



# A LOOK AT LOW-WAGE EMPLOYMENT IN COLORADO

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## EXECUTIVE SUMMARY

**A**s Colorado celebrates Labor Day and the important progress made over time for working families here and throughout the country, it's worth taking a fresh look at a central factor in employment growth and the economic well-being of workers: wages. More specifically, there's a persistent need to examine the share of low-wage jobs in our economy, who holds those jobs, how Colorado compares to other states, and how low-wage employment affects workers' ability to afford basic needs like housing.

As economic policy discussions inevitably turn to job and wage growth, this type of analysis can shed light on what trends are actually emerging with employment, what communities are most affected by low wages, and what that might mean over time for economic growth and equality. Rather than rely on assumptions, myths, and stereotypes to inform policy, we look to the data and facts.

In Colorado, the data and facts point to a few key insights. The first is that low-wage earners have regained some of what was lost since the Great Recession. However, these gains are a fraction of what the wealthiest 1% gained since then. The second is that women, Hispanics, and African-Americans are likelier to hold low-wage jobs, which reinforces the need to address systemic barriers such as racial discrimination, gender bias, and persistent pay gaps when considering economic and wage policies. The third is that while the portion of low-wage jobs is smaller in Colorado than in other states, the share of low-wage jobs has grown over the last 15 years. And the fourth is that stagnation in low-wage job is putting Colorado workers at a severe disadvantage when it comes to affordability of basic needs like housing.

While workers have made considerable progress over time across many indicators, the facts and data around low-wage jobs are essential to understand and critical in shaping policy decisions going forward. Because, while it's important to celebrate past progress, there is no guarantee of future success without a fuller comprehension of how we got here.

### KEY FINDINGS

- The bottom 20 percent of wage earners have seen their wages rebound in the last two years, regaining the loss from the Great Recession, though these gains are far outpaced by income growth for the richest 1%.
- Women, Hispanics, and African-Americans are likelier to hold low-wage jobs than other demographic groups.
- The portion of Colorado's total jobs that are classified as "low wage" is smaller than most states, particularly when comparing cost of living and wages across states.
- For some of the largest low wage jobs, the cost of housing consumes more than half of the paycheck of those workers particularly in the Denver Metro Area and resort communities.



## WHAT ARE “LOW-WAGE JOBS?”

The Colorado Fiscal Institute’s (CFI) [initial low-wage employment report in 2015](#) defined low-wage jobs as those paying less than what a full-time worker would need to live above the federal poverty level for a family of four. That annual threshold was \$23,850 in 2014, which translated into an hourly wage of \$12 an hour. Adjusting for inflation, that \$12 threshold in 2014 is now \$12.48 in 2016 dollars.

Just over a quarter of jobs in Colorado are classified as “low-wage” by that definition. That is 634,000 of the total 2,507,680 jobs in Colorado in 2016. The portion of Colorado’s total jobs that are “low-wage” has been on an upward trend since 2010 as Table 1 indicates. In 2010, jobs paying less than \$10.75 an hour were low-wage and comprised 20.8 percent of total jobs.

**A Growing Share of Jobs in Colorado Are “Low-Wage”** *(Table 1)*

	<b>\$12/hr. in 2014 in current dollars</b>	<b>Portion of Jobs Classified as Low Wage</b>
<b>2016</b>	\$ 12.48	25.3%
<b>2015</b>	\$ 12.14	25.4%
<b>2014</b>	\$ 12.00	25.5%
<b>2013</b>	\$ 11.68	24.9%
<b>2012</b>	\$ 11.36	23.8%
<b>2011</b>	\$ 11.14	22.8%
<b>2010</b>	\$ 10.75	20.8%
<b>2009</b>	\$ 10.55	20.1%
<b>2008</b>	\$ 10.62	21.5%
<b>2007</b>	\$ 10.22	21.2%
<b>2006</b>	\$ 10.00	21.5%
<b>2005</b>	\$ 9.66	20.8%
<b>2004</b>	\$ 9.46	19.9%
<b>2003</b>	\$ 9.45	21.1%
<b>2002</b>	\$ 9.35	22.0%
<b>2001</b>	\$ 9.17	22.1%

*Source: CFI analysis of Occupational Employment Statistics from BLS; inflation adjustments done using Denver-Boulder-Greeley CPI; linear interpolation utilized between 10<sup>th</sup>, 25<sup>th</sup>, and median wages to determine that exact portion of jobs that pay less than the “low-wage” threshold.*

## WHO ARE THE COLORADANS IN LOW-WAGE JOBS?

About half of all workers employed in low-wage jobs in Colorado are 30 years old or older. The average age of the workers employed in low-wage work is 34. The median age of these workers in Colorado is 29.

This is contrary to the commonly-held belief that most low-wage workers are teenagers who are working to earn some extra spending cash. National figures show the 89 percent of workers who would benefit from a \$12 minimum wage are at least 20 years old.<sup>1</sup>

Women and Hispanic workers are more likely to be employed in low-wage jobs. Table 3 shows the portion of total workers employed in low-wage jobs. Overall, 25.2 percent of workers in Colorado make less than \$12.48 an hour. Those rates vary by sex, race and education level. In Colorado, 27.9 percent of women make less than \$12.48 compared to just 23 percent of men. Hispanic and African-American workers disproportionately hold low-wage jobs, as 36.7 percent of Hispanic and African-American workers make less than \$12.48 in Colorado compared to one fourth of white workers.

Educational attainment is also highly correlated with pay. More than half of all workers in Colorado without a high school degree make less than \$12.48 an hour. That rate falls to 12.4 percent of all workers with a bachelor's degree or higher.

