COLORADO
Office of State Planning
& Budgeting

September | 2016

The Colorado Economic Outlook

Economic and Fiscal Review

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John W. Hickenlooper
Governor

Henry Sobanet
Director

Jason Schrock
Chief Economist

Luke Teater
Economist

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Summary

- General Fund revenue increased 1.7 percent in FY 2015-16, a sharp drop from the robust 9.2 percent growth rate one year earlier. The oil and gas industry's contraction, along with weaker investment gains and lower corporate profits, all combined to reduce General Fund revenue growth. With these factors largely behind us, General Fund revenue will increase 4.5 percent in FY 2016-17 and a 5.0 percent increase is forecast for FY 2017-18. Notably, these growth rates are lower compared with most previous years of the current expansion; economic growth is forecast to remain moderate for the state and growth in corporate income tax revenue and investment gains are expected to be constrained.

- Relative to June's forecast, General Fund revenue for FY 2016-17 was reduced by $160.6 million, or 1.5 percent, due mostly to lower expectations for sales and use taxes and corporate income tax collections. The FY 2016-17 ending General Fund balance is projected to be $226.5 million below the required reserve level. The Governor is required to take budget-balancing actions when the ending balance is projected to be under half of its required amount. For FY 2016-17, under current law, half of the required reserve amounts to $317.4 million, $90.9 million less than the ending reserve projected by this forecast.

- Under this forecast and current law, General Fund appropriations subject to the limit in FY 2017-18 can increase only 1.2 percent over the FY 2016-17 amount. Total General Fund and State Education Fund expenditures combined can grow just 0.3 percent in FY 2017-18, assuming that the negative factor in the School Finance Act is maintained at its current level.

- Cash fund revenue in FY 2016-17 is projected to be $189.9 million, or 6.3 percent, lower than FY 2015-16, as a decrease in revenue from the Hospital Provider Fee and miscellaneous cash funds will offset modest growth in revenue from many of the other major categories of cash funds. Cash fund revenue will increase 14.5 percent in FY 2017-18 as the budget restriction on the Hospital Provider Fee expires and severance tax revenue increases.

- TABOR revenue came in $26.7 million below the cap in FY 2015-16 and is projected to be $158.8 million under the cap in FY 2016-17. TABOR revenue is expected to be above the cap by $175.4 million in FY 2017-18 and $221.8 million in FY 2018-19. The FY 2017-18 refund amount of $195.0 million expected in this forecast includes the projected $175.4 million exceeding the Referendum C cap plus $19.6 million that needs to be refunded from FY 2014-15 due to the reclassification of the revenue transferred to the Adult Dental Fund from the Unclaimed Property Fund.

- Colorado's economy remains in expansion. The urban areas along the Front Range have among the lowest unemployment rates in the country, with the Denver metro area having the lowest unemployment rate among large U.S. metro areas. The oil and gas industry's deep contraction that contributed to slowing in the overall economy appears to have reached a bottom, though industry activity is expected to remain at subdued levels. Even so, the absence of the large decline in spending in the economy going forward will help overall economic conditions. Further, data shows renewed growth in new business formation in Colorado, a key ingredient for economic and job growth. Sustained growth in housing construction and home sales, albeit still at comparatively low levels, will also add to employment and spending in the economy. However, due in part to continued tight labor market conditions, the state's economic growth will remain at a more moderate pace than earlier in the expansion.

- Economic growth for the nation overall continues to be modest. Persistent weakness in business investment and industrial production, along with subdued gains in business formation and productivity continue to result in lackluster growth. On the positive side, consumer spending and the labor market have been solid. In addition, the labor market recovery is broadening, with middle-wage industries adding jobs at a faster pace and lower wage workers seeing more wage growth. Further, although the industrial sector is not expected to generate a boost to economic growth going forward, an end to its downturn will at least present a smaller drag on economic activity.

- Although there are no clear indications of an economic downturn, there is heightened uncertainty related to developments in Europe, the upcoming presidential election, and the stance of monetary policy. Such uncertainty, especially when combined with adverse shocks to the economy, can lead to a pullback in spending and investment, and on a large enough scale, losses in jobs and income and a subsequent decline in revenue to the State.

The Economy: Issues, Trends, and Forecast

The following section discusses overall economic conditions in Colorado, nationally, and around the world. The OSPB forecast for economic conditions is largely unchanged from the June 2016 Colorado Economic Outlook. This section includes an analysis of:

- Economic, labor market, and housing market conditions in Colorado (page 5)
- Economic, labor market, and housing market conditions for the nation (page 18)
- International economic conditions and trade (page 30)

Trends and forecasts for key economic indicators **—** A summary of key economic indicators with their recent trends and statistics, as well as forecasts, is provided at the end of this section. The summary of indicators is intended to provide a snapshot of the economy's performance and OSPB's economic projections, which are informed by the following analysis of the economy.

Summary **—** Colorado's economy remains in expansion. Despite notable headwinds in recent years, the state's economy has demonstrated resilience not seen in prior periods. Demand for workers among Colorado businesses remains strong. The urban areas along the Front Range have among the lowest unemployment in the country, with the Denver metro area having the lowest unemployment rate among large U.S. metro areas. The oil and gas industry's deep contraction that contributed to slowing in the overall economy appears to have reached a bottom, though industry activity is expected to remain at subdued levels. Even so, the absence of the large decline in spending in the economy going forward will help overall economic conditions. Further, data shows renewed growth in new business formation in Colorado, a key ingredient for economic and job growth. Sustained growth in housing construction and home sales, albeit still at comparatively low levels, will also add to employment and spending in the economy. However, the state's economic growth will remain at a more moderate pace than earlier in the expansion.

Economic growth for the nation overall continues to be modest. Persistent weakness in business investment and industrial production, along with subdued gains in business formation and productivity continues to result in lackluster growth. On the positive side, consumer spending and the labor market have been solid. In addition, the labor market recovery is broadening, with middle-wage industries adding jobs at a faster pace and lower wage workers seeing more wage growth. Further, although the industrial sector is not expected to generate a boost to economic growth going forward, an end to its downturn will at least present a smaller drag on economic activity.

Economic risks **—** The economic expansion is now in its eighth year, a long expansion by historical standards. However, economic research indicates that the length of an expansion is not a reliable indicator of when a recession will begin. As discussed in the following analysis, there are no clear indications of an economic downturn in the United States or Colorado. However, there remains heightened uncertainty related to the upcoming presidential election, as well as concerns over the future of the European Union after Britain's decision to withdraw, popularly known as "Brexit." Heightened uncertainty can lead to lower expectations for economic growth and a pullback in spending and investment. In addition, the stance of monetary policy will be important to monitor in coming months as the Federal Reserve has signaled additional monetary policy tightening in the near future. Financial conditions deteriorated surrounding last December's monetary tightening, and may occur again, especially if tightening occurs amidst modest economic growth and low inflation. Further, the U.S. dollar's strong appreciation starting in 2014 that contributed to weakening in exports and industrial production was associated with the monetary tightening. Finally, bond prices remain historically high and to the extent those prices weaken, the resulting increase in interest rates used for residential and commercial lending would likely dampen economic activity.

Colorado Economy

Colorado's economy remains in solid expansion. Growth is broad-based across most industries and the labor market remains strong. The urban areas along the Front Range continue to have among lowest unemployment in the country, with the Denver metro area having the lowest unemployment rate among large U.S. metro areas (areas with more than one million people) in July. However, the state's tight labor market is constraining business expansion and thus overall economic growth. Further, the tepid national and global economies and persistent weakness in the oil and gas industry is tempering economic growth for the state. Nonurban areas with agricultural- and energy-dependent economies continue to struggle with low commodity prices, though there has been some modest improvement in these regional economies of late.

Colorado's economy remains in solid expansion despite facing several headwinds of late.

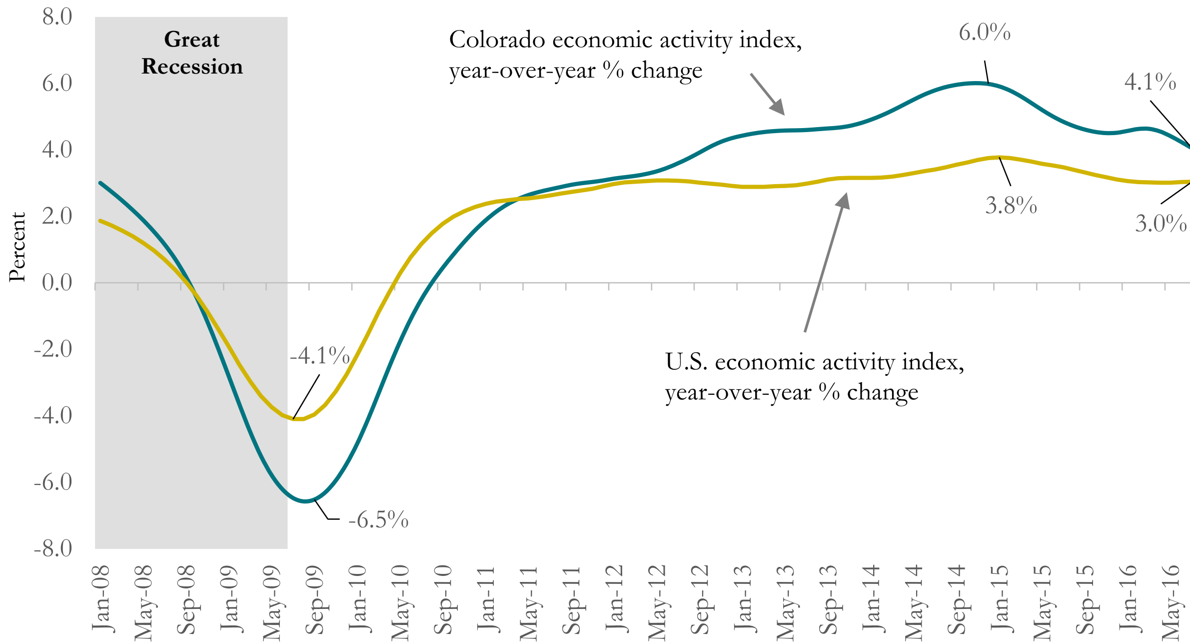
Economic expansion is expected to continue for Colorado at a moderate pace. Colorado's favorable attributes have made the state's economy resilient to the many headwinds that it has faced the past several years. The state continues to have population growth, a high skilled workforce, and a diverse base of growing technology-intensive and business services industries. This mixture helps produce more successful enterprises which lead to further economic growth. Moreover, data shows renewed growth in new business formation in Colorado, a key ingredient for economic and job growth. Sustained growth in housing construction and home sales, albeit still at comparatively low levels, will also add to employment and spending in the economy.

The absence of a large decline in spending in the economy from a contracting oil and gas industry going forward will help overall economic conditions. However, the state's economic growth will remain at a more moderate pace than the robust growth seen earlier in the expansion.

The oil and gas industry's deep contraction that contributed to slowing in the overall economy appears to have reached a bottom, though industry activity is expected to remain at subdued levels. Even so, the absence of the large decline in spending in the economy going forward will help improve overall economic conditions. However, the state's economic growth will remain at a more moderate pace than its robust level earlier in the expansion.

A measure of overall economic activity for Colorado shows continued moderation in growth **—** Figure 1 shows Colorado's Coincident Economic Activity Index compared to the U.S. overall since the Great Recession. Colorado's economic growth remains slower since early-2015, though still stronger than the nation as a whole.

Figure 1. Coincident Economic Activity Index, Year over Year % Change, 2008 to July 2016



Source: Philadelphia Federal Reserve Branch

The State Coincident Economic Activity Index is one of the most up most up-to-date broad measure of state economic activity. The index tends to match growth in a state's gross domestic product (GDP) over time by combining four state-level indicators to track current economic conditions − employment, average hours worked in manufacturing, the unemployment rate, and inflation-adjusted wage and salary disbursements.

***Colorado's gross domestic product also shows growth despite the contraction in industrial sectors, particularly the oil and gas industry* —** The U.S. Bureau of Economic Analysis recently reported that Colorado's real, or inflation-adjusted, gross domestic product (GDP) grew 3.0 percent in the first quarter of 2016, with broad-based gains across several industries, though mining, utilities, and transportation and warehousing continued to show weakness due in part to persistently low commodity prices and the downturn in the oil and gas industry.

The state's GDP for its industrial sector declined by $9.5 billion, or 21.0 percent, from the third quarter of 2014 through the first quarter of 2016. Despite this large drop in economic activity, the GDP of the rest of the economy over the same period grew by $21.0 billion, or 8.0 percent.

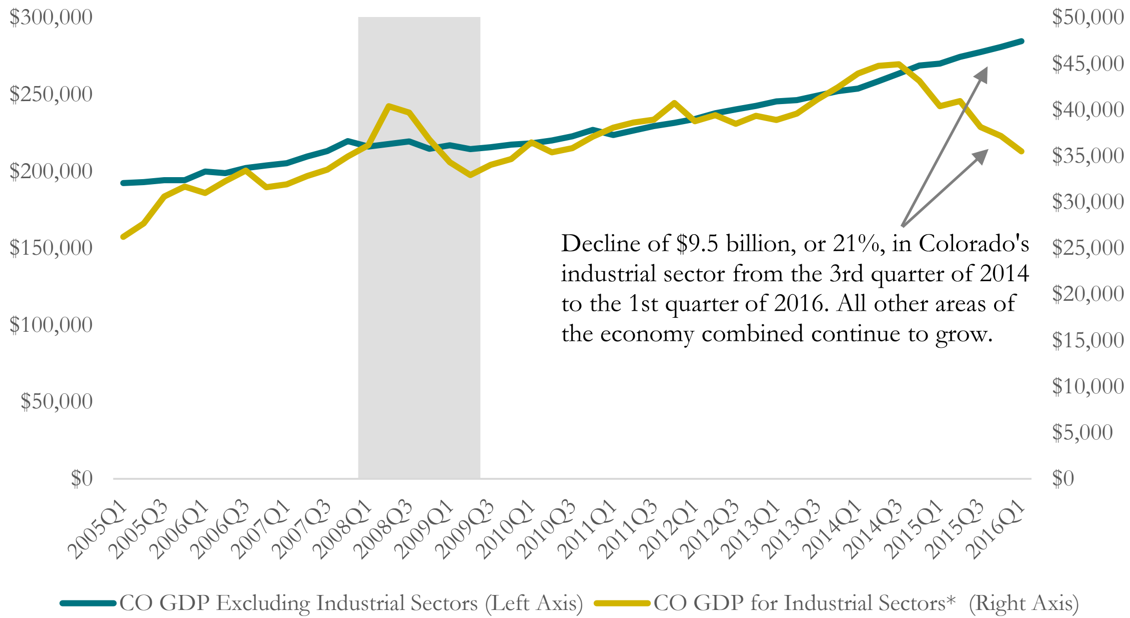
Most of the slowdown in Colorado's economy has been concentrated in the industrial sector, which includes the manufacturing, mining, and utilities industries, with the decline driven almost entirely by the contraction in the oil and gas industry. Figure 2 shows the nominal, or non-inflation-adjusted, value of Colorado's GDP broken out by its industrial sector and all other industries.

The state's GDP for its industrial sector declined by $9.5 billion, or 21.0 percent, from the third quarter of 2014 through the first quarter of 2016; all of this decline was in the mining industry, while manufacturing and utilities were essentially flat. Despite this large drop in economic activity, the GDP for the rest of the economy over the same period grew by $21.0 billion, or 8.0 percent. Industries in these sectors, such as financial activities, professional, scientific, and technical services, construction, and health care, represent a much larger portion of

economic activity in the state — about 90 percent of total state GDP. These same trends have occurred at the national level as discussed on page 23.

The decline in industrial sectors nationwide was driven to a greater extent than in Colorado by weakness in manufacturing. The state's relatively better performance in the manufacturing industry is due to its higher concentration of advanced manufacturing activities, such as renewable energy-related products, computer and electronic products, and aerospace-related product manufacturing. These types of manufacturing have been less adversely impacted by the strengthening dollar and weaker global conditions than manufacturing has nationally.

Figure 2. GDP of the Industrial Sector and All Sectors in the Colorado Economy, $s in Millions

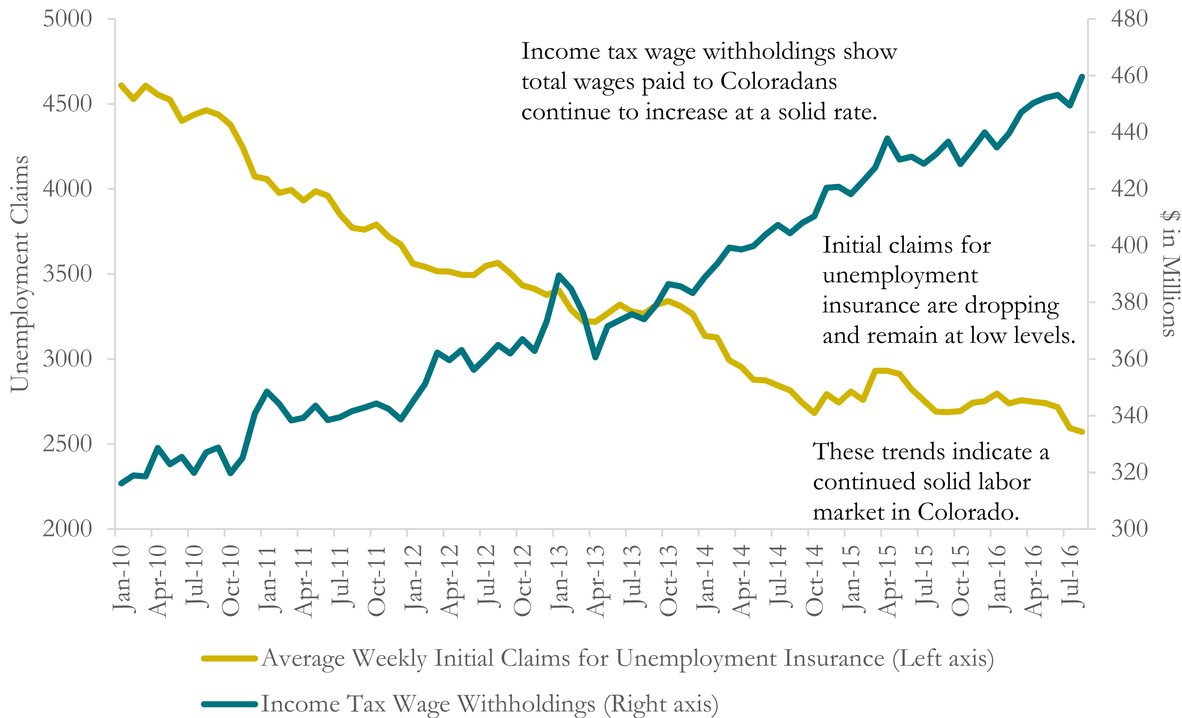


*Industrial sectors include manufacturing, mining, and utilities.

Source: U.S. Bureau of Economic Analysis and OSPB calculations. Shading indicates recession period.

Data on unemployment insurance claims and income tax wage withholdings indicate that the overall demand for workers in Colorado is strong — Figure 3 shows the trends in initial unemployment insurance claims and income tax wage withholdings, two near-real-time indicators of the condition of the labor market. Income tax wage withholdings are a proxy for total wages paid to Coloradans, and data through August shows renewed strength after posting slower growth over the course of last year. Initial claims for unemployment insurance, a measure of the level of layoffs in the economy, remain at low levels through August. Both of these data trends indicate that employers continue to have high demand for workers in the state's expanding economy.

Figure 3. Indicators of Colorado's Overall Labor Market



*Seasonally Adjusted, Three-month moving average

Source: Colorado Department of Revenue, Colorado Department of Labor and Employment, and OSPB calculations

New business formation appears positive, an indicator that economic expansion will continue – A large part of economic and job growth comes from young businesses that grow when they are successful in developing new products and business practices. Colorado continues to experience higher levels of new business formation and entrepreneurship than most other economies, a key reason for its better economic performance than other states. The Kauffman Foundation, a leading organization for research and advocacy for entrepreneurship, recently ranked Colorado 5th among the 25 largest states in its 2016 Index of Startup Activity.

Renewed strength in new business formation is expected to help support continued economic growth for the state.

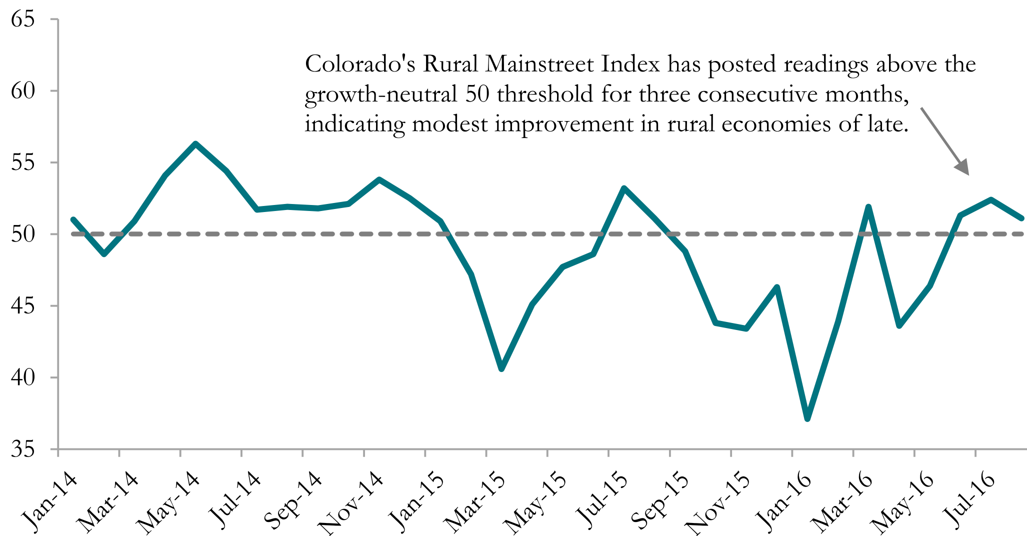
As shown in Figure 4, growth in new business formation is showing renewed strength in the first half of 2016 after slowing during the course of 2015. Data from the Colorado Secretary of State showed that filings of new entities formed to do business in the state, which mostly consist of limited liability companies and corporations, increased 7.9 percent above the second quarter of 2015. There were over 27,000 new entities filings in the second quarter, close to 2,000 more than in the same quarter a year ago. This activity will help support continued economic growth for the state.

Figure 4. New Entity Filings to do Business in Colorado

Source: Colorado Secretary of State, OSPB calculations; data is seasonally adjusted

Rural areas continue to struggle overall, though there is some indication of modest improvement of late — Colorado's Rural Mainstreet Index, published by Creighton University, measures economic activity in rural areas by surveying community banks on current economic conditions and their economic outlooks. Index readings above the 50 level signifies growth. After being below the 50 level for much of 2015 and 2016 due largely to persistently low commodity prices, the index has posted readings modestly above 50 for three consecutive months through August, as shown in Figure 5.

Figure 5. Colorado's Rural Mainstreet Index

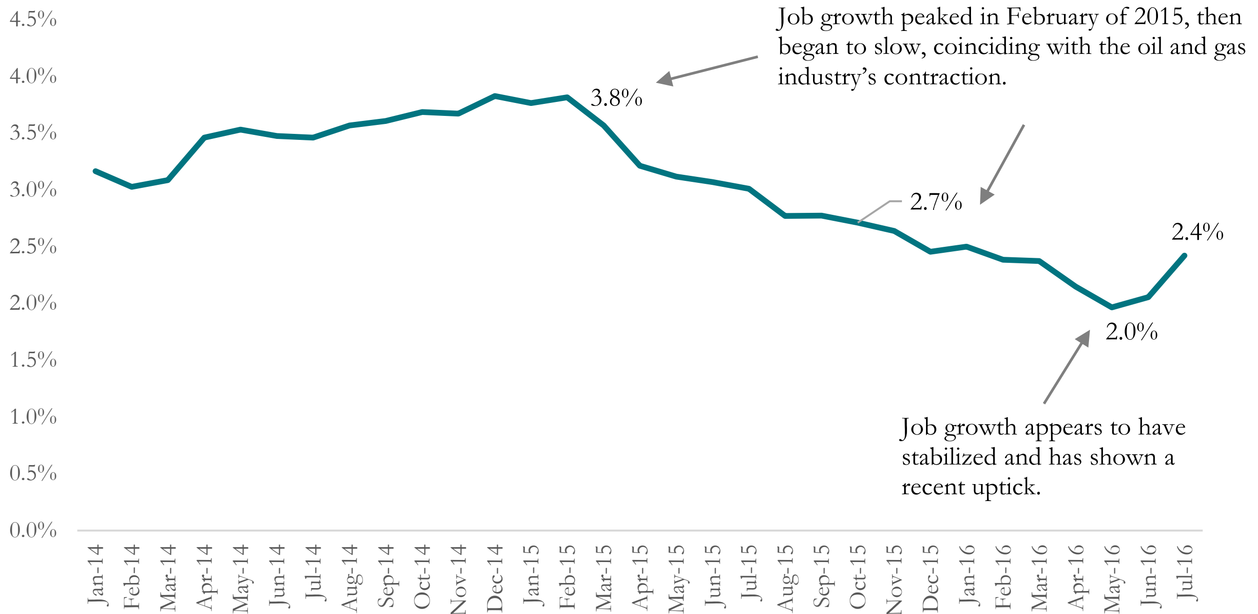


Source: Creighton University

Tight labor market conditions are constraining job growth in the state – The state's sustained economic expansion is generating employment gains across most industries. Most of the contraction in the oil and gas industry that contributed to slower overall growth for the state appears to be over. However, tight labor market conditions are constraining job growth.

Figure 6 shows the monthly year-over-year job growth for the state since the beginning of 2014. Growth peaked in February 2015 at 3.8 percent and slowed over the course of 2015 and into 2016. However, the slowdown ended in recent months and there has been an uptick in the year-over-year growth rate. Through July, Colorado added 61,500 jobs, growth of 2.4 percent, over the prior year's level.

Figure 6. Colorado Year-over-Year Employment Growth



Source: Bureau of Labor Statistics, Colorado Department of Labor and Employment estimates of expected forthcoming revisions to employment data, OSPB Calculations

Unemployment data provides evidence of the state's tight labor market conditions. The statewide unemployment rate of 3.8 percent in July was tied for 8th lowest among states. The U-6 rate for Colorado, which is a broader measure of unemployment, ranked 6th lowest in the most recent data.

The state has among the lowest unemployment levels in the country. However, tight labor market conditions are making it difficult for businesses to find the labor they need to maintain operations and for expansion.

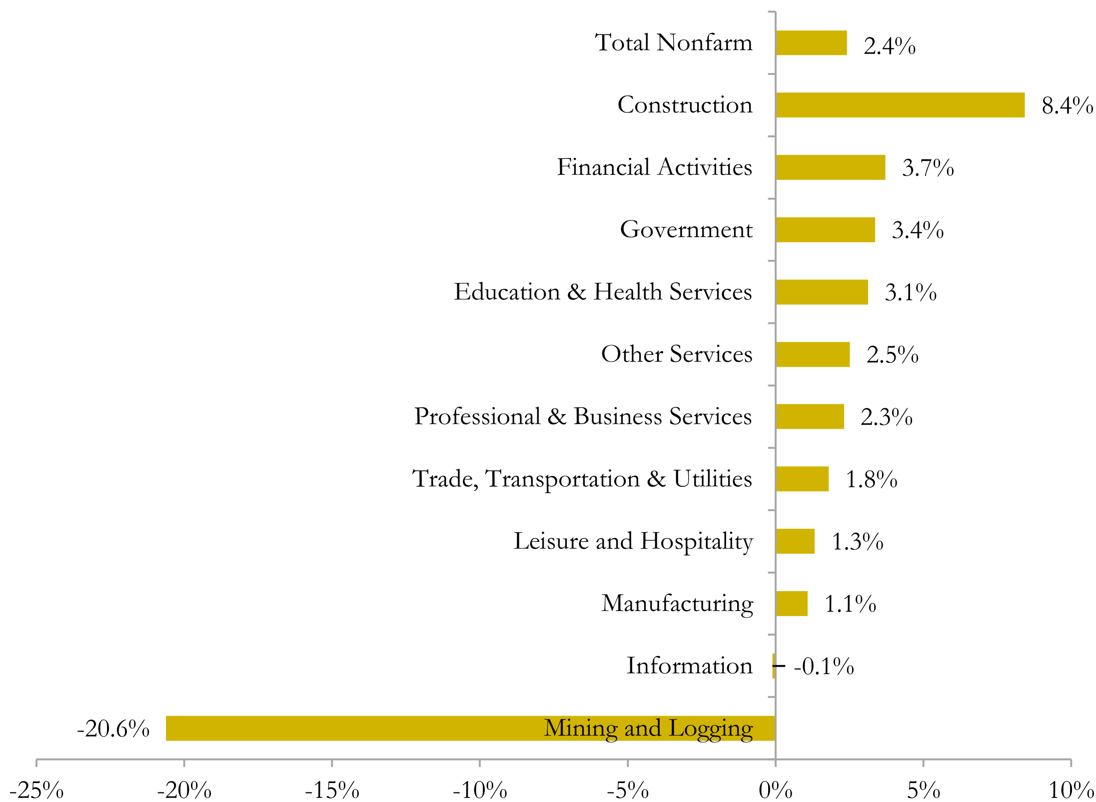
Tight labor market conditions are making it more difficult for businesses to find the labor they need to maintain operations and for expansion. These conditions are occurring in wide-ranging sectors, including information technology, health care, engineering, manufacturing, and construction. According to a report from the Conference Board concerning online help-wanted ads, the ratio of unemployed persons to online ads was 0.91 for the state in July, tied for 4th lowest in the country. A ratio below one indicates there are more job openings posted online than unemployed individuals and is a measure of labor market tightness.

