



Oregon Economic and Revenue Forecast

December 2016

Volume XXXVI, No. 4

Release Date: November 16, 2016

Katy Coba
Chief Operating Officer
DAS Director

Kate Brown
Governor

Prepared By:
Office of Economic Analysis
Department of Administrative Services

Department of Administrative Services

Katy Coba
DAS Director
Chief Operating Officer

Office of Economic Analysis

Mark McMullen, State Economist
Josh Lehner, Senior Economist

Kanhaiya Vaidya, Senior Demographer
Michael Kennedy, Senior Economist

<http://oregon.gov/DAS/OEA>
<http://oregoneconomicanalysis.com>
http://twitter.com/OR_EconAnalysis

Foreword

This document contains the Oregon economic and revenue forecasts. The Oregon economic forecast is published to provide information to planners and policy makers in state agencies and private organizations for use in their decision making processes. The Oregon revenue forecast is published to open the revenue forecasting process to public review. It is the basis for much of the budgeting in state government.

The report is issued four times a year; in March, June, September, and December.

The economic model assumptions and results are reviewed by the Department of Administrative Services Economic Advisory Committee and by the Governor's Council of Economic Advisors. The Department of Administrative Services Economic Advisory Committee consists of 15 economists employed by state agencies, while the Governor's Council of Economic Advisors is a group of 12 economists from academia, finance, utilities, and industry.

Members of the Economic Advisory Committee and the Governor's Council of Economic Advisors provide a two-way flow of information. The Department of Administrative Services makes preliminary forecasts and receives feedback on the reasonableness of such forecasts and assumptions employed. After the discussion of the preliminary forecast, the Department of Administrative Services makes a final forecast using the suggestions and comments made by the two reviewing committees.

The results from the economic model are in turn used to provide a preliminary forecast for state tax revenues. The preliminary results are reviewed by the Council of Revenue Forecast Advisors. The Council of Revenue Forecast Advisors consists of 15 specialists with backgrounds in accounting, financial planning, and economics. Members bring specific specialties in tax issues and represent private practices, accounting firms, corporations, government (Oregon Department of Revenue and Legislative Revenue Office), and the Governor's Council of Economic Advisors. After discussion of the preliminary revenue forecast, the Department of Administrative Services makes the final revenue forecast using the suggestions and comments made by the reviewing committee.

Readers who have questions or wish to submit suggestions may contact the Office of Economic Analysis by telephone at 503-378-3405.



Katy Coba
DAS Director
Chief Operating Officer

Table of Contents

EXECUTIVE SUMMARY	1
ECONOMIC OUTLOOK	2
U.S. Economy	2
Oregon Economy	4
Oregon Labor Market	7
Leading Indicators	10
Short-term Outlook	11
Forecast Risks	13
Alternative Scenarios	15
Extended Outlook	16
Regional Trends	20
State Comparisons	21
REVENUE OUTLOOK	22
General Fund Revenues, 2015-17	23
Extended Outlook	25
Tax Law Assumptions	26
Alternative Scenarios	26
Lottery Outlook	28
Budgetary Reserves	30
POPULATION AND DEMOGRAPHIC OUTLOOK	31
APPENDIX A: ECONOMIC	34
APPENDIX B: REVENUE	42
APPENDIX C: DEMOGRAPHIC	55

EXECUTIVE SUMMARY

December 2016

The U.S. economy marches on. Despite a general slowing in recent years with a number of worrisome issues, the national economy, if anything, appears to be stabilizing and poised for decent to solid growth. The labor market is generally doing well and wage growth is accelerating. Manufacturing weakness remains. But as the dollar stabilizes and exports rebound, manufacturing is showing some encouraging signs. That said, the outlook remains somewhat uncertain. It is still too soon to know what federal policy will look like following the election. Even as broad proposals have been discussed throughout the campaign and in recent days, details matter and should come into focus in the weeks and months ahead.

The economic slowdown has reached Oregon. Job growth in recent months has decelerated somewhat from the full-throttle rates seen in the past couple of years. Oregon continues to outpace the nation and the expansion endures. However, the state today is now past its peak in terms of growth rates. Like in other states, goods-producing industries are weakening. Oregon's manufacturers have cut jobs in recent months. Growth in retail trade has decelerated as well. Most other sectors are adding jobs at similar rates to the recent past.

While Oregon's labor market growth is slowing somewhat, the state is at or near full employment. This means progress is beginning to be seen and felt in broader measures of economic well-being like median household income, the poverty rate and needs-based caseloads and the like.

Oregon's General Fund revenue outlook remains stable. Revenue growth has slowed in recent months along with growth in the underlying economy. However, this slowdown did not come as a surprise, with less growth having already been built into the baseline forecast. As such, expectations have remained virtually unchanged since the 2015-17 biennial budget was crafted. Currently, General Fund revenues are expected to land within \$8 million of the Close of Session estimate.

As job growth began to shift down over the spring and summer months, growth in personal income taxes withheld out of worker pay slowed down as well. Growth in withholdings currently rests near the bottom of the range seen over the past three years. Over this period, growth in employment and tax revenues have been running hot, as Oregon's labor market worked to heal itself from the recession of 2009. Going forward, slower, more sustainable growth rates are expected to be the norm.

Since the last revenue forecast was published in August, income tax returns have come due for 2015 taxpayers who filed for extensions. Delayed and amended tax returns that are filed in the fall months often have an outsized impact on overall collections. Although returns processed in the early fall account for only 4% of all full-year filers, they account for a much larger share of reported income and tax liability. Extension filers are often taxpayers with the most complicated returns, including many of the wealthiest households in the state.

Income trends among extension filers generally matched returns filed in April, with one notable exception: Extension filers enjoyed growth in their taxable investments during 2015, while the typical household did not. Capital gains reported in September and October were \$500 million larger than last year, leading to a somewhat healthier collection season than was first evident in April.

Revenue growth in Oregon and other states will face considerable downward pressure over the 10-year extended forecast horizon. As the baby boom population cohort works less and spends less, traditional state tax instruments such as personal income taxes and general sales taxes will become less effective, and revenue growth will fail to match the pace seen in the past.

ECONOMIC OUTLOOK

Economic Summary

The U.S. economy marches on. Despite a general slowing in recent years with a number of worrisome issues, the national economy, if anything, appears to be stabilizing and poised for decent to solid growth. The labor market is generally doing well and wage growth is accelerating. Manufacturing weakness remains. But as the dollar stabilizes and exports rebound, manufacturing is showing some encouraging signs. That said, the outlook remains somewhat uncertain. It is still too soon to know what federal policy will look like following the election. Even as broad proposals have been discussed throughout the campaign and in recent days, details matter and should come into focus in the weeks and months ahead.

The economic slowdown has reached Oregon. Job growth in recent months has decelerated somewhat from the full-throttle rates seen in the past couple of years. Oregon continues to outpace the nation and the expansion endures. However, the state today is now past its peak in terms of growth rates. Like in other states, goods-producing industries are weakening. Oregon's manufacturers have cut jobs in recent months. Growth in retail trade has decelerated as well. Most other sectors are adding jobs at similar rates to the recent past, which is good news.

U.S. Economy

The U.S. economy marches on. Despite a general slowing in recent years with a number of worrisome issues, the national economy, if anything, appears to be stabilizing and poised for decent to solid growth. The labor market is doing well and wage growth is accelerating. Manufacturing weakness remains. But as the dollar stabilizes and exports rebound, manufacturing is showing some encouraging signs. That said, the outlook remains somewhat uncertain. It is still too soon to know what federal policy will look like following the election. Even as broad proposals have been discussed throughout the campaign and in recent days, details matter and should come into focus in the weeks and months ahead.

While there will be a unified Republican government starting in 2017, it is still too soon to know what policies will actually be enacted. Campaign rhetoric, at times, differs what is actually passed. That said, broad proposals have been discussed along the campaign trail and in recent days. Some, like personal and corporate tax cuts and increased infrastructure spending, are likely to boost economic growth in the coming years. Others, like protectionism, a trade war and harsh immigration policies, are likely to restrict growth. As always, the devil is in the details.

For example, while a broad range of economists support increased infrastructure spending, how will it be implemented? Traditional, debt-financed federal spending can provide both a short-term economic boost and long-term gains given low borrowing costs and a higher return on investment from a societal standpoint. However, there is not always a profit motive or short-term profits to be made by retrofitting schools or repairing deficient bridges. As such, tax credits designed to spur private sector infrastructure spending may not provide as much bang-for-the-buck. Similarly, tax cuts for higher income households which save a larger share of their income will have a different economic impact than would targeted tax breaks or even increased spending for various federal programs. That said, regardless of its exact form, expansionary fiscal policy is still expansionary. Economic growth is likely to see a near-term boost, at least from some of the proposed policies.

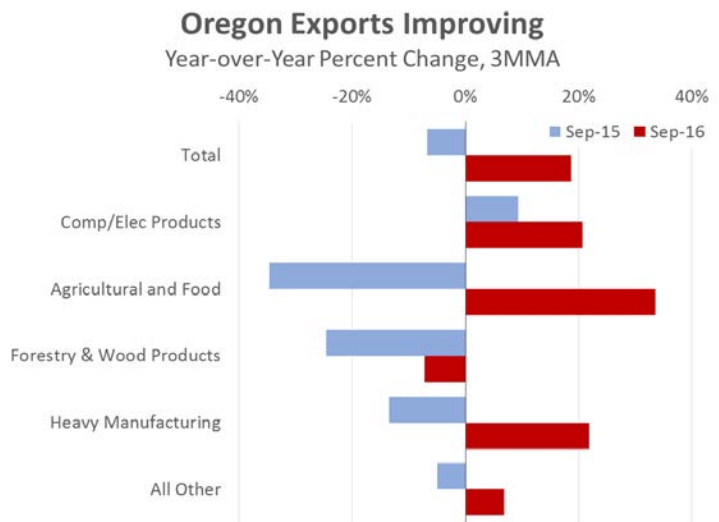
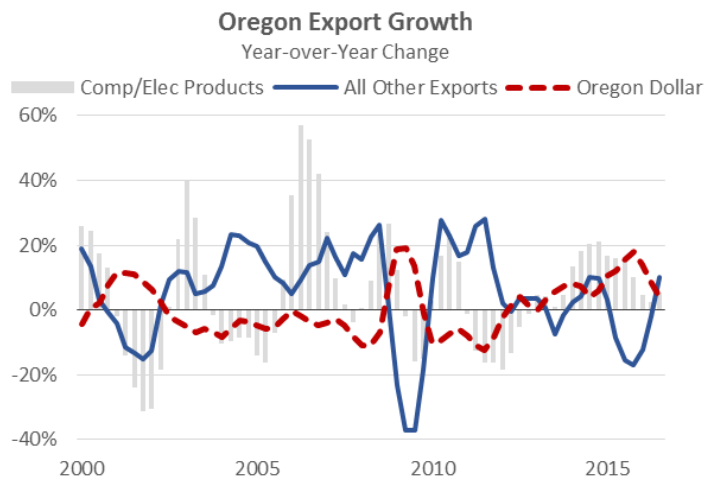
For now, our office’s outlook does not explicitly take into account any of President-elect Trump’s proposals. As the exact nature of policy comes into focus in the coming months, our office’s main macroeconomic vendors – IHS Global Insight and Moody’s Analytics – will incorporate them into their outlooks. In turn, our office will adjust the Oregon economic and revenue outlook accordingly.

The latest economic data continues to show decent to solid growth across the nation. Real GDP is on track to grow by 2-2.5 percent over the coming year. Given long-run demographic trends, such growth is close to the economy’s potential, even if it is substandard by historical comparisons. Employment gains continue to be strong enough to keep the headline unemployment rate around 5 percent. Encouragingly, wage growth across the nation is finally accelerating as the labor market tightens. Average hourly earnings have picked up from around 2 percent growth for much of the recovery to nearly 3 percent in the past year. Healthy wage gains would be 3-4 percent, like those seen in Oregon in the past couple of years.

Finally, the manufacturing sector has moved from all bad news to more of a mixed bag. The dollar has stabilized and exports are rebounding. Here in Oregon, all major industries are seeing better export growth than a year ago. Forestry and Wood Products continue to fall due to lower global demand, however the rate of decline has slowed somewhat. Nationally, international trade – the net of exports and imports – has added to GDP growth in recent quarters as well.

That said, manufacturing employment nationwide is down and Oregon has seen job losses in recent months too. New orders for capital goods remain weak, but stabilizing. Industrial production too remains weak with more industries showing year-over-year declines than gains, but these trends are not worsening. Two other leading indicators – average hours worked per week and the purchasing managers index – both remain in expansionary territory. All told, manufacturing is clearly no longer the bright spot it was a couple years ago, however it does appear the sector is working through the major issues of the strong U.S. dollar and weaker global demand and pullback in capital investment, largely in oil and gas and related sectors.

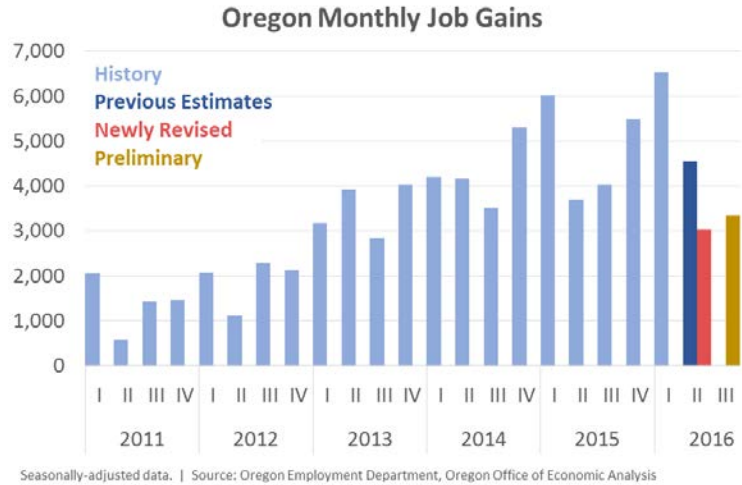
The U.S. economy is on solid footing heading into 2017. Given the stronger labor market, the Federal Reserve is expected to raise interest rates at its December meeting. As always, the Fed’s policy path is “data dependent” in terms of economic growth, inflation and the like. As President-elect Trump’s policies come better into focus, their economic impacts should too.



Oregon Economy

The economic slowdown has reached Oregon. Job growth in recent months has decelerated somewhat from the full-throttle rates seen in the past couple of years. Oregon continues to outpace the nation and the expansion endures. However, the state today is now past its peak in terms of growth rates. Like in other states, goods-producing industries are weakening. Oregon's manufacturers have cut jobs in recent months. Growth in retail trade has decelerated as well. Most other sectors are adding jobs at similar rates to the recent past, which is good news.

