

# Analysis & Background

## Expected Revisions to Colorado Nonfarm Payroll Jobs

Second quarter 2016 Quarterly Census of Employment and Wages (QCEW) results indicate Colorado total nonfarm payroll jobs estimates will be revised down for this period with the release of benchmarked estimates in March 2017. June 2016 estimates are expected to be revised down by about 14,300 or five-tenths of a percentage point and April and May 2016 estimates are expected to be revised down by about one-tenth and six-tenths of a percentage point, respectively.

Applying these results through October 2016 brings estimated total nonfarm payroll jobs in October to 2,612,500. This change brings over the year payroll job growth estimates through October 2016 to 53,200 or 2.1 percent.

The final March 2017 benchmarked series are expected to vary from these estimates due to new seasonal adjustment factors and new estimates of nonfarm payroll jobs not covered by the unemployment insurance program.

Industry sectors expected to undergo an upward revision to payroll jobs estimates in the 2<sup>nd</sup> quarter include trade, transportation, and utilities (~3,100), financial activities (~2,500), and education and health services (~1,200).

The industry sectors expected to undergo a downward revision to payroll jobs estimates in the 2<sup>nd</sup> quarter are construction (~7,800), leisure and hospitality (~3,800), professional and business services (~3,000), mining and logging (~2,900), and manufacturing (~2,800). Payroll jobs estimates for government, other services, and information may also be revised down.

Payroll jobs estimates for the Colorado Springs and Boulder Metropolitan Statistical Area may be revised up in the 2<sup>nd</sup> quarter.

Payroll jobs estimates for the Denver (~9,600), Greeley (~3,200), and Fort Collins (~3,200) Metropolitan Statistical Areas are expected to be revised down. Payroll jobs estimates for the Pueblo and Grand Junction Metropolitan Statistical Areas may also be revised down.

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Expected Revisions to Colorado Nonfarm Payroll Jobs based on 3<sup>rd</sup> quarter 2016 QCEW data will be released Wednesday, February 22, 2017.

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Every month of the year other than February the Colorado Department of Labor and Employment, in cooperation with the U.S. Bureau of Labor Statistics, releases estimates of Colorado nonfarm payroll jobs for the previous month based on results from a survey of business establishments. Estimates for Colorado are produced by the Bureau of Labor Statistics for total nonfarm payroll jobs and specific industry sectors or groups of sectors across the entire state, and for the seven metropolitan statistical areas.

In February of each year these survey based estimates are compared to and adjusted in a process called “benchmarking” based on administrative records available since the release of the survey estimates. The results of that comparison are released in March.

For instance, at the beginning of the 2017 calendar year Colorado nonfarm payroll jobs estimates for the 4<sup>th</sup> quarter of 2015 and all of 2016 will be benchmarked based on information available from the QCEW program for the 4<sup>th</sup> quarter of 2015 and the first three quarters of 2016. These updated estimates will be released in March 2017.

The source of these administrative records for the QCEW program are unemployment insurance reports Colorado employers are required to file quarterly with the Colorado Department of Labor and Employment. Among other information, employers include the number of people employed at the firm for each month of the quarter for which the report is being filed. Although only firms with employees covered by the Colorado Unemployment Insurance program are required by state and federal law to submit these reports, this quarterly census of employment covers about 98 percent of all nonfarm payroll jobs and about 88 percent of total employment in Colorado.

Aggregated by industry, the QCEW data are more closely aligned with the definition of nonfarm payroll jobs than with total employment. This is because an individual holding more than one job is counted only once in the total employment estimate but multiple times in both QCEW and the nonfarm payroll jobs estimates. Total employment estimates are by place of residence while both QCEW and payroll jobs are by place of business.

Though the official nonfarm payroll jobs estimates are benchmarked only once a year, data from QCEW are available quarterly and, once available, can be compared to the official series to see by about how much the official statistics will be adjusted.