Excluding the mining and information sectors, all of the major industries in the state posted job growth in July from a year ago. The construction industry is experiencing the most growth.

Employment growth continues across most sectors in Colorado – All of the major industries in the state posted year-over-year job growth in July besides the mining and information sectors. Due to the increasing activity in nonresidential and housing construction in the state, the construction industry is experiencing the most growth at 8.4 percent above July 2015 levels.

As discussed on page 6, the industrial sector of the state's economy, which includes the mining, manufacturing, and utilities industries, has been in a downturn since the end of 2014 primarily due to the oil and gas industry's contraction; thus, job growth in the sector has been adversely impacted. In the mining industry, which is dominated by oil and gas activities, employment levels were down 20.6 percent in July from a year ago, and were 32.8 percent lower than their peak level at the end of 2014, a decline of 11,700 jobs. In contrast to the national economy, manufacturing in the state continues to post gains over levels a year ago, though at a subdued rate. Colorado's nonindustrial sectors, which comprise by far the largest portion of the state's employment base, are posting broad-based gains, including in financial activities, government, education and health services, professional and business services, and leisure and hospitality.

Figure 7. Colorado Year-over-Year Employment Growth by Sector, July 2016

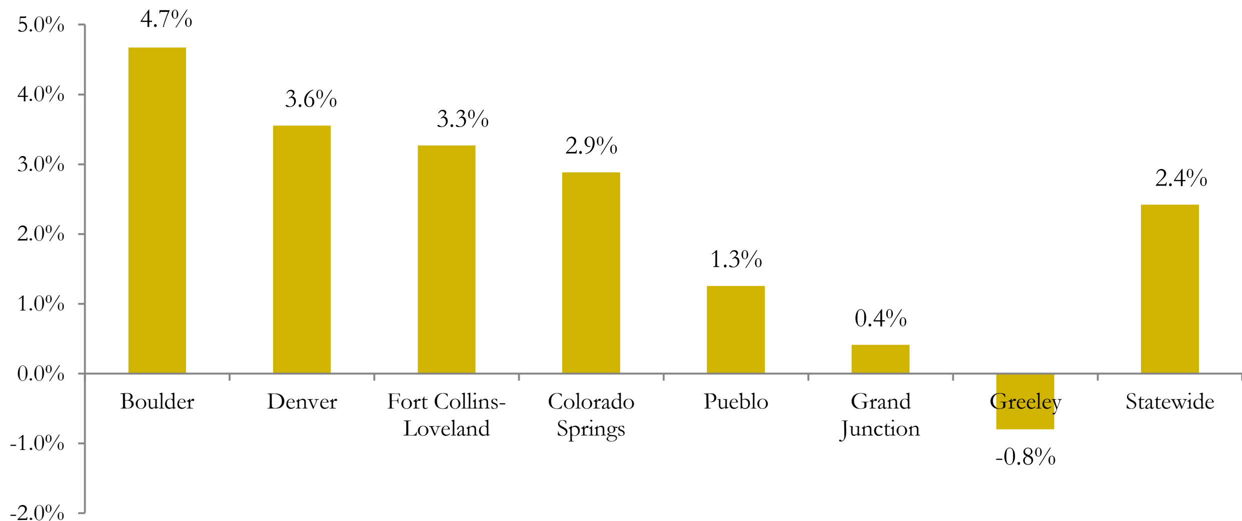


Source: Bureau of Labor Statistics, Colorado Department of Labor and Employment estimates of forthcoming revisions to employment data, OSPB Calculations

> **Job growth over the past year was stronger in Boulder, Denver, Fort Collins-Loveland, and Colorado Springs than in other Colorado metro areas; these areas all had job growth faster than the statewide average due to their diversity of industries and greater population gains.**

Job growth differs across the state, with most gains occurring in the central and northern Front Range regions – As shown in Figure 8, job growth over the past year was much stronger in Boulder, Denver, Fort Collins-Loveland, and Colorado Springs than in other metro areas of the state. These cities all had job growth faster than the statewide average, with Boulder nearly doubling the statewide rate. These faster growing areas have more diversity of industries and greater population growth helping fuel their job gains. Greeley has experienced a loss of jobs over the past year due to the contraction in the oil and gas industry after experiencing among the fastest job growth in the country in 2014 due to the boom. Grand Junction and Pueblo have experienced slower growth throughout the current economic expansion.

Figure 8. Year-over-Year Employment Growth by Colorado Metro Area, July 2016



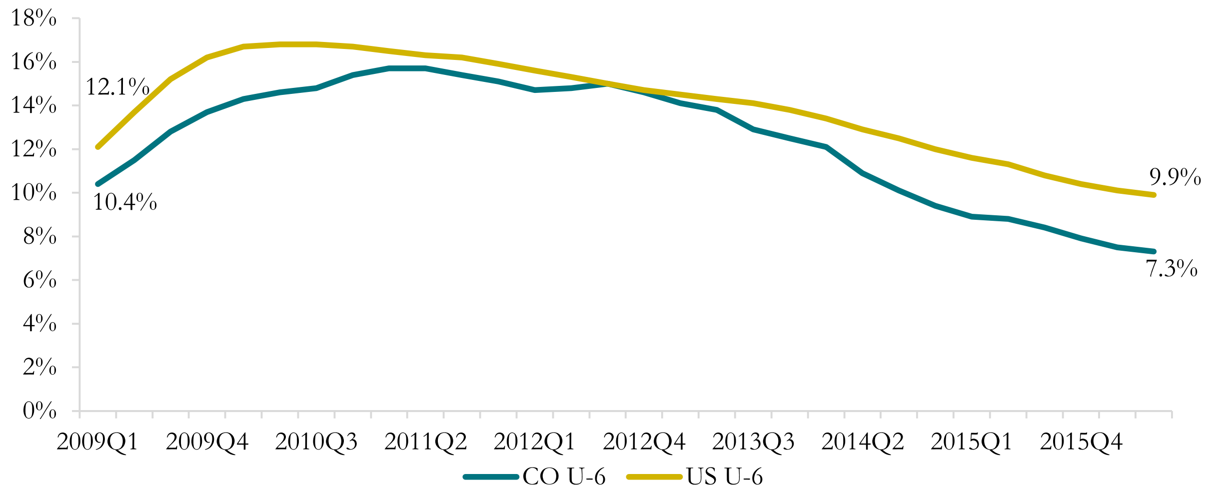
Source: Colorado Department of Labor and Employment

Unemployment measures in Colorado continue to show a high demand for labor in most areas of the state – The official statewide unemployment rate (U-3) ticked up to 3.8 percent in July after dropping below 3.0 percent earlier this year; it is over a percentage point lower than the national average and is tied for the 8th lowest among states.

> **After dropping below 3.0 percent, Colorado's U-3 unemployment rate ticked up to 3.8 percent in July, tied for 8th lowest among states. The state's broader U-6 measure of unemployment is near its lowest level reached during the previous expansion.**

Broader unemployment measures also show lower levels of labor underutilization in the state. As Figure 9 illustrates, the broader U-6 measure, which includes marginally attached workers (workers who currently are not working nor looking for work but indicate that they would like to work and have looked within the past 12 months) and people working part-time for economic reasons (workers who have part-time jobs but would like to work full-time), remains below the national average. Colorado's average U-6 rate over the third quarter of 2015 through second quarter of 2016 was 2.6 percentage points lower than the national average. The state's 7.3 percent U-6 rate was 6th lowest among states, and just 0.1 percentage point above its lowest point during the previous expansion.

Figure 9. Broad Measure of Unemployment (4-quarter moving average)

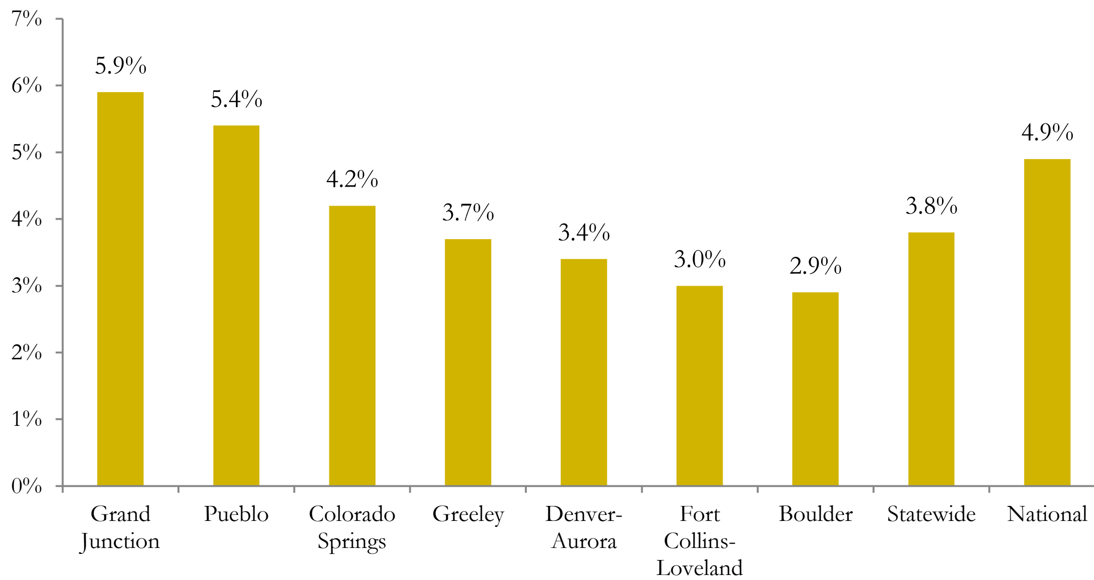


Source: U.S. Bureau of Labor Statistics

The urban areas along the Front Range have among the lowest unemployment in the country, with the Denver metro area having the lowest unemployment rate among large U.S. metro areas.

Figure 10 shows unemployment rates across Colorado metro areas for July 2016. As the figure demonstrates, Colorado's northern Front Range areas have the lowest unemployment rates in the state. Boulder and Fort Collins-Loveland had among the lowest unemployment rates in the country in July; they were tied with the 9th lowest rate of all 387 metro areas. Denver ranked 23rd lowest, and had the lowest unemployment rate among large U.S. metro areas (areas with more than one million people).

Figure 10. Unemployment Rates by Colorado Metro Area, July 2016



Source: Bureau of Labor Statistics

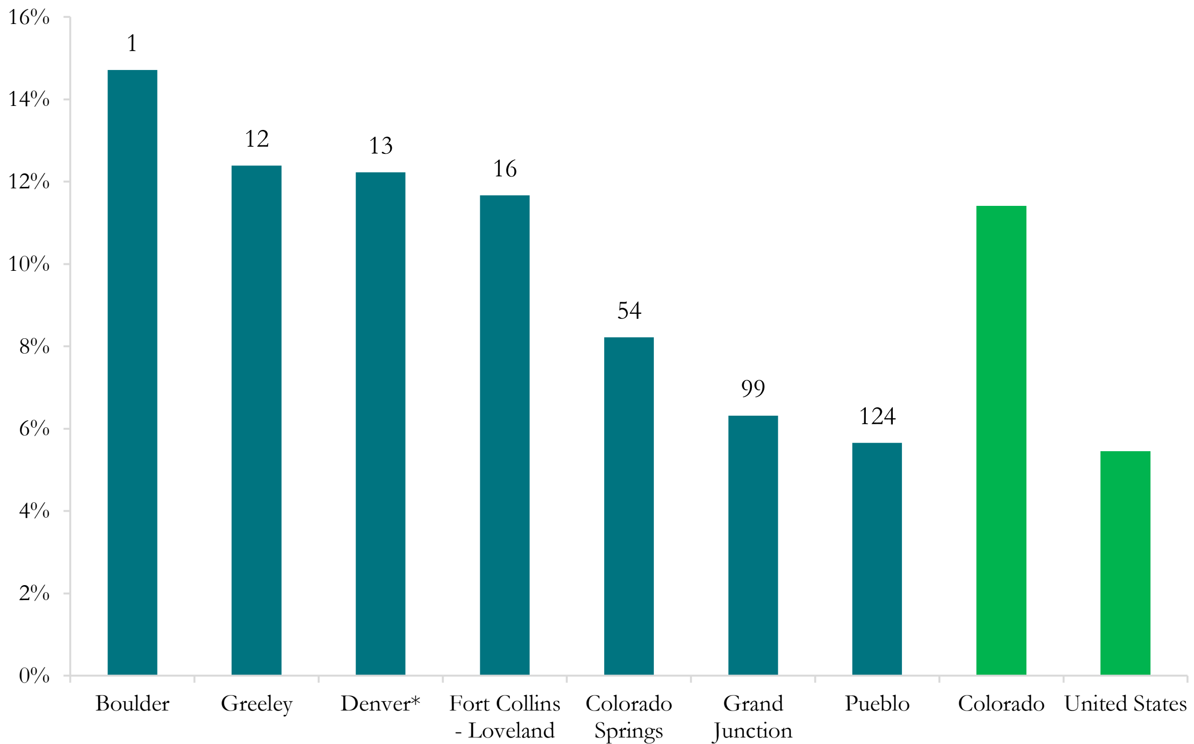
Housing costs continue to increase, especially for the fast-growing areas along the northern Front Range — Most of Colorado's urban areas have stronger home price appreciation than the nation overall. Figure 11 shows the Federal Housing Finance Agency's House Price Index (all transactions index) for Colorado cities and the nation overall through the second quarter of 2016. The northern Front Range metro areas continue to be ranked in the top 20 for home-price appreciation, with Boulder having the highest home price growth in the country.

A persistent low level of homes for sale and a growing population continue to place upward pressure on prices. According to the Colorado Real Estate Association, there were 26,454 homes on the market statewide in July, a decrease of 21.2 percent from a year ago. This represents a three-month supply, which is the number of months it would take for all the current homes for sale on the market to sell; roughly six months of supply is considered a balanced level.

The northern Front Range metro areas continue to be ranked in the top 20 for home-price appreciation, with Boulder having the highest home price growth in the country.

The low supply level indicates that buyers continue to dominate the market, outpacing the number of sellers, and driving up prices. These trends are expected to continue, especially along the Front Range, due to continued population growth. However, increased new housing construction and a more moderate economic expansion are expected to slow the price gains going forward.

Figure 11. Percent Change in Home Prices, Second Quarter 2015 to Second Quarter 2016, Rank among 402 large U.S. cities shown above bars



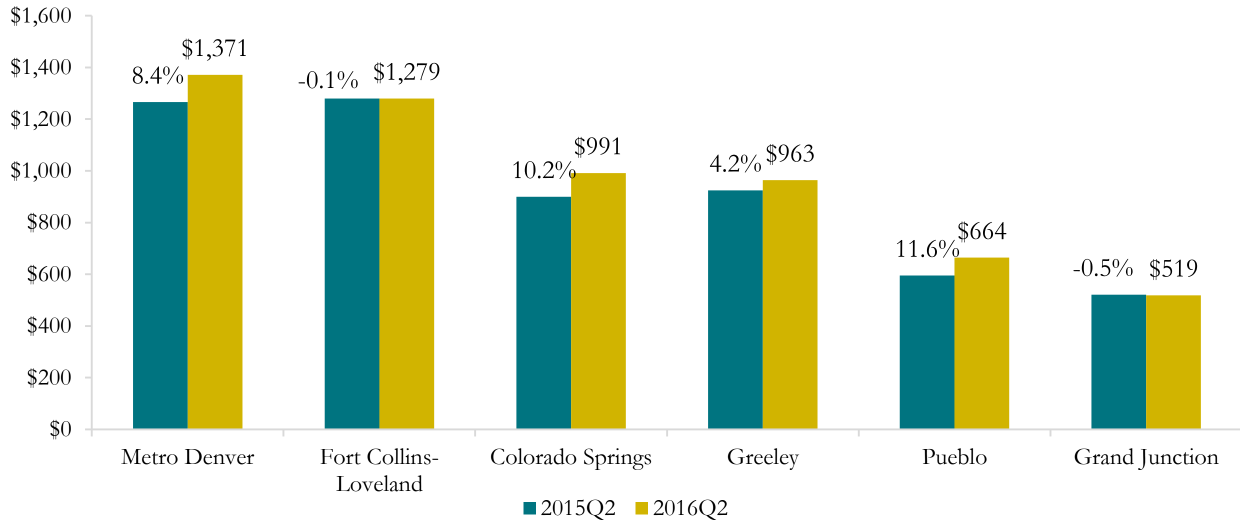
*Includes Aurora and Lakewood
Source: Federal Housing Finance Administration, OSPB Calculations

***Rents continue to rise in most metropolitan areas though there are recent signs of moderation* –** As shown in Figure 12, rents for multi-family units in most Colorado's large urban areas rose over the past year, however growth rates varied across regions. Colorado Springs and Pueblo experienced the largest gains, while Fort Collins-Loveland and Grand Junction had minor declines in the average rent levels. The average rent level also varies dramatically across the state, with rents in some areas of Metro Denver, such as the Boulder-Broomfield area, roughly three times higher than those in Grand Junction.

Average rents continue to rise in most Colorado urban areas, though rent growth is beginning to moderate in the Denver metro area due to new rental inventory.

Despite the contraction in the oil and gas industry, Greeley continues to see growth in housing prices as the area offers more affordable housing alternatives than other areas along the Front Range. Colorado Springs is experiencing growth in rents and home prices for the same reason. The rapid rent increases in the Denver metro area that have been sustained over the past several years are beginning to moderate as more multi-family housing units come online. However, robust in-migration and new household formation should result in continued moderate growth in average rental rates.

Figure 12. Average Rent in Second Quarter of 2015 and Second Quarter of 2016, Percent Change in Rent and Average Rent in Second Quarter 2016 Shown Above Bars



Source: Colorado Division of Housing, Apartment Association of Metro Denver

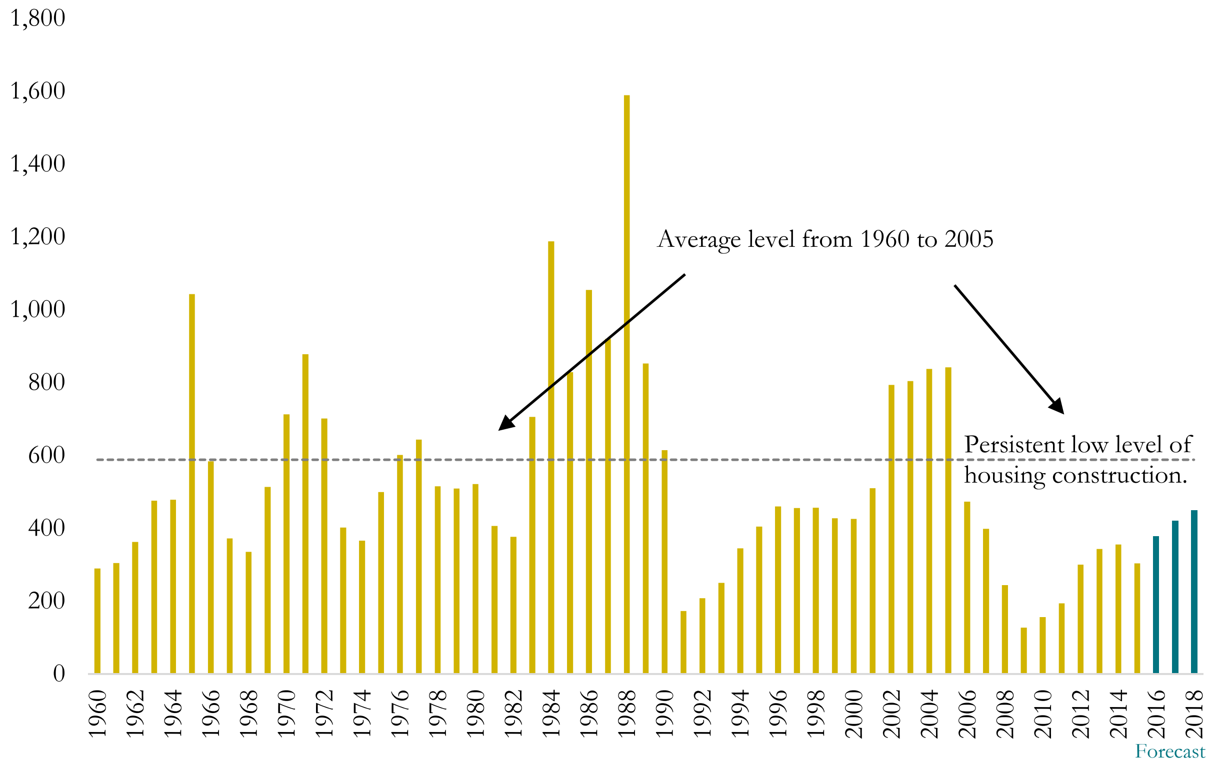
***New housing construction is at persistently low levels, which will add continued upward pressure to housing costs* –** New housing construction dropped to low levels during the Great Recession, and construction activity has rebounded only gradually. Figure 13 shows the annual number of permits for housing units in relation to 1,000 change in the state's population since 1960, including a forecast through 2018.

New housing construction continues to be at low levels. It is taking time for the housing industry to rebuild its capacity for new housing development in the aftermath of the Great Recession.

It is taking time for the housing industry to rebuild its capacity for new housing development in the aftermath of its massive contraction during the Great Recession. The industry continues to experience substantial labor shortages and many builders went out of business. Further, builders report higher costs for homebuilding, and financing for housing development and home buying remains more cautious after the housing boom and bust

in the 2000s. The gradual rebound from low levels will cause continued upward pressure on housing costs, especially in fast-growing regions.

Figure 13. Annual Housing Permits Per 1,000 Change in Colorado Population



Source: U.S. Census Bureau, State Demography Office, OSPB calculations

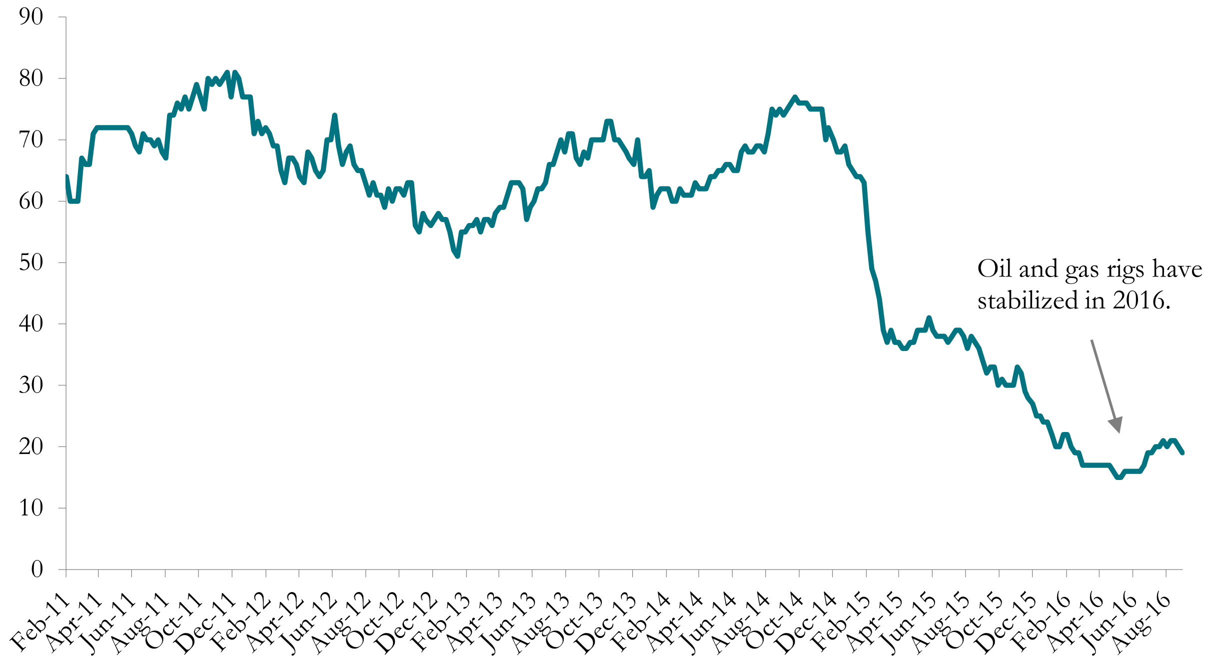
Demand for housing is expected to support continued growth in housing construction, providing economic benefits to the state – Strong demand for housing is expected to continue due to growth in population and household formation, especially along the Front Range. Due to this demand and the persistent low supply, new housing construction is expected to continue to grow through the remainder of the forecast period, generating gains in employment and spending. Growth in housing construction has historically tended to be a reliable leading indicator of economic growth. However, the constraints that are weighing on new housing construction will take time to unwind, and thus the economic gains from new housing construction will continue to be less robust, at least in the near term, than in previous expansions.

> **The oil and gas contraction appears to have bottomed, though industry activity is expected to remain at subdued levels with persistently low energy prices.**

Oil and gas industry activity remains subdued – The oil and gas industry contraction appears to have mostly bottomed, though industry activity is expected to remain at subdued levels with persistently low energy prices. Initial claims for unemployment insurance by workers in the industry are at levels well below a year ago, and have dropped over the past few months after being elevated in the first part of the year. However, employment losses are expected to continue at a modest pace. Further, as shown in Figure 14, the number of oil and gas rigs operating in Colorado has remained relatively stable at low levels for most of this year. After averaging 68 in 2014 and 38 in 2015, rigs in operation around the state averaged 20 in August, the same level as the beginning of the year. Ongoing reduced earnings from

commodity prices continue to make it difficult for oil and gas producers, and expectations are for more mergers, acquisitions, and bankruptcies to occur through the end of the year.

Figure 14. Oil and Gas Operating Drilling Rigs in Colorado



Source: Baker Hughes

After falling below $30 a barrel earlier this year, the West Texas Intermediate crude oil price hovered in the mid $40s a barrel over the summer months. The U.S. Energy Information Agency projects prices to rise very slowly and reach $60 a barrel by the end of 2017; low natural gas prices are expected to follow a similar trajectory. However, there is a high degree of uncertainty in the trajectory of oil and gas prices as the world energy market is materially influenced by international political developments.

The ongoing imbalance between the high levels of supply in relation to weakened demand is expected to take time to unwind. In July, a Kansas City Federal Reserve Bank survey of the oil and gas industry in the Tenth Federal Reserve District, which comprises Kansas, Colorado, Nebraska, and Oklahoma, indicated that oil prices needed to average roughly $64 per-barrel for operators to increase drilling activity substantially.

Mining industry GDP in the state declined 56.6 percent, or $10.8 billion, from the second quarter of 2014 to the first quarter of 2016.

The value of the mining industry's GDP in the state declined 56.6 percent, or $10.8 billion from the second quarter of 2014 to the first quarter of 2016, the latest data available from the U.S. Bureau of Economic Analysis. This large drop in spending in the economy slowed economic activity in Colorado, but not nearly as much as in other major oil and gas producing states. Although subdued oil and gas industry activity in Colorado will provide little support to economic growth in the near term, the absence of such a large decline in spending and economic activity in the state is expected to bolster overall growth compared with the past two years.

U.S. Economy

The U.S. economy continues to expand at a modest pace – The national economy continued its pace of modest growth in the first half of the year. Weak business investment and net exports led to an annualized GDP growth rate of just 1.0 percent in the first half of 2016; solid consumer spending and the steady labor market helped offset the weakness in other sectors.

According to the Federal Reserve's September "Beige Book," businesses and other contacts across the country indicated that economic expansion continued at a modest to moderate pace in July and August, with most contacts expecting growth to accelerate to a moderate pace over the next few months. Federal Reserve contacts also reported tight labor market conditions across most districts, with moderate wage increases.

The Institute for Supply Management's (ISM) Non-Manufacturing Index (NMI) fell to a 2016 low of 51.4 in August, but still above the neutral 50 mark that indicates expansion. August was the 79th consecutive month of expansion in the non-manufacturing sector, which represents about 90 percent of the U.S. economy. Economic activity in the manufacturing sector contracted in August, as the ISM manufacturing index fell to 49.4, a modest contraction after five consecutive months of expansion. The weaker August reading indicates that manufacturing continues to face a challenging economic environment.

Leading economic indicators point to continued growth – Certain economic indicators tend to exhibit changes in trajectory before the economy as a whole, and therefore can be useful as predictors of economic trends and changes in the business cycle. For example, the number of new housing permits is an important leading indicator. When a new housing permit is applied for, it is soon followed by the construction and sale of a home, both activities which have beneficial economic impacts over a long time period. Economic research has shown new housing construction activity can be a reliable leading indicator of continued economic growth; likewise, a downturn in housing construction tends to precede economy-wide recessions.