Our office's economic outlook has called for this slowdown to occur as the state economy approached and reached full employment. The 5,000 job gains per month in recent years were unsustainable over an extended period of time. Those represented peak growth rates. Such gains were needed and welcomed as the economy dug itself out of the Great Recession-induced hole. However, as unemployment has returned to normal and the share of Oregonians working part-time but want a full-time job also returns to mid-2000s rates, job growth was expected to slow in the near future. Further impacting the outlook was the strong U.S. dollar weighing on export-oriented industries like manufacturing.



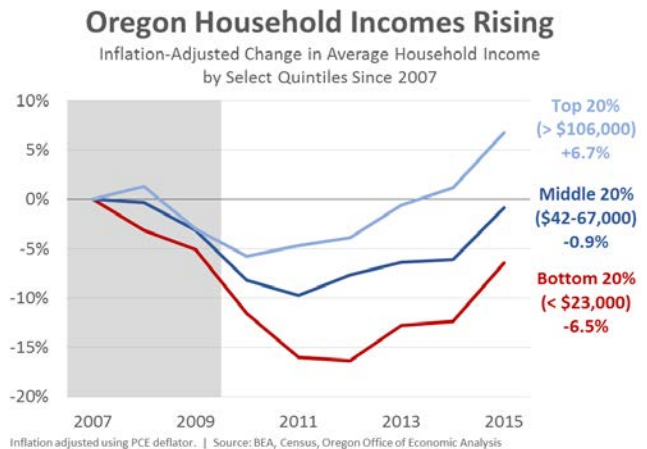
The one remaining weak spot is the labor force participation rate, or the share of Oregonians with a job or looking for work. The stronger economy has pulled more individuals back into the labor market in search of the more-plentiful and better-paying jobs. However, even as participation has risen since late 2014, it remains lower today than can be explained solely by the aging Baby Boomers entering their retirement years.

As such, our office's previous forecasts called for continued economic growth, although beginning to slow in late 2016. Based on both the newly revised employment data and withholdings out of Oregonian paychecks in recent months, the slowdown is already here. The expansion is expected to continue and Oregon to see above average gains when compared with the rest of the nation, however not quite as strong as in the past couple of years.

Broader Measures of Economic Well-Being

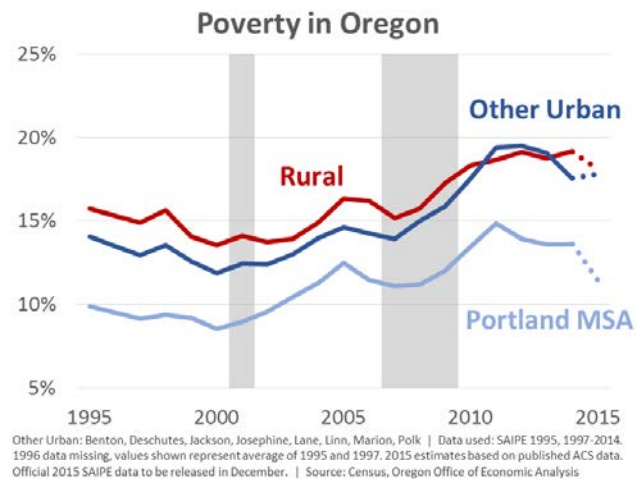
While Oregon's labor market growth is slowing somewhat, the state is at or near full employment. This means progress is beginning to be seen and felt in broader measures of economic well-being like median household income, the poverty rate and needs-based caseloads and the like.

In fact, recently released Census data show that 2015 brought the largest increase in median household income in more than a decade. And since 2012, the



strongest increases in household income have actually been for those at the bottom of the income distribution. The main driver of these gains is the stronger economy where more Oregonians have jobs and wages are rising. This is particularly important because households in the middle and bottom part of the distribution only have wage income and the safety net. They generally lack the wider variety of income sources that higher income households have, like capital gains, dividends, rental income and the like that have performed better in recent decades.

Even so, incomes for the majority of households in Oregon today remain lower than prior to the Great Recession after adjusting for inflation. Similarly, poverty rates across the state remain higher today than back in the mid-2000s even as they are beginning to improve. Statewide, the poverty rate is effectively halfway back down to where it was prior to the Great Recession. The vast majority of this improvement is concentrated in the Portland metropolitan area which has experienced the strongest economic recovery. Importantly, poverty in the Portland region is improving proportionately for both whites and people of color. A large racial gap still exists, like elsewhere in the country, however the gap is not widening in recent years.



Other regions of the state, while growing again, and in many cases experiencing strong job growth, have yet to see significant progress in local poverty rates. This is largely due to the timing of the local business cycle. Keep in mind that it was not until 2015 that the Portland region saw a significant poverty decline and Portland saw job growth before the rest of the state and has had the strongest recovery overall. Provided the expansion continues, improvement in poverty outside of the Willamette Valley are coming.

That said, factors beyond just the number of jobs are important to consider when looking at poverty trends over time. The type of jobs created matter, both in respect to job polarization and full-time vs part-time. Demographics also play a role. Retirees have lower levels of current income than do those in their prime-working and peak-earning years, and counties with larger shares of older residents also tend to have higher poverty rates. Such trends will impact how much and how quickly local poverty rates improve across the state in addition to broader economic trends.

Economic Anxiety in Oregon

Economic anxiety, particularly among the white-working class, has been front and center this election cycle. At the least it is one of the two main topics, and for a good and valid reason. While most economic analyses and discussions focus on the short-term movements over the business cycle, it is important to not lose sight of the longer-run trends. For a large part of the population those longer-run trends have been stagnant incomes and fewer middle-wage job opportunities. In recent years our office has researched a number of these trends, topics and tangents in an effort to better understand the regional economy. What follows is a brief summary of our findings.

The problem with job polarization, as discussed in our office's 2013 report, is not that the economy is creating a lot of jobs in high-wage occupations and industries. That is actually great for the economy. The issue is when a

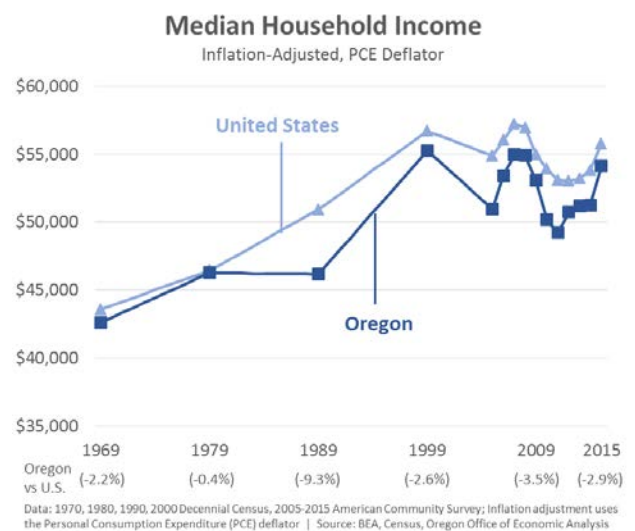
worker loses his or her middle-wage job and is only able to find a low-wage job to replace it, if he or she finds a job at all. This represents a clear downgrade in his or her financial situation and broader quality of life.

To a certain degree, the housing boom last decade was able to mask some of these issues for men without college degrees, but that proved temporary. And even as the high-tech sector has replaced the timber industry statewide, the composition of the workforce and the geographic location of the jobs are very different. Further complicating the issue are the stagnant or declining wages for the middle-wage jobs that remain. This is evident in the timber industry where average wages in the 1970s were 30-35% higher than in the average industry across the state. Today, wages within the timber industry are lower after adjusting for inflation and now pay the statewide average. This is equally true for manufacturing overall, at least outside of the high-tech sector. There is no manufacturing wage premium like there used to be.

All that said, the biggest problem with job polarization is that the vast majority of the “adjustment” has been for people to simply drop out of the labor force entirely. This is equally true for both Oregon men and Oregon women without college degrees. This last point is important. While much of the focus is generally on blue-collar, male-dominated jobs, these trends impact women as well. In fact, the decline in office and administrative support occupations in Oregon rivals the decline in production (manufacturing) jobs for men.

When one combines these labor market trends and the impacts of globalization and technological change, the end result are those stagnant incomes for households in the middle and bottom part of the income distribution. TO be sure, these issues are not Oregon-specific and not necessarily U.S.-specific as former World Bank chief economist Branko Milanovic showed with his so-called Elephant Graph.

Finally, there is a large geographic split when examining economic trends in recent decades. As our office’s 2015 Rural Oregon report detailed, the urban-rural divide is stark. That said, not all hope is lost. The Timber Belt continues to see population gains unlike other regions across the country that experienced similar job losses. Such gains do bring hope. And even with the aging demographics, such concerns may be a bit overstated in some of our rural communities.



Researching the issues is the easy part. Policies that address them are hard. Unfortunately, so far there has been no silver bullet. The most common response is educational attainment, and with good reason. However, college degrees are not the be-all and end-all when it comes to creating a skilled workforce.

The outlook for middle-wage jobs overall depends on a number of factors. Some, like teachers and construction workers, are driven more by population and demographics. Others, like office support staff and truck drivers, are more business-support oriented. Wage growth itself, of any occupation, generally relies on full employment where firms must compete more on price to attract and retain the best workers.

For more, and for a complete list of links to the underlying research mentioned above, please see our office’s website: <https://oregoneconomicanalysis.com/2016/11/09/economic-anxiety-in-oregon/>

Oregon's Labor Market

The Office of Economic Analysis examines four main sources for jobs data: the monthly payroll employment survey, the monthly household survey, monthly withholding tax receipts and the quarterly census of employment and wages. Right now all four measures of the labor market are improving. Jobs are being added, albeit at a slower rate. Wages are rising, both in aggregate and for each worker. The unemployment is around what can be considered full employment for Oregon.

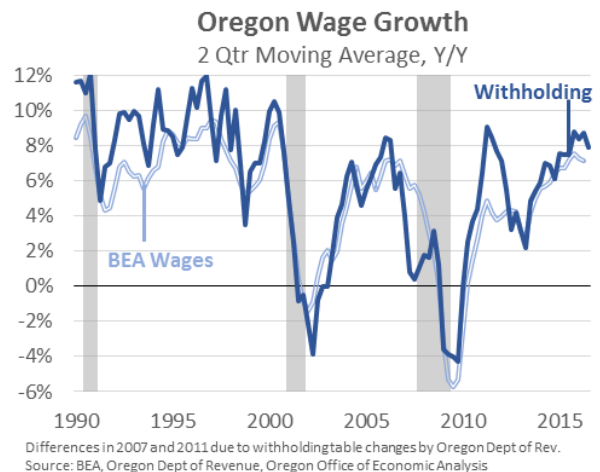
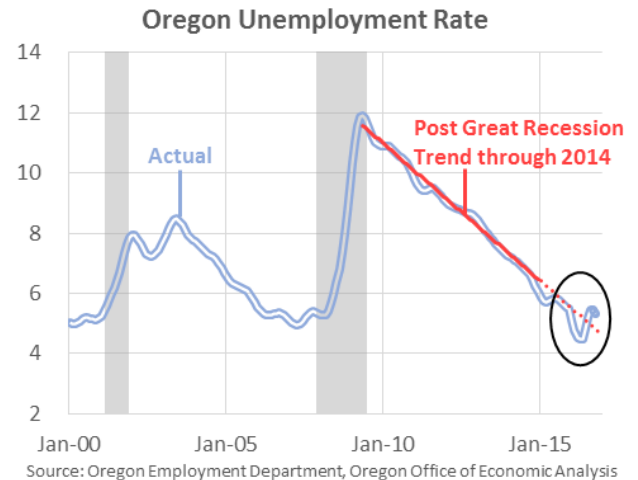
As our office has been discussing, or more accurately, warning over the past year and a half, the pattern of unemployment rate changes does not likely reflect the overall pattern of growth in the Oregon economy. So far in 2016, the January through March unemployment rate declines are the largest declines on record for the state. These improvements were reversed with the large increases in the unemployment rate in June and July. In fact, when looking across Oregon's history during economic expansions, those are the two single largest increases in the unemployment rate for any month in which jobs were added. Only during the early 1980s recession and the Great Recession did the unemployment increase by a similar amount over two months. Needless to say, the Oregon economy did not experience supercharged growth to start to year for it to come to a screeching halt this summer.

Expectations are that once the annual benchmark revisions take place in March, the revised 2016 unemployment rate pattern will be smoothed, relative to the unrevised data. This same pattern in the unrevised data was seen in last year as well, only for the revisions to smooth the overall pattern.

More importantly, wages in Oregon are increasing at near double-digit rates, which is better than during the mid-2000s expansion but still a notch below the 1990s gains. Average wages per worker are currently increasing 3-4 percent per year, which is faster than inflation of 1-2 percent per year. However, recent withholding collections have slowed from an 8 percent pace to around 5 percent, in-line with the slowing job gains this year.

While national wage trends have just begun to accelerate in the past twelve months, Oregon's have been strong for a couple years now. Even Oregon's average hourly earnings have accelerated in the past year. Previously this measure, which only began in 2007 and thus is still new, had been growing near 0 percent in inflation-adjusted terms. Given all other Oregon-specific wage data was strong, average hourly earnings was an outlier. This is no longer the case.

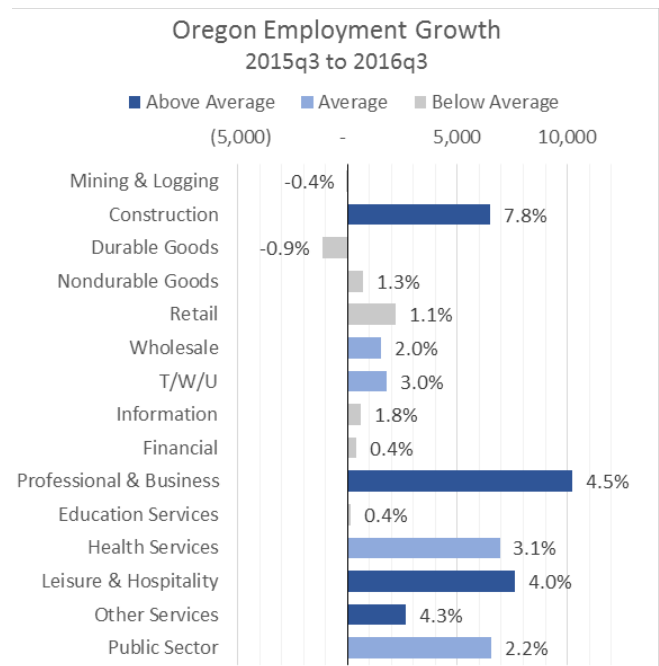
Overall, getting a handle of the health of Oregon's labor market is being somewhat complicated by technical issues within the underlying payroll jobs data. For this reason the employment data in our office's forecast is



adjusted for two important technical purposes: seasonality at the detailed industry level and the upcoming benchmark revisions¹.