## Colorado Nonfarm Payroll Jobs Estimates - 2nd Quarter 2016

<b>Statewide by Industry Sector, in Thousands</b> <i>Seasonally Adjusted</i>	<i>Expected revisions based on Q2 2016 QCEW</i>				<i>Forecast based on Q2 2016 QCEW</i>				<i>Prior year official series - Benchmarked to QCEW</i>				<i>Over the Year Change</i>			
													<i>Nonfarm Payroll Jobs</i>		<i>Growth Rate</i>	
	Apr-16	May-16	Jun-16		Jul-16	Aug-16	Sep-16	Oct-16	Apr-15	May-15	Jun-15	Oct-15	Jun-16	Oct-16	Jun-16	Oct-16
Modified Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	2,589.3	2,577.6	2,587.7		2,601.7	2,607.4	2,606.5	2,612.5				2,559.4	50.5	53.2	2.0%	2.1%
Total Nonfarm Payroll Jobs <sup>1</sup>	2,593.0	2,593.7	2,602.0		2,616.0	2,621.7	2,620.8	2,626.8	2,526.1	2,531.3	2,537.2	2,562.7	64.8	64.1	2.6%	2.5%
Expected Revision	-3.7	-16.1	-14.3		-14.3	-14.3	-14.3	-14.3								
Expected Percent Revision	-0.1%	-0.6%	-0.5%		-0.5%	-0.5%	-0.5%	-0.5%								
Modified Mining & Logging <sup>2 &amp; 3</sup>	24.1	23.6	23.2		23.0	22.5	22.6	22.6				27.9	-7.6	-5.2	-24.5%	-18.7%
Mining & Logging <sup>1</sup>	26.9	26.3	26.1		25.9	25.4	25.5	25.5	32.3	31.6	30.8	29.0	-4.7	-3.5	-15.3%	-12.1%
Expected Revision	-2.8	-2.7	-2.9		-2.9	-2.9	-2.9	-2.9								
Expected Percent Revision	-10.3%	-10.1%	-11.0%		-11.0%	-11.3%	-11.2%	-11.2%								
Modified Construction <sup>2 &amp; 3</sup>	154.8	153.2	153.7		156.3	158.0	160.9	160.7				149.1	5.8	11.6	3.9%	7.8%
Construction <sup>1</sup>	159.1	158.4	161.5		164.1	165.8	168.7	168.5	147.6	147.8	147.9	152.1	13.6	16.4	9.2%	10.8%
Expected Revision	-4.3	-5.2	-7.8		-7.8	-7.8	-7.8	-7.8								
Expected Percent Revision	-2.7%	-3.3%	-4.8%		-4.8%	-4.7%	-4.6%	-4.6%								
Modified Manufacturing <sup>2 &amp; 3</sup>	142.1	141.9	141.6		141.1	140.8	139.8	138.3				141.0	0.6	-2.7	0.4%	-1.9%
Manufacturing <sup>1</sup>	143.0	143.5	144.4		143.9	143.6	142.6	141.1	140.3	140.7	141.0	142.3	3.4	-1.2	2.4%	-0.8%
Expected Revision	-0.9	-1.6	-2.8		-2.8	-2.8	-2.8	-2.8								
Expected Percent Revision	-0.7%	-1.1%	-1.9%		-1.9%	-1.9%	-2.0%	-2.0%								
Modified Trade, Transportation & Utilities <sup>2 &amp; 3</sup>	453.2	453.5	452.5		455.6	455.1	456.4	459.3				449.9	6.8	9.4	1.5%	2.1%
Trade, Transportation & Utilities <sup>1</sup>	447.1	449.5	449.4		452.5	452.0	453.3	456.2	443.7	444.4	445.7	447.6	3.7	8.6	0.8%	1.9%
Expected Revision	6.1	4.0	3.1		3.1	3.1	3.1	3.1								
Expected Percent Revision	1.4%	0.9%	0.7%		0.7%	0.7%	0.7%	0.7%								
Modified Information <sup>2 &amp; 3</sup>	71.5	71.4	71.3		71.6	72.2	72.2	72.8				70.5	0.6	2.3	0.9%	3.3%
Information <sup>1</sup>	72.1	71.8	71.3		71.6	72.2	72.2	72.8	70.5	70.5	70.7	70.9	0.6	1.9	0.8%	2.7%
Expected Revision	-0.6	-0.4	0.0		0.0	0.0	0.0	0.0								
Expected Percent Revision	-0.9%	-0.6%	0.0%		0.0%	0.0%	0.0%	0.0%								
Modified Financial Activities <sup>2 &amp; 3</sup>	162.8	163.0	163.5		167.7	167.3	164.0	163.5				161.0	4.5	2.5	2.8%	1.5%
Financial Activities <sup>1</sup>	161.3	161.5	161.0		165.2	164.8	161.5	161.0	157.9	158.4	159.0	162.0	2.0	-1.0	1.3%	-0.6%
Expected Revision	1.5	1.5	2.5		2.5	2.5	2.5	2.5								
Expected Percent Revision	1.0%	0.9%	1.6%		1.5%	1.5%	1.5%	1.6%								
Modified Professional & Business Services <sup>2 &amp; 3</sup>	405.8	403.5	404.4		404.3	404.1	404.4	404.7				401.1	6.7	3.6	1.7%	0.9%
Professional & Business Services <sup>1</sup>	403.8	405.9	407.4		407.3	407.1	407.4	407.7	396.5	397.0	397.7	400.7	9.7	7.0	2.4%	1.7%
Expected Revision	2.0	-2.4	-3.0		-3.0	-3.0	-3.0	-3.0								
Expected Percent Revision	0.5%	-0.6%	-0.7%		-0.7%	-0.7%	-0.7%	-0.7%								