While leading indicators do not always accurately portend major fluctuations in the overall economy, multiple leading indicators used in combination with each other can provide insights on near-term economic growth and momentum. However, business cycles are extremely difficult to predict and no information can reliably determine the point in the business cycle in real time.

Figure 15 shows six selected leading indicators that have proven to be a helpful gauge on broader economic momentum over the period from January 2000 to the most recent data available. Initial jobless claims tend to rise in advance of recessions, while the other five indicators tend to fall in the period leading up to a recession.

Currently, most of these leading indicators are either stable or improving, pointing to continued economic expansion. Jobless claims continue to fall from their 2009 peak. Consumer expectations, while declining slightly over the last 18 months, are not experiencing the sharp decline which has preceded past recessions. The Manufacturing New Orders Index, published by the Institute for Supply Management, declined in August but the trend has remained above a 50 reading that signifies expansion. Housing permits continue to slowly rise. The amount of temporary help being used, while slowing, continues to grow, indicating that businesses are not attempting to reduce staff. Vehicle sales are the only negative signal, as they have declined slightly from a peak annual rate of 18.5 million in October 2015 to 17.2 million in August 2016. Taken together, these indicators suggest the current economic expansion will likely continue, at least in the near term.

Most leading indicators point to continued economic expansion.

Figure 15. Selected Leading Economic Indicators, January 2000-Present

Shading indicates recessionary periods.

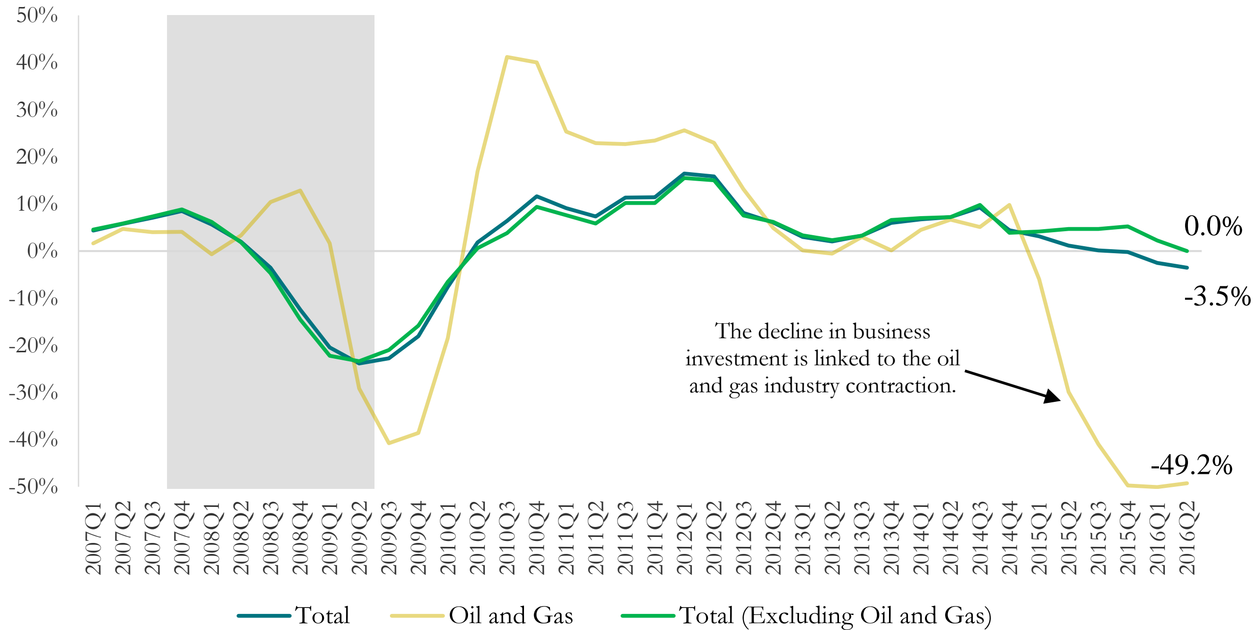
Source: Employment and Training Administration, University of Michigan Survey of Consumers, Institute for Supply Management, Bureau of Economic Analysis, Census Bureau, Bureau of Labor Statistics

Business investment remains subdued, but may be bottoming – Business investment has been declining for five consecutive quarters, but it may be poised to stabilize in the near future. This weakness is an important factor in the U.S. economy's lackluster performance as business investment helps enhance the economy's productive capacity.

Business Roundtable, an association of U.S. CEOs, found in a second-quarter survey that 37 percent of CEOs plan to increase capital spending in the next six months while only 18 percent plan to cut back. This measure has been improving since the fourth quarter of 2015, when only 30 percent of CEOs planned to increase capital spending in the next six months while 27 percent planned to decrease. Furthermore, orders for capital goods excluding aircraft, a common proxy for business investment trends, recorded consecutive months of growth in June and July after hitting a 5-year low in May. Moreover, weak corporate profits, due primarily to the sluggish global economy and the strong appreciation in the value of the dollar have reduced funding for investment. However, there are recent signs of improvement in overall corporate earnings of late.

Another recent factor driving business investment lower is the decline in the oil and gas industry, as Figure 16 shows. Given that oil prices have recently stabilized between $40 and $50 per barrel and rig counts have stopped decreasing, energy industry investment levels should stabilize as producers adjust to the lower price level. While a return to robust investment is not expected, a lessening of the drag from the energy sector will allow modest overall growth in business investment going forward.

Figure 16. Non-residential Business Investment (Percent change from same quarter one year prior)



Source: Bureau of Economic Analysis, OSPB calculations

The level of reported overall business investment may also be lower in the current expansion due to changes in the economy, including reductions in the cost of capital goods and as the U.S. and other developed economies continue to become more services- and technology-intensive. The costs of capital goods have fallen by 30 percent since the 1980s, according to research from the University of California, Berkeley.[1] This means it both costs less to fund any given capital project and also incentivizes more capital projects. Research has shown, however, that the decline in costs tends to outweigh the incentive to fund more projects, resulting in a net reduction in capital goods expenditures. Furthermore, the U.S. economy's industrial production sector has become a smaller portion of the economy over time, and thus there is necessarily less overall spending by businesses on larger capital goods and equipment.

Solid consumer spending continues to lead economic growth.

Consumer spending continues to grow – Consumer spending has been a primary contributor to economic growth over the last few years, and this strength continued in the second quarter. Real, or inflation-adjusted, personal consumption expenditures grew at an annualized 4.4 percent rate, the second fastest growth rate of the current expansion. This bump in growth was driven by the solid labor market that has led to higher personal incomes and consumer confidence, while food and fuel prices remain low. Further gains in employment and wages will continue to support consumer demand.

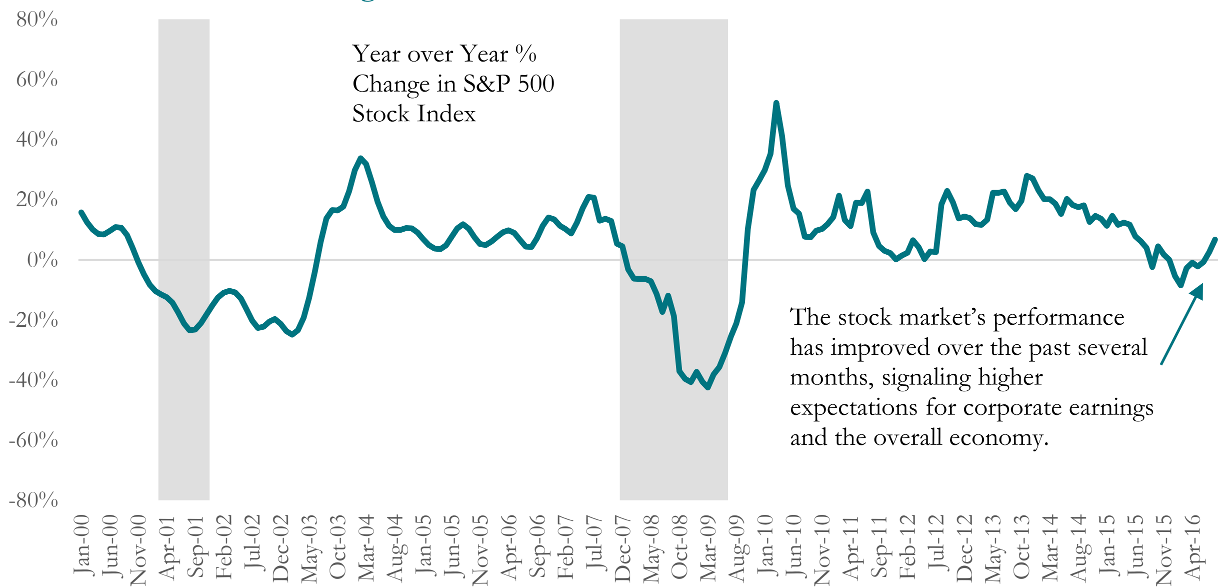
[1] Eichengreen, Barry. 2015. "Secular Stagnation: The Long View." American Economic Review, 105(5): 66-70.

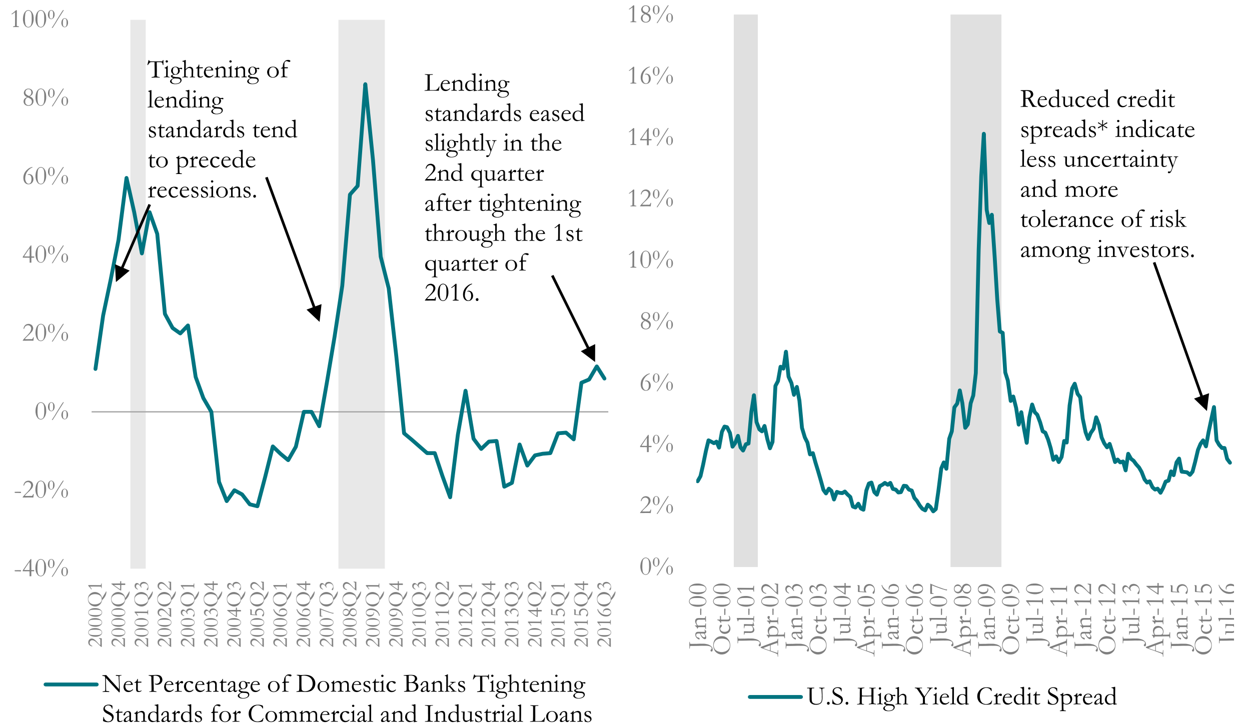
Financial conditions have continued to improve in recent months, a positive sign for the near-term outlook **—** Information from financial markets reflects investors' and risk managers' assessments of current conditions and their expectations for future economic activity. These assessments are important to monitor as they reflect the aggregation of large amounts of information from numerous sectors of the economy around the world. Additionally, expectations are integral to the performance of the economy. If expectations are higher for future economic activity and income, more investing, spending, and hiring is likely to occur, and vice versa.

Financial conditions have continued to improve since February, an important signal that the outlook for the economy has improved and that investors are more tolerant of risk. This is an important development for sustaining economic activity as businesses have better access to funds to meet financing needs.

After marked weakening a year ago, a trend that continued into the beginning of this year, financial conditions have continued to improve since February. This indicates that the outlook for the economy has been less pessimistic and investors are becoming more tolerant of risk, which will sustain economic activity as businesses have better access to funding to meet financing needs. The following graphs show the improving financial conditions over the past several months in the equities and corporate bond markets, as well as in lending standards among U.S. banks for business loans.

Figure 17. Measures of Financial Conditions





*The U.S. high yield credit spread represents the difference in yields on below investment grade rated corporate debt and yields on U.S. Treasuries.

Source: S&P Dow Jones Indices LLC, Board of Governors of the Federal Reserve System (US), BofA Merrill Lynch

The value of the U.S. dollar remains elevated on the foreign exchange market, but has experienced less upward pressure over the past several months — Financial conditions, as well as the performance of certain sectors of the U.S. economy, can be heavily influenced by the value of the dollar on foreign exchange markets. Recent trends in the value of the dollar are expected to weigh less on growth in the near term. However, further tightening in monetary policy risks further stronger gains in the dollar and is a downside risk to growth.

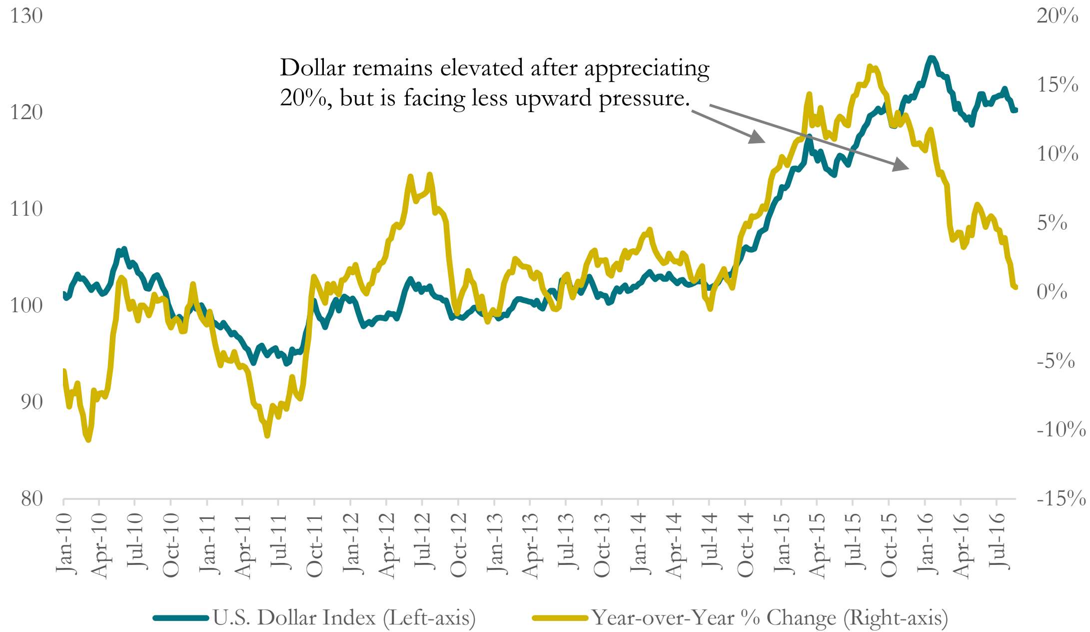
The dollar gained about 20 percent from the summer of 2014 to the beginning of 2016, which adversely affected U.S. multinational businesses and exporting businesses, as well as those of other countries whose currency is tied to the value of the dollar, such as China. A higher dollar makes the products of U.S. multinational businesses more expensive in other currencies and also reduces earnings when foreign earnings are converted back to dollars.

The dollar's strong appreciation weighed on U.S. industrial production and exports, as well as the global economy. Recent less upward pressure on the dollar will alleviate the headwinds on economic growth in the near term. However, further tightening in monetary policy risks further strong gains in the dollar and is a downside risk to growth.

The increase in the value of the dollar was a main contributor to the downturn in industrial production that began at the end of 2014 and also weighed on exports. For further discussion on the downturn in industrial production, see page 23. For information on the trends in exports, see the discussion starting on page 31. In addition to the negative effect on these sectors, a large amount of debt globally is denominated in dollars, and appreciation makes debt payments more difficult, which has contributed to weaker global growth.

The value of the dollar has since fallen about 4.0 percent since the beginning of the year, which will help alleviate the drag on growth. However, renewed upward pressure on the dollar risks further strains in the economy. Signals for future tightening of U.S. monetary policy will be important to monitor in coming months.

Figure 18. Value of U.S. Dollar*



* Trade Weighted U.S. Dollar Index: Broad, Index Jan 1997=100, Weekly, Not Seasonally Adjusted

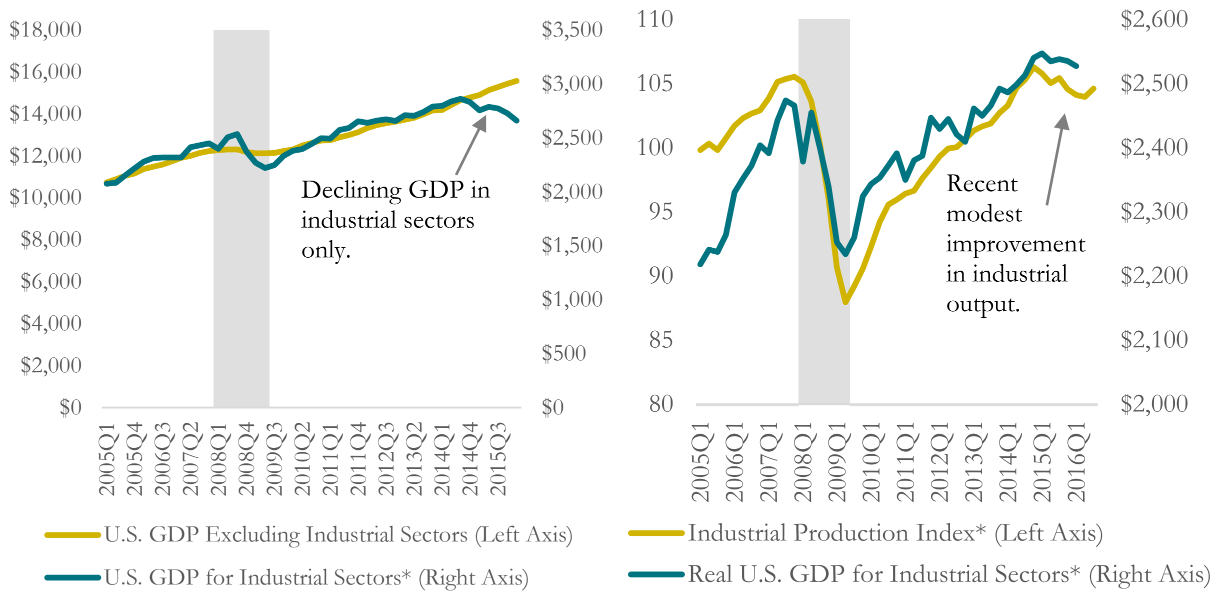
Source: Board of Governors of the Federal Reserve System (US)

The downturn in industrial production appears to have reached a bottom, and the sector will present less of a drag on economic growth going forward – Total industrial production in the U.S., which includes the output of the mining, manufacturing, and utilities industries, began to decline at the end of 2014, and fell through most of 2015 and into the first part of 2016. The sharp contraction in the oil and gas industry, along with weaker global growth and the appreciation of the dollar all contributed to the decline in industrial production.

The downturn in U.S. industrial production that started at the end of 2014 and continued until the first quarter of 2016 is the first time in modern U.S. history that a decline of such duration occurred without a broad-based recession.

The gross output of the industrial sector, a measure of the sector's total economic activity, dropped by $960 billion, or 13.0 percent, from the third quarter of 2014 to the first quarter of 2016, based on data from the U.S. Bureau of Economic Analysis. Despite this large drop in spending, the U.S. economy overall continued to grow during this time. This was the first time that an industrial downturn of such duration occurred in the U.S. without a broad-based recession since the industrial production index data series began in 1919. One main reason for this is that industrial production has become a smaller portion of the economy over time, with the U.S. economy becoming more diverse and services-intensive.

Figure 19. Measures of the Industrial Sector and All Sectors in the U.S. Economy, $s in Billions



*Industrial sectors include manufacturing, mining, and utilities. The industrial production index is a measure of real (inflation-adjusted) output of the industrial sectors in the U.S. The monthly index is averaged for each quarter, and the third quarter's average includes only data for July and August.

Source: U.S. Bureau of Economic Analysis, Board of Governors of the Federal Reserve System, and OSPB calculations. Shading indicates recession period.

Although the industrial sector is not expected to generate a large boost to economic growth, it is expected to present a smaller drag on economic activity going forward.

Data from the Federal Reserve on industrial production shows that output has modestly improved in the sector since March. Other data shows manufacturing has been experiencing better conditions for the past several months, though manufacturing activity remains sluggish. Further, the contraction in the oil and gas sector may have found a bottom; drilling rig activity has stabilized and even increased modestly over the past few months. Further discussion on the oil and gas industry starts on page 16. Although the industrial sector is not expected to generate a large boost to economic growth going forward, it will at least present a smaller drag on economic activity due to the absence of such a large drop in spending and investment in the economy.

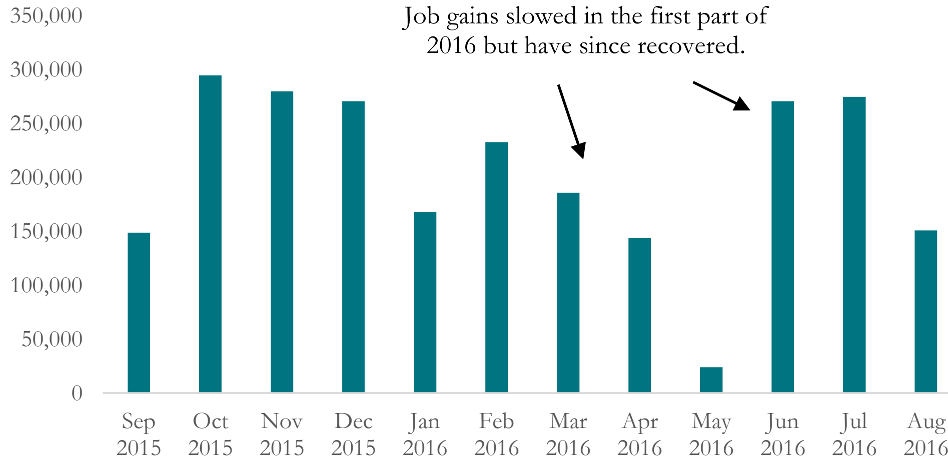
The national labor market continues to improve – The U.S. economy continues to add jobs at a solid pace, and the underutilization of workers in the economy, commonly referred to as labor market 'slack', is decreasing as the economy continues on the path towards full employment. The Federal Reserve Bank of Kansas City's Labor Market Conditions Index, which incorporates data from 24 employment and jobs-related variables to gauge the momentum and activity level in the labor market, shows the level of labor market activity is at the long-term average, while the labor market momentum indicator has recently increased to a 2016 high. The largest contributors to the positive momentum index are the low level of initial unemployment insurance claims and the rise in the labor force participation rate.

Continued job growth has the economy approaching full employment.

Employment reports from the U.S. Bureau of Labor Statistics continue to show solid job growth, with monthly job gains averaging 181,500 so far in 2016. Jobs gains have fully rebounded from a weak May, when only 24,000

jobs were added, as monthly job growth is averaging 232,000 jobs per month over the last three months, 175,000 over the last six months, and 204,000 over the last twelve months. These averages show that job growth slowed somewhat in the first part of 2016, but has since improved.

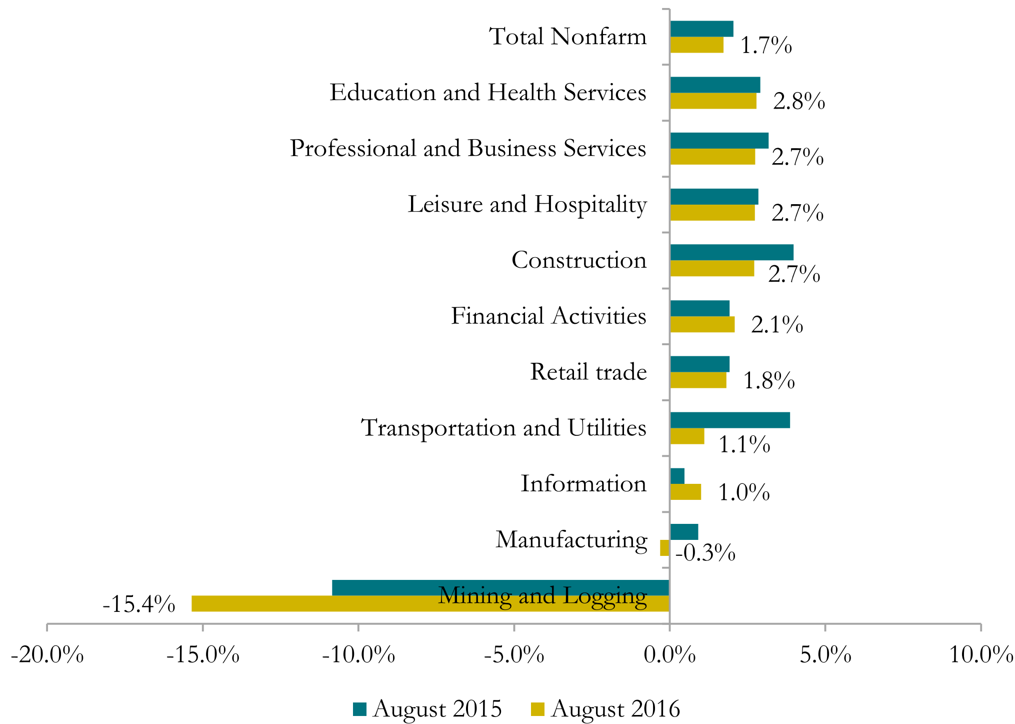
Figure 20. U.S. Monthly Job Growth, Last 12 Months



Source: Bureau of Labor Statistics

The improvement in the labor market is broad-based, occurring across most industries. Job growth is led by the education and health services industry, which has experienced 2.8 percent employment growth over the previous 12 months, followed by professional and business services, leisure and hospitality, and construction, all growing by 2.7 percent over the last year. Employment in the mining and logging industry continued to contract due to low oil and commodity prices, shrinking by 15.4 percent. Since this sector represents less than one half of one percent of U.S. nonagricultural employment, these losses have had a minimal effect on the broader national economy, with many of the laid off workers moving into other growing industries. Figure 21 shows the national year-over-year job growth rates by sector. While year-over-year job growth has remained positive in all industries except for manufacturing and mining and logging, the pace across industries has generally slowed from last year.

Figure 21. Year-Over-Year National Job Growth by Sector



Source: Bureau of Labor Statistics, OSPB calculations

Unemployment continues to fall – The U-3 unemployment rate, which is the most commonly reported measure of unemployment, remained at post-recession low of 4.9 percent in August, down from 5.1 percent a year earlier. The U-6 unemployment rate, a broader measure which includes people not in the labor force who want and are available for work, as well as people working part-time but would like to work full-time, was at 9.7 percent in August, down from 10.3 percent a year ago.

The labor force participation rate, a measure of the portion of the population which is either employed or actively looking for work, was at 62.8 percent in August, up 0.2 percent from a year ago. This is a positive sign for the economy, as labor force participation has generally been falling since the Great Recession, but now seems to be stabilizing and even growing slightly, reflecting increasing worker confidence in the labor market.