In the third quarter, total nonfarm employment increased 2.6 percent over the past year with the private sector growing at 2.7 percent and the public sector at 2.2 percent. These rates of growth are a step down from the full-throttle rates seen in recent years, however remain faster than needed to keep pace with population gains so far.

The nearby graph illustrates the number of job gains by major industry by the length of the bar. The percentage increase these changes represent is noted as well. The bars are color coded by growth rate relative to total employment growth. Industries with dark blue colored bars are growing at rates much faster than total employment, light blue bars represent industries which are growing approximately in line with the average, while grey bar industries are growing at rates significantly less than the average.



As has been the case in the recovery to date, jobs in the large service sector have led growth in terms of outright job gains and with above-average growth rates. These include jobs in professional and business services, health services, and leisure and hospitality industries. These three industries have gained 24,800 jobs in the past year and account for 53 percent of all job gains across the state. The good news is that this share has generally been shrinking in recent years as other industries continue to add jobs as well, which was not the case earlier in the expansion. Today, however, with manufacturing losses in recent months, these large service sector jobs represent a higher share of net job growth statewide than has been the case in the past year or so.

In terms of illustrating how each industry has fared over the Great Recession and so far in recovery, the second graph shows both the depths of recessionary losses² and where each industry stands today relative to pre-recession peak levels.

¹ Each year the U.S. Bureau of Labor Statistics revise the employment data – a process known as benchmarking. The current establishment survey (CES), also known as the monthly payroll survey, is benchmarked against the quarterly census of employment and wages (QCEW), a series that contains all employees covered by unemployment insurance. The monthly CES is based on a sample of firms, whereas the QCEW contains approximately 96 percent of all employees, or nearly a complete count of employment in Oregon. The greatest benefit of the CES is the timeliness – monthly employment estimates are available with only a one month lag – and these estimates are reasonably accurate. However the further removed from the latest benchmark, the larger the errors. The QCEW is less timely as the data is released approximately 3-4 months following the end of the quarter. The greatest benefit of the QCEW is that is a near 100 percent count of statewide employment. For these reasons, the CES is usually used to discuss recent monthly employment trends, however once a year the data is revised to match the historical QCEW employment trends. The last month of official benchmark data is September 2015. The QCEW is currently available through June 2016, thus the preliminary benchmark used here covers the October 2015 – June 2016 period.

² Each industry’s pre-recession peak was allowed to vary as, for example, construction and housing-related industries began losing jobs earlier than other industries or the recession’s official start date per NBER.

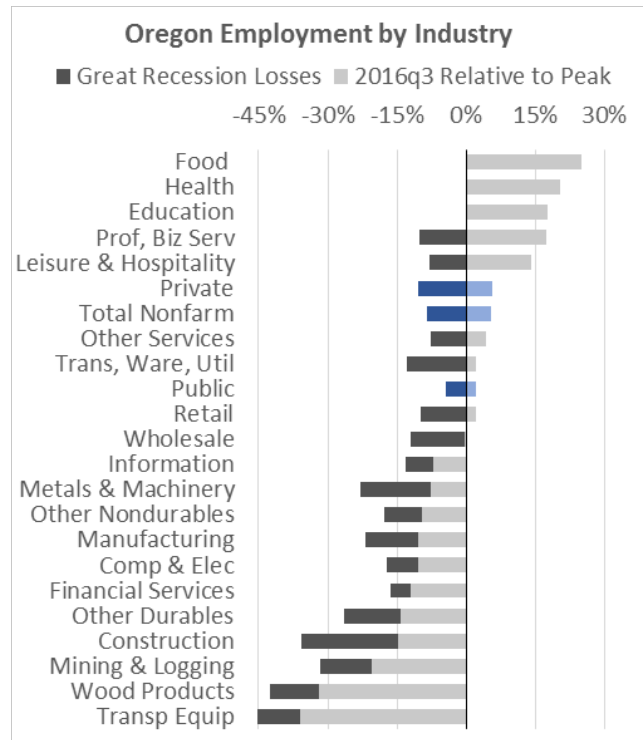
Currently, nine major industries are at all-time highs. Private sector food manufacturing, education, and health never really suffered recessionary losses – although their growth did slow during the recession. Professional and business services and leisure and hospitality have each regained all of their losses and are leading growth today. In recent months retail employment, other services, transportation, warehousing and utilities, in addition to the public sector have surpassed their pre-recession levels and are at all-time highs. The eight private sector industries at all-time highs account for 59 percent of all statewide jobs. The public sector accounts for an additional 17 percent of all jobs.

With the Great Recession being characterized by a housing bubble, it is no surprise to see wood products, construction, mining and logging and financial services (losses are mostly real estate agents) among the hardest hit industries. These housing and related sectors are now recovery, although they still have much ground to make up. Transportation equipment manufacturing suffered the worst job cuts and is likely a structural decline due to the RV industry’s collapse³. With that being said, the subsectors tied to aerospace are doing well and the ship and boat building subsector is growing again. Metals and machinery manufacturing, along with mining and logging, have shown the largest improvements since the depths of the recession.

Coming off such a deep recession, goods-producing industries exhibited stronger growth than in past cycles. While all manufacturing subsectors have seen some growth, they are unlikely to fully regain all of their lost jobs. And as the manufacturing cycle wanes today, the state has lost jobs in recent months. These losses are concentrated in durable goods industries like wood products, computer and electronic products, metals and machinery and the like. All told, Oregon manufacturers typically outperform those in other states, in large part due to the local industry make-up. Oregon does not rely upon old auto makers or textile mills. The state’s manufacturing industry is comprised of newer technologies like aerospace and semiconductors. Similarly Oregon’s food processing industry continues to boom.

All told, each of Oregon’s major industries has experienced some growth in recovery, albeit uneven. As the economy continues to recover there will be net winners and net losers when it comes to jobs, income and sales. Business cycles have a way of restructuring the economy.

For additional information on the most recent quarter’s employment forecast errors, please refer to Table A.1 in Appendix A.



³ <http://oregoneconomicanalysis.com/2012/07/10/rv-workers-and-reemployment/>

Leading Indicators

As has been the case throughout the past two years, both of the Oregon-specific composite leading indicators are gyrating up and down with no real sustained movement in either direction. Underlying these moves are a mixed bag of individual indicators in both our office's Oregon Index of Leading Indicators (OILI) and the University of Oregon's Index of Economic Indicators. The breakdown has largely been between manufacturing, or goods-producing indicators and all other types.

On the bright side, there is some reason for optimism as industrial production appears to be firming following a prolonged decline and period of weakness. The dollar has depreciated a little, making Oregon-produced goods and services more price competitive in a global market, but remains considerably stronger than a year or two ago.

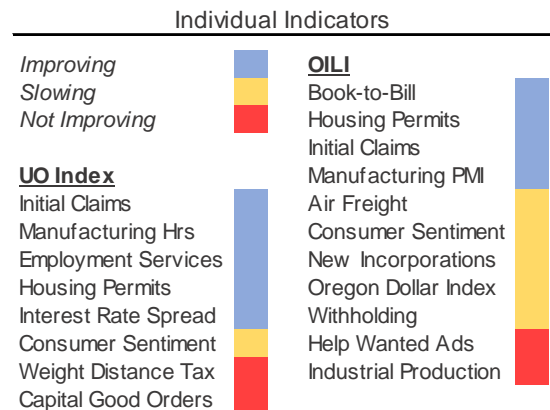
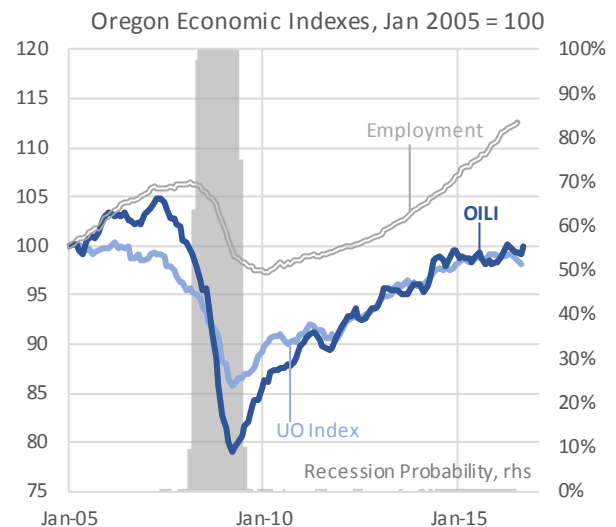
Furthermore, initial claims for unemployment insurance remain historically low, a clear indication that layoffs are low across the economy. While withholdings out of Oregon paychecks have slowed some, they continues to see solid gains. And some of the manufacturing data, like hours worked per week, the purchasing managers index and the semiconductor equipment book-to-bill ratio are all holding on.

That said, more indicators are showing weak or at least slowing trends in recent months than earlier in the recovery. Currently 4 of OILI's 11 indicators have increased over the past six months while 4 out the UO Index's 8 indicators have. These so-called diffusion indexes – measuring what share of the indicators are expanding or contracting – have slowed recently and remain considerably lower than earlier in the recovery. These indicator patterns do point toward more late-business cycle behavior.

On the downside, consumer sentiment, the number of help wanted ads and new Oregon incorporations have all slowed in recent months. Additionally, new orders for capital goods remains down.

Right now the U.S. economy is not in recession. University of Oregon professor Jeremy Piger has created a real time probability of recession⁴ model, and finds there is just a 1.64 percent chance the U.S. has entered into a recession. However, another recession will come, of that we can be sure. IHS Global Insight puts the probability of recession over the next year at 20 percent, and the Wall Street Journal consensus is at a similar 19 percent.

Hopefully Oregon's leading indicators will give a signal in advance of the next recession, which neither is doing today. While past experience is no guarantee of future performance, Oregon's leading indicator series do have a



⁴ http://pages.uoregon.edu/jpiger/us_recession_probs.htm/

good track record in their brief history. Both series flattened out in 2006 and began their decline in advance of the Great Recession. Similarly both Oregon series reached their nadir in March 2009, a few months before the technical end of the recession (June 2009 per NBER) and about 9 months in advance of job growth returning to Oregon.

Short-term Outlook

While Oregon's economic expansion continues, growth has slowed. In recent years, the state has enjoyed robust, full-throttle rates of job gains in the 3-3.5 percent range, or nearly 5,000 jobs per month. No longer is this the case. Oregon is expected to continue to see healthy job gains – more than 3,000 per month or 2.4 percent next year – but the state is now past its peak growth rates for this expansion. Importantly, such gains remain strong enough to hold unemployment down and account for ongoing population growth.

After these near-term job gains, longer-run demographic trends weigh on growth to a larger degree. While consistent with the general character of recent forecasts, this marks a slight downward revision to the employment outlook in the near-term. This revision is due to the labor market slowdown occurring a quarter, or two, ahead of previous expectations. Wages and incomes remain similar, although revised downward as well.

The state's new minimum wage law, passed during the 2016 legislative session, will also impact the Oregon economy over the forecast horizon. Using estimates provided by the Oregon Legislative Revenue Office, along with the academic literature, our office's outlook includes a slowdown in job growth due to the higher minimum wage moving forward. While the impact is small when compared to the size of the Oregon economy, it does result in approximately 40,000 fewer jobs in 2025 than would have been the case absent the legislation. Our office is not predicting outright job losses due to the higher minimum wage, however we are expecting future growth to be slower as a result. In the near term, the higher minimum wage boosts overall state income as low-wage workers receive raises. Over the medium term, employers are expected to adjust to the higher wages and increase worker productivity, possibly via capital for labor substitutions. Our office has incorporated these overall effects into the outlook for wages and in the industries which employ the largest numbers of low-wage workers. These include the obvious like leisure and hospitality, and retail trade, but also health care and food processing manufacturing, among others.

Should this overall economic outlook come to pass, it will match the equivalent of previous expansions in Oregon. Given demographic trends today, particularly the aging Baby Boomer cohort, job growth of 3 percent is considered full throttle. In decades past, growth of 4 or 5 percent was common during expansions in Oregon, however that time period also coincided with the Baby Boomers entering their prime working years. Today the opposite is occurring. Even so, demographic trends are not all bad, as the even larger cohort of Millennials are currently entering their prime working years. The net effect is overall lower rates of labor force and economic growth, due to demographics.

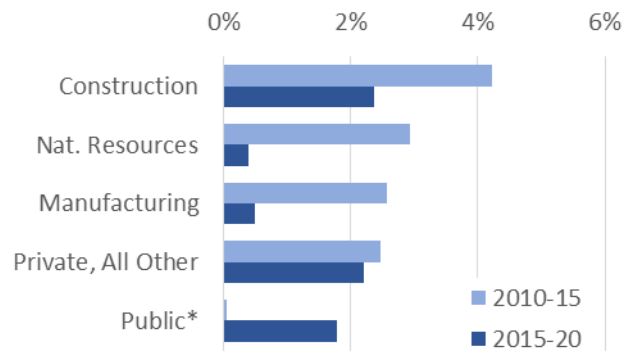
Private sector growth, measured by the number of jobs created, will be dominated by the large, service sector industries like professional and business services, leisure and hospitality and health.

Nevertheless, goods-producing industries, while smaller, had previously been growing at above-average rates. Expectations in recent forecasts have been that these goods-producing industries would slow. Growth over the next few years would be considerably less than that seen in the past few years. Only construction is expected to add jobs at the same pace as the rest of the private sector, as the housing rebound continues.

Manufacturing in particular was expected to see very minimal gains in the coming years. By all accounts this slowdown is here today in Oregon. Employment is down in recent months and flat over the past year. Expectations are for some additional lost jobs in the coming quarters, however a return to growth as the manufacturing cycle strengthens and works through its issues. Even so, the weak global economy and strong Oregon dollar will weigh on growth. What manufacturing gains are expected are among the state's food processors, and beverage manufacturers, predominantly breweries.

Goods Producing Sectors To Slow

Oregon Employment Annual Growth Rates



*Public corrected for Census workers in 2010

Source: Oregon Employment Dept, Oregon Office of Economic Analysis

Public sector employment at the local, county and state level for both education and non-education workers is growing in Oregon, as state and local revenues continue to improve along with the economy. Over the forecast horizon, government employment is expected to grow roughly stay in line with population growth and the increased demand for public services, albeit a little faster than population growth alone. One risk to the outlook is the recent Oregon Supreme Court decision which reversed earlier Public Employees Retirement System (PERS) changes enacted by the Legislature. The extent to which the court decision will impact hiring by local and state public entities is unknown, but it is a risk to the outlook.