Age of Workers in Low-Wage Jobs in Colorado (Table 2)	
Less than 21	21.0%
21-30	32.1%
31-40	15.3%
41-50	12.8%
51-60	14.5%
61-65	4.3%

*Source: CFI analysis of 2015 Census PUMS data*

Portion of Workers Employed in Low-Wage Jobs in Colorado (Table 3)	
All	25.2%
Male	23.0%
Female	27.9%
African-Americans	36.7%
Hispanic	36.7%
White	24.4%
Less than High School	59.7%
High School	36.7%
Some College no degree	34.4%
Bachelor's Degree or Higher	12.4%

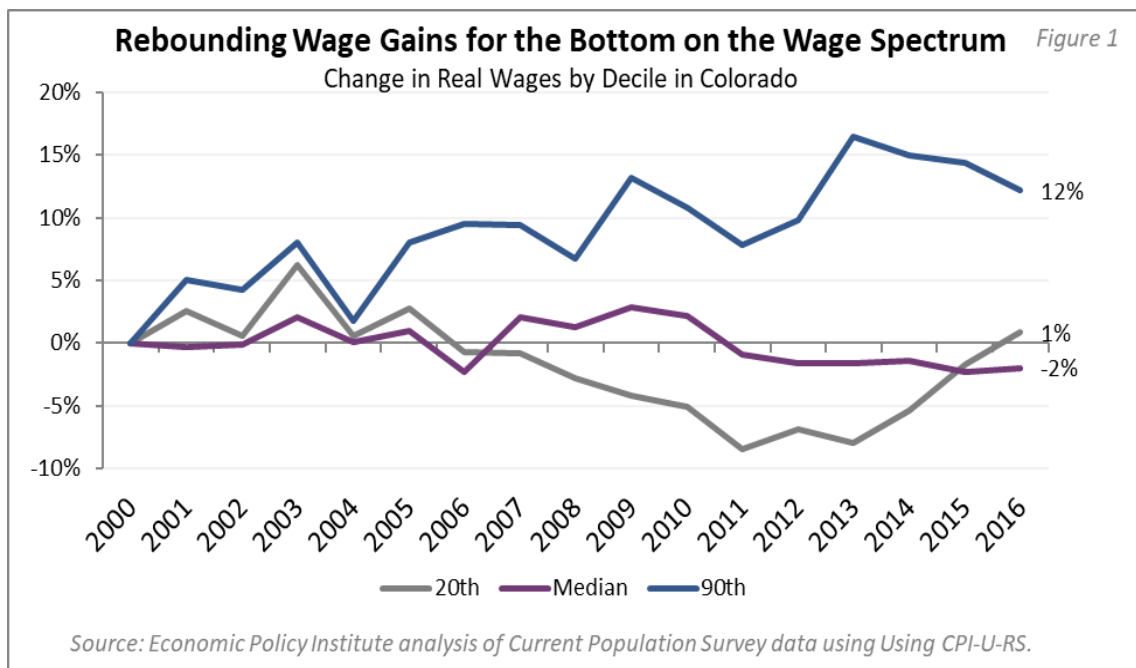
*Source: CFI analysis of 2015 American Community Survey Data see methodology section*

1 "Low Wage Workers are Older Than You Think" Economic Policy Institute (2015) <http://www.epi.org/publication/low-wage-workers-are-older-than-you-think/>

Median Wage by Demographics <span style="float: right;">(Table 4)</span>										
	Gender		Race / Ethnicity			Education				
	All	Male	Female	White	African-American	Hispanic	Less than high school	High school	Some college	Bachelor's degree or higher
Colorado	\$18.92	\$20.12	\$17.33	\$20.75	*	\$14.95	*	\$15.24	\$17.24	\$26.75
UNITED STATES	\$17.80	\$19.21	\$16.11	\$19.74	\$14.85	\$14.20	\$11.09	\$14.49	\$15.43	\$27.56

Source: Economic Policy Institute analysis of Current Population Survey Data 2016 Real Dollars  
\*inadequate sample size

Table 4 shows the median wage in Colorado compared to the nation. Colorado has higher wages than the national average, with a median wage of \$18.92 in 2016 compared to \$17.80 nationally. The median wage of males in Colorado is almost \$3 more than the median wage of females (\$20.12 compared to \$17.33). The median wage of white workers in Colorado is nearly \$6 more than Hispanic workers.



Real wages (adjusted for inflation) for the median wage worker in Colorado is lower today than it was in 2000. The bottom 20 percent of wage earners have seen their wages rebound in the last two years, regaining the loss from the Great Recession. In real terms, the wages for the bottom 20 percent of workers in Colorado are only 1 percent higher than they were in 2000. Most of the wage growth since 2000 has benefitted upper wage earners, as the 90<sup>th</sup> percentile group saw its real wages increase 12 percent since 2000.

To get an idea of what jobs in Colorado pay low wages, we used the Occupational Employment Statistics from BLS that report 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup> and 90<sup>th</sup> percentile wages for more than 700 different jobs. From this data, occupations were identified whose median wages were less than \$12.48, or in other words, more than half of the jobs in that occupation are categorized as “low-wage.”

Most of those jobs are in the food preparation, sales and personal care and service occupational groups. The low-wage occupation with the most jobs in Colorado is retail salesperson, with 83,670 jobs, followed by food preparation and serving workers, with 65,140 jobs, and cashiers, with 59,540 jobs.

Table 5 also shows the change in employment and inflation-adjusted median wages since 2001. The growth in many of these low-wage jobs has outpaced the 16 percent growth in total employment since 2001, while the inflation-adjusted wages have actually fallen. For example, the number of food servers has more than doubled since 2001 while the median wage of those food servers is down 11 percent in real terms. The number of personal home care aides has quadrupled since 2001, but the median wage is 7 cents lower today than it was in 2001.