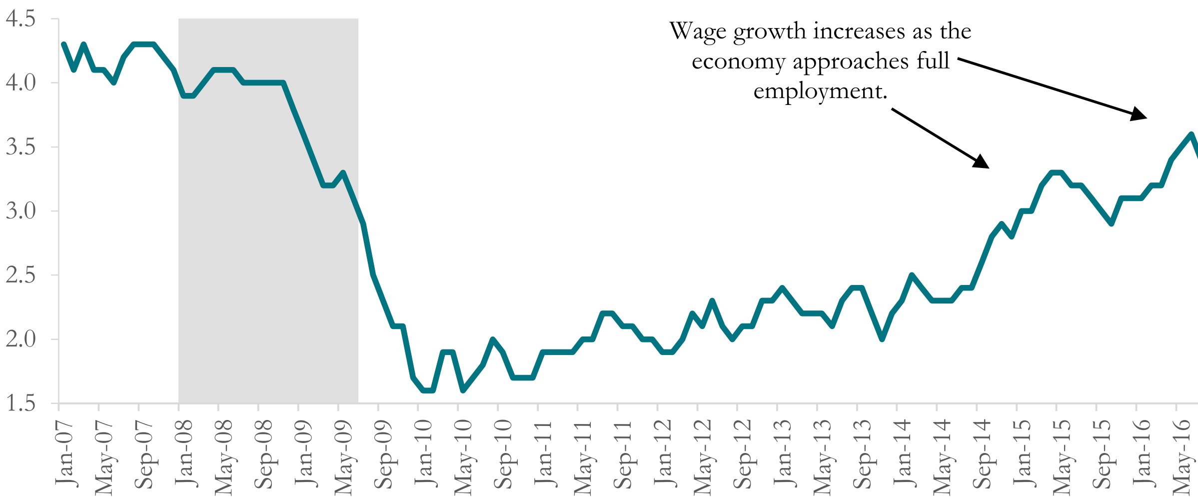
Middle-wage jobs are experiencing more growth – After years of seeing job growth primarily in low- and high-wage jobs, new analysis from the Federal Reserve Bank of New York suggests middle-wage industries are now adding jobs at a faster pace than low- and high-wage industries. Between 2013 and 2015, 2.3 million middle-wage jobs were created in the U.S., more than the 1.6 million low-wage and 1.5 million high-wage jobs created. The fastest-growing middle-wage industries were transportation, administrative support, and construction. This is a reversal from the trend observed from 2010 to 2013, when middle-wage jobs were growing at about 60 percent of the pace of low- and high-wage jobs.

Job growth in middle-wage industries has exceeded growth in low- and high-wage industries since 2013, after trailing in the earlier years of the expansion.

Wages continue to rise gradually, including in low-wage sectors – As the job market approaches full employment, wage growth continues to rise gradually as employers find it harder to recruit and retain talented

employees. Average hourly earnings in August were 2.4 percent higher than one year ago, as compared to 2.3 percent last August. The Federal Reserve Bank of Atlanta's Wage Growth Tracker, however, shows median wages have grown by 3.4 percent over the last year. The difference is largely compositional – the Atlanta Fed measure accounts for demographic changes in the workforce, as older, higher-wage employees retire and are replaced by younger, lower-paid employees. However, even this higher level of wage growth is lower than would be expected given an unemployment rate under 5 percent, suggesting there is still some slack remaining in the labor market. However, other factors also are likely contributing to slower wage growth, such as lower overall economic growth and productivity gains, rising health insurance premiums, and advances in technology and automation that affect the nature of work.

Figure 22. Atlanta Fed Wage Growth Tracker, Year-over-Year Percent Change



Source: Federal Reserve Bank of Atlanta

According to a recent analysis from Bank of America, most wage growth is occurring in low-wage industries. The lowest-paying 20 percent of industries have experienced 3.4 percent wage growth over the last year, while other industries have only seen wages increase by 2.4 percent. According to the analysis, about half of the difference is driven by the increasing number of states and cities which are increasing their minimum wage requirements, while the other half is driven by a declining supply of low-wage workers, causing employers to pay higher wages in order to retain staff.

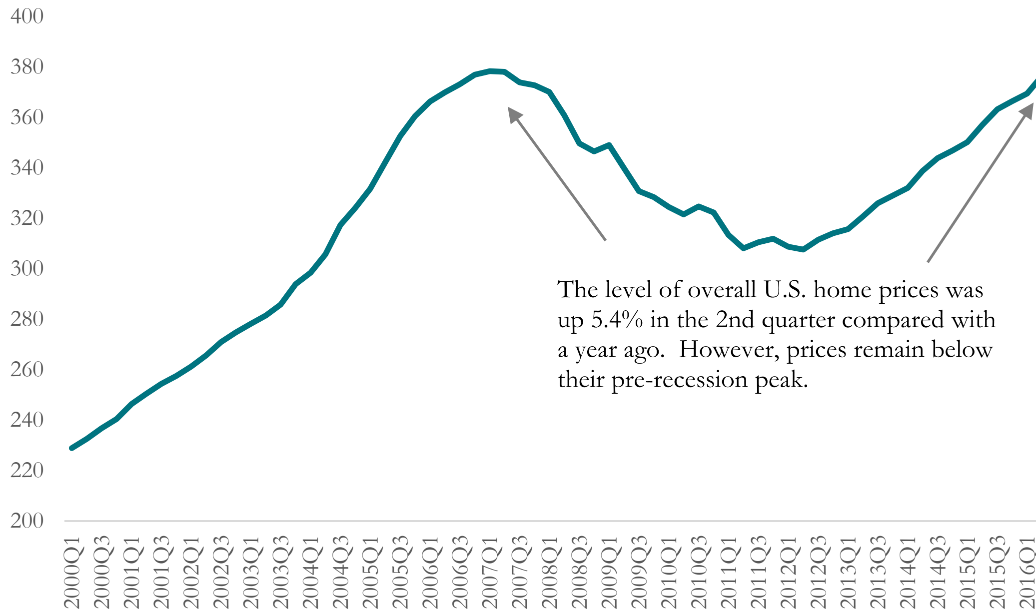
Wages are growing fastest in low-wage industries, partly due to new minimum wage laws.

Labor market turnover remains low – While the labor market is strengthening, there is a relatively low level of labor market turnover. The Bureau of Labor Statistics' Job Openings and Labor Turnover Survey (JOLTS) shows a record number of job openings and a low number of unemployed per job opening, indicating high labor demand in a tightening labor market. Despite a record number of openings, the hiring rate is still below its pre-recession level. The rate of voluntary quits, often seen as an expression of worker confidence in the labor market, remained flat at 2.1 percent, as compared to a pre-recession peak of 2.3 percent. The rate of layoffs, on the other hand, is at a 15-year low. While fewer layoffs are good for workers, the combination of a low layoff rate and a low quit rate suggest the labor market is less dynamic than previous expansions, which can reduce worker productivity, wage gains, and economic growth.

The U.S. housing market continues to be uneven, showing only gradual improvement from its collapse that began a decade ago – As shown in Figure 23, the overall level of nationwide home prices increased 5.4

percent in the second quarter of 2016 from a year ago, based on the Federal Housing Finance Agency's House Price Index. Prices have increased every quarter since the middle of 2012. However, home prices for the U.S. overall remain below their pre-recession peak.

Figure 23. U.S. Home Prices Index



Source: Federal Housing Finance Administration

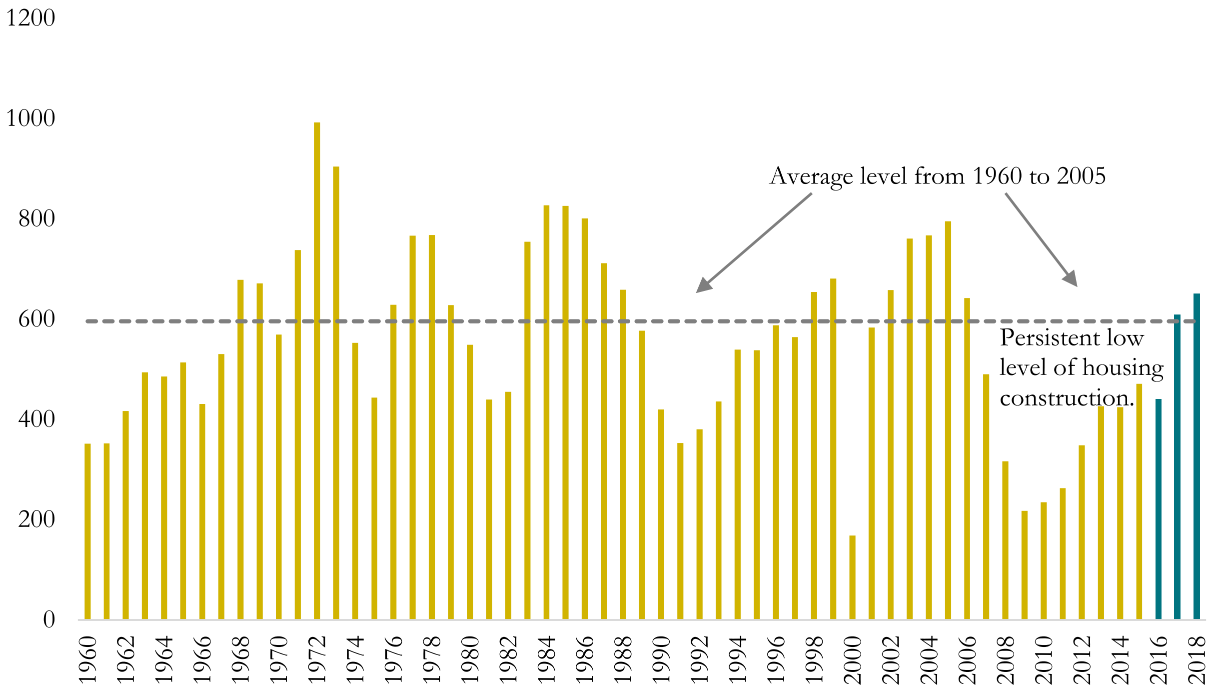
Home buying and new housing construction have remained at subdued levels during the current economic expansion.

Home buying has remained at subdued levels during the current economic expansion. Although new home sales were at their highest level in July since October 2007, existing home sales, the larger part of the housing market, fell in July after increasing for four months and remain below levels a year ago. The homeownership rate, the proportion of households that are owner-occupied, fell to 62.9 percent in the second quarter of 2016, according to the U.S. Census Bureau, the lowest figure since 1965.

There are several factors constraining home buying activity. Rising home prices from low inventory levels are pushing up home prices and reducing affordable housing options for many households. In addition, financing for mortgages remains tighter since the financial crisis and Great Recession. Further, younger households are buying homes at a diminished rate compared with the past due to several factors: a preference for increased mobility; higher student debt levels; family formation at older ages; and a reluctance to buy a home after the decline in home values during the Great Recession.

The overall level of housing construction in the U.S. continues to slowly increase but remains at historically low levels. Builders have pulled permits at a pace of over one million new housing units every month since April 2015. However, this level remains far below that of previous economic expansions. As a result, new housing construction in relation to population growth is at persistently low levels as shown in Figure 24.

Figure 24. Annual Housing Permits Per 1,000 Change in U.S. Population



Source: U.S. Census Bureau, State Demography Office, OSPB calculations

The home building industry has a diminished capacity in the aftermath of the Great Recession. It continues to report difficulty finding labor; the National Association of Homebuilders estimates that there are about 200,000 unfilled construction jobs in the U.S., an increase of over 80 percent over the last two years. In addition, according to the recent Associated General Contractors of America's (AGC) 2016 Workforce Survey, 69 percent of contractors stated they were having a hard time filling certain craft positions, such as carpenters and electricians, while 38 percent indicated they were having a hard time filling salaried field positions, such as project managers and supervisors. This shortage is slowing down construction and raising builders' costs. In addition, financing for housing development remains more constrained after the housing boom and bust. Further, higher costs for homebuilding, including land prices, especially in denser urban areas, along with restrictive land use in some areas, are constraining housing construction.

Despite the current constraints on the housing market, the fundamentals are in place for continued growth in coming years. New housing construction activity can be a reliable leading indicator of continued economic growth.

Despite the current constraints on the housing market, the fundamentals are in place for continued growth in coming years as growth in household formation will increase demand for housing construction. This is positive for the economy going forward as economic research shows that new housing construction activity can be a reliable leading indicator of continued economic growth. There are recent signs that homebuilders are starting to build the smaller, more affordable starter homes that younger households demand. However, the constraints that are weighing on new housing construction will take time to unwind, thus, the economic gains from new housing construction and home buying will continue to be less robust, at least in the near term, than in previous expansions.

International Economic Conditions and Trade

The global economy continues to experience sluggish growth, but with some reduction of the risks seen in previous quarters. Britain's June vote to leave the European Union (EU) introduced heightened uncertainty into the economic outlooks for the British and the Eurozone economies. However, Britain seems to have weathered the initial shock better than forecasters expected. While the British economy is still expected to slow and possibly enter a mild recession, it is not expected to have a large effect on the rest of the world. Additionally, China's economy seems to have stabilized while the deep recessions in Russia and Brazil show signs of moderating. Finally, while the U.S. dollar remains strong, it has moderated slightly from its recent highs, offering some relief to U.S. exporters.

The JPMorgan global PMI (purchasing managers index) rose slightly for a third consecutive month in August to 51.6, indicating modest economic expansion and consistent with global annual GDP growth of 1.5 percent. Despite this increase, since February the index has remained below levels seen in 2014 and 2015. While emerging market PMIs have been increasing, indicating stronger economic growth in those nations, developed world PMIs indicate that economic expansion in those nations is in its weakest period since early 2013.

Britain votes to leave the European Union – Britain faces a more uncertain future after their June vote to leave the EU, commonly referred to as "Brexit." The referendum's short-term economic impact remains unclear, while the long-term economic impact is dependent on political outcomes.

Britain's exit from the EU is expected to take several years. Brexit's short-term economic impact remains unclear, while the long-term economic impact is dependent on political outcomes.

Economic data available to date suggest the immediate impact has been mixed. Financial markets, including the FTSE 100, have recovered from their post-vote declines and are again approaching record highs, but the value of the pound has fallen significantly. Forecasters expect Britain to experience an economic slowdown and possibly a mild recession in the second half of 2016 and into 2017. The uncertainty in this forecast is underscored by the volatility in the Markit All-Sector PMI, which fell from 51.9 in June to 47.3 in July, before rebounding to 53.2 in August. PMI ratings below 50 indicate economic contraction, while ratings above 50 indicate expansion.
Long-term economic consequences will depend on political arrangements and trade negotiations and will not be fully determined for several years. Regardless of the specific economic outcomes in Britain, Brexit by itself is not expected to have a large impact on the U.S. economy as trade with Britain represents a very small part of U.S. economic activity. However, Brexit may have larger consequences in the U.S. if it leads to other EU nations deciding to also leave the EU.

Large developing economies stabilize – After a sudden slowdown in China's economy in late 2015 and early 2016 which provoked fears of a recession, China's economy has stabilized, with year-over-year real, or inflation-adjusted, GDP growth of 6.7 percent in the second quarter of this year. This growth was led by increases in the service sector and consumer spending, a positive sign for the country's transition from a primarily production-based economy to more of a consumption-based one. The Caixin China Composite PMI, which covers both manufacturing and services, was at 51.8 in August, only slightly below July's 22-month high of 51.9. PMI readings above 50 indicate economic expansion, while readings below 50 indicate economic contraction.

China still faces some risk from its many large, highly-leveraged and unprofitable state-owned enterprises which together employ nearly 60 million people. While these enterprises are unlikely to fail in the near future, the Chinese government will have to balance the economic risks of keeping the unprofitable enterprises open against the social risks of unrest caused by large-scale closures.

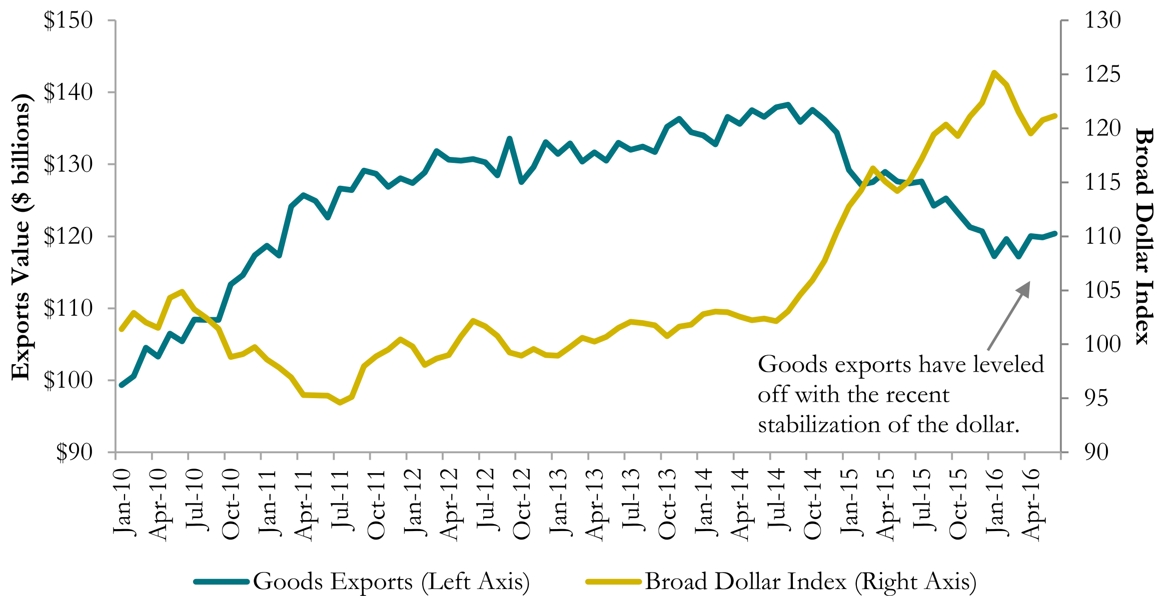
The recession in Russia may be ending. Russia saw its real, or inflation-adjusted, GDP fall by 0.6 percent in the second quarter, less than forecasters expected, and GDP growth is expected to turn positive over the second half of the year. With oil prices still low, however, any growth will be moderate.

Recessions in Russia and Brazil have reduced global GDP growth by 0.6 percent, but there are recent signs of improvement in those economies.

Brazil's deep recession may also be coming to an end. While GDP growth is still negative, various economic indicators are either stabilizing or improving, suggesting the recession will likely end sometime before 2017. Any economic stabilization in Brazil and Russia will bolster the global economy, as the recessions in these two countries combined to reduce global GDP growth by 0.6 percent at their weakest points.

U.S. exports remain soft – Year-over-year growth in total U.S. exports (goods and services) has been negative since mid-2015, a trend which typically occurs only during recessionary periods. This weakness is contributing to the slower economic activity in the U.S., especially in the manufacturing industry. For further discussion of manufacturing trends, see page 23. This decline has been driven by weak economic growth in top trading partners and the strength of the dollar. For further discussion of the trends in the value of the dollar, see page 22. Export growth should return in late 2016, but will remain modest compared to previous periods of expansion. Growth is likely to remain sluggish in partner economies and the dollar is expected to remain elevated on foreign exchange markets, especially if the Federal Reserve further tightens monetary policy.

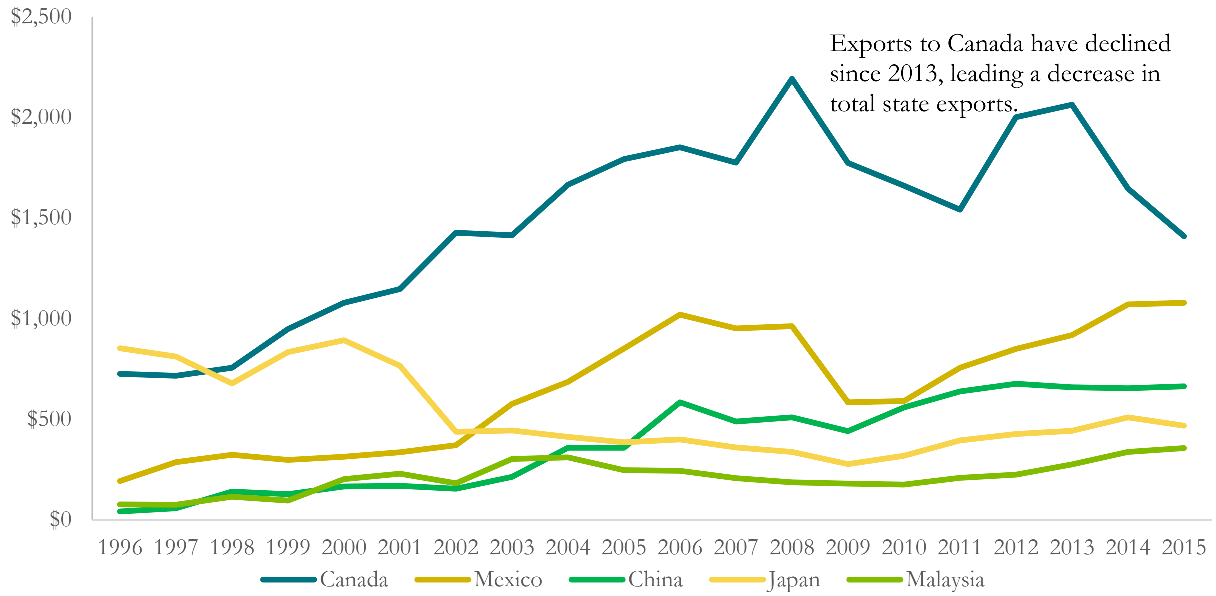
Figure 25. U.S. Goods Exports and Broad Dollar Index



Source: U.S. Bureau of Economic Analysis, U.S. Census Bureau

Colorado exports continue to decline – The same factors which are slowing national exports are also slowing Colorado's exports. Goods exports from Colorado have been declining since 2013, and that decline is continuing in 2016 with the value of year-to-date exports currently running almost $500 million, or more than 10 percent, behind 2015's pace. As Figure 26 shows, most of the decline since 2013 has come from trade with Canada, Colorado's top trading partner. In 2016, exports to four of Colorado's top five export destinations are declining, led by China, with an 18 percent decrease over last year's pace. Malaysia is the only top-five export destination that has seen export growth in 2016; goods exports to Malaysia have grown at an 11 percent rate to date in 2016.

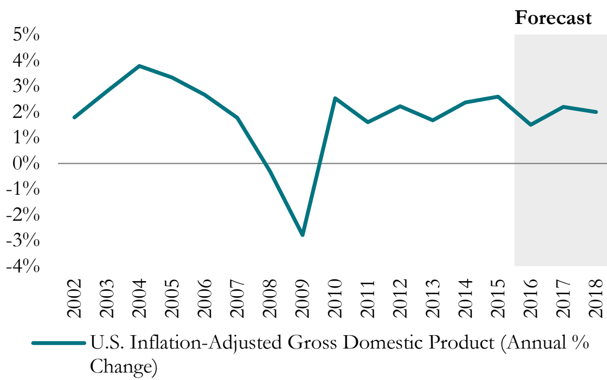
Figure 26. Export Value to Colorado's Top 5 Export Destinations



Source: WiserTrade

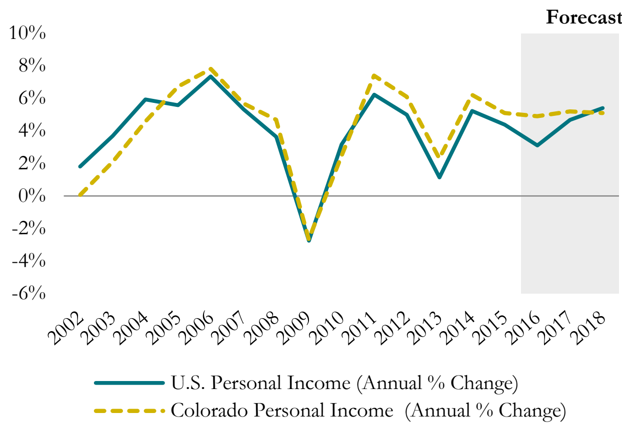
Summary of Key Economic Indicators
Actual and Forecast

U.S. Gross Domestic Product (GDP)



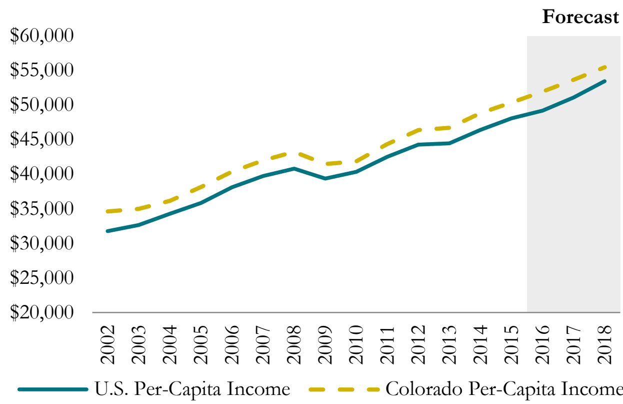
- GDP is a barometer for the economy's overall performance and reflects the value of final output in the U.S.
- The U.S. economy posted a moderate expansion of 2.6 percent in 2015 in the face of slow global growth. The pace of growth will moderate further in 2016 to 1.5 percent, but will increase to 2.2 percent in 2017.

U.S. and Colorado Personal Income



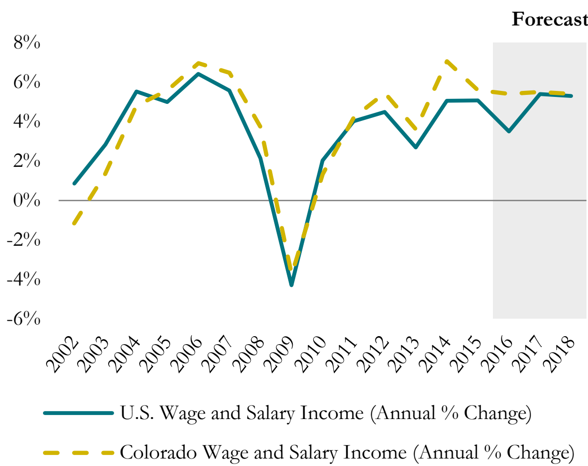
- Personal income growth in Colorado slowed to 5.1 percent in 2015 from a 6.2 percent rate in 2014, largely due to slowing employment growth and especially the oil and gas industry's contraction. Personal income growth will moderate further in 2016 as the energy sector continues to weigh on the economy; statewide income growth will increase to 5.2 percent in 2017.
- Nationwide, personal income growth increased 4.4 percent in 2015, and will slow to 3.1 percent in 2016. A tighter labor market and gradual wage increases will allow personal income growth to pick up through the rest of the forecast period.

U.S. and Colorado Per-Capita Income



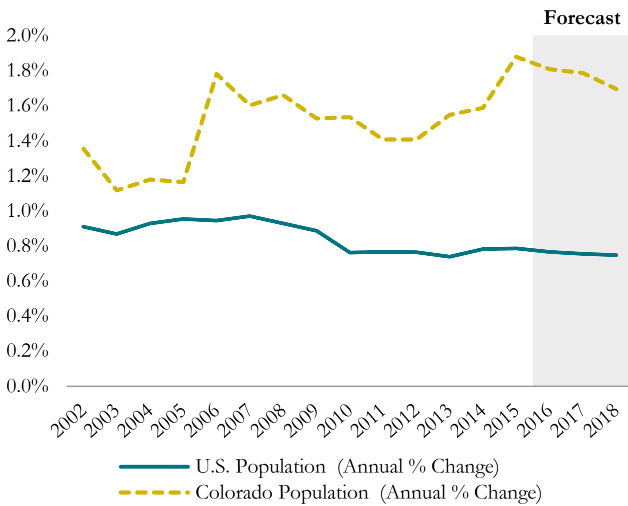
- Per-capita income in Colorado increased to $50,409 in 2015 and will grow 3.0 percent to $51,939 in 2016.
- In the U.S., per-capita income increased to $48,095 in 2015 and will grow 2.3 percent to $49,208 in 2016.

U.S. and Colorado Wage and Salary Income



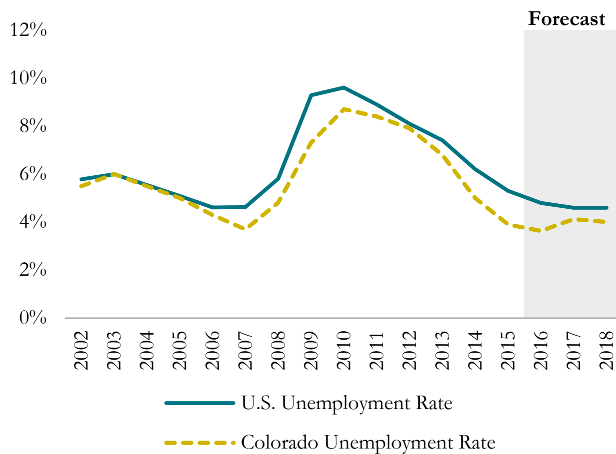
- Wage and salary growth in Colorado moderated in 2015 to 5.6 percent, largely due to the loss of relatively high-paying oil and gas jobs. Growth will decrease slightly in 2016 to 5.4 percent, but will increase to 5.5 percent in 2017.
- Wage and salary income for the nation increased 5.1 percent in 2015. Moderating employment growth and the slowdown in the industrial sector is resulting in wages and salary growth of 3.5 percent in 2016. Higher growth in wage levels will push total wage and salary income to increase 5.4 percent in 2017.

U.S. and Colorado Population



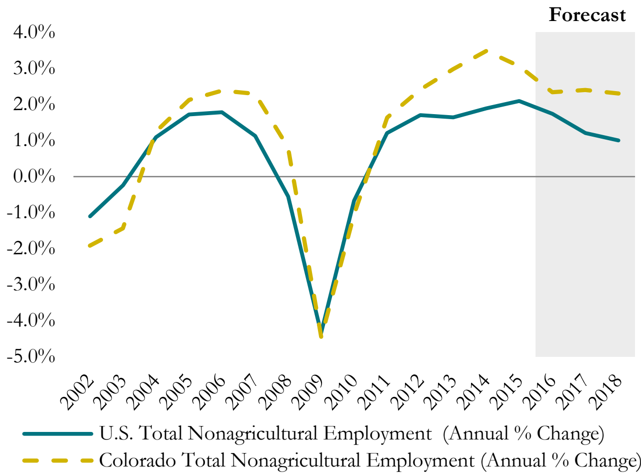
- Relatively high in-migration rates pushed Colorado's population growth rate to 1.9 percent in 2015, over double the national rate. A similar trend will continue in 2016, as the state is expected to add 67,000 people through net migration alone. The state's total population is expected to reach 5.75 million by 2018.
- The nation's population growth rate will remain steady at about 0.8 percent per year, and the population will reach 328.8 million by 2018.