Economic Forecast Summary

		Quarterly					Annual				
		2016:3	2016:4	2017:1	2017:2	2017:3	2015	2016	2017	2018	2019
Personal Income, Nominal	U.S.	4.2	4.2	4.5	4.6	4.5	4.4	3.4	4.4	4.9	5.0
% change	Oregon	5.2	5.1	4.8	5.3	5.6	6.5	4.9	5.2	5.8	5.7
Wages and Salaries, Nominal	U.S.	4.9	4.8	5.1	5.1	5.0	5.1	3.8	5.0	5.0	4.9
% change	Oregon	6.7	6.8	6.1	6.5	6.7	7.1	6.6	6.5	6.3	5.7
Population	U.S.	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
% change	Oregon	1.8	1.4	1.3	1.5	1.7	1.3	1.5	1.5	1.4	1.3
Housing Starts	U.S.	1.18	1.15	1.16	1.18	1.21	1.11	1.16	1.20	1.30	1.39
U.S. millions, Oregon thousands	Oregon	19.3	19.7	20.5	21.1	21.7	16.0	19.1	21.4	22.9	23.1
Unemployment Rate	U.S.	4.9	4.9	4.9	4.8	4.8	5.3	4.9	4.8	4.6	4.6
	Oregon	5.4	5.5	5.4	5.3	5.3	5.8	5.1	5.3	5.3	5.4
Total Nonfarm Employment	U.S.	1.7	1.3	1.1	1.0	0.8	2.1	1.7	1.2	0.9	1.0
% change	Oregon	1.6	2.8	2.6	2.4	2.3	3.3	2.8	2.4	2.2	1.5
Private Sector Employment	U.S.	1.7	1.6	1.5	1.2	1.0	2.4	1.9	1.4	0.9	1.0
% change	Oregon	1.5	2.6	2.7	2.6	2.5	3.6	2.9	2.4	2.3	1.5

Along with an improving labor market, stronger personal income gains are here. 2013 personal income is estimated to have increased by just 1.7 percent. This largely reflects the pulling forward of investment-type income into 2012 in anticipation of increased federal tax rates in 2013. Since then, personal income has rebounded strongly with robust gains seen in both 2014 (6.7%) and 2015 (6.6%). Continued strong gains are expected moving forward, as the labor market sees strong gains. Income growth is forecasted to be 4.9 percent in 2016 and 5.2 percent in 2017.

As the economy continues to improve, household formation is increasing too, which will help drive up demand for new houses. Household formation was suppressed earlier in the recovery, however the improving economy

and increase in migration have returned in full force. Even as more young Oregonians are living at home, as the Millennials continue to age beyond their early 20s, demand for housing will increase as well.

Housing starts in the second quarter totaled 19,300 at an annual pace. This marks the highest level of housing starts so far this cycle and the largest since the summer of 2007. However, a level of about 21,000 is the long-run average for the state prior to the housing bubble, and the forecast calls for strong growth in the coming few years with starts reaching just over 19,000 in 2016 and 21,400 in 2017. Over the extended horizon, starts are expected to average a little more than 23,000 per year to meet demand for a larger population and also, partially, to catch-up for the underbuilding that has occurred in recent years. As of today, new home construction is cumulatively about one year behind the stable growth levels of prior decades even after accounting for the overbuilding during the boom.

A more complete summary of the Oregon economic outlook and forecast changes relative to the previous outlook are available as Table A.2 and A.3 in Appendix A.

Forecast Risks

The economic and revenue outlook is never certain. Our office will continue to monitor and recognize the potential impacts of risk factors on the Oregon economy. Although far from comprehensive, we have identified several major risks now facing the Oregon economy in the list below:

- **U.S. Economy.** While Oregon is more volatile than the nation overall, the state has never missed a U.S. recession or a U.S. expansion. In fact, Oregon's business cycle is perfectly aligned with the nation's, at least when measuring peak and trough dates for total nonfarm employment. If anything, Oregon actually leads the U.S. by a month or two. The fact that there are some worrisome trends at the U.S. level and the slowdown has hit Oregon means there should be some concerns about the outlook. Should the U.S. fall into recession, Oregon will too. That said, should the U.S. economy accelerate following the lifting of headwinds, Oregon's economy should receive a similar boost as well.
- **Housing affordability.** Even as the housing market recovers, new supply entering the market has not kept up with demand (both from new households and investor activity.) This applies to both the rental and ownership sides of the market. As such, prices have risen considerably and housing (in)affordability is becoming a larger risk to the outlook. Expectations are that new construction will pick up in the next year or three, to match the increase in demand, which will alleviate price pressures. However to the extent that supply does not match demand, home prices and rents increasing significantly faster than income or wages for the typical household is a major concern. While not included in the baseline outlook, significantly worse housing affordability may dampen future growth given Oregon relies on net in-migration significantly.
- **Global Spillovers Both Up and Down.** The international list of risks seems to change by the day: sovereign debt problems in Europe, equity and property bubbles in places like South America and Asia, political unrest in the Middle East and Ukraine, and commodity price spikes and inflationary pressures in emerging markets. In particular, with China now a top destination for Oregon exports, the state of the Chinese economy – and its real estate market – has spillover effects to the Oregon economy. The recent economic slowdown across much of Asia is a growing threat to the Pacific Northwest's growth prospects.

- Federal fiscal policy. Federal fiscal policy remains a risk. The good news for Oregon is that outside of outright land ownership, the federal government has a relatively small physical presence in the state. This means that direct spending reductions are less likely to hurt Oregon. Of course, it also limits the local benefit from any potential increases in federal spending. In terms of federal grants as a share of state revenue, Oregon ranks 29th highest. For federal procurement as a share of the economy, Oregon ranks 48th highest. Oregon ranks below average in terms of military-dependent industries as well. The one area that Oregon ranks above average is in terms of direct federal employment, ranking 19th highest among all states. Oregon also is exposed to an above-average share of federal transfer payments to households. Transportation funding is also a major local concern. Overall, the direct impact may be less than in other states but the impact will be felt nevertheless, particularly as our closest neighbors have large federal and military workforces.
- Drought. While abating, the drought impacting much of the West Coast and Southwestern U.S. is a risk to the outlook. Its impact on the California economy reached into the billions of dollars in 2014 and is expected to increase in cost and size in 2015. Earlier this year the drought had certainly reached Oregon as well and most eastern and/or southern counties were classified accordingly. The impact is most felt within the agriculture industry. Losses are expected to be concentrated more in the grains, feed and other crops in addition to cattle. Fruits, nuts and dairies to be less impacted. The severity and duration of the drought is unknown, however it remains a risk to Oregon's rural economies in particular.
- Commodity price inflation. Always worrisome is the possibility of higher oil (and gasoline) prices. While consumer spending has held up pretty consistently in this recovery, anytime there is a surge in gas prices, it eats away at consumers' disposable income, leaving less income to spend on all other, non-energy related goods and services.
- Federal timber policy. Even with a temporary reinstatement of payments, it has been and it is clear that federal policymakers will not reinstate the program the same as before, however negotiations are ongoing for more sustainable timber harvests and related revenue. In the meantime, reductions in public employment and services are being felt in the impacted counties. For more information from a historical perspective, see two recent blog posts, here and here⁵.
- Initiatives, referendums, and referrals. Generally, the ballot box and legislative changes bring a number of unknowns that could have sweeping impacts on the Oregon economy and revenue picture.

Alternative Scenarios

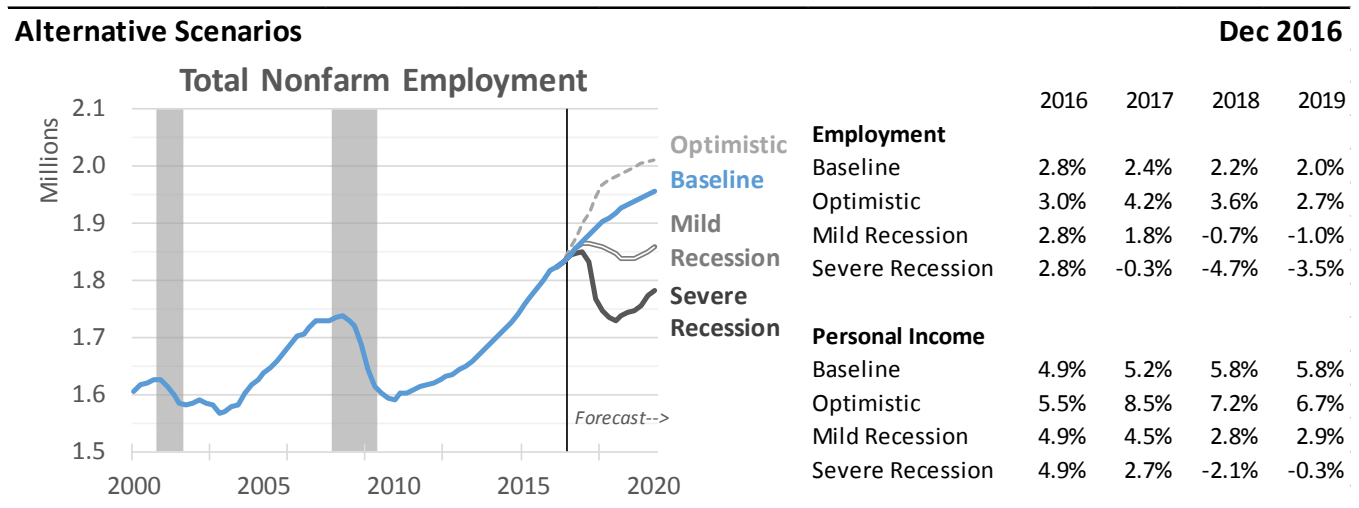
The baseline forecast is our outlook of the most likely path for the Oregon economy. As with any forecast, however, many other scenarios are possible. In conjunction with the Legislative Revenue Office, this forecast provides three alternative scenarios, which are modeled on growth patterns over previous business cycles.

Optimistic Scenario: The recovery gathers steam and pulls the economy into a stronger cyclical expansion. The lackluster economic growth seen in the early stages of recovery, the manufacturing weakness in 2015 and 2016 and the recent slowing in U.S. personal income all recede into the rearview mirror of history and the U.S.

⁵ <http://oregoneconomicanalysis.wordpress.com/2012/01/23/historical-look-at-oregons-wood-product-industry>
<http://oregoneconomicanalysis.wordpress.com/2013/05/28/timber-counties/>

economy builds momentum through the end of the year and into 2017. The economy is soon firing on all cylinders. Economic growth is above potential in late 2016 and 2017, resulting in stronger job and income gains. This stronger growth leads to more consumer spending and more business investment.

In Oregon, job gains are broad based with strong growth in all private sector industries. The unemployment rate remains lower than under the baseline scenario as individuals are able to find employment more readily and income growth accelerates. The labor force participation gap closes. The increase in employment and income support a self-sustaining economic expansion in which new income fuels increased consumer spending (and debt reduction) which begets further increases in employment. Such an expansion increases housing demand as newly employed households (and increasing income for existing households) find their own homes after doubling-up with family and friends during the recession. This results in new construction returns to normal levels about a year earlier than the baseline.



Mild Recession Scenario: The economic acceleration of the past two years proves temporary and soon Oregon is returning to very slow employment and GDP growth in late 2016 and early 2017. The housing market stalls (again), removing one driver of growth. The Fed’s tightening in December 2015 and again in December 2016 causes emerging market turmoil and capital flight. The U.S. dollar strengthens further, fully choking off the manufacturing cycle. These factors are enough weight on the lackluster recovery that by early -2017 the economy slides back into recession. Job losses ensue and while not severe – about 26,000 jobs in Oregon when it is all said and done – it takes a toll on business income, housing starts and personal income. The unemployment rate returns to 7.8 percent. The net effect of the mild recession is an extended period of prolonged economic weakness, not unlike Japan’s so-called Lost Decade(s). Although inflation is expected to remain positive, a key difference.

Severe Recession Scenario: The economy is not able to reach escape velocity from the lackluster recovery to date. The weakening industrial production and personal income in the U.S. worsens. The Fed’s premature tightening in 2015 and again in 2016 and the increasing turmoil in domestic and international markets sends the economy into free-fall. While the catalyst may be different, the economic effect is similar to late 2008 and early 2009, although not quite as severe when the dust settles. This is little comfort when the unemployment spikes back to 10 percent and more than 115,000 Oregonians lose their jobs in 2017-18. Besides the domestic economic headwinds and Federal Reserve tightening, the likely culprit in this scenario is a meltdown of the

financial markets sparked by the European sovereign debt crisis or other geopolitical shock. Economic growth in the U.S., while fairly steady, is not nearly strong enough to withstand an external financial shock of this magnitude. Further economic effects of a recession this size are personal income losses of around 4 percent, about three-quarters the size of the Great Recession losses in Oregon. Housing starts plummet to near historical low levels of construction and home prices decline further. On the bright side, when construction does rebound, it will result in a surge of new home building that will rise above the state’s long term average level of building due to pent-up demand for housing and that the state will have under built housing during this time period.

Extended Outlook

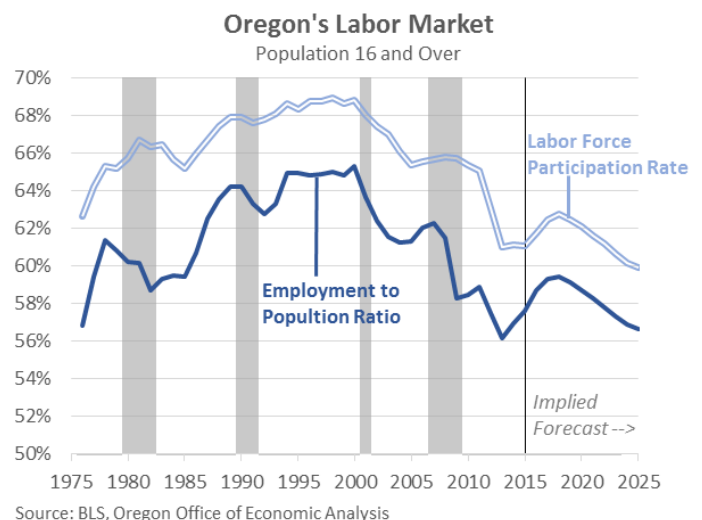
IHS Economics projects Oregon’s economy to fare well relative to the rest of the country in the coming years. The state’s Real Gross State Product is projected to be the fifth fastest among all states across the country in terms of growth with gains averaging 2.8 percent through 2021. Total employment is expected to be the eighth strongest among all states at an annualized 1.6 percent, while manufacturing employment will be the seventh fastest in the country at 1.1 percent. Total personal income growth is expected to be 5.0 percent per year, the eighth fastest among all states, according to IHS Economics.

OEA is somewhat more bullish as our office expects the peak growth rates in the economy to persist longer than does IHS. While our office’s outlook calls for deceleration in the coming years, our forecast remains stronger for Oregon does IHS. Overall Oregon will also maintain a growth advantage relative to other states. However, this advantage will be somewhat smaller than the state has enjoyed in past decades.