20 Largest Low-Wage Jobs since 2001 <span style="float: right;">(Table 5)</span>						
Occupations	Employment			Median Wage in 2016 dollars		
	2001	2016	Change	Median Wage 2001	Median Wage 2016	Change
Retail Salespersons	82,620	83,670	1%	\$11.99	\$11.37	-5.1%
Combined Food Preparation and Serving Workers	30,610	65,140	113%	\$9.96	\$9.48	-4.8%
Cashiers	51,510	59,540	16%	\$11.07	\$10.14	-8.4%
Waiters and Waitresses	46,200	52,540	14%	\$8.99	\$9.16	1.9%
Janitors and Cleaners	32,140	36,060	12%	\$11.79	\$11.97	1.5%
Stock Clerks, Order Filers	22,280	32,200	45%	\$14.64	\$12.20	-16.7%
Cooks, Restaurant	19,380	30,270	56%	\$12.99	\$12.11	-6.8%
Personal Home Care Aides	5,810	23,640	307%	\$10.91	\$10.84	-0.6%
Maids and Housekeeping Cleaners	17,520	16,720	-5%	\$11.20	\$10.70	-4.4%
Home Health Aides	6,790	13,230	95%	\$13.88	\$11.83	-14.7%
Bartenders	7,450	12,560	69%	\$9.36	\$9.36	0.0%
Food Preparation Workers	12,350	10,540	-15%	\$11.21	\$10.93	-2.5%
Hosts and Hostesses, Restaurant, Lounge, Coffee	7,320	9,430	29%	\$10.18	\$9.42	-7.4%
Childcare Workers	4,870	8,310	71%	\$10.53	\$12.32	17.0%
Dishwashers	10,530	8,300	-21%	\$10.27	\$10.15	-1.2%
Cooks, Institution and Cafeteria	5,240	8,210	57%	\$12.65	\$12.41	-1.9%
Dining Room, Cafeteria Attendants, Bartender Help	8,090	7,490	-7%	\$9.21	\$9.16	-0.5%
Food Servers	3,570	7,410	108%	\$11.88	\$10.57	-11.0%
Hairdressers and Hairstylists	6,790	7,340	8%	\$13.78	\$10.77	-21.8%
Cooks, Fast Food	8,310	7,280	-12%	\$10.39	\$9.53	-8.3%
<b>Total Employment</b>	<b>2,159,370</b>	<b>2,507,680</b>	<b>16%</b>	<b>\$19.15</b>	<b>\$19.09</b>	<b>-0.3%</b>

*Source: CFI analysis of Occupational Employment Statistics from BLS*

## COMPARING COLORADO'S LOW-WAGE JOBS TO OTHER STATES

A quarter of Colorado jobs are considered “low-wage” or make less than \$12.48. Table 6 shows what portion of all 50 state’s jobs pay less than \$12.48. Colorado ranks 37<sup>th</sup> among states with Mississippi rankings first by having over 40 percent of jobs that pay less than \$12.48 an hour while Alaska has the lowest portion of jobs that pay less than \$12.58 at only 15.5 percent.

State’s Portion of Jobs Paying Less than \$12.48							(Table 6)
	10 <sup>th</sup> wage	25 <sup>th</sup> wage	Median wage	75 <sup>th</sup> wage	90 <sup>th</sup> wage	Percent of Jobs Paying less than \$12.48	Rank
Alabama	\$8.45	\$10.19	\$15.43	\$24.70	\$37.40	35.9%	5
Alaska	\$11.01	\$15.00	\$22.68	\$34.52	\$48.24	15.5%	50
Arizona	\$9.10	\$11.37	\$17.05	\$27.03	\$41.19	29.9%	23
Arkansas	\$8.67	\$9.87	\$14.48	\$22.64	\$33.59	39.2%	2
California	\$10.30	\$12.45	\$19.67	\$33.84	\$54.17	25.1%	39
Colorado	\$9.43	\$12.38	\$19.09	\$30.71	\$48.03	25.4%	37
Connecticut	\$10.14	\$13.47	\$21.68	\$34.55	\$50.57	20.5%	47
Delaware	\$9.19	\$11.89	\$18.25	\$29.91	\$46.47	27.3%	32
Florida	\$8.99	\$10.80	\$15.77	\$24.93	\$38.26	33.5%	10
Georgia	\$8.55	\$10.63	\$16.51	\$27.18	\$42.26	32.9%	13
Hawaii	\$9.56	\$12.91	\$19.24	\$29.07	\$43.05	23.1%	44
Idaho	\$8.64	\$10.81	\$15.77	\$24.26	\$36.41	33.4%	11
Illinois	\$9.31	\$11.57	\$18.40	\$30.77	\$47.20	28.3%	30
Indiana	\$8.70	\$10.99	\$16.25	\$24.82	\$36.72	32.1%	17
Iowa	\$8.90	\$11.53	\$16.72	\$25.08	\$36.77	29.6%	26
Kansas	\$8.80	\$11.20	\$16.57	\$25.42	\$37.97	31.0%	20
Kentucky	\$8.64	\$10.78	\$15.96	\$24.37	\$35.45	33.2%	12
Louisiana	\$8.38	\$9.97	\$15.43	\$24.20	\$35.69	36.5%	4
Maine	\$9.27	\$11.84	\$17.01	\$25.60	\$36.96	28.1%	31
Maryland	\$9.34	\$12.64	\$20.68	\$34.05	\$52.53	24.3%	41
Massachusetts	\$10.66	\$14.02	\$22.45	\$36.47	\$55.80	18.1%	48
Michigan	\$9.16	\$11.32	\$17.32	\$28.20	\$42.10	29.8%	24
Minnesota	\$9.66	\$12.70	\$19.28	\$30.08	\$45.44	23.9%	43
Mississippi	\$8.34	\$9.68	\$14.22	\$22.17	\$32.09	40.4%	1
Missouri	\$8.81	\$10.92	\$16.46	\$26.06	\$39.06	32.0%	18
Montana	\$9.08	\$10.98	\$15.75	\$24.24	\$35.02	32.9%	14
Nebraska	\$9.43	\$11.63	\$16.77	\$25.60	\$37.47	29.1%	27
Nevada	\$8.86	\$11.36	\$16.59	\$25.43	\$38.43	30.4%	22
New Hampshire	\$9.32	\$12.34	\$18.40	\$28.87	\$44.21	25.6%	34
New Jersey	\$9.52	\$12.43	\$20.17	\$33.74	\$51.29	25.2%	38
New Mexico	\$8.69	\$10.58	\$15.82	\$25.99	\$40.01	34.1%	7
New York	\$9.55	\$12.52	\$20.56	\$34.79	\$55.17	24.8%	40