U.S. and Colorado Unemployment



- The unemployment rate in Colorado averaged 3.9 percent in 2015, down over a full percentage point from 2014 despite the oil and gas slowdown. Unemployment is expected to average 3.6 percent in 2016 and 4.1 percent in 2017.
- The national unemployment rate followed a similar trend in 2015, but remained more than a percentage point higher than in Colorado, averaging 5.3 percent in 2015. Continued improvements in the labor market will cause the rate to drop to 4.8 percent in 2016 and 4.6 percent in 2017.

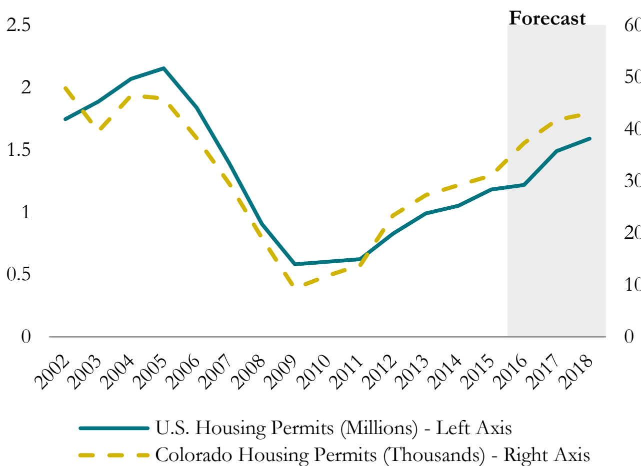
U.S. and Colorado Total Nonagricultural Employment



- Despite slowing job growth throughout the year, average employment in Colorado grew 3.1 percent in 2015, slightly lower than in 2014. Continued weakness in the energy sector and a tighter labor market is resulting in slower growth of 2.3 percent in 2016. Job growth will pick up slightly in 2017 and increase to 2.4 percent.

- In contrast to Colorado, U.S. nonfarm payroll jobs in 2015 increased at a faster rate than in 2014 — 2.1 percent versus 1.9 percent. Job growth is slowing nationwide as the labor market reaches full employment, and OSPB forecasts an increase of 1.7 percent in 2016 and 1.2 percent in 2017.

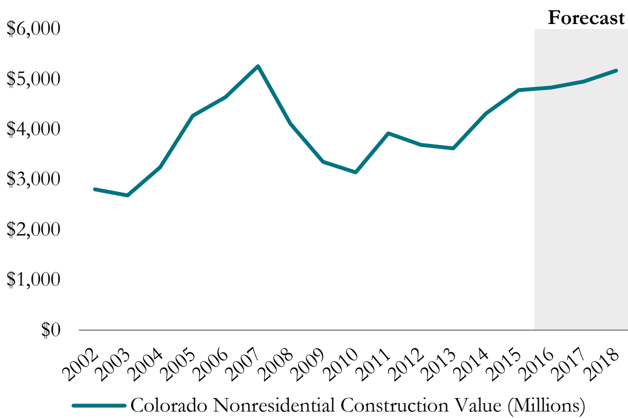
U.S. and Colorado Housing Permits Issued



- In 2015, housing permits grew at their slowest rate since the Great Recession. In 2016, Colorado permits will increase 20.2 percent, when 37,356 permits will be issued; 41,800 permits are projected for 2017. The increases will be driven by population growth and continued strength in the state's metro housing markets.

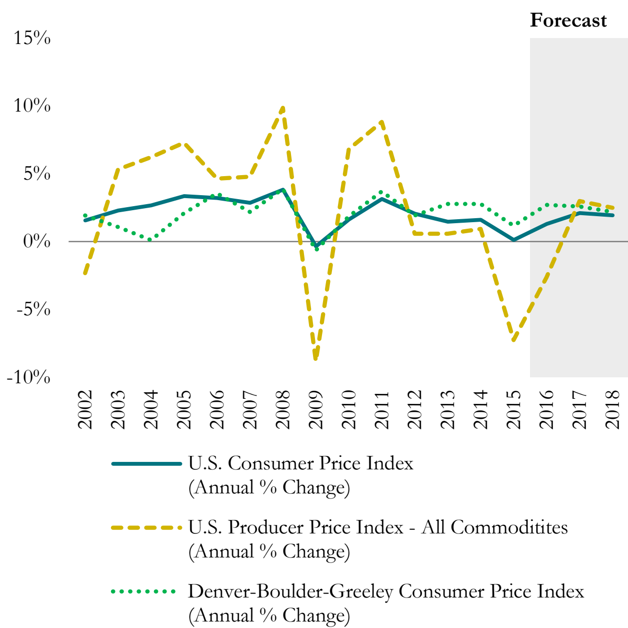
- U.S. housing permits posted growth of 12.4 percent in 2015, but the rate will moderate to 3.2 percent in 2016. Higher growth is forecast for 2017 due to ongoing growth in housing demand.

Colorado Nonresidential Construction Value



- Growth in nonresidential construction value in Colorado slowed to 10.8 percent in 2015 from 19.1 percent in 2014, the highest growth rate since before the Great Recession. The value of nonresidential construction will slow to a growth rate of 1.1 percent in 2016 and will remain steady through the forecast period.

Consumer Price Index and Producer Price Index

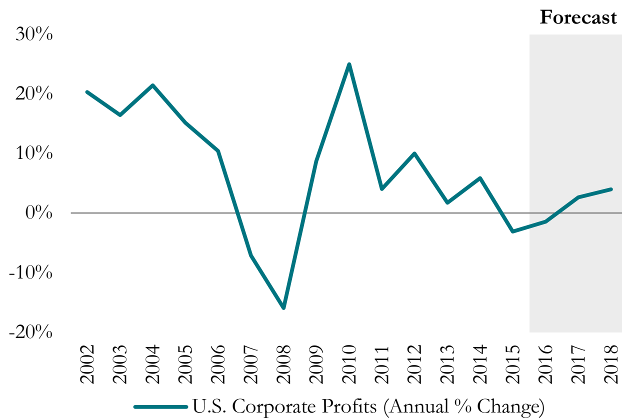


- National consumer prices remained essentially flat through 2015, growing only 0.1 percent, largely due to falling gas prices. OSPB expects the U.S. CPI to rise 1.3 percent in 2016, still lower than any year since the Great Recession, and increase to 2.1 percent in 2017.

- The national Producer Price Index fell 7.3 percent in 2015, largely due to low fuel and commodity prices. This trend will continue in 2016 when the index will fall another 2.6 percent before recovering to moderate growth in 2017.

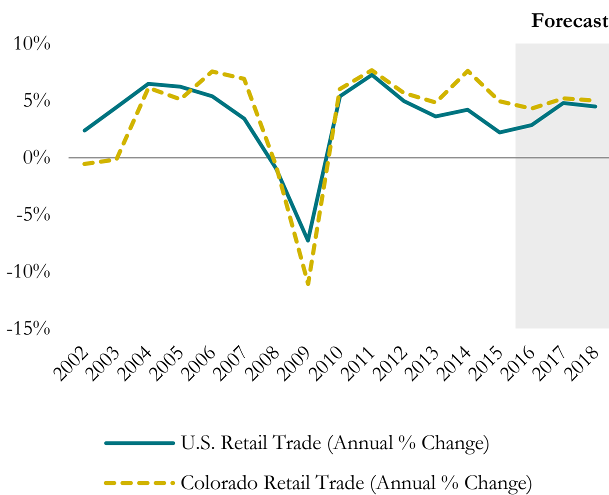
- The Denver-Boulder-Greeley CPI grew more than the national index in 2015, though the 1.2 percent increase was still low by historical standards due to the fall in energy prices. Growth will rebound in 2016 to 2.7 percent as the impact of lower gas prices will be less pronounced and as housing costs place upward pressure on the index. The CPI will increase 2.6 percent in 2017.

U.S. Corporate Profits



- U.S. corporate profits fell 3.1 percent in 2015 as a weak global economy and a strong dollar impacted earnings.
- Profit growth will remain constrained in 2016 with another decrease of 1.4 percent as firms continue to face international headwinds and increased downward pressure from rising wages and a strong dollar. These headwinds will alleviate somewhat in 2017 when modest growth of 2.6 percent is forecast.

Retail Trade



- Retail sales in Colorado will grow 4.3 percent in 2016 after 4.9 percent growth in 2015; sales will increase to 5.2 percent growth in 2017.
- Nationwide retail trade increased 2.2 percent in 2015, the lowest rate since the Great Recession. Sales will grow 2.9 percent in 2016 and 4.8 percent in 2017.
- The lower growth rates for both the nation and the state in 2015 and 2016 were due in part to the lower value of sales at gas stations from the sharp drop in gas prices.

General Fund and State Education Fund Revenue Forecast

General Fund revenue increased 1.7 percent in FY 2015-16, a sharp drop from the robust 9.2 percent growth rate one year earlier. The oil and gas industry's contraction, along with weaker investment gains and lower corporate profits, all combined to reduce General Fund revenue growth in FY 2015-16.

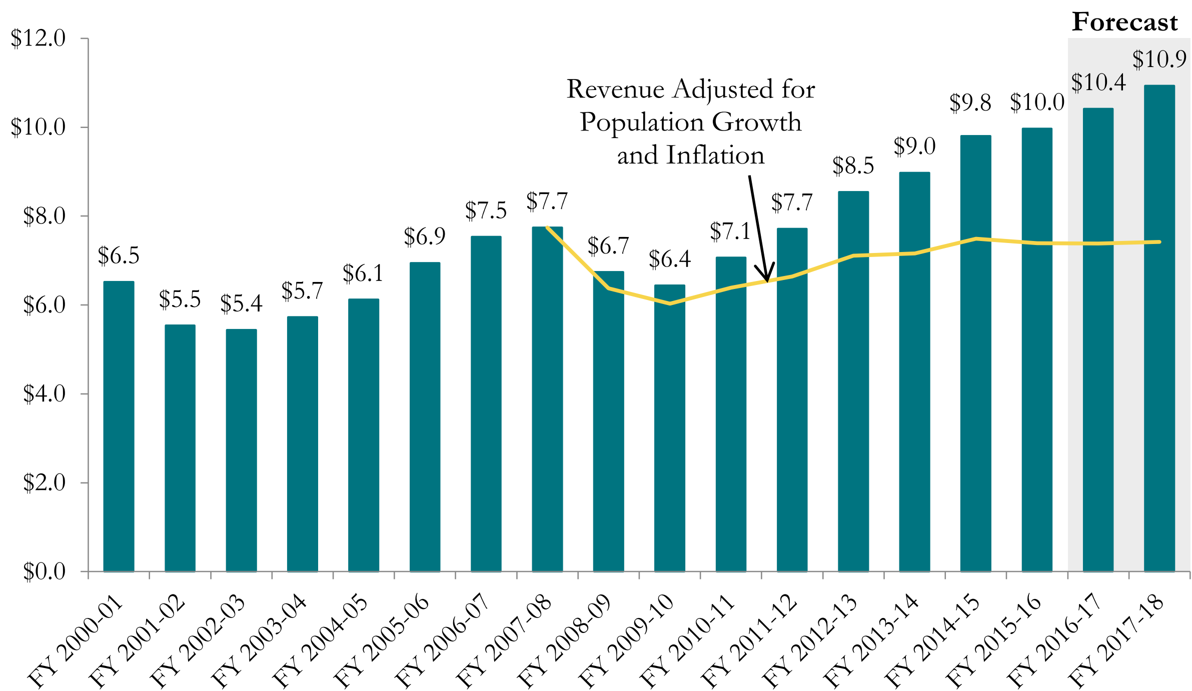
This fiscal year and next, with these factors largely behind us and accounted for, the continued economic expansion should produce revenue growth closer to long-term averages. In this scenario, General Fund revenue will increase 4.5 percent in FY 2016-17 and 5.0 increase is forecast for FY 2017-18. Notably, these growth rates are lower compared with most of the previous years of the current expansion; economic growth is forecast to be less robust for the state and growth in corporate income tax revenue and investment gains are expected to continue to be constrained. For more details on the economy, the main determinant of General Fund revenue, see "The Economy: Issues, Trends, and Forecast" section of this forecast, which starts on page 4.

The factors that lowered General Fund revenue growth last fiscal year will weigh less on revenue going forward. However, lower revenue growth rates are expected compared with previous years of the current expansion.

Relative to the June projections, the FY 2016-17 forecast is lower by $160.6 million, or 1.5 percent. Softer expectations for sales and use taxes and corporate income tax collections were the biggest adjustments.

Figure 27 shows actual and projected total General Fund revenue from FY 2000-01 through FY 2017-18. The figure includes a line reflecting revenue adjusted for inflation and population growth since FY 2007-08. A more detailed forecast of General Fund revenue by source is provided in Table 3 in the Appendix.

Figure 27. General Fund Revenue



Source: Office of the State Controller and OSPB calculations

Discussion of Forecasts for Major General Fund Revenue Sources

The following section discusses the forecasts for the three major General Fund revenue sources that together make up 95 percent of the total: individual income taxes, corporate income taxes, and sales and use taxes. General Fund revenue from the remaining group of miscellaneous sources ─ such as taxes paid by insurers on premiums and excise taxes on tobacco products and liquor ─ will grow modestly over the forecast period.

Individual income tax **–** Individual income tax collections in FY 2015-16 grew just 2.8 percent, but are expected to rebound moderately in FY 2016-17 and FY 2017-18 with increases of 4.6 percent and 5.3 percent, respectively.

Individual income tax collections in FY 2015-16 grew just 2.8 percent, but are expected to rebound moderately in FY 2016-17 and FY 2017-18 with increases of 4.6 percent and 5.3 percent, respectively.

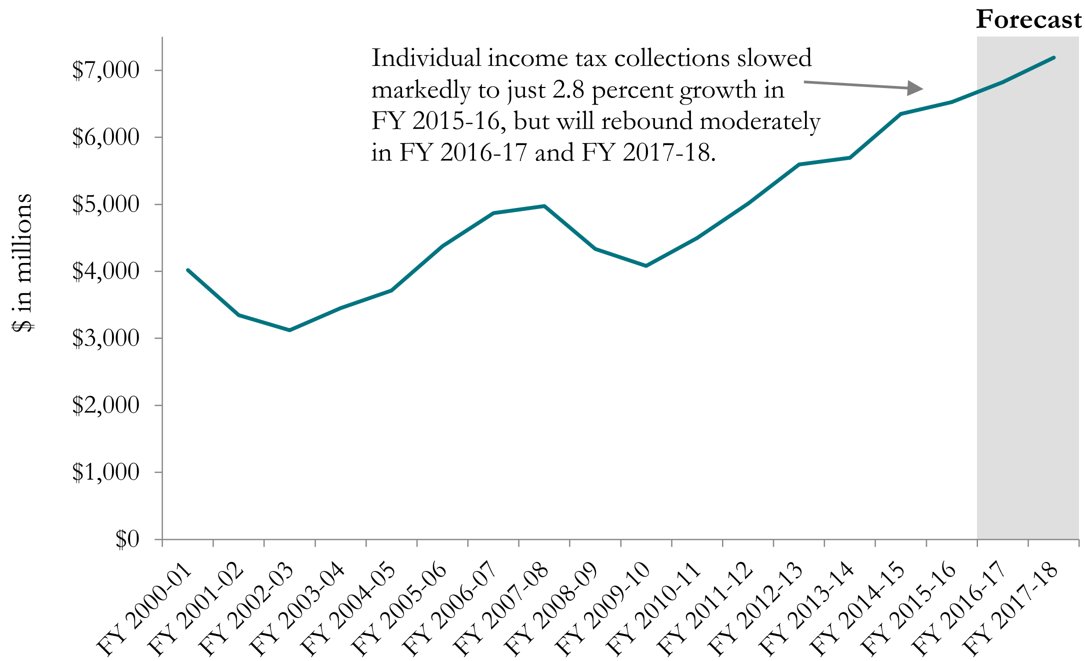
The downturn in the oil and gas industry caused a loss of high-wage jobs, business income, and oil and gas royalty payments to mineral rights owners in the state. The value of Colorado's mining industry's GDP declined 56.6 percent, or $10.8 billion from the second quarter of 2014 to the first quarter of 2016, according to the latest data available from the U.S. Bureau of Economic Analysis. This large drop in spending and income weighed on income tax collections; weaker investment gains from a tepid stock market also dampened income tax revenue. The S&P 500 stock index finished 2015 flat compared with the end of 2014.

The factors that placed downward pressure on individual income tax collections last fiscal year will abate, however, allowing for more growth going forward with continued job and income growth in the state. Although subdued oil and gas industry activity will provide little support to income growth in the state in the near term, the absence of such a large decline in spending and economic activity in the state is expected to bolster the growth rate of income tax revenue. However, the forecasted growth rates are modest compared with recent years.

It is important to note that the forecast for the estimated payments component of individual income tax revenue is highly uncertain as the revenue source can be volatile and thus difficult to predict. Estimated income tax payments are taxes paid on income that is not subject to withholding, such as earnings from self-employment, rents, and investments. These collections grew just 2.2 percent in FY 2015-16, and are expected to increase 8.9 percent for FY 2016-17 without the drag from the oil and gas contraction and decline in commodity prices. However, material changes to these expectations may occur in subsequent forecasts with new information on trends in actual collections.

Changes in tax deductions and credits also are impacting revenue collections over the forecast period; the largest of these is the State Earned Income Tax Credit (EITC). After becoming a TABOR refund mechanism in FY 2014-15, the EITC is available as a regular income tax credit on an ongoing basis starting in tax year 2016. This credit will lower FY 2016-17 income tax collections by an estimated $87.0 million and a similar amount in FY 2017-18.

Figure 28. Individual Income Tax Revenue



Source: Office of the State Controller and OSPB calculations

Corporate income tax – Corporate income tax collections decreased 5.8 percent in FY 2015-16, the second consecutive annual decline. Corporate income tax revenue will decline slightly again in FY 2016-17, but will increase 6.6 percent in FY 2017-18. The factors that have been lowering corporate income taxes are expected to abate somewhat. Further, corporate tax collections growth is expected to be constrained by continued sluggish global economic conditions and higher business costs, including for labor and debt payments that will reduce profit margins and result in larger tax deductions.

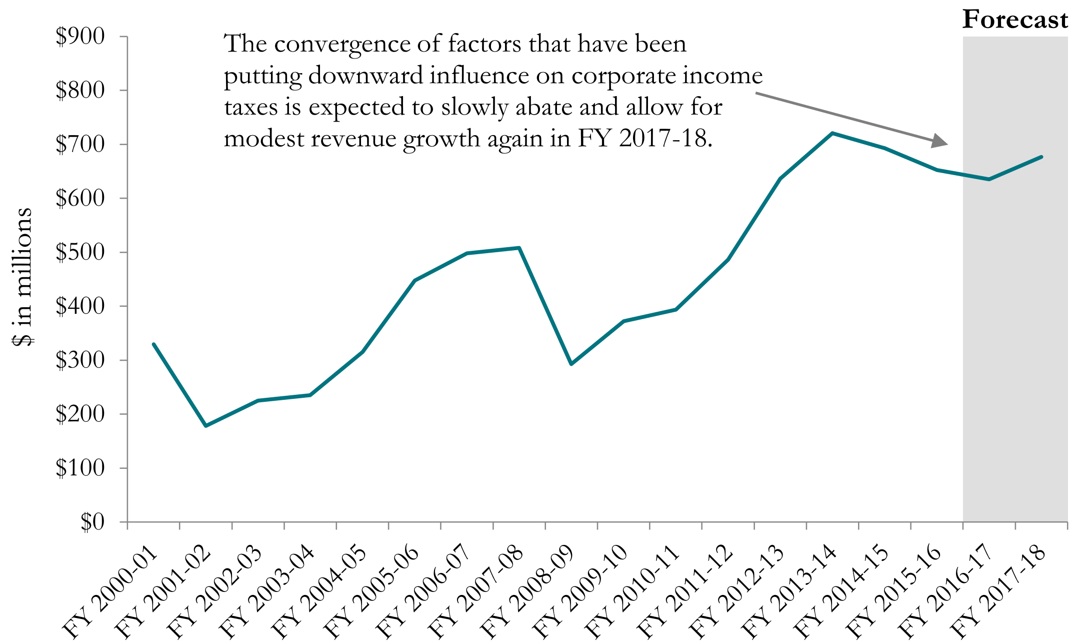
Corporate income tax revenue fluctuates much more than overall General Fund revenue and the state economy. It is among the most volatile General Fund revenue sources as it is influenced by special economic factors and the structure of the corporate income tax code. Trends in corporate profits are the main determinant of corporate income tax collections.

Corporate income tax collections are expected to decrease slightly in FY 2016-17, the third consecutive year of declines. Corporate income taxes are projected to rebound modestly in FY 2017-18.

An important contributor to the decreases in corporate income tax revenue in the past couple of years has been the strong appreciation in the dollar that has weighed on exports and the profits of multinational corporations. Further, the manufacturing industry, which includes petroleum refining, typically pays the largest share of corporate income tax collections. Therefore, the recent weaknesses in the global economy that has weighed on the demand for manufactured goods, as well as the steep drop in oil and gas and other commodity prices, have been important factors in the weakness in corporate income tax revenue to the state.

Recent trends, however, suggest that the headwinds on corporate income tax collections are beginning to lessen. The value of the dollar has since fallen about 4.0 percent since the beginning of the year. In addition, manufacturing has been experiencing better conditions for the past several months, though manufacturing activity remains sluggish. Further, although oil and gas prices remain low, the absence of a decline in prices will enable modest growth in corporate income taxes from that sector going forward.

Figure 29. Corporate Income Tax Revenue, Actual and Forecast



Source: Office of the State Controller and OSPB calculations

Sales and use tax – Sales tax revenue grew just 1.3 percent in FY 2015-16 and is forecast to increase 6.2 percent in FY 2016-17 and 4.2 percent in FY 2017-18.

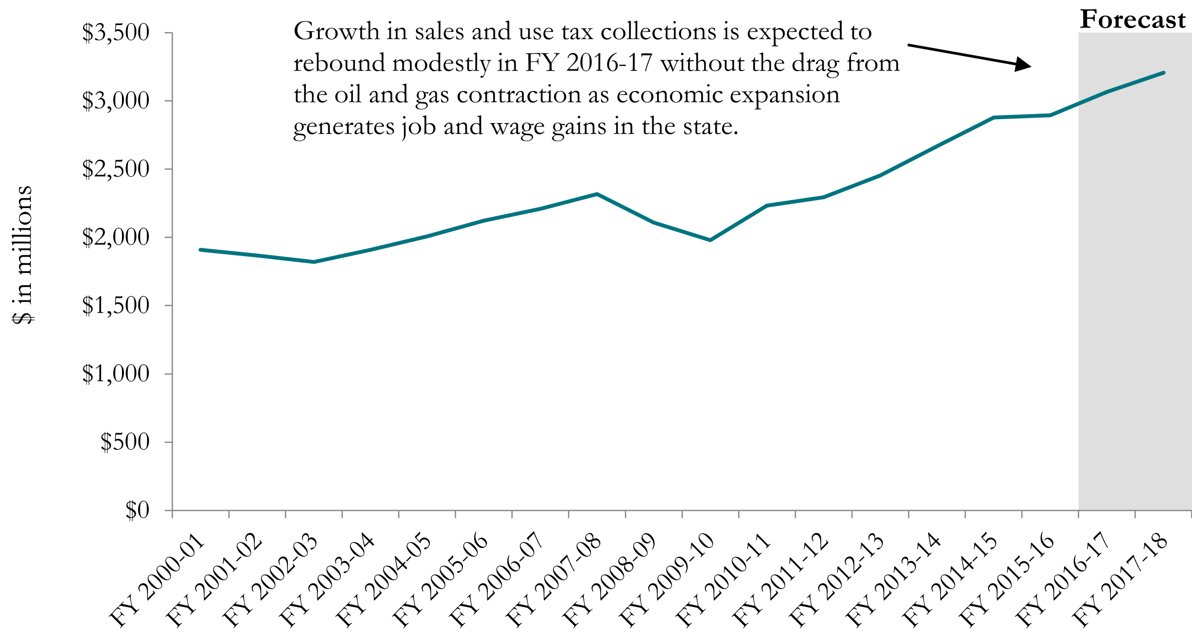
Sales tax revenue continued to come in below expectations in FY 2015-16. However, sales tax revenue has recently begun to show signs of renewed growth and is projected to increase 6.7 percent in FY 2016-17 as the state's economic expansion generates job and wage gains.

Sales tax revenue came in below expectations in FY 2015-16. The slowdown was likely due in part to the drop in spending in the state tied to the oil and gas industry's contraction. Other possible contributors to the slowdown include consumer preferences for online purchases, some of which do not collect sales tax, as well as reduced spending on taxable goods. Rising housing costs can also reduce disposable income. Nonetheless, sales tax revenue has recently begun to show signs of renewed growth. This fiscal year's projected increase is a result of expectations that the state's economic expansion will continue to generate job and wage gains.

The 6.2 percent increase in the forecast for FY 2016-17 is partially bolstered by an accrual accounting adjustment and continued strong growth in collections from the 10 percent sales tax on retail marijuana. In addition, sales tax revenue will be boosted by sales tax collections by the online retailer Amazon. On February 1, 2016, Amazon began collecting state sales taxes on items purchased directly from the company and shipped to Colorado addresses. Collections from Amazon are expected to increase State sales tax revenue by $22.0 million in FY 2016-17.

The use tax is a companion to the sales tax and is paid by Colorado residents and businesses on purchases that did not include a Colorado sales tax. Use taxes bring in a much smaller amount of revenue than sales taxes and are often more volatile. Much of the State's use tax revenue comes from Colorado businesses paying the tax on transactions involving out-of-state sellers. Use tax revenue decreased 7.3 percent in FY 2015-16, mostly as a result of the decline in business spending tied to the oil and gas industry. Collections will rebound modestly with 2.9 percent growth in FY 2016-17 without the drag of the contraction in spending from the oil and gas industry weighing on revenue. Use tax revenue is projected to increase 7.5 percent in FY 2017-18.

Figure 30. Sales and Use Tax Revenue



Source: Office of the State Controller and OSPB calculations

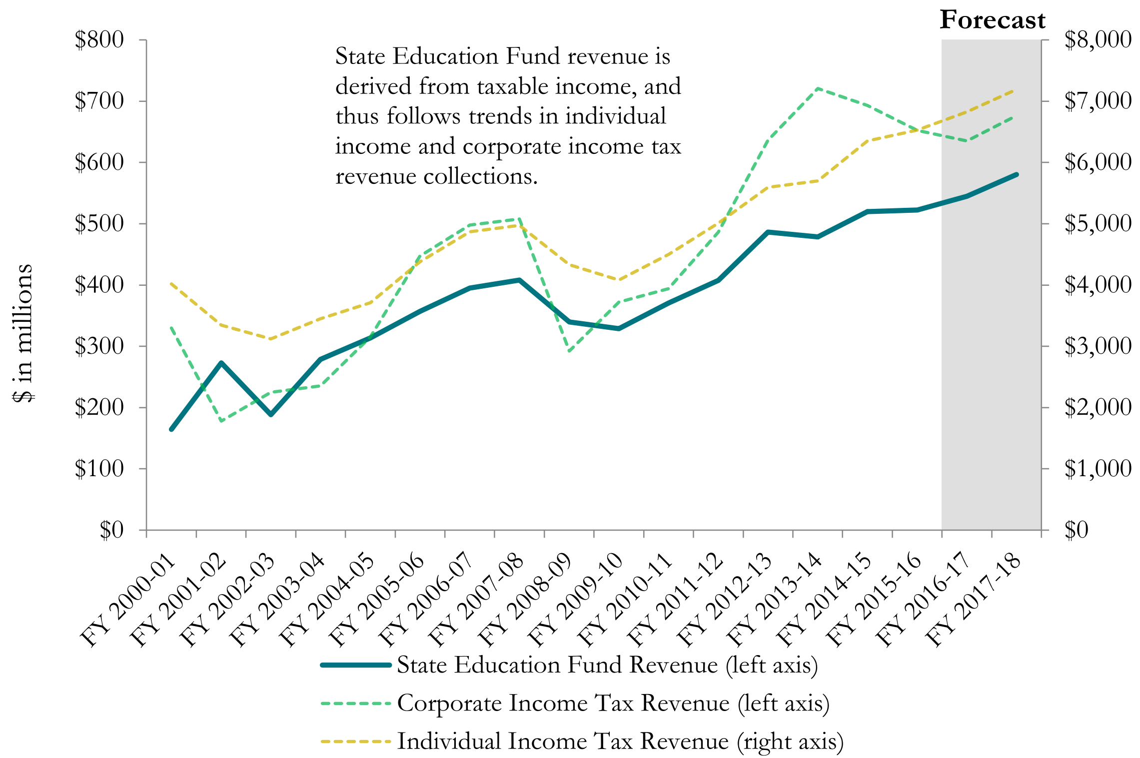
State Education Fund Revenue Forecast

Tax revenue to the State Education Fund increased 0.5 percent in FY 2015-16 and will increase 4.6 percent and 6.6 percent in FY 2016-17 and FY 2017-18, respectively.