OEA has identified three main avenues of economic growth that are important to continue to monitor over the extended horizon: the state’s dynamic labor supply, the state’s industrial structure and the current number of start-ups, or new businesses.

Oregon has typically benefited from an influx of households from other states, including an ample supply of skilled workers. Households continue to move to Oregon even when local jobs are scarce, as long as the unemployment rate is equally bad elsewhere (particularly in California). Relative prices of housing also contribute to migration flows in and out of the state. For Oregon’s recent history – data available from 1976 – the labor force in the state has both grown faster than the nation overall and the labor force participation rate has been higher. However while recent months have brought considerable improvements there remain potentially worrisome signs, particularly when the next recession comes.

First, on the bright side, all of the recessionary-induced declines in the labor force itself have been reversed in the past few years. Oregon’s labor force has never been larger. However, the participation rate remains lower than expected, when adjusting for the size of the population and the aging demographics. Oregon’s participation rate is rebounding today, which is great news, however the participation gap is still cause for concern. While much of the past decade’s patterns can be attributed to the severe nature of the Great Recession, and even the lackluster housing boom

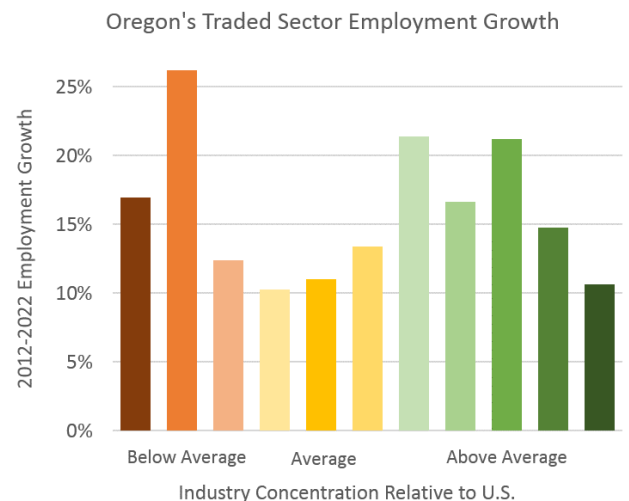


itself, some of the damage is likely to be permanent. The longer the expansion continues, the more likely the permanent damage will be small.

All told, our office’s baseline outlook calls for some continued improvement in the near-term for both the labor force participation rate and the employment to population ratio. These gains are due to the shorter run cyclical rebound in the economy, before longer-run demographic trends will weigh on these measures. Focusing just on the prime working age cohorts reveals stronger improvements.

Oregon’s industrial structure is very similar to the U.S. overall, even moreso than nearly all other states. Oregon’s manufacturing industry is larger and weighted toward semiconductors and wood products, relative to the nation which is much more concentrated in transportation equipment (autos and aerospace). However, these industries which have been Oregon’s strength in both the recent past and historically, are now expected to grow the slowest moving forward. Productivity and output from the state’s technology producers is expected to continue growing quickly, however employment is not likely to follow suit. Similarly, the timber industry remains under pressure from both market based conditions and federal regulations. Barring major changes to either, the slow to downward trajectory of the industry in Oregon is likely to continue.

With that being said, certainly not all hope is lost. Many industries in which Oregon has a larger concentration than typical state are expected to perform well over the coming decade. These industries include management of companies, food and beverage manufacturing, published software along with gains in crop production and nurseries. The state’s real challenges and opportunities will come in industries in which Oregon does not have a relatively large concentration (the orange bars in the graph). These industries, like consulting, computer system design, financial investment, and scientific R&D, are expected to grow quickly in the decade ahead. To the extent that Oregon is behind the curve, then the state may not fully realize these gains if they rely more on clusters and concentrations of similar firms that may already exist elsewhere in the country.



Industry concentration = 2012 employment location quotient at 4 digit NAICS level
 Each column represents approximately 1/11 of Oregon traded sector employment
 Source: BLS, Oregon Employment Department, Oregon Office of Economic Analysis calculations

Another area of potential concern that may impact longer term economic growth is that of new business formation. Over the past year or two, the number of new business license applications with the Oregon Secretary of State have begun to grow again and even accelerate. However data available from the U.S. Census Bureau and Bureau of Labor Statistics clearly indicate that entrepreneurship and business formation remain at subdued levels and rates.

The share of all businesses that are start-ups, either in Oregon or across the nation, is effectively at an all-time low, with data starting in the late 1970s. Associated start-up employment follows a similar pattern. The concern is that new businesses are generally considered the source of innovation and new ideas, products and services that help propel economic growth. To the extent that lower start-up rates indicates that R&D more broadly is not being undertaken, slower growth is to be expected moving forward. However, if the larger firms that have won out in today’s marketplace are investing in R&D and making those innovations themselves, then the worries

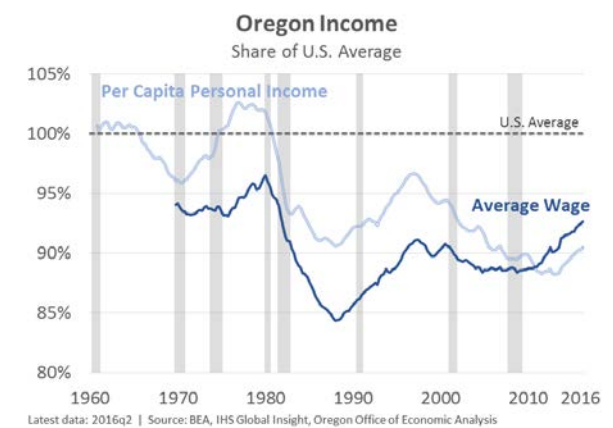
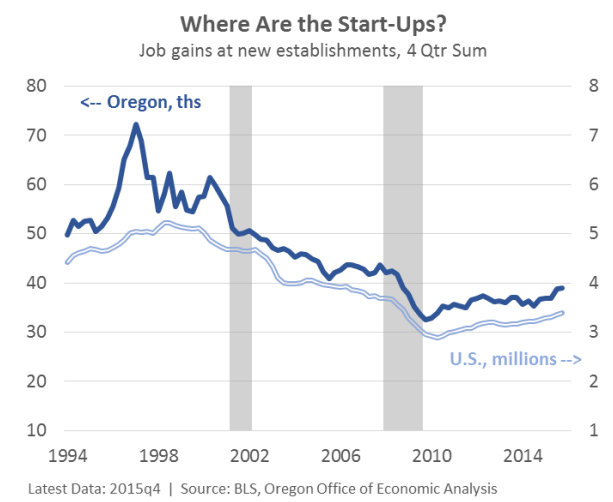
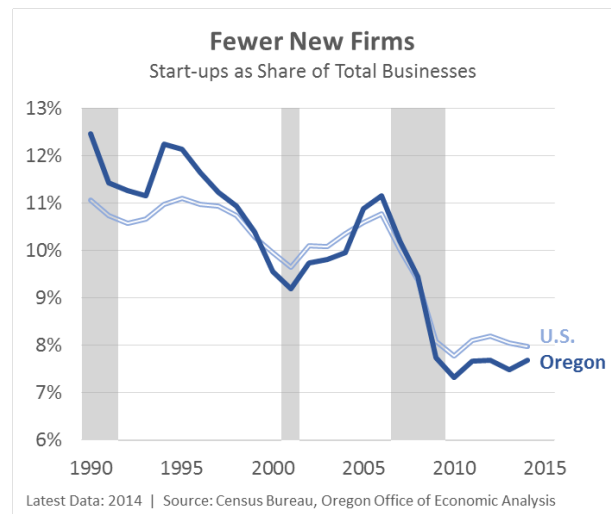
about the number of start-ups today is overstated. It can be hard to say which is the correct view. However seeing these longer run, downward trends in new business formation warrants, at the very least, concern about future growth prospects.

Finally, Oregon also enjoys the long-term advantages of low electricity costs; a central location between the large markets of California, Vancouver and Asia; clean water; low business rents and living costs; and an increasingly diverse industrial base.

One primary long-run concern for policymakers, think tanks and Oregon’s economy is that very little progress on raising per capita income is projected out to 2025. In and of itself, a higher per capita income level would better fund public services for citizens. The benefit side of the state’s relatively low income figures is that local firms do not have to pay higher wages, thus helping support the firms’ balance sheets as well. It is not purely a lose-lose proposition. The Oregon Employment Department has published⁶ a detailed look at Oregon’s per capita personal income.

While the state’s per capita income remains low, the state’s average wage does not. Today, Oregon’s average wage relative to the nation, is at its highest point since the mills closed in the 1980s. While some industries are seeing stronger growth, these gains are broad-based across regions and industries in Oregon.

In terms of the outlook, expectations are that wages will remain at this high watermark but not increase, relative to the nation, much further. The primary reason for this is that Oregon’s average wages have already accelerated in recent years, even as U.S. wages are just now picking up. Our office expects Oregon’s average wage to continue to increase 3-4 percent per year. However as the U.S. accelerates closer to Oregon’s annual rate, Oregon’s growth advantage in recent years will lessen. As for the per capita personal income outlook, expectations are that some progress will continue to be made. Oregon’s economy is outperforming the typically state. That said, over the forecast horizon, Oregon’s per capita personal income is not expected to catch the national average.



⁶ <http://olmis.emp.state.or.us/olmisj/PubReader?itemid=00007366>

Oregon Regional Trends

In recent years, job growth has returned to all regions of the state. Every single county has seen some gains from the depths of the Great Recession. That said, the growth has not been evenly distributed of course.

Today, 17 of Oregon’s 36 counties have fully regained their recessionary lost jobs and are at all-time highs for employment. These counties represent 80 percent of all jobs in Oregon. As such, they necessarily include the state’s larger, urban areas plus much of the North Coast and Columbia Gorge regions. If you include Lane County (Eugene), which is now 95 percent recovered, the total job share jumps to 87 percent of all jobs statewide. This group of counties are in expansion mode and the more important questions to ask are about the quality of the jobs gained and whether growth is keeping pace with population and the like.

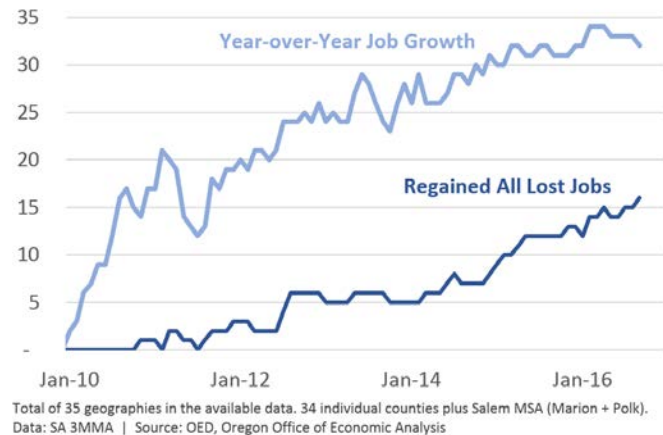
However, not all counties have recovered. Many of these rural counties have experienced relatively flat or somewhat downward trends since the 1990s. While cold comfort and of little solace, much of rural America at large has seen similar or worse trends in recent decades.

On the brighter side, some counties like Harney and Malheur have seen solid job growth in the past 18 months but their longer term trends have been less robust. Grant is somewhat similar but the county’s trends have been longer (peak employment was 1992) and has yet to see any real upturn in employment thus far in recent years.

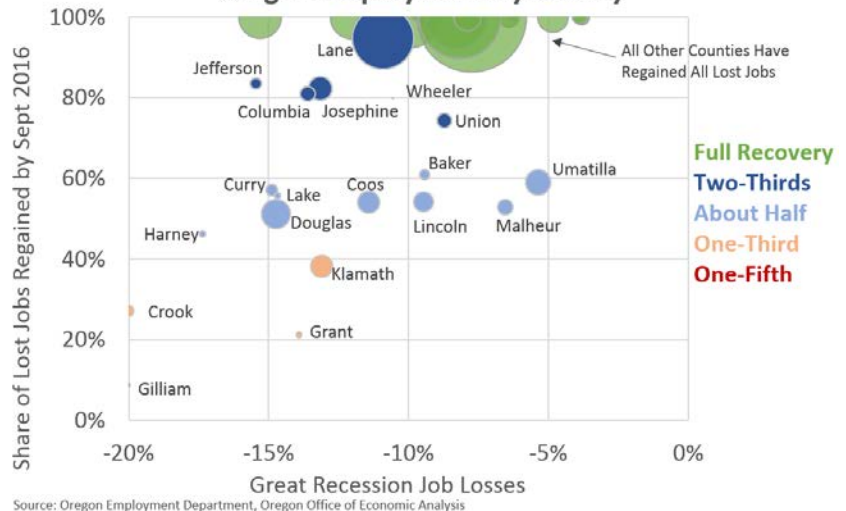
Other counties, like those in southern Oregon and along the coast, did experience some strong gains during the housing bubble even with relatively flat trends since the 1990s. While jobs today remain lower than during the peak of the housing boom, they are effectively back to levels seen in the early 2000s. It can be hard to tell how many of those gains were temporary or due to the bubble phenomenon. The patterns do differ from other rural areas that have seen longer term, or structural changes. Further research aims to answer these questions.

All told, much of the rural Oregon discussion and data are backward looking. While these statistics help describe the current lay of the land, they do not necessarily tell us what tomorrow may bring. To be sure, many of the more forward-looking indicators are also less bright in much of rural Oregon than in urban Oregon, but not all hope is lost. If anything, some of the pessimism about rural Oregon may be a bit overdone.