**State's Portion of Jobs Paying Less than \$12.48**

*(Table 6 Continued)*

	<b>10<sup>th</sup> wage</b>	<b>25<sup>th</sup> wage</b>	<b>Median wage</b>	<b>75<sup>th</sup> wage</b>	<b>90<sup>th</sup> wage</b>	<b>Percent of Jobs Paying less than \$12.48</b>	<b>Rank</b>
North Carolina	\$8.62	\$10.79	\$16.31	\$25.66	\$40.04	32.7%	16
North Dakota	\$10.08	\$13.43	\$18.83	\$27.59	\$38.33	20.7%	46
Ohio	\$9.04	\$11.18	\$17.19	\$27.23	\$39.29	30.4%	21
Oklahoma	\$8.58	\$10.66	\$15.93	\$24.45	\$37.02	33.6%	9
Oregon	\$10.20	\$12.39	\$18.26	\$28.89	\$44.56	25.4%	36
Pennsylvania	\$8.94	\$11.65	\$17.63	\$27.99	\$42.17	28.5%	29
Rhode Island	\$9.76	\$12.37	\$19.10	\$30.82	\$46.30	25.4%	35
South Carolina	\$8.49	\$10.32	\$15.45	\$24.04	\$36.05	35.5%	6
South Dakota	\$9.36	\$11.24	\$15.19	\$22.45	\$32.47	32.8%	15
Tennessee	\$8.62	\$10.72	\$15.77	\$24.21	\$36.41	33.7%	8
Texas	\$8.69	\$11.00	\$17.06	\$27.98	\$43.61	31.1%	19
Utah	\$8.99	\$11.48	\$16.83	\$26.59	\$39.86	29.7%	25
Vermont	\$10.45	\$13.05	\$18.23	\$27.12	\$38.85	21.7%	45
Virginia	\$8.97	\$11.88	\$18.78	\$31.23	\$50.95	27.2%	33
Washington	\$11.05	\$13.93	\$20.87	\$33.24	\$50.24	17.4%	49
West Virginia	\$9.10	\$10.00	\$14.79	\$23.49	\$34.33	37.9%	3
Wisconsin	\$8.94	\$11.68	\$17.43	\$26.57	\$38.25	28.5%	28
Wyoming	\$9.42	\$12.70	\$18.61	\$28.24	\$38.36	24.0%	42

*Source: CFI analysis of Occupational Employment Statistics 2016*

By looking only at the portion of jobs that makes less than \$12.48 in all states, we overlook that fact that the cost of living varies widely across states. Put simply, \$12.48 an hour goes further in Mississippi than it does in Colorado. To account for the difference across states in cost of living, we adjusted that \$12.48 wage threshold by a cost of living index. We relied on the Missouri Economic Research and Information Center's Cost of Living Index, which examined six living expenses including house, groceries, utilities, transportation, healthcare and miscellaneous expenses.

The overall cost of living index was used to adjust the purchasing power of \$12.48 in Colorado to the rest of states. See Appendix B for a detailed look at the cost of living across states. Colorado as a whole is just slightly above the national average when it comes to the overall cost of living — pulled up by the housing and health components. For example, \$12.48 in Colorado has the same purchasing power as \$11.13 in Alabama and \$16.74 in California. With the low-income wage thresholds calculated, OES data was used to determine what portion of jobs pay less than that threshold and are thus categorized as “low-wage.” Table 7 shows the results.

Hawaii has the highest portion of low-wage jobs in the country. This is driven largely by the high cost of living in the island state, which means that a worker needs to earn \$23.06 an hour to reach the same purchasing power as \$12.48 in Colorado. California, Oregon and New York are on the top of the list of states with a high portion of low-wage jobs. About 40 percent of jobs in California are categorized as “low-wage” by this methodology.

Colorado has a lower portion of low-wage jobs compared to the 50-state average, ranking 41<sup>st</sup>. North Dakota leads states, with just under 20 percent of the jobs in the state categorized as “low-wage.”