Tax revenue to the State Education Fund increased 0.5 percent in FY 2015-16 and will increase 4.6 percent and 6.6 percent in FY 2016-17 and FY 2017-18, respectively. Because this revenue is derived from taxable income, it follows the trends in individual income and corporate income tax revenue collections discussed above. The absence of a decline in income in the state from the contraction in the oil and gas industry and fewer headwinds on corporate taxable income will help generate modestly higher State Education Fund revenue growth for FY 2016-17 and FY 2017-18.

The state constitution requires that one-third of one percent of taxable income from Colorado taxpayers be credited to the State Education Fund. In addition to this revenue, policies enacted over the past several years have transferred other General Fund money to the State Education Fund.

Figure 31. State Education Fund Revenue from One-Third of One Percent of Taxable Income



Source: Office of the State Controller and OSPB calculations

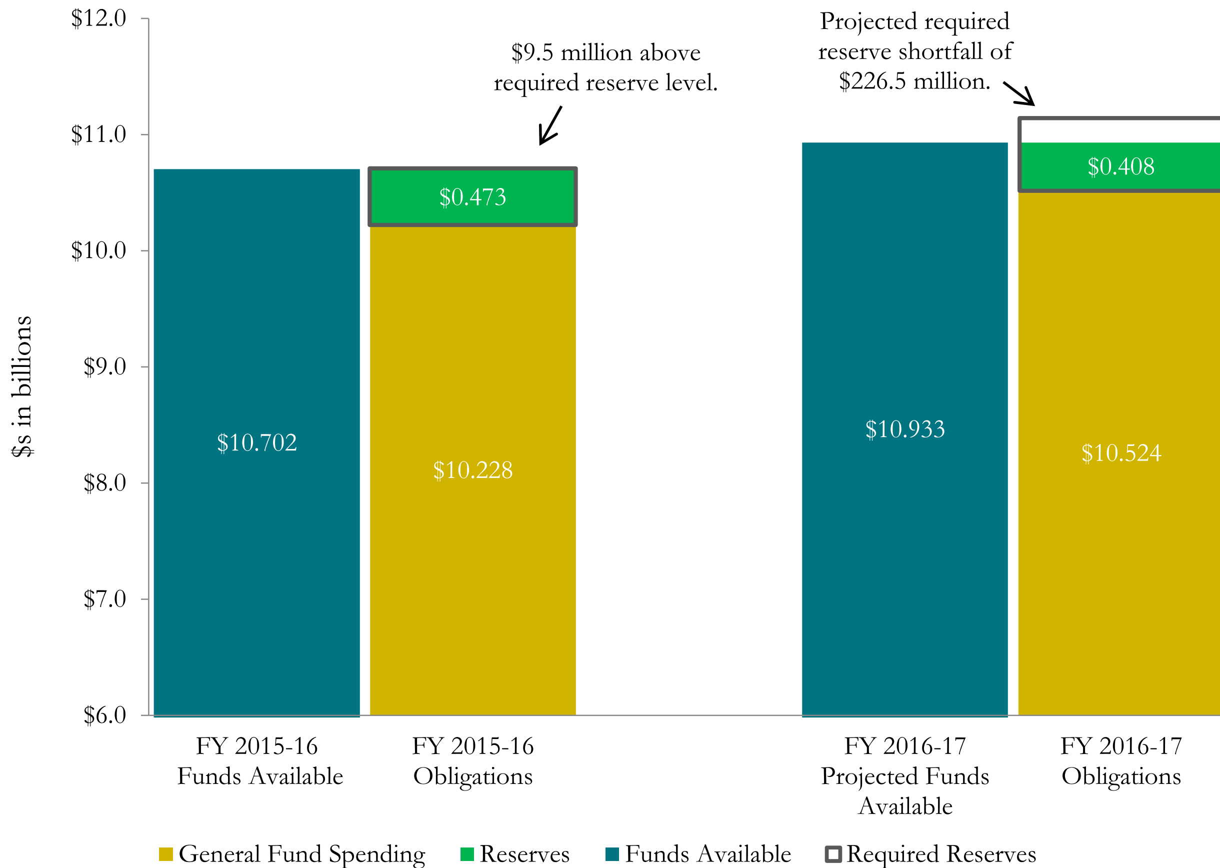
General Fund and State Education Fund Budget

General Fund – As discussed in the "General Fund Revenue Forecast" section starting on page 39, General Fund revenue increased 1.7 percent in FY 2015-16, essentially what was forecast in June. However, the forecast for FY 2016-17 was reduced by $160.6 million, or 1.5 percent, due mostly to lower expectations for sales and use taxes and corporate income tax collections. For FY 2015-16, preliminary information shows that the State's General Fund reserve ended $9.5 million above the required amount. This ending balance is likely to change with end-of-year accounting adjustments.

The FY 2016-17 ending balance is projected to be $226.5 million below the required reserve level. This amount is not far enough below the required reserve to trigger budget-balancing actions by the Governor. The Governor is required to take such actions when the ending balance is projected to be under half of its required amount. For FY 2016-17, under current law, half of the required reserve amounts to $317.4 million, $90.9 million less than the ending reserve projected by this forecast.

Figure 32 summarizes total General Fund revenue available, total obligations, and reserve levels for FY 2015-16 and FY 2016-17 based on current law. These amounts will change based on new accounting information for FY 2015-16, as well as future budgeting decisions and updates to the revenue forecast.

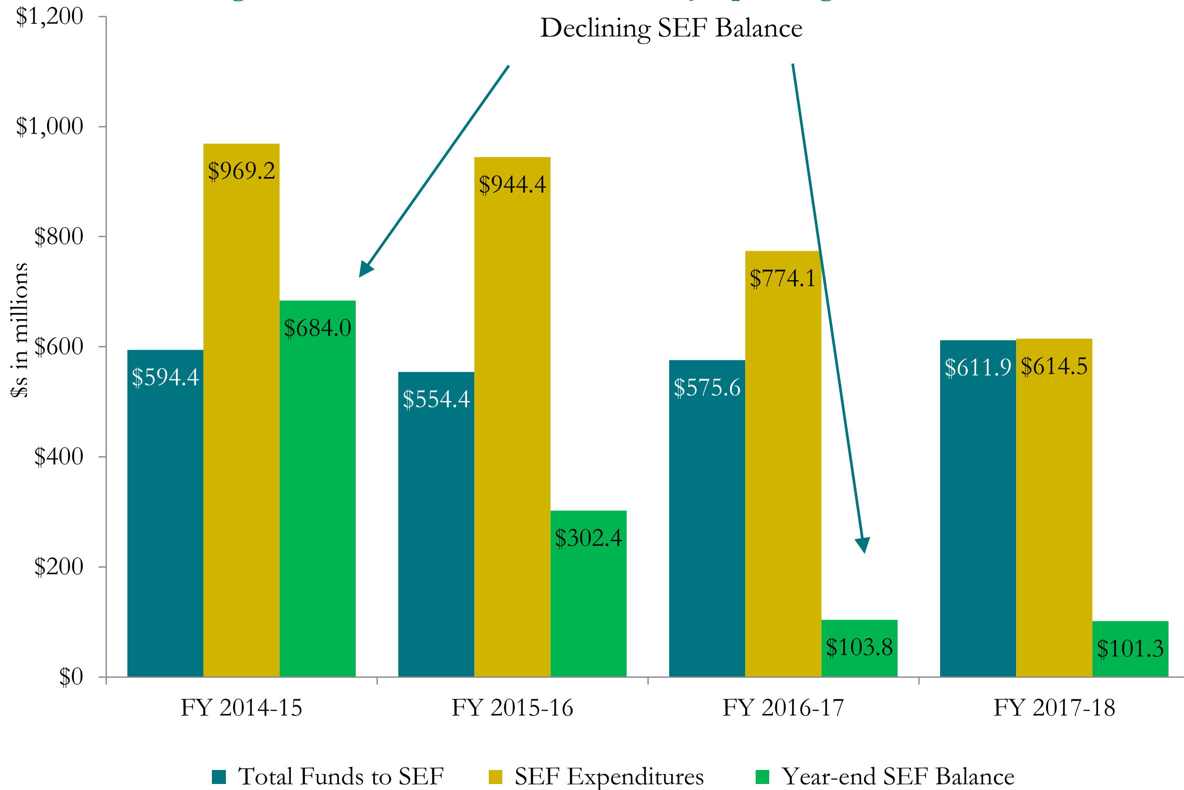
Figure 32. General Fund Money, Obligations, and Reserves



State Education Fund – Transfers of money from the General Fund to the State Education Fund in prior years have enabled the State Education Fund to support a larger share of education funding than it has historically. However, this larger share is drawing down the Fund's balance. Figure 33 summarizes total State Education Fund revenue available, total spending, and balance levels from FY 2015-16 through FY 2017-18. In FY 2015-16, the year-end balance in the Fund dropped 55.8 percent from its level in FY 2014-15, and a larger drop of 65.7 percent is expected in FY 2016-17 when the projected ending balance will be just over $100.0 million.

Under current law, total General Fund and State Education Fund obligations combined are budgeted to increase 1.1 percent in FY 2016-17. These obligations are projected to be able to grow just 0.3 percent in FY 2017-18, assuming that the negative factor in the School Finance Act is maintained at its current level.

Figure 33. State Education Fund Money, Spending, and Reserves



*Actual expenditures from the State Education Fund for FY 2017-18 will be adopted in future budget legislation. Therefore, the expenditures and fund balance projections shown are illustrative only.

Detailed Overview Tables – A detailed overview of the amount of money available in the General Fund and State Education Fund, expenditures, and end-of-year reserves are provided in the overview tables in the Appendix at the end of this document. These overviews are discussed further starting on page 48.

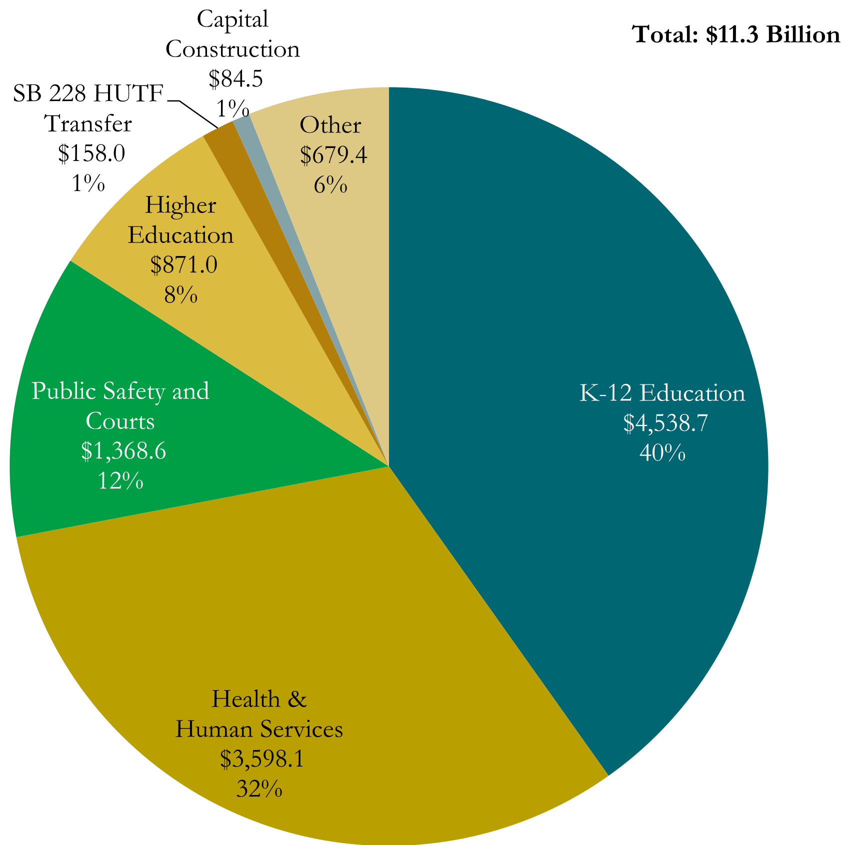
Spending by Major Department or Program Area

The General Fund provides funding for the State's core programs and services, such as preschool through 12th grade education, higher education, services for low-income populations, the disabled and elderly, courts, and public safety. It also helps fund capital construction and maintenance needs for State facilities and, in some years, transportation projects. Under the state constitution, the State Education Fund helps fund preschool

through 12th grade education and annually receives one-third of one percent of taxable income. In recent years, it has also received supplemental money from the General Fund as authorized by statute.

Figure 34 shows the allocation of General Fund and State Education Fund spending for FY 2016-17 by major department or program area under current law. As shown above in Figure 32, the current forecast projects the reserve amount for FY 2016-17 to be $226.5 million below the required General Fund reserve amount.

Figure 34. Composition of FY 2016-17 General Fund and State Education Fund Budget under Current Law



Risks to the Outlook and Budget Implications

This budget outlook is based on OSPB's economic analysis and forecast, discussed in more detail in the section titled "The Economy: Issues, Trends, and Forecast," beginning on page 4. Changes in the economy determine revenue to the General Fund and State Education Fund. In addition to revenue, changes in economic conditions impact the budget outlook through associated changes in the use of many State services, including higher education, Medicaid, and other human services. In times of weaker economic conditions, the use of government services increases as incomes decline, unemployment grows, and more people seek education and training to better their job prospects.

The state's economy has demonstrated resilience in the face of notable headwinds in recent years, however, Colorado's economic growth continues to be more moderate. Although there are no clear indications of an

economic downturn, business investment and industrial production nationally remains soft. Furthermore, there is heightened uncertainty related to developments in Europe, the upcoming presidential election, and the stance of monetary policy. Such uncertainty, especially when combined with adverse shocks to the economy, can lead to a pullback in spending and investment, and on a large enough scale, losses in jobs and income and a subsequent decline in revenue to the State. Such a decline would make it difficult to fund State programs and services at their current levels.

Even relatively small changes in the projected revenue growth rate can have important implications for the budget. As noted above, this forecast's FY 2016-17 ending balance for the General Fund is just $90.9 million above the threshold that requires the Governor to take budget balancing actions, which is when the projected ending balance falls below one-half of its required amount. Therefore, a reduction in expectations for General Fund revenue by less than one percent would cause the ending balance to meet the threshold. This amount is well within typical forecast error. Some sources of revenue to the General Fund are volatile and difficult to predict, most notably individual income tax estimated payments and corporate income taxes. Future revisions to the forecast for these revenue sources and others could result in meeting the threshold requiring budget-balancing action by the Governor.

In addition, this forecast assumes that no TABOR refund obligation will occur for FY 2016-17, but revenue is projected to be $158.8 million, or 1.2 percent, below the Referendum C revenue cap. This amount is also within typical forecast error. Because TABOR refunds are paid out of the General Fund, fluctuations in cash fund revenue (outside of the General Fund) subject to TABOR, can have a large impact on General Fund obligations.

General Fund Overview Table

Table 4 in the Appendix presents the General Fund Overview for the September 2016 OSPB forecast, providing details on forecasts for available General Fund money, expenditures, and end-of-year-reserves. The following section discusses the information presented in Table 4, and includes figures showing each section of the detailed overview found in the Appendix.

Revenue

The top portion of the overview, shown in Figure 35, indicates the amount of General Fund money available for spending. The forecast for General Fund revenue is discussed in further detail in the "General Fund and State Education Fund Revenue Forecast" section starting on page 39. In addition to General Fund revenue, the General Fund receives money transferred from other State funds each fiscal year (shown in line 3 below).

Figure 35. General Fund Revenue Available, $ in Millions

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
1	Beginning Balance	$709.2	$473.4	$408.3
2	General Fund Revenue	$9,968.4	$10,413.2	$10,931.7
3	Transfers to the General Fund	$24.1	$46.0	$18.6
4	**Total General Funds Available**	**$10,701.8**	**$10,932.6**	**$11,358.6**
	Dollar Change from Prior Year	$398.4	$230.8	$426.0
	Percent Change from Prior Year	3.9%	2.2%	3.9%

Expenditures

***Spending subject to the appropriations limit* –** The middle portion of the General Fund overview in Table 4 shows General Fund spending. Each year, by statute, the total of most General Fund spending cannot exceed 5.0 percent of the aggregate level of personal income received by Coloradans. This limit is projected to be $13.1 billion in FY 2016-17. Therefore, the General Fund appropriations shown in Figure 36 are $3.3 billion under the limit for FY 2016-17.

The amount subject to the limit shown below and in Table 4 for FY 2016-17 reflects current law, while the FY 2017-18 amount represents the level of spending that can be supported by projected revenue while maintaining the General Fund's required reserve amount. Fiscal Year 2017-18 appropriations can increase 1.2 percent over the FY 2016-17 amount based on this forecast. The amounts will change based on future budgeting decisions and updates to the revenue forecast.

Figure 36. General Fund Spending Subject to the Appropriations Limit, $ in Millions

Table 4 Line No.		FY 2016-17	FY 2017-18
5	**Appropriations**	**$9,813.3**	**$9,930.2**
6	Dollar Change from Prior Year	$477.7	$116.9
7	Percent Change from Prior Year	5.1%	1.2%

***Spending and outlays not subject to the appropriations limit* –** Figure 37 summarizes General Fund spending that does not count under the General Fund appropriations limit. More information about each line item is presented below the table.

Figure 37. General Fund Spending Not Subject to the Appropriations Limit, $ in Millions

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
9	TABOR Refund under Art. X, Section 20, (7) (d)	$0.0	$0.0	$195.0	$221.8
10	Set Aside for Potential TABOR Refund under Art. X, Section 20, (3) (c)	-$58.0	$0.0	$0.0	$0.0
	Cigarette Rebate to Local Governments	*$10.5*	*$9.2*	*$8.9*	*$8.7*
	Marijuana Rebate to Local Governments	*$10.1*	*$13.3*	*$12.3*	*$13.2*
	Old-Age Pension Fund/Older Coloradans Fund	*$118.3*	*$112.1*	*$117.5*	*$119.0*
	Aged Property Tax & Heating Credit	*$9.3*	*$8.2*	*$8.7*	*$8.6*
	Homestead Exemption	*$127.1*	*$147.7*	*$155.5*	*$166.2*
	Interest Payments for School Loans	*$1.2*	*$1.2*	*$1.3*	*$1.5*
	Fire/Police Pensions	*$3.7*	*$4.3*	*$4.3*	*$4.3*
	Amendment 35 General Fund Expenditure	*$0.9*	*$0.9*	*$0.9*	*$0.9*
11	**Total Rebates and Expenditures**	**$281.2**	**$296.8**	**$309.4**	**$322.3**
12	Transfers to Capital Construction	$271.1	$84.5	$68.3	$57.6
13	Transfers to Highway Users Tax Fund	$199.2	$158.0	$109.3	$115.2
14	Transfers to State Education Fund per SB 13-234	$25.3	$25.3	$25.3	$25.0
15	Transfers to Other Funds	$173.9	$146.4	$78.9	$75.3
	Total	**$892.8**	**$711.0**	**$786.2**	**$817.3**
	Dollar Change from Prior Year	$107.0	-$181.8	$75.3	$31.0
	Percent Change from Prior Year	13.6%	-20.4%	10.6%	3.9%

Lines 9 and 10: Revenue exceeded the Referendum C cap in FY 2014-15 and is not projected to exceed the cap again until FY 2017-18. TABOR revenue came in $26.7 million below the cap in FY 2015-16 and is

projected to be $158.8 million under the cap in FY 2016-17. TABOR revenue is expected to be above the cap by $175.4 million in FY 2017-18 and $221.8 million in FY 2018-19. Spending not subject to the limit includes any TABOR refunds funded from the General Fund, which occur when State revenue exceeds its cap as defined in Article X, Section 20 (7) of the Colorado Constitution ("TABOR") and Section 24-77-103.6, C.R.S. ("Referendum C").

The FY 2017-18 refund amount of $195.0 million includes the projected $175.4 million exceeding the Referendum C cap plus $19.6 million that needs to be refunded from FY 2014-15. The $19.6 million from FY 2014-15 is due to the reclassification of the revenue transferred to the Adult Dental Fund from the Unclaimed Property Fund. The legal analysis and audit review on this occurred after FY 2014-15 refund amounts were established on state income tax forms. Such adjustments and audit findings have occurred in the past and the process calls for the money to be refunded in the next year a refund is due. For more information on the TABOR refund, see the "Taxpayer's Bill of Rights: Revenue Limit" section later in this report.

The -$58.0 million shown in line 10 for FY 2015-16 is a reversal of the $58 million set aside in FY 2014-15 by House Bill 15-1367 in a special account to cover a potential refund relating to the passage of Proposition AA, which created excise and sales taxes on retail marijuana. House Bill 15-1367 submitted Proposition BB to voters in November 2015 to ask if the State can retain and spend the money. Because voters approved Proposition BB, the State was able to use the money for the uses outlined in House Bill 15-1367.

Line 11: "Rebates and Expenditures" account for a large portion of General Fund spending not subject to the appropriations limit. The primary programs under rebates and expenditures are: (1) the Cigarette Rebate, which distributes money from a portion of State cigarette tax collections to local governments that do not impose their own taxes or fees on cigarettes; (2) the Marijuana Rebate, which distributes 15 percent of the retail marijuana sales tax to local governments based on the percentage of retail marijuana sales in local areas; (3) the Old-Age Pension program, which provides assistance to low-income elderly individuals who meet certain eligibility requirements; (4) the Aged Property Tax, Heat, and Rent Credit, which provides property tax, heating bill, and rent assistance to qualifying low-income, disabled, or elderly individuals; and (5) the Homestead Property Tax Exemption, which reduces property-tax liabilities for qualifying seniors and disabled veterans.

Lines 12 and 13: Transfers to the Capital Construction Fund (CCF) and Highway Users Tax Fund (HUTF) are required if growth in statewide personal income exceeds 5 percent. This 5 percent trigger and the associated transfers are commonly referred to as "228" transfers because they were put into law by Senate Bill 09-228. Personal income growth exceeded 5 percent in the 2014 calendar year, which triggered the required transfers starting in FY 2015-16 and through FY 2019-20. For Fiscal Years 2017-18 through 2019-20, the transfers are reduced by half if there is a TABOR refund in the same fiscal year in an amount between 1 and 3 percent of total General Fund revenue. The transfers are suspended in full if there is a TABOR refund in excess of 3 percent of total General Fund revenue.

Pursuant to House Bill 16-1416, the dollar amount of the transfers to the HUTF and CCF are at fixed amounts in FY 2015-16 and FY 2016-17 regardless of the level of any TABOR refund. The transfer amounts to the HUTF are equal to $199.2 million in FY 2015-16 and $158.0 million in FY 2016-17. The transfer amounts to the CCF are $49.8 million in FY 2015-16 and $52.7 million in FY 2016-17.

According to current projections, transfers to the HUTF and CCF will be reduced by half in FY 2017-18 and FY 2018-19 because the TABOR refund is expected to be 1.8 percent and 1.9 percent of total General Fund revenue, respectively. The 228 transfers to the HUTF are expected to be $109.3 million in FY 2017-18 and $115.2 million in FY 2018-19; the 228 transfers to the CCF are projected to be $54.7 million in FY 2017-18 and $57.6 million in FY 2018-19.

The capital construction transfer amounts in FY 2015-16 through FY 2017-18 shown in line 12 also include transfers of General Fund money in addition to the 228 transfers and therefore the amounts shown in Line 12 differ from the amounts of money transferred related to Senate Bill 09-228. The FY 2015-16 and FY 2016-17 capital construction transfers reflect current law, while the FY 2017-18 transfer reflects the needed funding level for "Level I" building-maintenance projects, as well as the continuation of projects funded in prior years.

Line 14: Senate Bill 13-234 requires annual General Fund transfers to the State Education Fund from FY 2013-14 through FY 2018-19. The transfer in each fiscal year through FY 2017-18 is $25.3 million, and is $25.0 million in FY 2018-19, the last scheduled transfer under current law.

Line 15: State law requires transfers of General Fund money to various other State cash funds. Generally, the largest transfer in this line is money from the 10 percent special sales tax on retail marijuana (reduced to 8 percent starting in FY 2017-18) credited to the General Fund, 85 percent of which is transferred to the Marijuana Tax Cash Fund. For FY 2015-16 only, $40.0 million of the "Transfer to Other Funds" amount is a transfer to public school capital construction related to the passage of Proposition BB.

The FY 2015-16 and FY 2016-17 amounts also include a diversion of income tax revenue out of the General Fund to a separate severance tax fund pursuant to Senate Bill 16-218. This bill was passed in response to the April 2016 Colorado Supreme Court's decision in BP America v. Colorado Department of Revenue that allows for taxpayers to claim additional severance tax deductions. Senate Bill 16-218 creates a reserve fund and diverts income tax revenue to the fund to help pay the refunds. However, the legislation does not distinguish between severance tax refunds related to the court decision and severance tax refunds that would have occurred regardless of the decision. For FY 2015-16, $56.8 million in income tax revenue was diverted to the aforementioned reserve fund to pay for severance tax refunds. This forecast projects that about $44.0 million in income tax revenue will be diverted from the General Fund to the reserve fund to pay severance tax refunds in FY 2016-17. More discussion on Senate Bill 16-218 and the impacts of the court decision can be found starting on page 57 in this report's section discussing the cash fund revenue forecast.

Reserves

The final section of the overview table in the Appendix ("Reserves") shows the amount of General Fund money remaining at the end of each fiscal year ─ the "Year-End General Fund Balance." This amount reflects the difference between total funds available and total expenditures. The section shows the statutorily determined reserve requirement and whether the amount of funds is above or below the requirement ("Money Above/Below Statutory Reserve").

Under current law, the FY 2015-16 reserve is required to be 5.6 percent of General Fund appropriations subject to the appropriations limit (excluding Certificates of Participation payments), minus any diversions of income tax revenue pursuant to Senate Bill 16-218. As discussed above, $56.8 million in income tax revenue was diverted, and thus the required reserve was lowered by the same amount. The required reserve is 6.5 percent of appropriations (excluding Certificates of Participation payments) for FY 2016-17 and for subsequent fiscal years.

For FY 2015-16, preliminary information shows that the State's General Fund reserve ended $9.5 million above the required amount. This ending balance is likely to change with end-of-year accounting adjustments. The FY 2016-17 ending balance is projected by this forecast to be $226.5 million below the required reserve level. This amount is not far enough below the required reserve to trigger budget-balancing actions by the Governor. The Governor is required to take such actions when the ending balance is projected to be under half of its required amount. For FY 2016-17, under current law, half of the required reserve amounts to $317.4 million, $90.9 million less than the ending reserve projected by this forecast.

The FY 2017-18 reserve amount in the table represents the required reserve level supported by projected General Funds available.

Starting in FY 2015-16, General Fund appropriations for "lease-purchase" payments, called Certificates of Participation, for certain capital projects were made exempt from the reserve calculation requirement by Senate Bill 15-251. These appropriations amount to $37.8 million in FY 2015-16 and $46.0 million in FY 2016-17. Figure 38 provides information on the General Fund ending balance.

Figure 38. General Fund Reserves, $ in Millions

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
20	Year-End General Fund Balance	$473.4	$408.3	$642.1
21	Balance as a % of Appropriations	5.1%	4.2%	6.5%
22	**General Fund Statutory Reserve**	**$463.9**	**$634.9**	**$642.1**
23	Money Above/Below Statutory Reserve	$9.5	-$226.5	$0.0

State Education Fund Overview

Figure 39 summarizes State Education Fund annual revenue and expenditures. It also includes projected ending balances. As Figure 39 shows, lower revenue and higher expenditures have been lowering the Fund's balance that was built up in prior years by transfers of money from the General Fund. In FY 2015-16, the year-end balance in the Fund dropped 55.8 percent from its level in FY 2014-15, and a larger drop of 65.7 percent is expected in FY 2016-17 when the projected ending balance will be just over $100 million.

State Education Fund expenditures for FY 2015-16 and FY 2016-17 reflect current law. The FY 2017-18 expenditure amount projects spending needed to keep the negative factor in the School Finance Act at the current law dollar amount of $830.7 million, while maintaining a balance in the Fund of about $100 million.

Figure 39. State Education Fund Revenue, Spending, and Reserves*, $ in Millions

State Education Fund ($ in Millions)			
	FY 2015-16	**FY 2016-17**	**FY 2017-18**
One-third of 1% of State Taxable Income	*$522.6*	*$544.6*	*$580.5*
Transfers under SB 13-234	*$25.9*	*$25.3*	*$25.3*
Other	*$6.0*	*$5.7*	*$6.1*
Total Funds to State Education Fund	**$554.4**	**$575.6**	**$611.9**
State Education Fund Expenditures	**$944.4**	**$774.1**	**$614.5**
Year-end Balance	**$302.4**	**$103.8**	**$101.3**

*Actual FY 2017-18 expenditures from the State Education Fund will be adopted in future budget legislation. Therefore, the expenditures and fund balance projections are illustrative only.