Oregon Counties in Expansion



Oregon Employment by County



REVENUE OUTLOOK

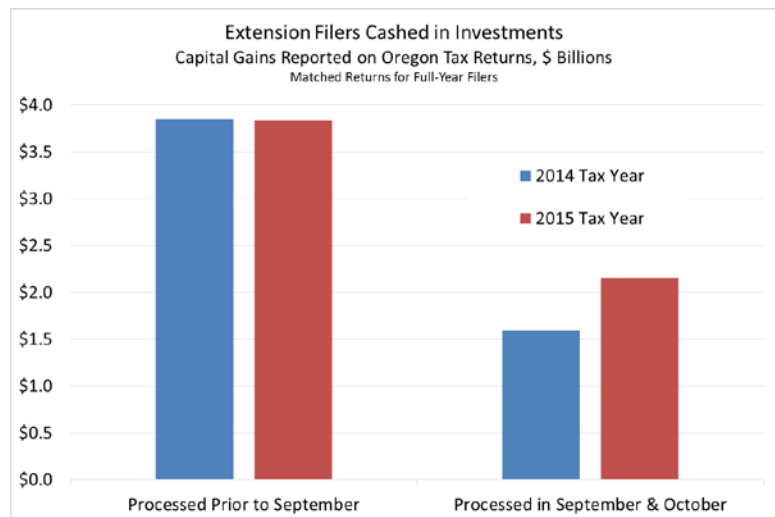
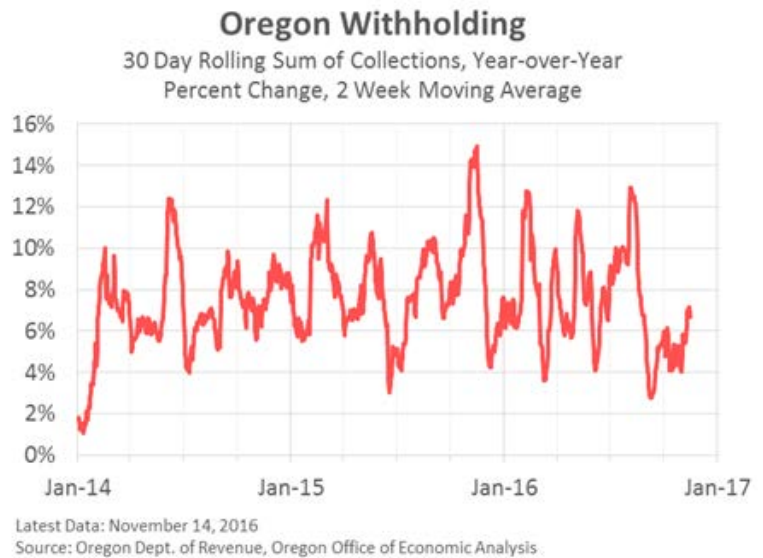
Revenue Summary

Oregon’s General Fund revenue outlook remains stable. Revenue growth has slowed in recent months along with growth in the underlying economy. However, this slowdown did not come as a surprise, with less growth having already been built into the baseline forecast. As such, expectations have remained virtually unchanged since the 2015-17 biennial budget was crafted. Currently, General Fund revenues are expected to land within \$8 million of the Close of Session estimate.

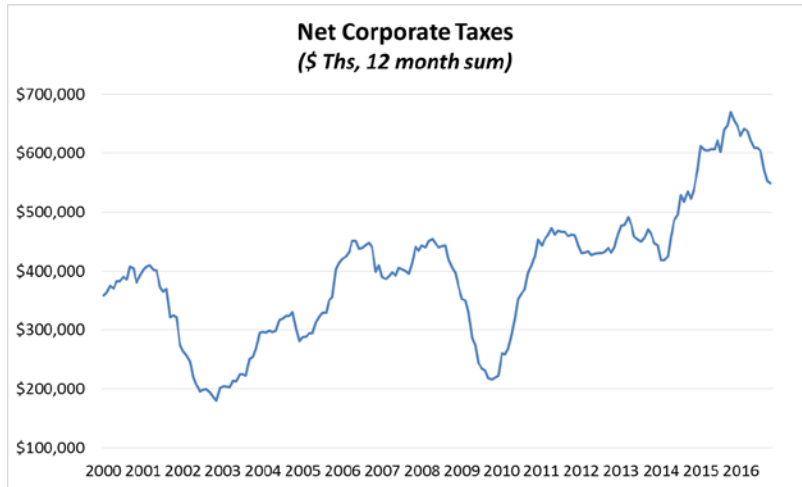
As job growth began to shift down over the spring and summer months, growth in personal income taxes withheld out of worker pay slowed down as well. Growth in withholdings currently rests near the bottom of the range seen over the past three years. Over this period, growth in employment and tax revenues have been running hot, as Oregon’s labor market worked to heal itself from the recession of 2009. Going forward, slower, more sustainable growth rates are expected to be the norm.

Since the last revenue forecast was published in August, income tax returns have come due for 2015 taxpayers who filed for extensions. Delayed and amended tax returns that are filed in the fall months often have an outsized impact on overall collections. Although returns processed in the early fall account for only 4% of all full-year filers, they account for a much larger share of reported income and tax liability. Extension filers are often taxpayers with the most complicated returns, including many of the wealthiest households in the state. This year, returns processed in early fall have accounted for 15% of overall refunds issued and taxes paid with returns.

Income trends among extension filers generally matched returns filed in April, with one notable exception: Extension filers enjoyed growth in their taxable investments during 2015, while the typical household did not. Capital gains reported in September and October were \$500 million larger than last year, leading to a somewhat healthier collection season than was first evident in April.



Corporate tax collections have been falling sharply in recent months, having shrunk by one fifth over the past year. Given the expectation that collections would return to historical norms, revenue declines were built into the forecast, leaving the outlook very close to the Close of Session forecast for now. Nationwide, corporate profits have taken a step back, largely due to rapid appreciation of the U.S. dollar and struggles among energy firms and other commodity producers. With these downward pressures on profits having now stabilized, the sharp declines in corporate profits and related tax collections are expected to end soon.



Revenue growth in Oregon and other states will face considerable downward pressure over the 10-year extended forecast horizon. As the baby boom population cohort works less and spends less, traditional state tax instruments such as personal income taxes and general sales taxes will become less effective, and revenue growth will fail to match the pace seen in the past.

2015-17 General Fund Revenues

General Fund revenues for the 2015-17 biennium are expected to reach \$18,008 million. This represents a decrease of \$14.6 million (-0.1%) from the September 2016 forecast, and an increase of \$1.9 billion (11.8%) relative to the 2013-15 biennium. General Fund revenues for the 2015-17 biennium are now expected to come in \$8 million (0.0%) above the Close of Session forecast.

Personal Income Tax

Personal income tax collections were \$1,941 million during the first quarter of fiscal year 2017, \$57 million (3.0%) above the latest forecast. Compared to the year-ago level, total personal income tax collections grew by 3.5% relative to a forecast that called for 0.5% growth. Table B.8 in Appendix B presents a comparison of actual and projected personal income tax revenues for the July-September quarter. It should be noted, however, that comparisons with past tax collections have been complicated by the use of a new personal income tax processing system.

Corporate Excise Tax

Corporate excise tax collections equaled \$142 million for the first quarter of fiscal year 2017, \$1 million above the September forecast. Compared to the year-ago level, net corporate excise tax collections fell by 28.5% relative to a forecast that called for a 28.9% decline.

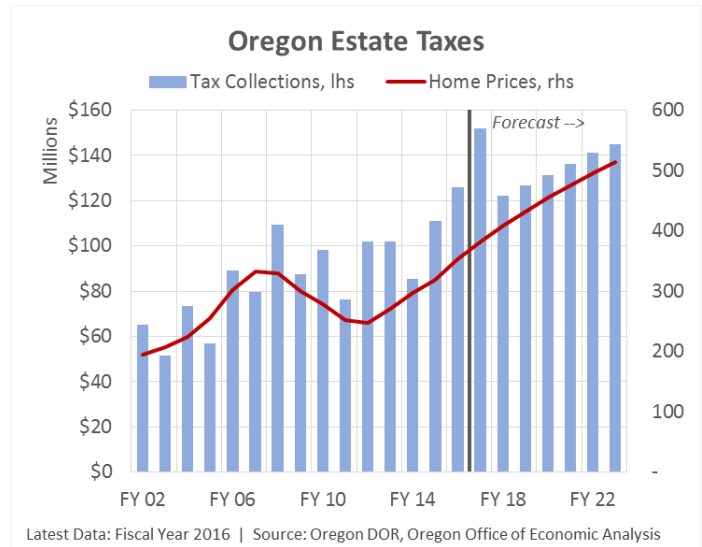
Following recent declines, corporate tax collections have returned to their historical norms. In addition to profitability, recent law changes have supported collections, as has a decline in outstanding Business Energy Tax Credits. The baseline outlook calls for corporate collections to stabilize going forward.

Corporate income tax collections for 2015-17 are now expected to end the biennium 0.3% higher than what was called for in the Close of Session forecast.

Estate Tax Revenue

At the time the 2015-17 biennium budget was set by the Legislature, the estate tax forecast called for record levels of revenue. The first year of the biennium exceeded this record-expecting forecast by approximately \$16 million (+15%), a considerable margin. And so far in fiscal year 2017, revenues continue to come in above expectations. In fact, August brought record levels of estate tax collections – more than twice as large as any single month in history. As a result, the current outlook for such tax collections has been raised considerably.

There are three competing factors influencing the outlook. The first is that over time asset prices, stocks and houses in particular, will increase. The second is that the large Baby Boomer generation is aging into their retirement years today and into their later ages in the coming decades. As such there will be an increase in the number of Oregonians passing away in the relatively near future. Both of these first two factors suggest a robust outlook for estate tax collections. However the third factor influencing the outlook is increased, or improved estate planning on the part of families and their accountants. Through various plans and gifts and the like, legal tax avoidance or minimization can be achieved. Relative to the robust outlook due to growing asset values and an aging population, the baseline forecast is adjusted lower to account for estate planning on the part of Oregon families and their tax professionals.



Other Sources of Revenue

Criminal Fines and Assessments, or the Criminal Fine Account, has been lowered \$14 million relative to previous outlooks. The reduction is due to lower than expected revenues from photo radar traffic enforcement in the City of Portland. To date just one of the proposed four sets of cameras have been installed. And the one location is issuing fewer tickets than expected as well. Future biennia are lowered approximately \$10 million to account for the lower number of tickets issued, but does assume cameras are installed at all four locations beginning in 2017.

All other sources of General Fund revenues remain relatively unchanged in recent months. The net adjustment for these sources is an increase of \$1.8 million relative to the previous forecast. These minor adjustments included a slight increase in insurance taxes that were offset by a decrease in security fees. In terms of judicial revenues, the outlook for state court fees has decreased somewhat as well.

Table R.1

2015-17 General Fund Forecast Summary

(Millions)	2015 COS Forecast	September 2016 Forecast	December 2016 Forecast	Change from Prior Forecast	Change from COS Forecast
Structural Revenues					
Personal Income Tax	\$15,713.5	\$15,713.7	\$15,678.4	-\$35.3	-\$35.1
Corporate Income Tax	\$1,100.0	\$1,110.8	\$1,103.7	-\$7.1	\$3.7
All Other Revenues	\$1,184.6	\$1,197.8	\$1,225.7	\$27.9	\$41.1
Gross GF Revenues	\$17,998.1	\$18,022.3	\$18,007.7	-\$14.6	\$9.7
Offsets and Transfers	-\$42.8	-\$44.4	-\$44.2	\$0.3	-\$1.4
Administrative Actions ¹	-\$20.2	-\$14.0	-\$14.0	\$0.0	\$6.2
Legislative Actions	-\$158.9	-\$158.3	-\$158.3	\$0.0	\$0.6
Net Available Resources	\$18,309.1	\$18,334.3	\$18,320.0	-\$14.3	\$10.9
Confidence Intervals					
67% Confidence	+/- 3.1%		\$551.1	\$17.46B to \$18.56B	
95% Confidence	+/- 6.1%		\$1,102.2	\$16.91B to \$19.11B	

¹ Reflects cost of cashflow management actions, exclusive of internal borrowing.

Extended General Fund Outlook

Table R.2 exhibits the long-run forecast for General Fund revenues through the 2023-25 biennium. Users should note that the potential for error in the forecast increases substantially the further ahead we look.

Revenue growth in Oregon and other states will face considerable downward pressure over the 10-year extended forecast horizon. As the baby boom population cohort works less and spends less, traditional state tax instruments such as personal income taxes and general sales taxes will become less effective, and revenue growth will fail to match the pace seen in the past.

Table R.2

General Fund Revenue Forecast Summary (Millions of Dollars, Current Law)

Revenue Source	Forecast 2013-15		Forecast 2015-17		Forecast 2017-19		Forecast 2019-21		Forecast 2021-23		Forecast 2023-25	
	Biennium	% Chg	Biennium	% Chg	Biennium	% Chg	Biennium	% Chg	Biennium	% Chg	Biennium	% Chg
Personal Income Taxes	13,958.3	15.2%	15,678.4	12.3%	17,373.1	10.8%	19,234.8	10.7%	21,401.3	11.3%	23,369.1	9.2%
Corporate Income Taxes	1,116.5	26.3%	1,103.7	-1.2%	1,028.5	-6.8%	1,050.9	2.2%	1,097.8	4.5%	1,146.6	4.4%
All Others	1,030.2	-11.4%	1,225.7	19.0%	1,124.9	-8.2%	1,179.8	4.9%	1,261.6	6.9%	1,338.5	6.1%
Gross General Fund	16,105.0	13.7%	18,007.7	11.8%	19,526.4	8.4%	21,465.5	9.9%	23,760.7	10.7%	25,854.1	8.8%
<i>Offsets and Transfers</i>	<i>(74.5)</i>		<i>(44.2)</i>		<i>(72.3)</i>		<i>(75.0)</i>		<i>(75.7)</i>		<i>(77.8)</i>	
Net Revenue	16,030.5	13.3%	17,963.6	12.1%	19,454.1	8.3%	21,390.5	10.0%	23,685.0	10.7%	25,776.3	8.8%

General Fund revenues are expected to total \$19,526 million in the 2017-19 biennium, an increase of 8.4% percent from the prior period, and \$40 million below the September forecast. In the 2019-21 biennium, revenue growth is expected to reach 9.9%, followed by rates of 10.7% in the 2021-23 biennium and 8.8% in the 2023-25 biennium. The slowdown in long-run revenue growth is largely due to the impact of slower labor force growth and changes in savings behavior. In particular, the labor force will lose many very productive workers with a lifetime of experience over the coming years. On a smaller scale, a newly enacted minimum wage increase will weigh on the outlook over the extended horizon. Table B.2 in Appendix presents a more detailed look at the long-term General Fund revenue forecast.

Tax Law Assumptions

The revenue forecast is based on existing law, including measures and actions signed into law during the 2015 Oregon Legislative Session. OEA makes routine adjustments to the forecast to account for legislative and other actions not factored into the personal and corporate income tax models. These adjustments can include expected kicker refunds, when applicable, as well as any tax law changes not yet present in the historical data. A summary of actions taken during the 2015 Legislative Session can be found in Appendix B Table B.3. For a detailed treatment of the components of the 2015 Legislatively Enacted Budget, see: [LFO 2015-17 Budget Summary](#). For changes made during the 2016 short session see: [Budget Highlights 20152017](#).

Although based on current law, many of the tax policies that impact the revenue forecast are not set in stone. In particular, sunset dates for many large tax credits have been scheduled. As credits are allowed to disappear,

considerable support is lent to the revenue outlook in the outer years of the forecast. To the extent that tax credits are extended and not allowed to expire when their sunset dates arrive, the outlook for revenue growth will be reduced. The current forecast relies on estimates taken from the Oregon Department of Revenue's 2015-17 Tax Expenditure Report together with more timely updates produced by the Legislative Revenue Office.