**State by State Ranking of Low Wage Jobs Compared to Colorado as Baseline** (Table 7)

	Rank	Portion of Jobs Low Wage	Low Wage Hourly Threshold		Rank	Portion of Jobs Low Wage	Low Wage Hourly Threshold
Hawaii	1	59.7%	\$23.06	Pennsylvania	26	28.7%	\$12.54
California	2	39.9%	\$16.74	N. Carolina	27	28.7%	\$11.61
Oregon	3	38.8%	\$15.64	Delaware	28	27.8%	\$12.59
New York	4	36.1%	\$16.10	Virginia	29	27.2%	\$12.49
Maine	5	36.1%	\$14.13	Arizona	30	27.2%	\$11.87
Rhode Island	6	35.3%	\$15.13	Georgia	31	26.8%	\$11.06
Maryland	7	35.0%	\$15.86	Idaho	32	26.7%	\$11.15
South Carolina	8	34.9%	\$12.34	Tennessee	33	26.5%	\$11.02
West Virginia	9	33.9%	\$11.71	Oklahoma	34	26.3%	\$10.94
New Hampshire	10	33.9%	\$14.49	Illinois	35	26.3%	\$11.93
Vermont	11	33.6%	\$14.83	Ohio	36	25.9%	\$11.39
New Jersey	12	32.9%	\$14.89	Wisconsin	37	25.7%	\$11.84
Florida	13	32.7%	\$12.33	Missouri	38	25.7%	\$11.07
Connecticut	14	32.3%	\$15.86	Indiana	39	25.7%	\$11.13
Louisiana	15	32.1%	\$11.52	Texas	40	25.4%	\$11.10
South Dakota	16	31.8%	\$12.31	<b>Colorado</b>	<b>41</b>	<b>25.4%</b>	<b>\$12.48</b>
New Mexico	17	30.9%	\$11.82	Utah	42	25.3%	\$11.55
Massachusetts	18	30.6%	\$15.89	Kansas	43	24.9%	\$11.19
Montana	19	30.5%	\$12.04	Nebraska	44	24.3%	\$11.53
Nevada	20	30.4%	\$12.48	Iowa	45	23.9%	\$11.34
Arkansas	21	30.0%	\$10.80	Minnesota	46	22.8%	\$12.25
Alabama	22	29.5%	\$11.13	Michigan	47	22.7%	\$10.99
Mississippi	23	29.2%	\$10.44	Washington	48	20.3%	\$13.03
Kentucky	24	29.1%	\$11.62	Wyoming	49	20.1%	\$11.63
Alaska	25	28.8%	\$16.15	N. Dakota	50	19.5%	\$12.20

*Source: CFI analysis of Occupational Employment Statistics adjusted by Missouri Economic Research and Information Center's Cost of Living Index*

## WHERE CAN WORKING IN LOW-WAGE JOBS AFFORD TO LIVE IN COLORADO?

The rule of thumb for public policy of housing affordability in the U.S. is the percent of income spent on housing. Housing costs that exceed 30 percent of household income have historically been viewed as unaffordable.<sup>2</sup> With the rising cost of housing, particularly on the Front Range, combined with the growth in low-wage jobs, we decided to see just how the average wages of many of the low-wage jobs in Colorado compare to the cost of housing.

To get an idea of the cost of housing across counties in Colorado, we used fair market rent statistics, which are published annually by the U.S. Department of Housing and Urban Development. We compared the monthly cost of housing to the median wages of salespersons, cashiers, personal care aides and housekeeping cleaners to determine how many hours a week workers in each county would need to work to afford the cost of a one-bedroom apartment. Table 8 shows the results. The typical cashier in Adams County makes \$10.15 an hour and needs to work 22 hours a week to pay monthly rent of \$965.

	Monthly Cost for 1-bedroom	Median Wage				Hours Worked a Week for Afford 1-bedroom			
		Retail Salespersons	Cashier	Personal Care Aides	Maids and Housekeeping Cleaners	Retail Salesperson	Cashier	Personal Care Aides	Maids and Housekeeping Cleaners
Adams County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Alamosa County	\$537	\$10.73	\$9.45	\$10.35	\$9.41	12	13	12	13
Arapahoe County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Archuleta County	\$625	\$11.82	\$10.18	\$10.62	\$10.88	12	14	14	13
Baca County	\$569	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14
Bent County	\$507	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Boulder County	\$1,142	\$11.96	\$10.89	\$12.01	\$10.37	22	24	22	25
Broomfield County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Chaffee County	\$630	\$11.82	\$10.18	\$10.62	\$10.88	12	14	14	13
Cheyenne County	\$492	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Clear Creek County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Conejos County	\$569	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14
Costilla County	\$573	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14
Crowley County	\$492	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Custer County	\$503	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Delta County	\$616	\$11.82	\$10.18	\$10.62	\$10.88	12	14	13	13
Denver County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Dolores County	\$569	\$11.82	\$10.18	\$10.62	\$10.88	11	13	12	12
Douglas County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Eagle County	\$933	\$13.94	\$11.41	\$13.93	\$13.84	15	19	15	16
El Paso County	\$690	\$11.24	\$10.11	\$10.74	\$10.16	14	16	15	16
Elbert County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Fremont County	\$571	\$11.82	\$10.18	\$10.62	\$10.88	11	13	12	12
Garfield County	\$804	\$13.94	\$11.41	\$13.93	\$13.84	13	16	13	13
Gilpin County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Grand County	\$708	\$13.94	\$11.41	\$13.93	\$13.84	12	14	12	12
Gunnison County	\$631	\$11.82	\$10.18	\$10.62	\$10.88	12	14	14	13
Hinsdale County	\$560	\$11.82	\$10.18	\$10.62	\$10.88	11	13	12	12
Huerfano County	\$517	\$10.73	\$9.45	\$10.35	\$9.41	11	13	12	13
Jackson County	\$617	\$13.94	\$11.41	\$13.93	\$13.84	10	12	10	10
Jefferson County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Kiowa County	\$538	\$10.73	\$9.45	\$10.35	\$9.41	12	13	12	13
Kit Carson County	\$569	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14

<sup>2</sup> See a thorough explanation of the 30% housing affordability threshold at <https://www.census.gov/housing/census/publications/who-can-afford.pdf>

Housing Costs vs. Low Wages

(Table 8 continued)