## Colorado Nonfarm Payroll Jobs Estimates - 2nd Quarter 2016

<b>Statewide by Industry Sector, in Thousands Seasonally Adjusted</b>	<i>Expected revisions based on Q2 2016 QCEW</i>			<i>Forecast based on Q2 2016 QCEW</i>				<i>Prior year official series - Benchmarked to QCEW</i>				<i>Over the Year Change</i>						
	<i>Nonfarm Payroll Jobs</i>		<i>Growth Rate</i>															
	Jun-16	Oct-16	Jun-16	Oct-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Apr-15	May-15	Jun-15	Oct-15	Jun-16	Oct-16	Jun-16
Modified Education & Health Services <sup>2 &amp; 3</sup>	323.3	323.4	324.8	324.8	327.5	328.8	331.8							317.9	11.7	13.9	3.7%	4.4%
Education & Health Services <sup>1</sup>	322.0	321.7	323.6	323.6	326.3	327.6	330.6	310.4	311.5	313.1	316.8				10.5	13.8	3.4%	4.4%
Expected Revision	1.3	1.7	1.2	1.2	1.2	1.2	1.2											
Expected Percent Revision	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%											
Modified Leisure & Hospitality <sup>2 &amp; 3</sup>	319.0	319.2	322.4	324.4	325.5	326.7	328.8							316.7	10.7	12.1	3.4%	3.8%
Leisure & Hospitality <sup>1</sup>	329.1	325.0	326.2	328.2	329.3	330.5	332.6	309.4	311.1	311.7	317.8				14.5	14.8	4.7%	4.7%
Expected Revision	-10.1	-5.8	-3.8	-3.8	-3.8	-3.8	-3.8											
Expected Percent Revision	-3.1%	-1.8%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%											
Modified Other Services <sup>2 &amp; 3</sup>	104.6	104.9	105.3	105.0	104.7	104.4	104.6							103.6	2.5	1.0	2.4%	1.0%
Other Services <sup>1</sup>	104.2	104.6	105.4	105.1	104.8	104.5	104.7	102.8	102.7	102.8	103.7				2.6	1.0	2.5%	1.0%
Expected Revision	0.4	0.3	-0.1	-0.1	-0.1	-0.1	-0.1											
Expected Percent Revision	0.4%	0.3%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%											
Modified Government <sup>2 &amp; 3</sup>	427.9	420.1	425.0	427.9	429.7	426.3	425.4							420.8	8.2	4.6	2.0%	1.1%
Government <sup>1</sup>	424.4	425.5	425.7	428.6	430.4	427.0	426.1	414.7	415.6	416.8	419.8				8.9	6.3	2.1%	1.5%
Expected Revision	3.5	-5.4	-0.7	-0.7	-0.7	-0.7	-0.7											
Expected Percent Revision	0.8%	-1.3%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%											

<sup>1</sup> Source: Official payroll jobs series produced by the U.S. Bureau of Labor Statistics and the Colorado Department of Labor and Employment.

<sup>2</sup> Modified 2nd quarter estimates produced by the Colorado Department of Labor and Employment based on 2nd quarter 2016 QCEW and an estimate of payroll jobs not covered by QCEW.

<sup>3</sup> Modified 3rd and 4th quarter 2016 estimates produced by the Colorado Department of Labor and Employment based on modified 2nd quarter results and over the month changes from the official payroll jobs series.