Alternative Scenarios

The latest revenue forecast for the current biennium represents the most probable outcome given available information. OEA feels that it is important that anyone using this forecast for decision-making purposes recognize the potential for actual revenues to depart significantly from this projection.

Currently, the overwhelming downside risk facing the revenue outlook is the threat that the U.S. economic recovery will lose steam in the near term. Such a scenario, however it played out, would result in drastic revenue losses. Two recessionary scenarios are displayed in table R.2b. In a severe recession, biennial revenues could come in as much as \$2 billion lower than predicted⁷.

⁷ The methodology for computing alternative scenarios has been changed to reflect recent work done by the Legislative Revenue Office. Assumptions: Recessions begin in 2017 and return to baseline income by 2024. The moderate recession scenario assumes personal income growth will be reduced by one-half relative to the baseline in 2017 and 2018. The severe recession scenario assumes personal income will decline in 2017 by as much as it did in 2009. The percentage deviation in personal income taxes is 1.4 times the deviation in personal income. The percentage deviation in corporate income taxes is 2.0 times the deviation in personal income.

TABLE R2b

December 2016

Alternative Cyclical Revenue Forecast (\$ millions)

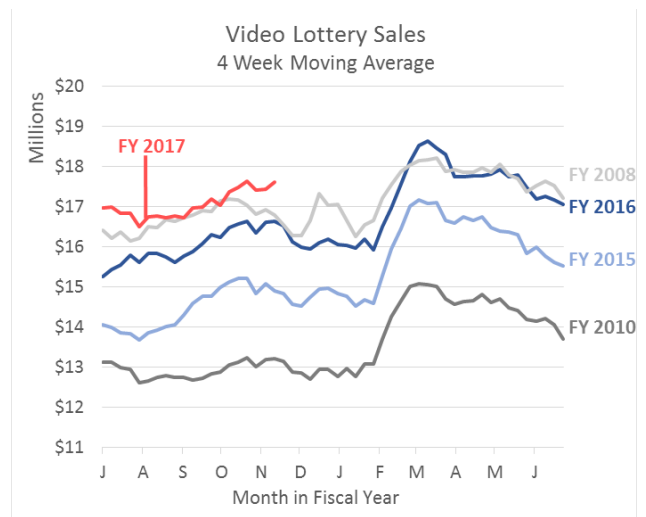
Baseline Case	2015-17 BN		2017-19 BN		2019-21 BN		2021-23 BN		2023-25 BN	
	FY '16	FY '17	FY '18	FY '19	FY '20	FY '21	FY '22	FY '23	FY '24	FY '25
Personal Income										
Level	180.78	189.61	200.08	211.57	223.47	234.55	244.43	257.60	269.43	281.94
% change	5.6%	4.9%	5.5%	5.7%	5.6%	5.0%	4.2%	5.4%	4.6%	4.6%
Taxes										
Personal Income	7,763	7,916	8,447	8,926	9,326	9,909	10,465	10,936	11,423	11,946
Corporate Excise & Income	610	494	507	522	525	526	540	558	568	578
Other General Fund	533	692	552	573	577	602	621	641	659	679
Total General Fund	8,906	9,102	9,506	10,021	10,428	11,038	11,626	12,135	12,651	13,203
% change	5.2%	2.2%	4.4%	5.4%	4.1%	5.8%	5.3%	4.4%	4.3%	4.4%
Moderate Recession	FY '16	FY '17	FY '18	FY '19	FY '20	FY '21	FY '22	FY '23	FY '24	FY '25
Personal Income										
Level	180.8	185.0	190.5	203.6	217.5	230.2	241.7	255.3	267.5	281.6
% change	5.6%	2.3%	3.0%	6.9%	6.8%	5.8%	5.0%	5.7%	4.7%	5.3%
Taxes										
Personal Income	7,763	7,646	7,879	8,455	8,979	9,651	10,300	10,792	11,290	11,897
<i>Deviation from baseline</i>		-270	-568	-471	-347	-258	-165	-144	-133	-49
Corporate Excise & Income	610	470	458	483	497	507	528	548	560	577
<i>Deviation from baseline</i>		-24	-49	-39	-28	-20	-12	-10	-8	-2
Other General Fund	533	692	552	573	577	602	621	641	659	679
Total General Fund	8,906	8,808	8,889	9,510	10,053	10,760	11,448	11,981	12,510	13,152
% change	5.2%	-1.1%	0.9%	7.0%	5.7%	7.0%	6.4%	4.7%	4.4%	5.1%
<i>Deviation from baseline</i>		-294	-617	-511	-375	-278	-177	-154	-141	-51
<i>Biennial Deviation</i>		-294		-1,127		-653		-331		-192
Severe Recession	FY '16	FY '17	FY '18	FY '19	FY '20	FY '21	FY '22	FY '23	FY '24	FY '25
Personal Income										
Level	180.8	172.8	180.6	195.8	211.7	226.6	240.4	254.0	266.1	279.2
% change	5.6%	-4.4%	4.5%	8.4%	8.2%	7.0%	6.1%	5.7%	4.7%	4.9%
Taxes										
Personal Income	7,763	6,933	7,296	7,993	8,641	9,439	10,223	10,712	11,207	11,744
<i>Deviation from baseline</i>		-983	-1,151	-933	-685	-470	-242	-224	-216	-202
Corporate Excise & Income	610	406	408	444	470	491	522	542	554	565
<i>Deviation from baseline</i>		-88	-99	-78	-55	-36	-18	-16	-14	-14
Other General Fund	533	692	552	573	577	602	621	641	659	679
Total General Fund	8,906	8,031	8,256	9,010	9,688	10,532	11,366	11,895	12,420	12,988
% change	5.2%	-9.8%	2.8%	9.1%	7.5%	8.7%	7.9%	4.7%	4.4%	4.6%
<i>Deviation from baseline</i>		-1,070	-1,250	-1,011	-740	-505	-260	-240	-231	-215
<i>Biennial Deviation</i>		-1,070		-2,261		-1,246		-499		-446

Lottery Earnings

Lottery proceeds continue to exhibit strong gains and are matching expectations. As such the forecast overall is relatively unchanged prior to three months ago. Actual forecast adjustments total \$1 or \$2 million per biennium over the 10 year forecast horizon. However this reflects offsetting forecast changes between traditional lottery games and video lottery.

The downward revision to traditional lottery games – scratch-its, jackpot games, keno and the like – reflects a technical adjustment to the assumed transfer rates. These newly revised transfer rates – essentially net proceeds after administrative costs and prizes are paid – reflect the actual transfers experienced in recent years. Previous forecasts had assumed too large of transfers for any given level of sales. The sales outlook for traditional lottery games is revised lower by a smaller degree.

The upward revision to video lottery sales is the result of refining, or lowering, the estimated impact of the Cowlitz Tribe’s Ilani Casino Resort on the forecast. Recent video lottery sales are closely matching the previous forecast and are on track to set new sales records in fiscal year 2017. That said, sales continue to slow somewhat, edging lower from 10 percent growth a year ago to 6 percent growth today. This is to be expected. Sales do not grow at double-digit rates forever. The outlook overall remains intact and on track.



Cowlitz Tribe’s Ilani Casino Resort Impact

Our office continues to refine the estimated impact of the upcoming casino in La Center, Washington (16 miles north of Portland) which is set to open in “late spring” 2017. While the casino won approval a year or two ago, legal challenges remained and our office had previously taken a wait and see approach before adjusting the outlook accordingly. Beginning with the June 2016 quarterly forecast, our office started incorporating the casino’s impact.

As of this forecast, our office’s estimate of the casino’s impact is a loss of around \$110 million per year in video lottery sales, or a nearly \$72 million per year reduction in transfers. This represents a slightly smaller impact than was assumed in the September outlook.



Latest Data: October 29, 2016 | Source: Oregon Lottery, Oregon Office of Economic Analysis

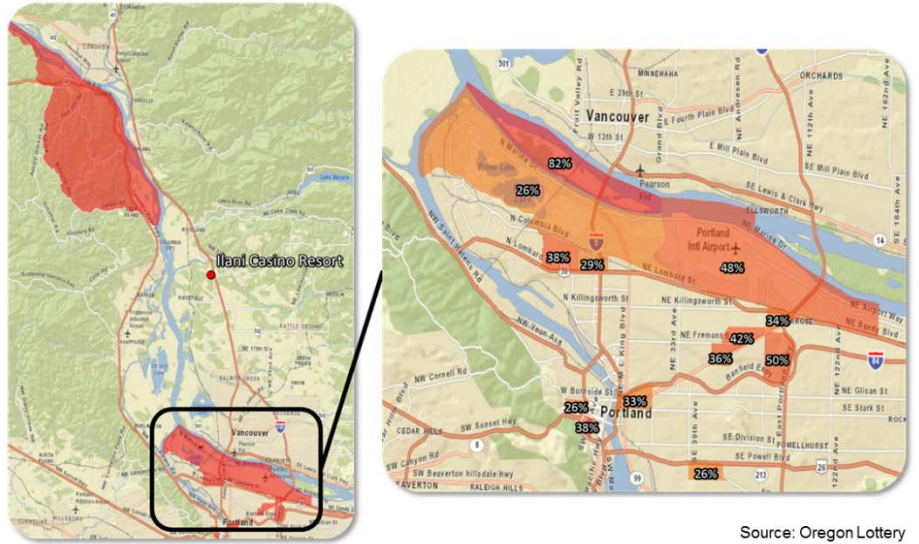
Back in June 2016, our office’s initial estimate of the casino’s impact was set at a loss of around \$100 million per year in video lottery sales. This estimate was based off the Legislative Revenue Office’s previous work on the impact of the proposed Wood Village casino in 2012, with some updates to incorporate the larger gaming market today and the like. That approach started by examining the total gaming market in the Portland region and estimating what share of the market the new casino would take. It was a top-down approach to arrive at an estimate.

Last quarter, in the September 2016 forecast, our office increased the estimated impact to around \$120 million per year. This larger estimate was based on a bottom-up approach that started by examining video lottery sales at the individual retailer and neighborhood/zip code level. More than half of Oregon’s statewide video lottery

sales occur within the Portland MSA. 11 percent of statewide video lottery sales occur within just the northern portion of the Portland MSA – from St. Johns through Parkrose, including Hayden Island. Anecdotal evidence plus statistical analysis indicated that the border effect with the State of Washington, which does not have video lottery in its bars and restaurants, was large. This is particularly true directly across the two interstate bridges in Portland. However such trends are also seen in the population centers along Oregon’s borders with California and Idaho too. If these northern Portland zip codes see a 40-50 percent decline in video lottery sales, that means total statewide video lottery sales would decline 4.5 to 5.5 percent. Factoring in additional losses of around 10-15 percent throughout the rest of the Portland region brings the statewide total impact to nearly 12 percent, relative to the no casino baseline.

Both the top-down and bottom-up approaches yielded fairly close estimates in terms of the impact of the new casino.

In recent months, the Oregon Lottery research team also analyzed video lottery jackpot winner records. As seen in the nearby maps, the share of such winners in neighborhoods (Census tracts) along the Oregon-Washington border are quite large. There is substantial cross-border activity. However, the share of Washingtonian winners in



Source: Oregon Lottery

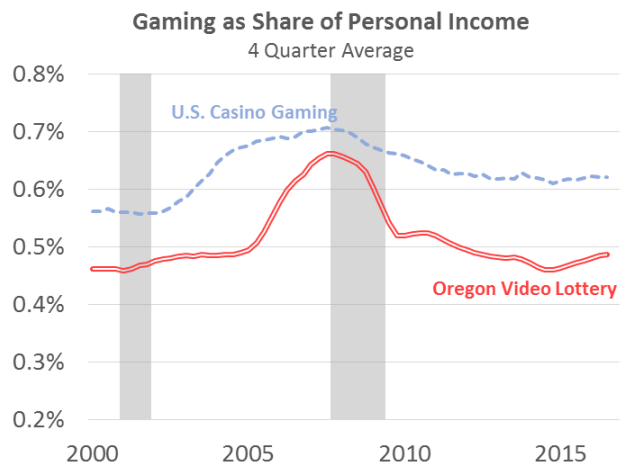
neighborhoods not along the border is considerably smaller, as is to be expected. Given the results of the new research, our office has lessened the casino impact and brought it back to the middle of the range established via the top-down and bottom-up approaches.

As always, our office will continue to work on refining the estimates and updating the likely impact in the coming forecasts.

Lottery Outlook

The robust gains seen in video lottery sales following the first wave of terminal replacements are slowing. This is to be expected. The second wave of replacements are nearing completion today, however their impact on sales is less, even as the upgrade in new technology and underlying infrastructure is important.

While video lottery sales remain strong, expectations are for a continued modest deceleration in growth until the Cowlitz Tribe casino opens approximately six to nine months from now. Video lottery growth has



Latest Data: 2016q3 | Source: BEA, Oregon Lottery, Oregon Office of Economic Analysis

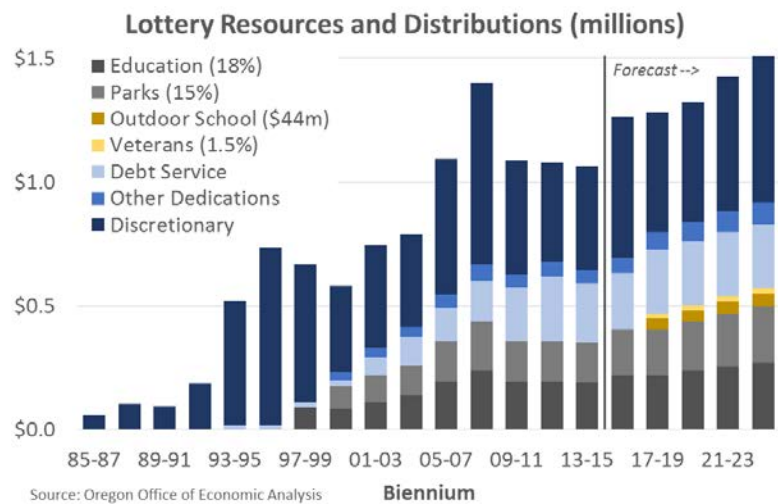
already slowed from around 10 percent year-over-year to 6 percent today. Over the next year, sales are projected to slow further to 5 or 6 percent. After that time, sales are expected to fall nearly 9 percent before resuming growth due to the underlying improvements in the economy and increases in consumer spending.

Other issues to watch include broader and national trends in gaming markets, demographic preferences for recreational activities, and to what extent consumers increase the share of their incomes spent on gaming. In much of the past 6 years, consumers have remained cautious with their disposable income.

The current outlook does leave room for both upside and downside risks. The Cowlitz Tribe casino may still be derailed due to legal challenges and if not, its impact may be greater or smaller than the current forecast assumes. The stronger economy and new terminals may unlock permanently higher sales. However the increases seen may also prove temporary and just a novelty-bump as Oregonians tried the new machines simply because they were new.