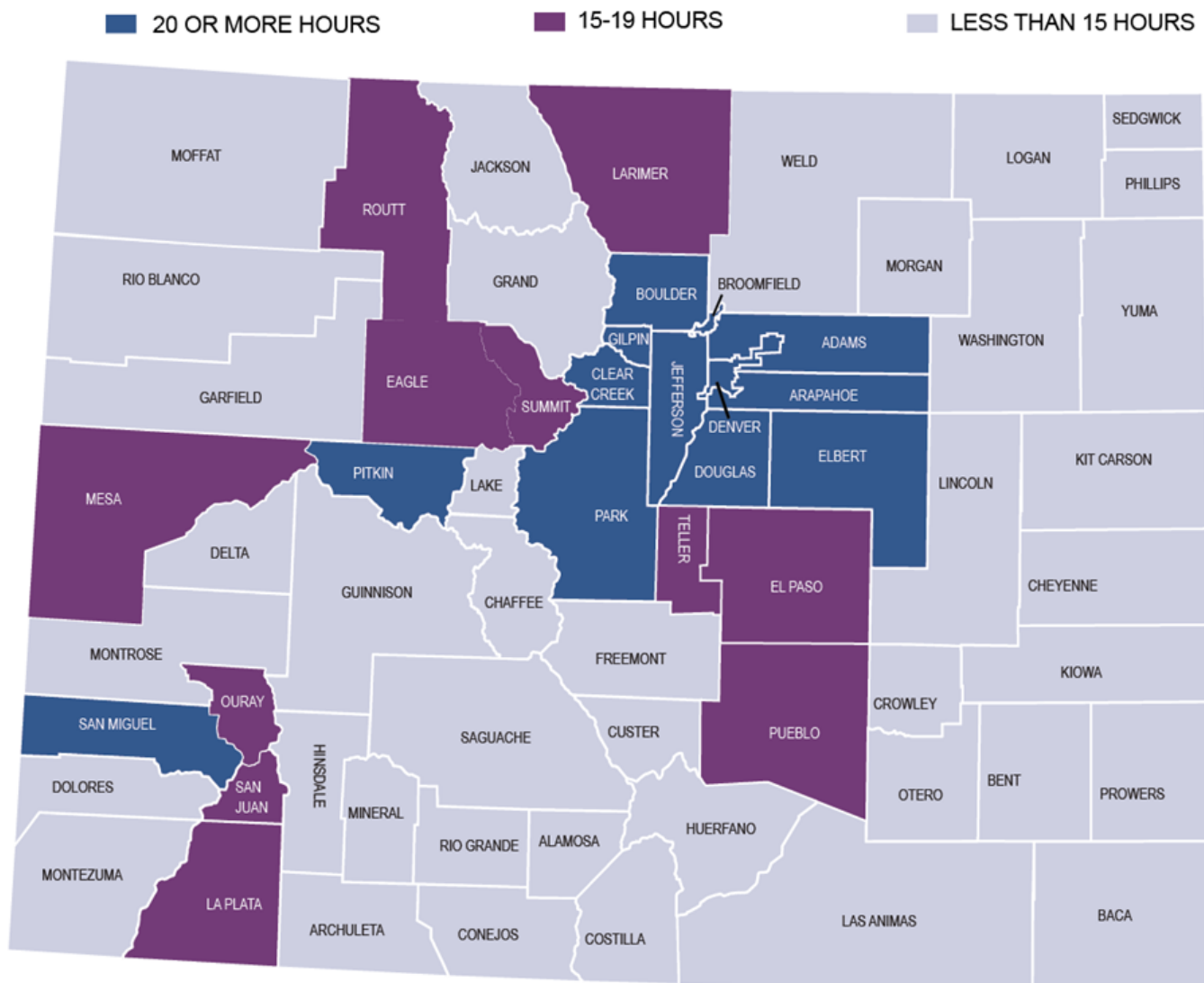
	Monthly Cost for 1-bedroom	Median Wage				Hours Worked a Week for Afford 1-bedroom			
		Retail Salespersons	Cashier	Personal Care Aides	Maids and Housekeeping Cleaners	Retail Salesperson	Cashier	Personal Care Aides	Maids and Housekeeping Cleaners
La Plata County	\$800	\$11.82	\$10.18	\$10.62	\$10.88	16	18	17	17
Lake County	\$683	\$13.94	\$11.41	\$13.93	\$13.84	11	14	11	11
Larimer County	\$799	\$10.92	\$10.11	\$10.79	\$10.36	17	18	17	18
Las Animas County	\$570	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14
Lincoln County	\$565	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14
Logan County	\$540	\$10.73	\$9.45	\$10.35	\$9.41	12	13	12	13
Mesa County	\$601	\$11.39	\$9.97	\$9.31	\$10.19	12	14	15	14
Mineral County	\$503	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Moffat County	\$596	\$13.94	\$11.41	\$13.93	\$13.84	10	12	10	10
Montezuma County	\$569	\$11.82	\$10.18	\$10.62	\$10.88	11	13	12	12
Montrose County	\$614	\$11.82	\$10.18	\$10.62	\$10.88	12	14	13	13
Morgan County	\$534	\$10.73	\$9.45	\$10.35	\$9.41	11	13	12	13
Otero County	\$546	\$10.73	\$9.45	\$10.35	\$9.41	12	13	12	13
Ouray County	\$806	\$11.82	\$10.18	\$10.62	\$10.88	16	18	18	17
Park County	\$965	\$11.13	\$10.15	\$10.97	\$10.42	20	22	20	21
Phillips County	\$502	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Pitkin County	\$1,242	\$13.94	\$11.41	\$13.93	\$13.84	21	25	21	21
Prowers County	\$504	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12
Pueblo County	\$592	\$11.27	\$9.87	\$9.21	\$9.20	12	14	15	15
Rio Blanco County	\$538	\$13.94	\$11.41	\$13.93	\$13.84	9	11	9	9
Rio Grande County	\$569	\$10.73	\$9.45	\$10.35	\$9.41	12	14	13	14
Routt County	\$943	\$13.94	\$11.41	\$13.93	\$13.84	16	19	16	16
Saguache County	\$499	\$10.73	\$9.45	\$10.35	\$9.41	11	12	11	12

Figure 2 maps out the affordability of housing for cashiers, personal care aides and housekeeping cleaners across Colorado. In all the counties around Denver (in blue), these workers must work 20 hours or more per week before they have enough to afford housing. The counties in purple show where the average cashier, personal care aide and housekeeping cleaner needs to work between 15-19 hours a week before they can afford a one-bedroom.

