	\$26.56	-7.18%	5.11%
11	Insurance Underwriters	6,010	\$32.80	-7.03%	6.36%
12	Landscaping & Groundskeeping Supervisors	4,640	\$21.33	-6.35%	19.48%

Source: BLS, 2016b – “Occupational Profiles: State.”

There is no common thread between the 12 *bad inequality* occupations. Librarians, for instance, earn wages that are 7.2 percent lower on average but face inequality that is 5.1 percent higher. This could be because librarians in certain areas (e.g., the Chicago suburbs) are paid about the national market rate but librarians in other regions of Illinois are paid significantly less than the national average. This is just a hypothesis, however. Certain managers and supervisors also make up 5 of the 12 *bad inequality* occupations. Finally, the finding that machinists fall within this occupation is contrary to the claims of some conservative-leaning

think tanks and politicians in Illinois who argue that high labor costs are forcing manufacturers to leave Illinois. In fact, machinists earn 7.7 percent less in Illinois than the national average.

Policy Recommendations

Policymakers should take steps to encourage more *good equality* occupations in Illinois. In these “high-road” jobs, employees are compensated better than the national average and work in a more-equal environment. Generally speaking, workers in these occupations are supported by labor unions and other pro-worker policies, including strong educational support and training programs. The *good equality* construction occupations, for example, are highly unionized jobs with significant investment in apprenticeship training from employers in the industry. The occupations are also supported by Illinois’ prevailing wage law, which is essentially a minimum wage for construction workers. Politically-driven efforts to repeal the state’s prevailing wage law or to weaken public sector unions would decimate a majority of the *good equality* occupations that are still available for blue-collar Illinois workers— especially in construction, law enforcement, and firefighting.

Over 90,000 Illinois workers are employed in *bad equality* food service occupations where the workers are, essentially, equally poor. Currently, the average waiter or waitress earns 7.1 percent less than the cost-of-living-adjusted national average and the average food cooking machine operator earns 6.3 percent less than the national average in Illinois. Raising the state’s minimum wage from \$8.25 an hour to a rate between \$10.00 and \$15.00 an hour would particularly benefit these 90,000 workers and raise their wages to better reflect the American labor market.

At a minimum, politicians in Illinois should avoid enacting policies that would eliminate *good equality* jobs. In an age of rising inequality, state lawmakers could at least ensure that they will do no harm, if they are unable or unwilling to take steps to encourage high-road employment practices. Maintaining the state’s prevailing wage law, defending the rights of workers, and stopping the attack on public sector teachers, firefighters, and police officers are all actions that state lawmakers can take to protect middle-class job opportunities in Illinois.

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