The State Education Fund plays an important role in the State's General Fund budget. Under the state constitution, the State Education Fund helps fund preschool through 12th-grade education, the largest General Fund program. Therefore, higher or lower spending from the State Education Fund generally affects General Fund appropriations in order to support the targeted level of school funding. Decisions in one year affect the range of choices in the next year because they impact the available balance in the State Education Fund for future spending and General Fund availability for other programs.

Table 5 in the Appendix incorporates all of the same information from the General Fund overview in Table 4, but also includes spending, revenue, and fund-balance information for the State Education Fund. Given the budget implications of the balance of funding between the State Education Fund and General Fund, a unified and multi-year view provides important insight into the sustainability of budgeting decisions. As shown in Table 5, under current law, total General Fund and State Education Fund expenditures combined are budgeted to increase 1.1 percent in FY 2016-17. These expenditures are projected to be able to grow just 0.3 percent in FY 2017-18, assuming that the negative factor in the School Finance Act is maintained at its current level. These lower growth rates are due in part to the smaller amount of funding available from the State Education Fund to support school finance.

Cash Fund Revenue Forecast

A wide array of state programs collect taxes, fees, fines, and interest to fund services and operations. Many of these programs have a dedicated fund for this revenue. In contrast with the General Fund, these funds are collectively called "cash funds." OSPB's forecast of cash fund revenue subject to TABOR is shown in Table 6 in the Appendix.

Cash fund revenue in FY 2016-17 is projected to be $189.9 million, or 6.3 percent, lower than FY 2015-16, as a projected decrease in revenue from the Hospital Provider Fee and miscellaneous cash funds will offset modest growth in revenue from many of the other major categories of cash funds. However, the forecast for FY 2016-17 is $47.8 million, or 1.7 percent, higher than projections from the June forecast, due in large part to higher-than-projected revenue to miscellaneous cash funds received in the final months of FY 2015-16.

Cash fund revenue will increase 14.5 percent in FY 2017-18 as the budget restriction on the Hospital Provider Fee expires and severance tax revenue rebounds. Growth in other major categories of cash funds also contributes to this increase. The forecast for FY 2017-18 is $138.0 million, or 4.5 percent, higher compared with projections in June. In addition to the expectations for more revenue from the Hospital Provider Fee, the forecast for miscellaneous cash funds is higher.

Table 6 shows only the outlook for revenue that is subject to the TABOR provisions in the Colorado Constitution that place a limit on the amount of revenue that can be retained by the state each year. Cash fund revenue that is not subject to TABOR generally includes revenue exempt by Colorado voters, federal money, and revenue received by entities designated as enterprises, such as public universities and colleges, that receive most of their money from sources other than the state. More information on TABOR revenue and the revenue limit can be found on page 61.

Transportation-related cash funds — Transportation-related cash fund revenue is forecast to grow 1.5 percent in FY 2016-17 and 2.0 percent in FY 2017-18. In FY 2015-16, transportation-related cash fund revenue subject to TABOR grew $20.1 million, or 1.7 percent, to $1.18 billion.

Transportation-related cash funds include the Highway Users Tax Fund (HUTF), the State Highway Fund (SHF), and several smaller cash funds. HUTF collections, which account for roughly 85 percent of revenue in this category, are distributed by statutory formula to the Colorado Department of Transportation, local counties and municipalities, and the Colorado State Patrol.

In FY 2015-16, revenue from HUTF vehicle fuel taxes and vehicle registrations grew 2.1 and 2.6 percent, respectively, from their levels in FY 2014-15. Changes in these revenue streams have a substantial influence on overall transportation-related cash funds because they account for approximately 80 percent of HUTF revenue and three-quarters of all transportation-related revenue.

After increasing every year since the Great Recession, new vehicle sales nationally are expected to level off slightly below the 17.9 million annual rate experienced in 2015.

HUTF vehicle registration revenue is driven primarily by auto sales, which have been growing at a robust rate since the end of the Great Recession in 2009. As the pent-up demand experienced since the recession decreases, new auto sales are leveling off and are not expected to return to high growth in the near future. Used vehicle sales may supplant some new sales because a large number of previously leased vehicles will become available over the next several quarters. As registration fees are based largely on vehicle age and weight, the continuing

shift in consumer preference towards heavier SUVs and light trucks should offset any registration revenue lost due to the expected lower growth of new vehicle sales, while also contributing to increased revenue from vehicle fuel taxes. As a result of these trends, HUTF revenue growth is expected to average 1.4 percent over the next three fiscal years.

Limited Gaming **—** Limited gaming revenue is forecast to grow by $5.2 million, or 4.4 percent, to $123.2 million in FY 2016-17 after increasing 6.0 percent in FY 2015-16. Revenue from gaming in FY 2017-18 will grow an additional $5.2 million, or 4.2 percent, to $128.4 million.

The Colorado gaming industry was hit hard by the Great Recession and has been slowly recovering ever since, with limited gaming revenue yet to return to its pre-recession peak of $122 million in FY 2006-07. As incomes and employment have grown, gaming activity has as well and there was an increase in gaming tax revenue of 6.0 percent in FY 2015-16 and an increase of 4.4 percent is projected in FY 2016-17. Continued growth in revenue is expected over the forecast period.

Moderate increases in limited gaming revenue will continue as the Colorado economy continues to grow.

Of the total expected limited gaming revenue of $123.2 million in FY 2016-17, $105.9 million will be subject to TABOR, as reflected in Figure 40. Of this amount, $104.0 million is classified as "base limited gaming revenue" as designated by State law after the passage of Amendment 50 in 2008. This revenue is distributed by statutory formula to the State General Fund, the State Historical Society, cities and counties affected by gaming activity, and economic development-related programs.

Gaming revenue attributable to Amendment 50, which is not subject to TABOR, is distributed mostly to community colleges, with a smaller portion going to local governments with communities affected by gaming. These distributions will grow along with overall gaming revenue, totaling $14.4 million and $16.0 million in FY 2016-17 and FY 2017-18, respectively. Figure 40 shows the distribution of limited gaming revenues in further detail.

Figure 40. Distribution of Limited Gaming Revenue

Distribution of Limited Gaming Revenues	Preliminary FY 15-16	Forecast FY 16-17	Forecast FY 17-18	Forecast FY 18-19
A. Total Limited Gaming Revenues	**$118.0**	**$123.2**	**$128.4**	**$133.8**
Annual Percent Change	6.0%	4.4%	4.2%	4.2%
B. Base Limited Gaming Revenues (max 3% growth)	**$101.0**	**$104.0**	**$107.2**	**$110.4**
Annual Percent Change	3.0%	3.0%	3.0%	3.0%
C. Gaming Revenue Subject to TABOR	**$102.8**	**$105.9**	**$109.1**	**$112.4**
Annual Percent Change	3.5%	3.0%	3.0%	3.0%
D. Total Amount to Base Revenue Recipients	**$91.1**	**$94.5**	**$97.1**	**$100.7**
Amount to State Historical Society	$25.5	$26.4	$27.2	$28.2
Amount to Counties	$10.9	$11.3	$11.7	$12.1
Amount to Cities	$9.1	$9.4	$9.7	$10.1
Amount to Distribute to Remaining Programs (State Share)	$45.6	$47.2	$48.6	$50.3
Amount to Local Government Impact Fund	$5.0	$5.0	$5.0	$5.0
Colorado Tourism Promotion Fund	$15.0	$15.0	$15.0	$15.0
Creative Industries Cash Fund	$2.0	$2.0	$2.0	$2.0
Film, Television, and Media Operational Account	$0.5	$0.5	$0.5	$0.5
Advanced Industries Acceleration Fund	$5.5	$5.5	$5.5	$5.5
Innovative Higher Education Research Fund	$2.1	$2.1	$2.1	$2.1
Transfer to the General Fund	$15.5	$17.1	$18.5	$20.2
E. Total Amount to Amendment 50 Revenue Recipients	**$12.5**	**$14.4**	**$16.0**	**$17.9**
Community Colleges, Mesa and Adams State (78%)	$9.8	$11.2	$12.5	$13.9
Counties (12%)	$1.5	$1.7	$1.9	$2.1
Cities (10%)	$1.3	$1.4	$1.6	$1.8

Hospital Provider Fee — Hospital Provider Fee (HPF) revenue grew 52.0 percent to $804.0 million in FY 2015-16, and is expected to decrease 18.3 percent, or $147.2 million, to $656.8 million in FY 2016-17. Under current law, HPF revenue will then increase 31.8 percent, or by $208.6 million, to $865.3 million in FY 2017-18. The forecast for FY 2016-17 is essentially unchanged compared with projections in June, and the forecast for FY 2017-18 is $62.1 million, or 7.7 percent, higher compared with projections in June.

The projections for HPF revenue are influenced by federal funding levels associated with the Affordable Care Act as well as changes in the population receiving medical care support under the Medicaid program. The large increase in FY 2015-16 was due to continued caseload growth associated with expansion of the Medicaid program, as well as later-than-expected federal approval of the HPF funding levels associated with higher program costs. This delayed approval prevented the higher fee collections from taking effect earlier, shifting the higher collections to FY 2015-16. The decrease in FY 2016-17 is a result of HB 16-1405, which restricted HPF revenue collections. There is no budget restriction in FY 2017-18, thus HPF revenue collections are projected up to the federal limit as authorized under current law.

The Hospital Provider Fee is paid by Colorado hospitals and is used, together with matching federal funds, to help cover the cost of the Medicaid program. The amount of Hospital Provider Fee collected each year is

calculated by a formula that considers the anticipated cost of care for certain Medicaid populations with each hospital's individual fee allocation based on inpatient days and outpatient revenue.

Severance tax revenue — Severance tax revenue fell to $18.9 million in FY 2015-16, a decline of 93.3 percent, or $262.4 million. This large decrease was due to the combination of the decline in oil and natural gas prices and the April 2016 Colorado Supreme Court ruling related to severance tax deductions allowed to taxpayers, discussed in more detail below. The ad valorem tax credit for State severance taxes was also a contributing factor to the drop in revenue collections. Severance tax collections in FY 2016-17 are expected to continue to come in at relatively low levels due to these same factors. However, collections will rebound in FY 2017-18 with gradually rising oil and gas prices and as the ad valorem credit reduces collections to a much lesser extent. Total severance tax revenue will amount to $47.6 million in FY 2016-17and will increase to $169.8 million in FY 2017-18.

The level of oil and natural gas prices are the primary determinant of severance tax collection levels. After falling below $30 a barrel earlier this year, the West Texas Intermediate crude oil price hovered in the mid $40s a barrel over the summer months. Average oil prices for 2016 are projected to remain more than 50 percent below their level in 2014. Prices are likely to rise slowly and reach $60 a barrel by the end of 2017; low natural gas prices are expected to follow a similar trajectory. The ongoing imbalance between the high levels of supply in relation to weakened demand is expected to take time to unwind. However, there is a high degree of uncertainty in the trajectory of oil and gas prices as the world energy market is subject to international political developments and other difficult-to-predict factors. Therefore, the actual amount of severance tax revenue could materially differ from this forecast depending on the direction of future energy prices. More discussion of the oil and gas industry is included in "The Economy: Issues, Trends, and Forecast" section of this forecast, which starts on page 4.

Severance tax revenue fell to $18.9 million in FY 2015-16, a decline of 93.3 percent. Severance tax collections in FY 2016-17 are expected to continue to come in at relatively low levels. In addition to persistent low oil and gas prices, ad valorem tax credits are weighing on revenue, as well as a recent court ruling impacting tax deductions allowed to taxpayers.

In addition to persistent low oil and gas prices, ad valorem tax credits are weighing on State severance tax revenue. Severance taxpayers claim ad valorem tax credits based on the local property taxes they pay on the value of mineral extraction in the prior year. The impact of these credits was especially pronounced in FY 2015-16, when the incomes of taxpayers, and thus their tax liabilities, were greatly reduced due to plummeting energy prices. At the same time, large ad valorem credits were being claimed that were based on a much higher value of oil and gas from the prior year. In some cases, the difference in the size of the ad valorem credit in relation to gross severance tax liabilities caused net tax liabilities to fall to zero.

Severance tax collections will rebound in FY 2017-18 with gradually rising oil and gas prices and smaller ad valorem tax credits that will reduce tax liabilities to a lesser degree.

For FY 2016-17, gross liabilities will remain low due to persistent soft energy prices and decreased oil and gas production, but ad valorem credits will be smaller than the previous year, causing severance tax revenue to increase modestly. Higher oil and gas prices in 2017, combined with reduced ad valorem credits from the current low oil and gas values will cause severance tax revenue to rebound to a greater extent in FY 2017-18.

As a result of the April 2016 Colorado Supreme Court's decision in *BP America v. Colorado Department of Revenue (*DOR*)*, taxpayers can claim additional severance tax deductions related to their transportation, manufacturing, and processing costs incurred in their oil and gas extraction activities. In addition to lowering the severance tax

collections in the future, this decision is also increasing the refunds being made to severance taxpayers for the current and past tax years.

Senate Bill 16-218 was passed at the end of the 2016 legislative session to account for these severance tax refunds. The bill created a reserve fund and diverts income tax revenue to the fund to help pay the refunds. However, the legislation does not distinguish between severance tax refunds related to the court decision and severance tax refunds that would have occurred regardless of the decision. Therefore, income tax revenue is currently being used to cover some severance tax refunds that would have occurred regardless of the decision.

Senate Bill 16-218 also placed a restriction on $77.4 million on severance tax money allocated to the Department of Natural Resources (DNR) and the Department of Local Affairs (DOLA), preventing the money from being expended in case the money is needed to help cover the refunds. The restriction can be lifted in whole or in part upon a majority vote of the members of the Joint Budget Committee. In August, the Joint Budget Committee voted to release $19.9 million of the amount to DOLA. As such, $57.5 million remains restricted pursuant to Senate Bill 16-218.

The most recent figure available for the known impact of the Supreme Court ruling for past tax years (2014 and earlier) is a reduction of $20.2 million based on tax returns already received by the Department of Revenue. The amount includes refunds related to a deduction for the "cost of capital," or return on investment, directly addressed in the court ruling, as well as other deductions related to transportation, manufacturing, and processing costs that the Department of Revenue believes can be now claimed by severance taxpayers. However, the amount of the refunds may increase by approximately $24 million if other deductions are allowed, based on information from tax returns that the Department of Revenue currently has. Whether or not all of these additional refunds for deductions fall under the scope of the recent ruling is yet to be determined, and legislation may be needed to clarify remaining questions. A working group, comprised of representatives of the oil and gas industry as well as State and local government officials, is meeting to discuss the issue.

In addition to these amounts, severance taxpayers may also file additional amended tax returns for past tax years (2014 and earlier) to claim refunds as a result of the court ruling. The amount of these refunds is highly uncertain, and the current estimate from the Department of Revenue ranges from an additional $20 million to $43 million. An estimate at the lower end of this range is included in this forecast, as it is based on allowable deductions that the Department of Revenue believes are now required as a result of the court ruling. This forecast assumes that these additional reductions will occur in FY 2016-17. As more information becomes available, the estimate of the revenue impact and timing may change substantially.

Under Senate Bill 16-218, $56.8 million in income tax revenue was diverted in FY 2015-16 to the aforementioned reserve fund to pay for severance tax refunds. This amount is included in the "Transfers to Other Funds" line in Table X in the Appendix of this forecast. Of this amount, $17.8 was due to refunds related to the court ruling, while $39.0 million was mostly a result of the large ad valorem credits reducing tax liabilities to zero discussed earlier.

Also under Senate Bill 16-218, in FY 2016-17, during any month in which severance tax refunds are larger than 15 percent of gross severance revenue, income tax is diverted to the reserve to pay the portion of the refund amount that exceeds the 15 percent threshold. This forecast assumes that $43.7 million in income taxes will be diverted from the General Fund to the reserve fund to cover severance tax refunds paid out in FY 2016-17. This amount is also included in the "Transfers to Other Funds" line in Table 4 in the Appendix. This amount may change materially in subsequent forecasts as new information becomes available.

The above refund amounts are related to past tax year impacts of the Supreme Court ruling. Taxpayers will also claim more deductions for future tax years, which will reduce severance taxes on an ongoing basis. This forecast

assumes that the additional deductions will reduce annual severance tax collections by 6 percent each year. However, the estimated amount of the reduction to ongoing severance tax revenue in the future may change materially as more information becomes available regarding which additional severance tax deductions will be allowed and the revenue impacts of those deductions.

Federal Mineral Leasing revenue ― Colorado's share of Federal Mineral Lease (FML) revenue fell 36.0 percent to $92.9 million in FY 2015-16. FML revenue continues to be weaker due to the persistent low energy prices. In addition, the refund of FML "bonus" payments to mineral extraction leaseholders on the Roan Plateau is causing reduced collections. As commodity prices gradually increase, FML revenue is expected to rebound modestly, increasing 1.8 percent to $94.6 million in FY 2016-17. Collections will increase 16.5 percent in FY 2017-18 as prices continue to rise from their current low levels. The impact of lower energy prices on FML revenue is much smaller than the impact on severance taxes because the revenue stream is not affected by the ad valorem tax credits that impact severance tax gross liabilities.

FML royalties are derived from a percentage of the value of resources produced on leased federal lands. FML activity includes production of natural gas and oil as well as propane, carbon dioxide, coal, and other mineral resources. The Bureau of Land Management (BLM) sells leases to extract mineral resources from federal lands. Producers then remit royalties and other payments to the federal government that are shared with the state where production occurred.

FML revenue fell 36.0 percent to $92.9 million in FY 2015-16 due to falling oil and gas prices and one-time refunds to leaseholders. Collections will rebound modestly in FY 2016-17 with a gradual rise in commodity prices.

A portion of the reduced levels in FML revenue in FY 2015-16 through FY 2017-18 are a result of refunds to holders of cancelled leases on land for mineral extraction on the Roan Plateau in Colorado. The BLM carried out auctions for leases to produce natural gas on the Roan Plateau in 2008, collecting significant "bonus" payments. The BLM later revisited these leases and determined a need to re-negotiate or cancel several of them. As a result, the Bureau is refunding nearly $50 million of the bonus payments that were originally made.

Colorado's share of this amount, which amounts to $23.4 million, is being recouped from the State's share of FML revenue over a three-year period. The federal government is withholding $7.8 million of Colorado's FML payments from FY 2015-16 through FY 2017-18 to complete the required refund. Senate Bill 15-244 transfers money from the General Fund to the State Public School Fund, the Colorado Water Conservation Board Construction Fund, and the Local Government Mineral Impact Fund in each of the three fiscal years in order to backfill the decline in FML money.

Figure 41. Federal Mineral Leasing (FML) Payments, $ in Millions

Fiscal Year	Bonus	Non-Bonus	Total FML	% Change
FY 2015-16	$6.7	$86.1	$92.9	-36.0%
FY 2016-17	$1.9	$92.7	$94.6	1.8%
FY 2017-18	$2.2	$108.0	$110.2	16.5%
FY 2018-19	$2.3	$122.8	$125.1	13.5%

FY 2015-16 figures are actual collections, and FY 2016-17 through FY 2018-19 are projections.

Other cash funds ― Cash fund revenue to the Department of Regulatory Agencies (DORA) will increase 4.1 percent to $71.6 million in FY 2016-17 after increasing 4.8 percent in FY 2015-16. This revenue source will grow another 2.4 percent to $73.4 million in FY 2017-18. DORA oversees businesses and professionals in certain industries through licensing, rulemaking, enforcement, and approval of rates charged to consumers. The Department is responsible for oversight of a wide variety of professions, ranging from landscape architects and

psychologists to hunting guides. Revenue from licensing fees and other services fund many of the Department's activities.

Insurance-related cash fund revenue is obtained largely from a surcharge on workers' compensation insurance programs. Revenue from this source will increase 22.5 percent to $14.0 million in FY 2016-17. Insurance-related cash fund revenue decreased by 42.7 percent to $11.4 million in FY 2015-16 as a result of a reduction in the surcharge used to fund the Division of Workers' Compensation (DOWC), as well as the Major Medical Insurance Fund and Subsequent Injury Fund. These funds were created to absorb costs for workers injured prior to 1981. Each year, the DOWC is required to perform a review to determine the funding needed to operate its programs.

The category called Other Miscellaneous Cash Funds in Table 6 includes revenue from over 300 cash funds that generally collect revenue from fines, fees, and interest earnings. However, approximately 75 percent of the revenue comes from the largest 30 funds. These larger funds include such things as the Employment Support Fund, Medicaid Nursing Facility Cash Fund, and the Marijuana Tax Cash Fund.

Total revenue to miscellaneous cash funds is expected to be $701.3 million in FY 2016-17, a decrease of 9.9 percent, after growth of 27.1 percent the prior year. The FY 2016-17 projection is $84.1 million higher than the June forecast, due mostly to larger-than-expected revenues received in the end-of-year adjustments for FY 2015-16. Revenue to these funds is expected to increase 6.8 percent in FY 2017-18.

The 27.1 percent growth in FY 2015-16 revenue was driven by two main factors. First, Ft. Lewis College and Western State Colorado University were disqualified as enterprises due to receiving more than 10 percent of their funding from the State, making the revenue they received in FY 2015-16, $43.1 million, subject to TABOR. Secondly, the shifting forward of revenue transferred from the Unclaimed Property Fund to the Adult Dental Fund caused the large increase in miscellaneous cash funds. The transfer that was slated to occur in FY 2016-17 was instead transferred in FY 2015-16, as per House Bill 16-1409, increasing FY 2015-16 revenue by $34.8 million and decreasing the revenue estimate in FY 2016-17 by the same amount. The shifting of this transfer from FY 2016-17, along with revenue to Ft. Lewis College and Western State Colorado University no longer being subject to TABOR due to these institutions regaining their enterprise status, are the main contributors to the projected decline in miscellaneous cash funds in FY 2016-17.

Revenue from the 2.9 percent sales tax on retail and medical marijuana, as well as fees related to regulation of the marijuana industry, is reflected in the miscellaneous cash funds category in Table 6. However, the table does not include the proceeds from marijuana taxes authorized by Proposition AA in November 2013 as they are not subject to TABOR. Proposition AA taxes are transferred to the Marijuana Tax Cash Fund, local governments, and school construction.

Revenue from the retail marijuana sales tax in Proposition AA goes first to the General Fund ─ and is included under sales tax revenue in Table 3 in the Appendix ─ before it is transferred to the Marijuana Tax Cash Fund and local governments. Proposition AA also included an excise tax of 15 percent on retail marijuana that is credited to public school cash funds, a majority of which goes to a cash fund for public school capital construction projects.

Taxpayer's Bill of Rights: Revenue Limit

Background on TABOR – Provisions in the Taxpayer's Bill of Rights (TABOR) – Article X, Section 20 of the Colorado Constitution – limit the growth of a large portion of State revenue to the sum of inflation and population growth. Revenue collected above the TABOR limit must be returned to taxpayers unless voters decide the State can retain the revenue.

In November 2005, voters approved Referendum C, which allowed the State to retain all revenue through FY 2009-10 during a five-year TABOR "time out." Referendum C also set a new cap on revenue starting in FY 2010-11. Starting with FY 2010-11, the amount of revenue that the State may retain under Referendum C (line 9 of Table 7 found in the Appendix) is calculated by multiplying the revenue limit between FY 2005-06 and FY 2009-10 associated with the highest TABOR revenue year (FY 2007-08) by the allowable TABOR growth rates (line 6 of Table 7) for each subsequent year.

Most General Fund revenue and a portion of cash fund revenue are included in calculating the revenue cap under Referendum C. Revenue that is not subject to TABOR includes revenue exempt by Colorado voters; federal money; and revenue received by entities designated as enterprises, such as public universities and colleges. Table 7 found in the Appendix summarizes the forecasts of TABOR revenue, the TABOR revenue limit, and the revenue cap under Referendum C.

This following information is based on the certification of TABOR revenue for FY 2015-16 released by the Office of the State Controller on September 1, 2016. However, on September 15, 2016, the State Controller released a recertification of FY 2015-16 TABOR revenue. This change reduced the amount of cash fund revenue subject to TABOR in FY 2015-16 by $23.2 million. Because of the timing of the recertification, there was inadequate time to incorporate it into this document.

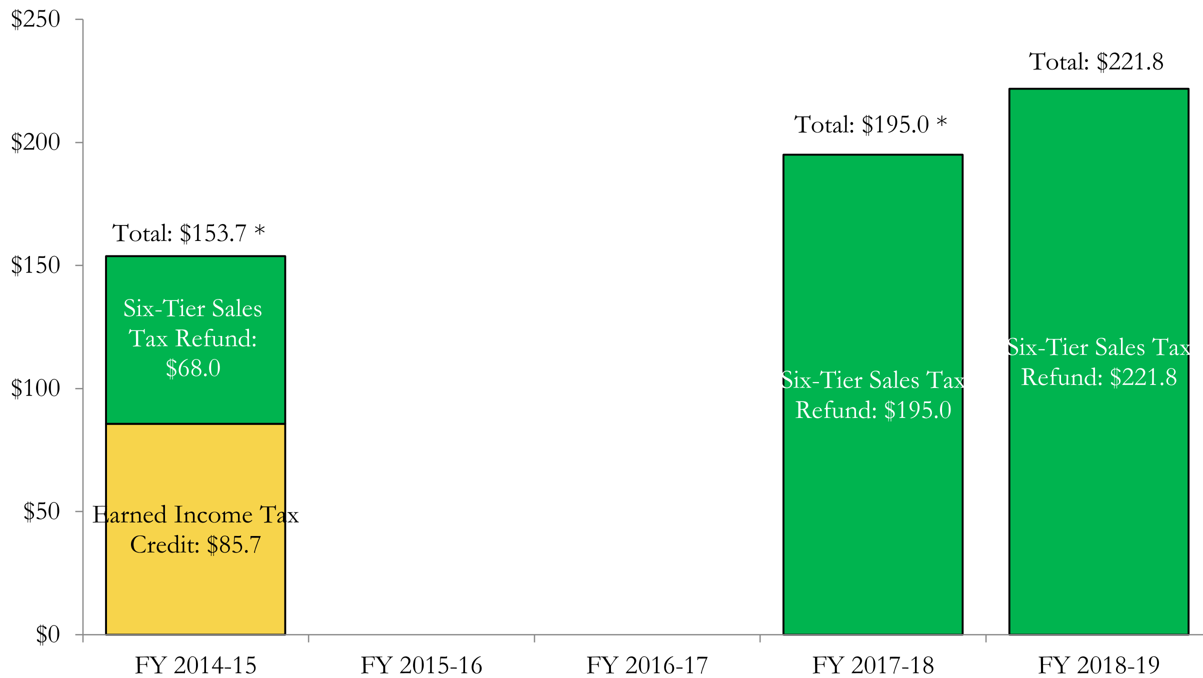
TABOR refunds occurred for FY 2014-15 and are projected again for fiscal years 2017-18 and 2018-19 – TABOR revenue exceeded the Referendum C cap by $169.7 million in FY 2014-15. Of this amount, $153.7 million is being refunded to taxpayers via their 2015 tax returns, which includes $3.6 million in pending amounts from prior years. The remaining $19.6 million of the $169.7 million in revenue above the FY 2014-15 cap from reclassifying the revenue transferred from the Unclaimed Property Fund to the Adult Dental Fund as subject to TABOR. This money helps fund dental services for adults under the Medicaid program. Initially, the money was not counted as TABOR revenue. However, the legal analysis and audit review on classification of this revenue occurred after refund amounts were established for state income tax forms. Such adjustments and audit findings have occurred in the past and the process calls for the money to be refunded in the next year a refund is due, which, according to this forecast, is FY 2017-18, as discussed below.

In FY 2015-16, TABOR revenue came in $26.7 million below the cap and revenue is projected to be $158.8 million under the cap in FY 2016-17. TABOR revenue is expected to be above the cap by $175.4 million in FY 2017-18 and $221.8 million in FY 2018-19. The amount above the cap in FY 2017-18 includes a projected $37.3 million for transfers from the Unclaimed Property Fund to the Adult Dental Fund now subject to TABOR. The $34.8 million transfer slated for FY 2016-17 was shifted into FY 2015-16, as per House Bill 16-1409, increasing TABOR revenue for FY 2015-16 and decreasing TABOR revenue in FY 2016-17.

Colorado law currently specifies three mechanisms by which revenue in excess of the cap is refunded to taxpayers: a sales tax refund to all taxpayers ("six-tier sales tax refund"), the Earned Income Tax Credit (EITC) to qualified taxpayers, and a temporary income tax rate reduction. The refund amount determines which refund

mechanisms are used. Figure 42 shows the anticipated refund that will be distributed through each mechanism according to the revenue projections in this forecast and the statutorily defined refund mechanisms.