Figure 2

## HOW AFFORDABLE IS HOUSING FOR WORKERS IN LOW WAGE JOBS

### HOURLY WORKED PER WEEK TO AFFORD A 1-BEDROOM FOR CASHIERS, PERSONAL CARE AIDES, HOUSEKEEPING CLEANERS



Source: 2016 Fair Market Rent from U.S. Department of Housing and Urban Development; 2016 Occupational Employment Statistics from BLS.

## APPENDIX A:

Wages by Year by Decile in Colorado in 2016 dollars									
	10th percentile	20th	30th	40th	Median	60th	70th	80th	90th
<b>2000</b>	\$ 9.91	\$ 11.94	\$ 14.12	\$ 16.62	\$ 19.30	\$ 22.17	\$ 25.83	\$ 30.93	\$ 40.77
<b>2001</b>	\$ 9.87	\$ 12.24	\$ 14.19	\$ 16.48	\$ 19.23	\$ 22.59	\$ 26.12	\$ 31.93	\$ 42.83
<b>2002</b>	\$ 9.87	\$ 12.01	\$ 14.01	\$ 16.35	\$ 19.28	\$ 22.52	\$ 25.82	\$ 32.21	\$ 42.50
<b>2003</b>	\$ 10.15	\$ 12.68	\$ 14.78	\$ 17.27	\$ 19.70	\$ 22.99	\$ 26.73	\$ 33.23	\$ 44.04
<b>2004</b>	\$ 9.72	\$ 12.01	\$ 14.17	\$ 16.67	\$ 19.32	\$ 22.47	\$ 25.93	\$ 31.91	\$ 41.48
<b>2005</b>	\$ 9.81	\$ 12.27	\$ 14.54	\$ 17.02	\$ 19.48	\$ 22.75	\$ 27.24	\$ 32.47	\$ 44.06
<b>2006</b>	\$ 9.42	\$ 11.85	\$ 14.04	\$ 16.54	\$ 18.85	\$ 22.07	\$ 25.81	\$ 32.46	\$ 44.63
<b>2007</b>	\$ 9.46	\$ 11.84	\$ 14.18	\$ 16.91	\$ 19.70	\$ 22.48	\$ 26.98	\$ 33.68	\$ 44.62
<b>2008</b>	\$ 9.37	\$ 11.61	\$ 13.94	\$ 16.77	\$ 19.54	\$ 22.44	\$ 27.04	\$ 33.08	\$ 43.50
<b>2009</b>	\$ 9.42	\$ 11.44	\$ 13.99	\$ 16.84	\$ 19.85	\$ 22.73	\$ 27.20	\$ 33.75	\$ 46.16
<b>2010</b>	\$ 9.45	\$ 11.33	\$ 13.93	\$ 16.76	\$ 19.72	\$ 23.06	\$ 27.54	\$ 34.18	\$ 45.19
<b>2011</b>	\$ 9.13	\$ 10.93	\$ 13.61	\$ 16.18	\$ 19.13	\$ 22.25	\$ 26.89	\$ 33.14	\$ 43.95
<b>2012</b>	\$ 9.16	\$ 11.12	\$ 13.72	\$ 16.02	\$ 18.98	\$ 21.88	\$ 26.26	\$ 33.20	\$ 44.75
<b>2013</b>	\$ 9.10	\$ 10.99	\$ 13.56	\$ 15.99	\$ 18.98	\$ 22.52	\$ 27.01	\$ 34.57	\$ 47.50
<b>2014</b>	\$ 9.30	\$ 11.29	\$ 13.74	\$ 16.07	\$ 19.03	\$ 22.40	\$ 26.66	\$ 34.36	\$ 46.88
<b>2015</b>	\$ 9.86	\$ 11.73	\$ 14.10	\$ 16.15	\$ 18.86	\$ 22.16	\$ 26.43	\$ 33.65	\$ 46.63
<b>2016</b>	\$ 9.90	\$ 12.04	\$ 14.14	\$ 16.22	\$ 18.92	\$ 22.18	\$ 26.47	\$ 32.89	\$ 45.75

*Source: Economic Policy Institute analysis of Current Population Survey Data; adjusted for inflation by CPI-U-RS*

## APPENDIX B:

Cost of Living Indices Across States								
State	Rank	Index	Grocery	Housing	Utilities	Trans.	Health	Misc.
Mississippi	1	85	94.9	71.7	85	91	92.3	89.2
Arkansas	2	87.9	91.3	77.3	95	87.6	87.3	93.2
Oklahoma	3	89.1	94.3	74.8	98.5	89.3	92	95.3
Michigan	4	89.5	91.7	79.4	91.7	100.8	94.1	92.4
Tennessee	5	89.7	91.9	78.7	96.6	90.4	88.7	95.5
Georgia	6	90	97.1	74.7	95.1	98.8	96.7	94.7
Missouri	7	90.1	99.2	73.9	102.1	94.3	97.3	94
Texas	8	90.4	89.4	83	97.9	93.1	97.1	92.9
Indiana	9	90.6	95.3	77.8	96	93.2	92.5	96.2
Alabama	10	90.6	97.1	73.8	109.5	92.4	87.2	95.6
Idaho	11	90.8	85.8	80.1	93.9	104.6	98.2	95.8
Kansas	12	91.1	94	78.5	96.6	93.9	96.8	97
Iowa	13	92.3	93.4	83.5	94.7	100.3	97.7	95.4
Ohio	14	92.7	98.6	73.6	91.5	100.5	96.5	103.2
Louisiana	15	93.8	98	88	91.8	96.2	96.9	96.3
Nebraska	16	93.9	95.4	88.5	88.4	103	98.3	96.3
Utah	17	94	101.6	91.7	81.3	97.7	97.1	95
North Carolina	18	94.5	98.5	85.3	96	99.4	106.8	96.9
Kentucky	19	94.6	90.6	84.5	94.1	99.2	91.6	103.3
Wyoming	20	94.7	107.4	83.2	107	95	98.9	94.8
West Virginia	21	95.3	106.1	85.8	87.7	101.3	92	99.6
New Mexico	22	96.2	96.9	94.9	84.8	103.5	101.2	97.6
Wisconsin	23	96.4	98.9	87.9	100.6	101	111.9	97.9
Arizona	24	96.6	101.3	94.1	93.2	96.5	98	97.5
Illinois	25	97.1	97.1	90	96.6	106.2	99.9	100.1
Montana	26	98	101.6	107.8	79.4	92.9	99.2	95.5
North Dakota	27	99.3	103.2	94.2	88.2	107	112.1	101.5
Minnesota	28	99.7	108.9	90.6	89.8	103	112	103.7
South Dakota	29	100.2	103.2	113.1	96	91.4	99.1	92.5
Florida	30	100.4	106.1	97.7	102.4	101.8	98.8	99.6
South Carolina	31	100.5	103.7	87	113	92.9	101	108.2
Nevada	32	101.6	98.5	106.9	85.8	108	105.4	101.1
Colorado	33	101.6	99.1	112.8	84.4	98	106.1	99.3
Virginia	34	101.7	98.4	110.7	99.1	92.6	98.9	99.6
Pennsylvania	35	102.1	103.4	97.8	110.9	107.5	89.5	102.5
Delaware	36	102.5	106.2	98.4	110.8	92.3	98.2	105.2
Washington	37	106.1	108.2	105.8	92	115	118.3	105.8
Maine	38	115	98.6	128	117.3	113.9	107.9	111.5
New Hampshire	39	118	121.6	108	133.1	109.9	114.6	122.8