## Colorado Nonfarm Payroll Jobs Estimates - 2nd Quarter 2016

<b>By Metropolitan Statistical Area, in Thousands Seasonally Adjusted</b>	<i>Expected revisions based on Q2 2016 QCEW</i>			<i>Forecast based on Q2 2016 QCEW</i>				<i>Prior year official series - Benchmarked to QCEW</i>				<i>Over the Year Change</i>			
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Apr-15	May-15	Jun-15	Oct-15	<i>Nonfarm Payroll Jobs</i>		<i>Growth Rate</i>	
												Jun-16	Oct-16	Jun-16	Oct-16
Modified Statewide Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	2,589.3	2,577.6	2,587.7	2,601.7	2,607.4	2,606.5	2,612.5				2,559.4	50.5	53.2	2.0%	2.1%
Statewide Total Nonfarm Payroll Jobs <sup>1</sup>	2,593.0	2,593.7	2,602.0	2,616.0	2,621.7	2,620.8	2,626.8	2,526.1	2,531.3	2,537.2	2,562.7	64.8	64.1	2.6%	2.5%
Expected Revision	-3.7	-16.1	-14.3	-14.3	-14.3	-14.3	-14.3								
Expected Percent Revision	-0.1%	-0.6%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%								
Modified Boulder MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	185.7	180.3	186.0	187.0	186.7	186.8	187.6				181.3	5.8	6.4	3.2%	3.5%
Boulder MSA Total Nonfarm Payroll Jobs <sup>1</sup>	182.9	185.0	185.7	186.7	186.4	186.5	187.3	179.5	179.7	180.2	181.9	5.5	5.4	3.1%	3.0%
Expected Revision	2.8	-4.7	0.3	0.3	0.3	0.3	0.3								
Expected Percent Revision	1.5%	-2.5%	0.2%	0.2%	0.2%	0.2%	0.2%								
Modified Colorado Springs MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	278.7	277.1	278.3	279.6	278.3	279.3	279.3				274.4	7.2	4.9	2.7%	1.8%
Colorado Springs MSA Total Nonfarm Payroll Jobs <sup>1</sup>	276.3	276.6	277.5	278.8	277.5	278.5	278.5	269.3	270.2	271.1	275.0	6.4	3.5	2.4%	1.3%
Expected Revision	2.4	0.5	0.8	0.8	0.8	0.8	0.8								
Expected Percent Revision	0.9%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%								
Modified Denver MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	1,427.9	1,423.2	1,427.4	1,439.1	1,440.4	1,438.6	1,444.1				1,405.2	32.9	38.9	2.4%	2.8%
Denver MSA Total Nonfarm Payroll Jobs <sup>1</sup>	1,433.6	1,435.1	1,437.0	1,448.7	1,450.0	1,448.2	1,453.7	1,386.8	1,389.8	1,394.5	1,404.7	42.5	49.0	3.0%	3.5%
Expected Revision	-5.7	-11.9	-9.6	-9.6	-9.6	-9.6	-9.6								
Expected Percent Revision	-0.4%	-0.8%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%								
Modified Fort Collins MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	160.2	160.1	157.6	156.9	156.6	157.6	158.1				157.9	2.9	0.2	1.9%	0.1%
Fort Collins MSA Total Nonfarm Payroll Jobs <sup>1</sup>	159.0	159.0	160.8	160.1	159.8	160.8	161.3	154.1	154.6	154.7	157.6	6.1	3.7	3.9%	2.3%
Expected Revision	1.2	1.1	-3.2	-3.2	-3.2	-3.2	-3.2								
Expected Percent Revision	0.7%	0.7%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%								
Modified Grand Junction MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	61.7	61.5	61.1	62.1	61.6	62.0	61.9				61.5	-0.1	0.4	-0.1%	0.7%
Grand Junction MSA Total Nonfarm Payroll Jobs <sup>1</sup>	61.8	62.0	61.3	62.3	61.8	62.2	62.1	61.6	61.4	61.2	61.6	0.1	0.5	0.2%	0.8%
Expected Revision	-0.1	-0.5	-0.2	-0.2	-0.2	-0.2	-0.2								
Expected Percent Revision	-0.2%	-0.8%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%								
Modified Greeley MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	99.0	98.7	98.9	99.1	99.4	99.9	99.9				99.6	-1.7	0.3	-1.7%	0.3%
Greeley MSA Total Nonfarm Payroll Jobs <sup>1</sup>	102.2	101.9	102.1	102.3	102.6	103.1	103.1	101.2	100.6	100.6	100.2	1.5	2.9	1.5%	2.9%
Expected Revision	-3.2	-3.2	-3.2	-3.2	-3.2	-3.2	-3.2								
Expected Percent Revision	-3.1%	-3.1%	-3.2%	-3.1%	-3.1%	-3.1%	-3.1%								
Modified Pueblo MSA Total Nonfarm Payroll Jobs <sup>2 &amp; 3</sup>	61.7	61.4	61.8	61.6	61.8	61.8	62.0				60.8	1.0	1.2	1.6%	1.9%
Pueblo MSA Total Nonfarm Payroll Jobs <sup>1</sup>	61.9	62.1	62.2	62.0	62.2	62.2	62.4	60.6	60.8	60.8	61.1	1.4	1.3	2.3%	2.1%
Expected Revision	-0.2	-0.7	-0.4	-0.4	-0.4	-0.4	-0.4								
Expected Percent Revision	-0.3%	-1.2%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%								

<sup>1</sup> Source: Official payroll jobs series produced by the U.S. Bureau of Labor Statistics and the Colorado Department of Labor and Employment.

<sup>2</sup> Modified 2nd quarter estimates produced by the Colorado Department of Labor and Employment based on 2nd quarter 2016 QCEW and an estimate of payroll jobs not covered by QCEW.

<sup>3</sup> Modified 3rd and 4th quarter 2016 estimates produced by the Colorado Department of Labor and Employment based on modified 2nd quarter results and over the month changes from the official payroll jobs series.