Figure 42. Projected Distribution of TABOR Refunds, $ in Millions



* The FY 2014-15 amount includes $150.1 million in revenue initially calculated above the Referendum C cap in FY 2014-15, as well as $3.6 million in pending amounts owed related to refunds from prior years. These pending amounts are the result of (a) adjustments that were made to State accounting records for years in which TABOR refunds occurred that resulted in additional required refunds to taxpayers, and (b) the refund in previous years was less actual money than required. Such refunds are held by the State until a future year in which a TABOR refund occurs when they are added to the total refund amount and distributed to taxpayers. The FY 2017-18 amount includes $175.4 million in revenue above the Referendum C cap for FY 2017-18, as well as $19.6 million from FY 2014-15 due to the determination that revenue transferred from the Unclaimed Property Fund to the Adult Dental Fund is subject to TABOR. The legal analysis and audit review on this occurred after refund amounts were established for state income tax forms and therefore the additional refund amount for FY 2014-15 is to be refunded during the next year a refund is due which, according to this forecast, is FY 2017-18.

In FY 2014-15, the amount needed to be refunded exceeded the threshold that activates the state EITC, as specified by Section 39-22-123, C.R.S. Colorado taxpayers who qualify for the federal EITC can claim 10 percent of the amount they claim on their federal tax return on their state tax return for the 2015 tax year. The amount refunded through this mechanism is estimated to be $85.7 million and the credit is estimated to average about $217 per qualifying household. However, based on actual tax returns received thus far, the amount of EITCs claimed is likely to be below this amount. The average EITC estimated to be claimed for the 2015 tax year by household income tier is shown in Figure 43.

The state EITC is only a TABOR refund mechanism for one year because it becomes permanent after the year it is used as a refund. After the use of the EITC as a refund mechanism for FY 2014-15, it becomes available to qualifying taxpayers as a regular income tax credit on an ongoing basis and will reduce revenue to the General Fund through a reduction in income tax liabilities and higher income tax refunds.

The remaining $68.0 million of the refund for FY 2014-15 is being distributed through the six-tier sales tax refund, as specified by Section 39-22-2002, C.R.S., when taxpayers file their state tax return for the 2015 tax year. The amount of the refund that can be claimed by each taxpayer is calculated according to a statutory

formula that includes six adjusted gross income tiers and the total amount to be refunded. Figure 43 shows per-taxpayer refund estimates by income tier for the six-tier sales tax refund. Based on preliminary data on refunds claimed thus far from the Department of Revenue, the total amount of refunds claimed is likely to be lower than was projected. Any amount not refunded to taxpayers will be added to refunds the next year a refund is due which, according to this forecast, is FY 2017-18.

For FY 2017-18, the TABOR refund amount is expected to be $195.0 million, which includes the projected $175.4 million exceeding the Referendum C cap plus the $19.6 million that needs to be refunded from FY 2014-15. The $19.6 million from FY 2014-15 is due to the reclassification of the revenue transferred to the Adult Dental Fund from the Unclaimed Property Fund.

Revenue in excess of the cap in FY 2017-18 is not projected to meet the refund threshold to activate the temporary income tax rate reduction refund mechanism as specified by Section 39-22-627, C.R.S., and will therefore be refunded via the six-tier sales tax refund. The amount of the refund that can be claimed by each taxpayer will be calculated according to a statutory formula based on the taxpayer's adjusted gross income, as specified by Section 39-22-2002, C.R.S. Figure 43 shows per-taxpayer refund estimates by income tier for the six-tier sales tax refund.

In FY 2018-19, the projected TABOR refund amount of $221.8 million is also projected to be refunded through the six-tier sales tax refund mechanism. Figure 43 shows per-taxpayer refund estimates by income tier for the six-tier sales tax refund.

Figure 43. Projected Distribution of Refunds per Taxpayer by Fiscal Year

FY 2014-15 TABOR Refund per Taxpayer								
	Individual Returns				Joint Returns			
Adjusted Gross Income Tier	Earned Income Tax Credit*	Six-Tier Sales Tax	Income Tax Rate Cut	Total	Earned Income Tax Credit*	Six-Tier Sales Tax	Income Tax Rate Cut	Total
Up to $36,000	$234	$14	$0	$248	$234	$28	$0	$262
$36,001 - $77,000	$137	$19	$0	$156	$137	$38	$0	$175
$77,001 - $120,000	$0	$22	$0	$22	$0	$44	$0	$44
$120,001 - $163,000	$0	$24	$0	$24	$0	$48	$0	$48
$163,001 - $204,000	$0	$26	$0	$26	$0	$52	$0	$52
$204,001 and Up	$0	$44	$0	$44	$0	$88	$0	$88

*EITC applies per household, while the sales tax and income tax refunds are per return. Only households qualifying for the federal EITC will qualify for the state EITC and thus not all households in these income brackets will necessarily qualify. For tax years after 2015, the EITC will no longer be a TABOR refund mechanism and will become a permanent credit. The number of taxpayers and adjusted gross income tiers for FY 2014-15 are the Colorado Department of Revenue's projections.

No TABOR refund is required for FY 2015-16

No TABOR surplus is projected for FY 2016-17

FY 2017-18 TABOR Refund per Taxpayer						
	Individual Returns			Joint Returns		
	Six-Tier Sales Tax	Income Tax Rate Cut	Total	Six-Tier Sales Tax	Income Tax Rate Cut	Total
Adjusted Gross Income Tier						
Up to $39,000	$38	$0	$38	$76	$0	$76
$39,001 - $83,000	$52	$0	$52	$104	$0	$104
$83,001 - $129,000	$61	$0	$61	$122	$0	$122
$129,001 - $175,000	$67	$0	$67	$134	$0	$134
$175,001 - $219,000	$70	$0	$70	$140	$0	$140
$219,001 and Up	$119	$0	$119	$238	$0	$238

FY 2018-19 TABOR Refund per Taxpayer						
	Individual Returns			Joint Returns		
	Six-Tier Sales Tax	Income Tax Rate Cut	Total	Six-Tier Sales Tax	Income Tax Rate Cut	Total
Adjusted Gross Income Tier						
Up to $40,000	$42	$0	$42	$84	$0	$84
$40,001 - $85,000	$58	$0	$58	$116	$0	$116
$85,001 - $132,000	$68	$0	$68	$136	$0	$136
$132,001 - $179,000	$75	$0	$75	$150	$0	$150
$179,001 - $224,000	$78	$0	$78	$156	$0	$156
$224,001 and Up	$133	$0	$133	$266	$0	$266

TABOR refund amounts will affect transfers to transportation and capital construction (SB 09-228 transfers) – In addition to activating distributions of refunds to taxpayers, projected revenue in excess of the Referendum C cap affects the transfers to transportation and capital construction created by Senate Bill 09-228, as specified by Section 24-75-219, C.R.S. Because total personal income in Colorado grew by more than 5 percent in 2014, this statute requires transfers of General Fund revenue to the Highway Users Tax Fund (HUTF) and the Capital Construction Fund (CCF) for five years starting in FY 2015-16. For fiscal years 2017-18 through 2019-20, the transfers are reduced by half if there is a TABOR refund in the same fiscal year in an amount between 1 and 3 percent of total General Fund revenue. The transfers are suspended in full if there is a TABOR refund in excess of 3 percent of total General Fund revenue.

Pursuant to House Bill 16-1416, the dollar amount of the transfers to the HUTF and CCF are at fixed amounts in FY 2015-16 and FY 2016-17 regardless of the level of any TABOR refund. The transfer amount to the HUTF was equal to $199.2 million in FY 2015-16 and will be $158.0 million in FY 2016-17. The transfer amounts to the CCF were $49.8 million in FY 2015-16 and will be $52.7 million in FY 2016-17.

According to current projections, transfers to the HUTF and CCF will be reduced by half in FY 2017-18 and FY 2018-19 because the TABOR refunds are expected to be 1.8 percent and 1.9 percent of total General Fund revenue, respectively. The SB 228 transfers to the HUTF are projected to be $109.3 million in FY 2017-18 and $115.2 million in FY 2018-19; SB 228 transfers to the CCF are projected to be $54.7 million in FY 2017-18 and $57.6 million in FY 2018-19.

Governor's Revenue Estimating Advisory Committee

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- Alison Felix – Vice President and Denver Branch Executive, Denver Branch – Federal Reserve Bank of Kansas City
- Elizabeth Garner – State Demographer, Colorado Department of Local Affairs
- Alexandra Hall – Labor Market Information Director, Colorado Department of Labor and Employment
- Ronald New – Capital Markets Executive
- Patricia Silverstein – President, Development Research Partners
- Richard Wobbekind – Associate Dean, Leeds School of Business; University of Colorado, Boulder

Appendix – Reference Tables

Table 1. History and Forecast for Key Colorado Economic Variables
Calendar Year 2010-2018

Line No.		Actual						September 2016 Forecast		
		2010	2011	2012	2013	2014	2015	2016	2017	2018
	Income									
1	Personal Income (Billions) /A	$211.4	$227.1	$240.9	$246.4	$261.7	$275.1	$288.5	$303.5	$319.0
2	Change	2.4%	7.4%	6.1%	2.3%	6.2%	5.1%	4.9%	5.2%	5.1%
3	Wage and Salary Income (Billions)	$113.8	$118.6	$125.0	$129.5	$138.7	$146.4	$154.3	$162.8	$171.6
4	Change	1.3%	4.2%	5.4%	3.6%	7.1%	5.6%	5.4%	5.5%	5.4%
5	Per-Capita Income ($/person) /A	$41,877	$44,349	$46,402	$46,746	$48,869	$50,409	$51,939	$53,681	$55,477
6	Change	0.9%	5.9%	4.6%	0.7%	4.5%	3.2%	3.0%	3.4%	3.3%
	Population & Employment									
7	Population (Thousands)	5,048.6	5,119.7	5,191.7	5,272.1	5,355.9	5,456.6	5,555.3	5,654.6	5,750.6
8	Change	1.5%	1.4%	1.4%	1.5%	1.6%	1.9%	1.8%	1.8%	1.7%
9	Net Migration (Thousands)	37.5	36.0	39.8	47.9	50.8	69.3	67.0	67.0	63.0
10	Unemployment Rate	8.7%	8.4%	7.9%	6.8%	5.0%	3.9%	3.6%	4.1%	4.0%
11	Total Nonagricultural Employment (Thousands) /B	2,222.3	2,258.6	2,313.0	2,381.9	2,464.9	2,540.2	2,599.6	2,662.0	2,723.3
12	Change	-1.0%	1.6%	2.4%	3.0%	3.5%	3.1%	2.3%	2.4%	2.3%
	Construction Variables									
13	Total Housing Permits Issued (Thousands)	11.8	13.8	23.4	27.3	29.2	31.1	37.4	41.8	43.1
14	Change	25.9%	17.4%	69.0%	16.8%	7.0%	6.4%	20.2%	11.8%	3.2%
15	Nonresidential Construction Value (Millions) /C	$3,146.7	$3,923.2	$3,695.3	$3,624.0	$4,315.2	$4,781.0	$4,833.6	$4,955.2	$5,169.9
16	Change	-6.2%	24.7%	-5.8%	-1.9%	19.1%	10.8%	1.1%	2.5%	4.3%
	Prices & Sales Variables									
17	Retail Trade (Billions) /D	$70.5	$75.9	$80.2	$84.1	$90.5	$95.0	$99.1	$104.2	$109.4
18	Change	6.0%	7.7%	5.7%	4.8%	7.6%	4.9%	4.3%	5.2%	5.0%
19	Denver-Boulder-Greeley Consumer Price Index (1982-84=100)	212.4	220.3	224.6	230.8	237.2	240.0	246.5	252.9	258.4
20	Change	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.7%	2.6%	2.2%

/A Personal Income as reported by the federal Bureau of Economic Analysis includes: wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustments, personal dividend income, personal interest income, and personal current transfer receipts, less contributions from government social insurance.

/B Includes OSPB estimates of forthcoming revisions to jobs data that are currently not published. The jobs figures will be benchmarked based on Quarterly Census of Employment and Wage data to more accurately reflect the number of jobs in the state than was estimated based on a survey of employers.

/C Nonresidential Construction Value is reported by Dodge Analytics (McGraw-Hill Construction) and includes new construction, additions, and major remodeling projects predominately at commercial and manufacturing facilities, educational institutions, medical and government buildings. Nonresidential does not include non-building projects (such as streets, highways, bridges and utilities).

/D Retail Trade includes motor vehicles and automobile parts, furniture and home furnishings, electronics and appliances, building materials, sales at food and beverage stores, health and personal care, sales at convenience stores and service stations, clothing, sporting goods/books/music, and general merchandise found at warehouse stores and internet purchases. In addition, the above dollar amounts include sales from food and drink vendors (bars and restaurants). E-commerce retail trade and other sales by a retailer that does not have a state sales tax account are not included in these figures.

Table 2. History and Forecast for Key National Economic Variables
Calendar Year 2010 – 2018

Line No.		Actual						September 2016 Forecast		
		2010	2011	2012	2013	2014	2015	2016	2017	2018
	Inflation-Adjusted & Current Dollar Income Accounts									
1	Inflation-Adjusted Gross Domestic Product (Billions) /A	$14,783.8	$15,020.6	$15,354.6	$15,612.2	$15,982.3	$16,397.2	$16,643.2	$17,009.3	$17,349.5
2	Change	2.5%	1.6%	2.2%	1.7%	2.4%	2.6%	1.5%	2.2%	2.0%
3	Personal Income (Billions) /B	$12,477.1	$13,254.5	$13,915.1	$14,073.7	$14,809.7	$15,458.5	$15,937.6	$16,682.5	$17,583.4
4	Change	3.2%	6.2%	5.0%	1.1%	5.2%	4.4%	3.1%	4.7%	5.4%
5	Per-Capita Income ($/person)	$40,334	$42,521	$44,301	$44,477	$46,439	$48,095	$49,208	$51,122	$53,482
6	Change	2.4%	5.4%	4.2%	0.4%	4.4%	3.6%	2.3%	3.9%	4.6%
7	Wage and Salary Income (Billions) /B	$6,378	$6,633	$6,930	$7,116.7	$7,476.3	$7,854.8	$8,129.7	$8,568.7	$9,022.9
8	Change	2.0%	4.0%	4.5%	2.7%	5.1%	5.1%	3.5%	5.4%	5.3%
	Population & Employment									
9	Population (Millions)	309.3	311.7	314.1	316.4	318.9	321.4	323.9	326.3	328.8
10	Change	0.8%	0.8%	0.8%	0.7%	0.8%	0.8%	0.8%	0.8%	0.7%
11	Unemployment Rate	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.8%	4.6%	4.6%
12	Total Nonagricultural Employment (Millions)	130.4	131.9	134.2	136.4	139.0	141.9	144.3	146.1	147.5
13	Change	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.7%	1.2%	1.0%
	Price Variables									
14	Consumer Price Index (1982-84=100)	218.1	224.9	229.6	233.0	236.7	237.0	240.1	245.2	249.9
15	Change	1.6%	3.2%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	1.9%
16	Producer Price Index - All Commodities (1982=100)	184.7	201.0	202.2	203.4	205.3	190.4	185.4	191.0	195.7
17	Change	6.8%	8.8%	0.6%	0.6%	0.9%	-7.3%	-2.6%	3.0%	2.5%
	Other Key Indicators									
18	Corporate Profits (Billions)	1,746.4	$1,816.6	$1,998.2	$2,032.9	$2,152.1	$2,088.1	$2,058.3	$2,112.8	$2,197.3
19	Change	25.0%	4.0%	10.0%	1.7%	5.9%	-3.1%	-1.4%	2.6%	4.0%
20	Housing Permits (Millions)	0.605	0.624	0.830	0.991	1.052	1.183	1.220	1.491	1.590
21	Change	3.7%	3.2%	32.9%	19.4%	6.2%	12.4%	3.2%	22.2%	6.6%
22	Retail Trade (Billions)	$4,285.8	$4,597.6	$4,826.4	$5,001.2	$5,211.5	$5,327.4	$5,480.0	$5,743.0	$6,001.4
23	Change	5.4%	7.3%	5.0%	3.6%	4.2%	2.2%	2.9%	4.8%	4.5%

/A U.S. Bureau of Economic Analysis, National Income and Product Accounts. Inflation-adjusted, in 2009 dollars.

/B Personal Income as reported by the U.S. Bureau of Economic Analysis includes: wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustments, personal dividend income, personal interest income, and personal current transfer receipts, less contributions from government social insurance.

Table 3. General Fund – Revenue Estimates by Tax Category
(Accrual Basis, Dollar Amounts in Millions)

Line No.	Category	Preliminary FY 2015-16	% Chg	September 2016 Estimate by Fiscal Year FY 2016-17	% Chg	FY 2017-18	% Chg	FY 2018-19	% Chg
	Excise Taxes:								
1	Sales	$2,652.6	1.3%	$2,818.3	6.2%	$2,938.7	4.3%	$3,065.3	4.3%
2	Use	$241.2	-7.3%	$248.2	2.9%	$267.0	7.5%	$283.0	6.0%
3	Cigarette	$37.2	-1.8%	$35.7	-4.1%	$34.8	-2.6%	$34.1	-2.0%
4	Tobacco Products	$21.1	18.5%	$20.6	-2.4%	$20.6	-0.1%	$21.1	2.7%
5	Liquor	$43.6	5.0%	$46.7	7.2%	$46.8	0.3%	$48.1	2.6%
6	**Total Excise**	**$2,995.7**	**0.6%**	**$3,169.5**	**5.8%**	**$3,307.9**	**4.4%**	**$3,451.6**	**4.3%**
	Income Taxes:								
7	Net Individual Income	$6,526.5	2.8%	$6,825.4	4.6%	$7,189.3	5.3%	$7,620.3	6.0%
8	Net Corporate Income	$652.3	-5.8%	$634.9	-2.7%	$676.6	6.6%	$717.6	6.1%
9	**Total Income**	**$7,178.8**	**1.9%**	**$7,460.3**	**3.9%**	**$7,865.8**	**5.4%**	**$8,337.8**	**6.0%**
10	*Less: State Education Fund Diversion*	*$522.6*	*0.5%*	*$544.6*	*4.2%*	*$580.5*	*6.6%*	*$617.0*	*6.3%*
11	**Total Income to General Fund**	**$6,656.2**	**2.0%**	**$6,915.7**	**3.9%**	**$7,285.3**	**5.3%**	**$7,720.8**	**6.0%**
	Other Revenue:								
12	Insurance	$277.5	8.1%	$289.8	4.5%	$298.7	3.0%	$306.9	2.7%
13	Interest Income	$12.4	40.3%	$14.2	14.0%	$14.9	5.2%	$15.8	5.6%
14	Pari-Mutuel	$0.6	0.6%	$0.6	-3.2%	$0.6	-2.0%	$0.6	-2.0%
15	Court Receipts	$3.5	34.5%	$2.9	-15.2%	$2.8	-3.4%	$2.7	-3.5%
16	Other Income	$22.5	-33.8%	$20.4	-9.2%	$21.5	5.3%	$22.8	6.2%
17	**Total Other**	**$316.5**	**4.5%**	**$328.0**	**3.6%**	**$338.5**	**3.2%**	**$348.8**	**3.0%**
18	GROSS GENERAL FUND	$9,968.4	1.7%	$10,413.2	4.5%	$10,931.7	5.0%	$11,521.2	5.4%

Table 4. General Fund Overview under Current Law /A
(Dollar Amounts in Millions)

Line No.		Preliminary FY 2015-16	September 2016 Estimate by Fiscal Year FY 2016-17	FY 2017-18	FY 2018-19
Revenue					
1	**Beginning Reserve**	**$709.2**	**$473.4**	**$408.3**	**$642.1**
2	**Gross General Fund Revenue**	**$9,968.4**	**$10,413.2**	**$10,931.7**	**$11,521.2**
3	*Transfers to the General Fund*	*$24.1*	*$46.0*	*$18.6*	*$20.4*
4	**TOTAL GENERAL FUND AVAILABLE FOR EXPENDITURE**	**$10,701.8**	**$10,932.6**	**$11,358.6**	**$12,183.7**
Expenditures					
5	**Appropriation Subject to Limit**	**$9,335.6**	**$9,813.3**	**$9,930.2**	**$10,675.9**
6	*Dollar Change (from prior year)*	$466.6	$477.7	$116.9	$745.7
7	*Percent Change (from prior year)*	5.3%	5.1%	1.2%	7.5%
8	**Spending Outside Limit**	**$892.8**	**$711.0**	**$786.2**	**$817.3**
9	*TABOR Refund under Art. X, Section 20, (7) (d)*	*$0.0*	*$0.0*	*$195.0*	*$221.8*
10	*Set Aside for Potential TABOR Refund under Art. X, Section 20, (3) (c)*	*-$58.0*	*$0.0*	*$0.0*	*$0.0*
11	*Rebates and Expenditures*	$281.2	$296.8	$309.4	$322.3
12	*Transfers for Capital Construction*	$271.1	$84.5	$68.3	$57.6
13	*Transfers to Highway Users Tax Fund*	$199.2	$158.0	$109.3	$115.2
14	*Transfers to State Education Fund under SB 13-234*	$25.3	$25.3	$25.3	$25.0
15	*Transfers to Other Funds*	$173.9	$146.4	$78.9	$75.3
16	*Other Expenditures Exempt from General Fund Appropriations Limit*	$0.0	$0.0	$0.0	$0.0
17	**TOTAL GENERAL FUND OBLIGATIONS**	**$10,228.4**	**$10,524.3**	**$10,716.5**	**$11,493.2**
18	*Percent Change (from prior year)*	5.9%	2.9%	1.8%	7.2%
19	Reversions and Accounting Adjustments	$0.0	$0.0	$0.0	$0.0
Reserves					
20	**Year-End General Fund Balance**	**$473.4**	**$408.3**	**$642.1**	**$690.6**
21	*Year-End General Fund as a % of Appropriations*	5.1%	4.2%	6.5%	6.5%
22	*General Fund Statutory Reserve*	$463.9	$634.9	$642.1	$690.6
23	*Above (Below) Statutory Reserve*	$9.5	-$226.5	$0.0	$0.0

/A See the section discussing the General Fund and State Education Fund Budget starting on page 45 for information on the figures in this table.

Table 5. General Fund and State Education Fund Overview under Current Law /A
(Dollar Amounts in Millions)

Line No.		Preliminary FY 2015-16	September 2016 Estimate by Fiscal Year FY 2016-17	FY 2017-18	FY 2018-19
Revenue					
1	**Beginning Reserves**	**$1,393.2**	**$775.8**	**$512.2**	**$743.4**
2	*State Education Fund*	$684.0	$302.4	$103.8	$101.3
3	*General Fund*	$709.2	$473.4	$408.3	$642.1
4	**Gross State Education Fund Revenue**	**$554.4**	**$575.6**	**$611.9**	**$648.4**
5	**Gross General Fund Revenue /B**	**$9,992.6**	**$10,459.2**	**$10,950.3**	**$11,541.6**
6	**TOTAL FUNDS AVAILABLE FOR EXPENDITURE**	**$11,940.2**	**$11,810.6**	**$12,074.3**	**$12,933.4**
Expenditures					
7	General Fund Expenditures /C	$10,228.4	$10,524.3	$10,716.5	$11,493.2
8	State Education Fund Expenditures	*$944.4*	*$774.1*	*$614.5*	*$648.0*
9	**TOTAL OBLIGATIONS**	**$11,172.8**	**$11,298.4**	**$11,330.9**	**$12,141.1**
10	*Percent Change (from prior year)*	5.2%	1.1%	0.3%	7.2%
11	*Reversions and Accounting Adjustments*	*($8.3)*	*$0.0*	*$0.0*	*$0.0*
Reserves					
12	**Year-End Balance**	**$775.8**	**$512.2**	**$743.4**	**$792.2**
13	State Education Fund	$302.4	$103.8	$101.3	$101.7
14	General Fund	$473.4	$408.3	$642.1	$690.6
15	*General Fund Above (Below) Statutory Reserve*	$9.5	-$226.5	$0.0	$0.0

/A See the section discussing the General Fund and State Education Fund Budget starting on page 45 for information on the figures in this table.
/B This amount includes transfers to the General Fund shown in line 3 in Table 4.
/C General Fund expenditures include appropriations subject to the limit of 5.0% of Colorado personal income shown in line 5 in Table 4 as well as all spending outside the limit shown in line 8 in Table 4.

Table 6. Cash Fund Revenue Subject to TABOR Forecast by Major Category
(Dollar amounts in Millions)

Category	Preliminary	September 2016 Estimate by Fiscal Year		
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Transportation-Related /A	**$1,184.7**	**$1,201.9**	**$1,225.6**	**$1,248.0**
Change	1.7%	1.5%	2.0%	1.8%
Limited Gaming Fund /B	**$102.7**	**$105.9**	**$109.1**	**$112.4**
Change	3.4%	3.1%	3.0%	3.0%
Capital Construction - Interest	**$5.2**	**$4.7**	**$3.6**	**$3.1**
Change	-6.6%	-10.6%	-23.8%	-14.0%
Regulatory Agencies	**$68.8**	**$71.6**	**$73.4**	**$74.9**
Change	4.8%	4.1%	2.4%	2.1%
Insurance-Related	**$13.3**	**$14.0**	**$14.6**	**$15.3**
Change	-33.1%	4.9%	4.7%	4.7%
Severance Tax /C	**$18.9**	**$47.6**	**$169.8**	**$206.9**
Change	-93.3%	151.8%	256.5%	21.8%
Hospital Provider Fees	**$804.0**	**$656.8**	**$865.3**	**$859.7**
Change	52.0%	-18.3%	31.8%	-0.6%
Other Miscellaneous Cash Funds	**$796.0**	**$701.3**	**$748.9**	**$763.9**
Change	30.0%	-11.9%	6.8%	2.0%
TOTAL CASH FUND REVENUE	***$2,993.6***	***$2,803.8***	***$3,210.2***	***$3,284.1***
Change	7.8%	-6.3%	14.5%	2.3%

/A Includes revenue from Senate Bill 09-108 (FASTER) which began in FY 2009-10. Roughly 40% of FASTER-related revenue is directed to two State Enterprises. Revenue to State Enterprises is exempt from TABOR and is thus not included in the figures reflected by this table.

/B Excludes tax revenue from extended gaming as allowed by Amendment 50 to the Colorado Constitution as this revenue is exempt from TABOR. The portion of limited gaming revenue that is exempt is projected based on the formula outlined in House Bill 09-1272.

/C Severance tax revenue for FY 2015-16 differs from the amount reported by the State Controller's office, as the figures in Table 6 incorporate the diversion of income tax revenue to pay for severance tax refunds under Senate Bill 16-218.

Table 7. TABOR Revenue & Referendum C Revenue Limit
(Dollar Amounts in Millions)

Line No.		Preliminary FY 2015-16	September 2016 Estimate by Fiscal Year FY 2016-17	FY 2017-18	FY 2018-19
	TABOR Revenues:				
1	General Fund /A	$9,894.2	$10,324.2	$10,849.8	$11,433.2
	Percent Change from Prior Year	1.4%	4.3%	5.1%	5.4%
2	Cash Funds /A	$3,009.8	$2,803.8	$3,210.2	$3,284.1
	Percent Change from Prior Year	8.4%	-6.8%	14.5%	2.3%
3	**Total TABOR Revenues**	**$12,904.0**	**$13,128.0**	**$14,060.0**	**$14,717.3**
	Percent Change from Prior Year	3.0%	1.7%	7.1%	4.7%
	Revenue Limit Calculation:				
4	Previous calendar year population growth	1.6%	1.9%	1.8%	1.8%
5	Previous calendar year inflation	2.8%	1.2%	2.7%	2.6%
6	**Allowable TABOR Growth Rate**	4.4%	3.1%	4.5%	4.4%
7	TABOR Limit /B	$10,441.7	$10,720.6	$11,203.0	$11,695.9
8	General Fund Exempt Revenue Under Ref. C /C	$2,462.3	$2,407.4	$2,681.6	$3,021.4
9	**Revenue Cap Under Ref. C /B, /D**	**$12,930.7**	**$13,286.7**	**$13,884.6**	**$14,495.5**
10	***Amount Above/(Below) Cap***	**-$26.7**	**-$158.8**	**$175.4**	**$221.8**
11	TABOR Reserve Requirement	$387.1	$393.8	$416.5	$434.9

/A Amounts differ from the General Fund and Cash Fund revenues reported in Table 3 and Table 6 due to accounting adjustments and because some General Fund revenue is exempt from TABOR. Cash Funds amounts include the additional revenue related to the determination that the revenue transferred from the Unclaimed Property Fund to the Adult Dental Fund is subject to TABOR.

/B The TABOR limit and Referendum C cap are adjusted to account for changes in the enterprise status of various state entities.

/C Under Referendum C, a "General Fund Exempt Account" is created in the General Fund. The account consists of money collected in excess of the TABOR limit in accordance with voter-approval of Referendum C.

/D The revenue limit is calculated by applying the "Allowable TABOR Growth Rate" to either "Total TABOR Revenues" or the "Revenue Cap under Ref. C," whichever is smaller. Beginning in FY 2010-11, the revenue limit is based on the highest revenue total from FY 2005-06 to 2009-10 plus the "Allowable TABOR Growth Rate." FY 2007-08 was the highest revenue year during the Referendum C timeout period.