Cost of Living Indices Across States								(Continued)
State	Rank	Index	Grocery	Housing	Utilities	Trans.	Health	Misc.
Vermont	40	120.7	112.1	144.1	121.2	114.4	104.3	109
New Jersey	41	121.2	103.6	151.8	116.1	113.1	105.1	109.4
Rhode Island	42	123.2	112.4	141.3	127.5	102.5	108.9	119.3
Oregon	43	127.3	116	175.9	80.1	100.9	109.3	116.2
Maryland	44	129.1	113.7	186.1	103.9	108	95	107.1
Connecticut	45	129.1	104.1	167.1	108.7	114.8	115	120.4
Massachusetts	46	129.4	107.5	160.1	127.7	107.7	118.9	121.5
New York	47	131.1	109.9	187.1	103.8	111.8	100.7	111.8
Alaska	48	131.5	137	139	143.7	121.2	147.3	121
California	49	136.3	114.1	196.5	114.8	122.8	110.1	110.5
Hawaii	50	187.7	165.7	299.3	193.3	133.3	119.3	129.6
<b>US Average</b>		<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

*Source: Missouri Economic Research and Information Center's Cost of Living Index*

## METHODOLOGY AND DATA SOURCES

To determine the portion of workers in Colorado employed in low-wage jobs, we used the Economic Policy Institute's analysis of decile wage data using the Current Population Survey. We used linear interpolation between the decile wage data for determining the exact portion of workers who are classified as "low-wage." For example, the 10<sup>th</sup> percentile wage in Colorado is \$12.04 and the 20<sup>th</sup> percentile wage is \$14.14. That line is then used to interpolate the exact portion of workers who make less than \$12.48, which we define as the threshold for "low-wage." You can find EPI's full methodology of wages and wage percentiles at <http://www.epi.org/data/methodology/>

Current Population Survey data is a different source than Occupational Employment Statistics available from the Bureau of Labor Statistics. For example, 25.3 percent of Colorado *jobs* pay less than \$12.48, but 22.1 percent of *workers* report making less than \$12.48 on the Current Population Survey. Because \$12.48 was lower than the 10<sup>th</sup> percentile reported wage for "Bachelor's Degree or Higher" workers in Colorado, linear interpolation was between the points (0,10) and (10, 12.67).

You can find a full methodology of OES data at [https://www.bls.gov/oes/current/oes\\_tec.htm](https://www.bls.gov/oes/current/oes_tec.htm).

American Community Survey Public Use Microdata Sample (PUMS) offers data that explains much about low-wage work. The survey does not ask a "wages per hour" question. But it does ask about "wages or salary income in past 12 months." With a combination of two other variables, wages per hour can be derived using "usual hours worked per week in past 12 months" and "weeks worked during past 12 months." An additional step is required to translate categorical variables to continuous. For example, if a survey respondent reported working 50 to 52 hours each week, which was translated into a continuous variable of 51 hours a week.

The 2015 PUMS data set for Colorado had 53,570 samples. Among that total were 24,609 samples that reported wage income and reported working at least 10 weeks last year. Among them were 7,530 low-wage workers, derived from taking out anyone under 15 years old, not working, or working and making more than \$12.48 an hour. From the sample of 24,609 we calculated the portion of respondents whose "wage per hour" variable was less than \$12.48. We did this for the total workers as well as by race, sex, and educational attainment.

Current Population Survey Data Current Population Survey data is used in this report to track declining wages over time. We utilize the Economic Policy Institute's analysis of Current Population Survey data to look at wages by decile. Wages are adjusted for inflation using the CPI-U-RS.

The May 2016 Current Employment Statistics data was the most recently available at the time of this report. "Low-wage" jobs were categorized as those whose median wage was less than \$12.48 an hour in 2016.

2016 Fair Market Rent from U.S. Department of Housing and Urban Development by counties across Colorado was compared to the median income wage of retail salespersons, cashiers, personal care aides, and house-keeping cleaners. To calculate the weekly hours required to afford housing, the monthly housing cost was multiplied by 12 months then divided by 52 weeks. The per-week housing cost was then divided by the median income for those particular jobs in those areas to calculate how many hours one must work a week to afford housing.





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