Lastly, Oregon voters approved two new constitutional amendments for where lottery resources are to be spent. The Outdoor School Education Fund is set to receive the lesser of 4 percent of net proceeds or \$5.5 million per quarter (\$44 million per biennium) and adjusted for inflation moving forward. The Veterans’ Services Fund is set to receive 1.5 percent of net proceeds.

The full extended outlook for lottery earnings can be found in Table B.9 in Appendix B.



Budgetary Reserves

The state currently administers two general reserve accounts, the Oregon Rainy Day Fund⁸ (ORDF) and the Education Stability Fund⁹ (ESF). This section updates balances and recalculates the outlook for these funds based on the June revenue forecast.

⁸ The ORDF is funded from ending balances each biennium, up to one percent of appropriations. The Legislature can deposit additional funds, as it did in first populating the ORDF with surplus corporate income tax revenues from the 2005-07 biennium. The ORDF also retains interest earnings. Withdrawals from the ORDF require one of three triggers, including a decline in employment, a projected budgetary shortfall, or declaration of a state of emergency, plus a three-fifths vote. Withdrawals are capped at two-thirds of the balance as of the beginning of the biennium in question. Fund balances are capped at 7.5 percent of General Fund revenues in the prior biennium.

⁹ The ESF gained its current reserve structure and mechanics via constitutional amendment in 2002. The ESF receives 18 percent of lottery earnings, deposited on a quarterly basis – 5% of which are deposited in the Oregon Growth sub-account. The ESF does not retain interest earnings. The ESF has similar triggers as the ORDF, but does not have the two-thirds cap on withdrawals. The ESF balance is capped at five percent of General Fund revenues collected in the prior biennium.

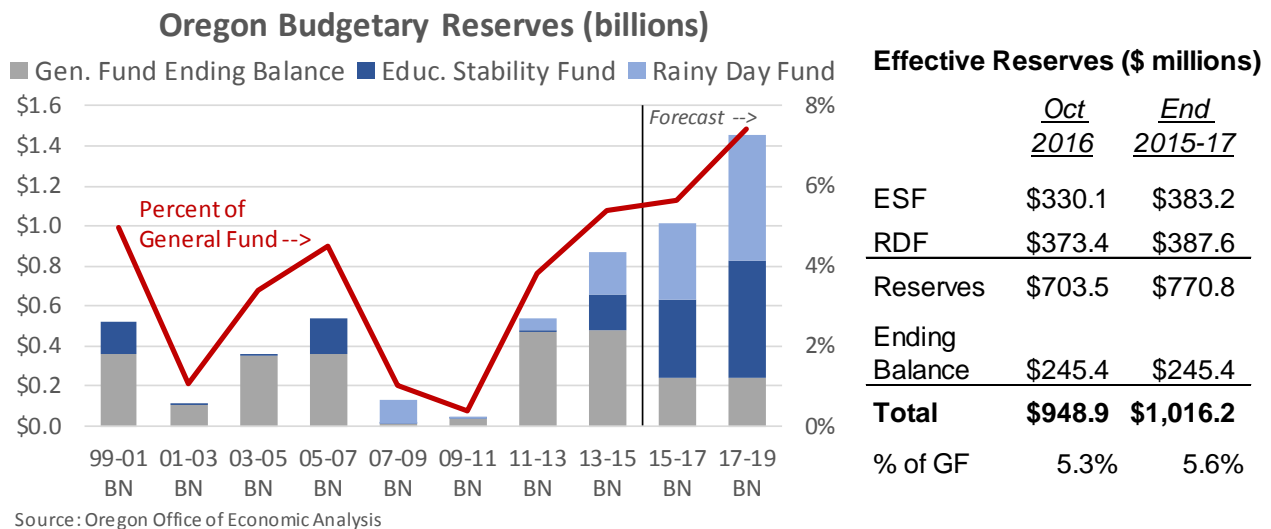
As of this forecast, the two reserve funds currently total a combined \$703.5 million. Additionally there is a projected General Fund ending balance for this biennium of \$245.4 million, bringing effective reserves to \$948.9 million, or about 5.3 percent of current biennium’s revenue.

The forecast for the ORDF includes two deposits for this biennium. The first, \$158.3 million, is related to the General Fund ending balance from last biennium (2013-15) and occurred in February 2016. The second, \$11.5 million, is due to the increased corporate taxes from Measure 67. This brings the projected ORDF ending balance at the end of 2015-17 to \$387.6 million.

The forecast calls for \$203.8 million in deposits into the ESF in 2015-17 based on the current Lottery forecast. This would bring the ESF balance to \$383.2 million at the end of the current biennium.

Together, the ORDF and ESF are projected to have a combined balance of \$770.8 million at the close of the 2015-17 biennium. Provided the General Fund ending balance remains unallocated, total effective reserves at the end of 2015-17 would just over \$1 billion, or 5.6 percent of current revenues.

Such levels of reserve balances are bigger than Oregon has ever been able to accumulate, at least in the state’s recent history. However, that does not indicate they are sufficient to withstand a recession’s impact on the state budget. Reserve balances of approximately 7 percent are generally accepted to be able to withstand a recession of average size¹⁰. Provided the economic expansion continues, Oregon’s reserves are projected to reach 7 percent of expenditures at the end of the 2017-19 biennium.



B.10 in Appendix B provides more details for Oregon’s budgetary reserves.

¹⁰ Based on a one standard deviation change in revenues. Larger reserves needed to insure against a more severe recession.

POPULATION AND DEMOGRAPHIC OUTLOOK

Population and Demographic Summary

Oregon's population count on April 1, 2010 was 3,831,074. Oregon gained 409,550 persons between the years 2000 and 2010. The population growth during the decade of 2000 to 2010 was 12.0 percent, down from 20.4 percent growth from the previous decade. Oregon's rankings in terms of decennial growth rate dropped from 11th between 1990-2000 to 18th between 2000 and 2010. Oregon's national ranking in population growth rate was 16th between 2010 and 2015 lagging behind all of the neighboring states, except California. Slow population growth during the decade preceding the 2010 Census characterized by double recessions probably cost Oregon one additional seat in the U.S. House of Representatives. Actually, Oregon's decennial population growth rate during the most recent decade was the second lowest since 1900. As a result of economic downturn and sluggish recovery that followed, Oregon's population increased at a slow pace in the recent past. However, Oregon's current population is showing very strong growth as a consequence of state's strong economic recovery. Growth in 2015 ranked 10th fastest in the nation, surpassing Idaho and California. Based on the current forecast, Oregon's population will reach 4.59 million in the year 2026 with an annual rate of growth of 1.2 percent between 2016 and 2026.

Oregon's economic condition heavily influences the state's population growth. Its economy determines the ability to retain existing work force as well as attract job seekers from national and international labor market. As Oregon's total fertility rate remains below the replacement level and number of deaths continue to rise due to ageing population, long-term growth comes mainly from net in-migration. Working-age adults come to Oregon as long as we have favorable economic and employment environments. During the 1980s, which include a major recession and a net loss of population during the early years, net migration contributed to 22 percent of the population change. On the other extreme, net migration accounted for 73 percent of the population change during the booming economy of 1990s. This share of migration to population change declined to 32 percent in 2010, lowest since early 1980s when we actually had negative net migration for several years. As a sign of slow to modest economic gain, the ratio of net migration-to-population change has already exceeded 80 percent and remain that way throughout the forecast horizon due largely to combination of continued high net migration and rise in the number of deaths among elderly population associated with increasing number of elderly population. Although economy and employment situation in Oregon looked stagnant in the recent past, migration situation was not similar to the early 1980s pattern of negative net migration. Potential Oregon out-migrants had no better place to go since other states were also in the same boat in terms of economy and employment. California is the number one state of origin of migrants to Oregon. As California's housing market improves, we expect positive impact on Oregon's net migration.

Age structure and its change affect employment, state revenue, and expenditure. Demographics are the major budget drivers, which are modified by policy choices on service coverage and delivery. Growth in many age groups will show the effects of the baby-boom and their echo generations during the period of 2016-2026. It will also reflect demographics impacted by the depression era birth cohort combined with diminished migration of working age population and elderly retirees. After a period of slow growth during the 1990s and early 2000s, the elderly population (65+) has picked up a faster pace of growth and will surge to the record high levels as the baby-boom generation continue to enter this age group and attrition of small depression era cohort due to death. The average annual growth of the elderly population will be 3.4 percent during the 2016-2026 forecast period. However, the youngest elderly (aged 65-74) has been growing at an extremely fast pace in the recent

past and will continue the trend in the near future exceeding 5 percent annual rate of growth due to the direct impact of the baby-boom generation entering the retirement age and smaller pre-baby boom cohort exiting the 65-74 age group. The annual growth rate will taper off to below one percent by the end of the forecast period as a sign of baby-boom generation's transition to elderly age group. Reversing several years of slow growth and shrinking population, the elderly aged 75-84 started to show a positive growth as the effect of depression era birth-cohort has dissipated. An unprecedented fast pace of growth of population in this age group has started as the baby-boom generation starts to mature into 75-84 age group. Annual growth rate during the forecast period is expected to be unusually high 5.5 percent. The oldest elderly (aged 85+) will continue to grow at a slow but steady rate due to the combination of cohort change, continued positive net migration, and improving longevity. The average annual rate of growth for this oldest elderly over the forecast horizon will be 1.8 percent. An unprecedented growth in oldest elderly will commence near the end of the forecast horizon.

As the baby-boom generation matures out of oldest working-age cohort combined with slowing net migration, the once fast-paced growth of population aged 45-64 has gradually tapered off to below zero percent rate of growth by 2012 and will remain at slow or below zero growth phase for several years. The size of this older working-age population will remain virtually unchanged at the beginning to the end of the forecast period. The 25-44 age group population is recovering from several years of declining and slow growing trend. The decline was mainly due to the exiting baby-boom cohort. This age group has seen positive growth starting in the year 2004 and will increase by 1.6 percent annual average rate during the forecast horizon mainly because of the exiting smaller birth (baby-bust) cohort being replaced by baby-boom echo cohort. The young adult population (aged 18-24) will remain nearly unchanged over the forecast period. Although the slow or stagnant growth of college-age population (age 18-24), in general, tend to ease the pressure on public spending on higher education, college enrollment typically goes up during the time of high unemployment and scarcity of well-paying jobs when even the older people flock back to colleges to better position themselves in a tough job market. The growth in K-12 population (aged 5-17) will remain very low which will translate into slow growth in school enrollments. This school-age population has actually declined in size in recent past years and will grow in the future at well below the overall state average. The growth rate for children under the age of five has remained below or near zero percent in the recent past due to the sharp decline in the number of births. This cohort of children will see steady positive growth after 2016. Although the number of children under the age of five declined in the recent years, the demand for child care services and pre-Kindergarten program will be additionally determined by the labor force participation and poverty rates of the parents. Overall, elderly population over age 65 will increase rapidly whereas population groups under age 65 will experience slow growth in the coming years. Hence, based solely on demographics of Oregon, demand for public services geared towards children and young adults will likely to increase at a slower pace, whereas demand for elderly care and services will increase rapidly.

Procedure and Assumptions

Population forecasts by age and sex are developed using the cohort-component projection procedure. The population by single year of age and sex is projected based on the specific assumptions of vital events and migrations. Oregon's estimated population of July 1, 2010 based on the most recent decennial census is the base for the forecast. To explain the cohort-component projection procedure very briefly, the forecasting model "survives" the initial population distribution by age and sex to the next age-sex category in the following year,

and then applies age-sex-specific birth and migration rates to the mid-period population. Further iterations subject the in-and-out migrants to the same mortality and fertility rates.

Populations by age-sex detail for the years 2000 through 2009, called intercensal estimates, in the following tables are developed by OEA based on 2000 and 2010 censuses. Post-censal population totals for the years 2010 through 2015 are from the Population Research Center, Portland State University. The numbers of births and deaths through 2015 are from Oregon's Center for Health Statistics. All other numbers and age-sex detail are generated by OEA.

Annual numbers of births are determined from the age-specific fertility rates projected based on Oregon's past trends and past and projected national trends. Oregon's total fertility rate is assumed to remain below the replacement level of 2.1 children per woman during the forecast period, tracking at slightly lower than the national rate.

Life Table survival rates are developed for the year 2010. Male and female life expectancies for the 2010-202 period are projected based on the past three decades of trends and national projected life expectancies. Gradual improvements in life expectancies are expected over the forecast period. At the same time, the difference between the male and female life expectancies will continue to shrink. The male life expectancy at births of 77.4 and the female life expectancy of 81.8 in 2010 are projected to improve to 79.0 years for males and 83.2 years for females by the year 2026.

Estimates and forecasts of the number of net migrations are based on the residuals from the difference between population change and natural increase (births minus deaths) in a given forecast period. The migration forecasting model uses Oregon's employment, unemployment rates, income/wage data from Oregon and neighboring states, and past trends. Distribution of migrants by age and sex is based on detailed data from the American Community Survey. The annual net migration between 2016 and 2026 is expected to remain in the range of 38,700 to 50,600, averaging 42,800 persons annually. Slowdown in Oregon's economy in the recent years resulted in smaller net migration and slow population growth. Estimated population growth and net migration rates in 2010 and 2011 were the lowest in over two decades. Oregon's population growth has already rebounded and will continue high rate of growth in the near future. Migration is intrinsically related to economy and employment situation of the state. Still, high unemployment and job loss in the recent past have impacted net migration and population growth, but not to the extent in the early 1980s. Main reason for this is the fact that other states of potential destination for Oregon out-migrants were not faring any better either. Hence the potential out-migrants had very limited destination choices. The future growth will not look like high growth period of 1990s. The role of net migration in Oregon's population growth will get more prominence as the natural increase will decline considerably due to rapid increase in the number of deaths associated with ageing population.

APPENDIX A: ECONOMIC FORECAST DETAIL

Table A.1	Employment Forecast Tracking	35
Table A.2	Short-term Oregon Economic Summary	36
Table A.3	Oregon Economic Forecast Change	37
Table A.4	Annual Economic Forecast	38

Table A.1 – Employment Forecast Tracking

Total Nonfarm Employment, 3rd quarter 2016

(Employment in thousands, Annualized Percent Change)

	Preliminary Estimate		Forecast		Forecast Error		Y/Y Change
	level	% ch	level	% ch	level	%	% ch
Total Nonfarm	1,832.1	1.6	1,842.5	2.7	(10.4)	(0.6)	2.6
Total Private	1,524.2	1.5	1,534.0	2.7	(9.7)	(0.6)	2.7
Mining and Logging	7.6	(3.4)	7.8	2.1	(0.3)	(3.4)	(0.4)
Construction	89.6	1.2	89.8	2.3	(0.3)	(0.3)	7.8
Manufacturing	186.7	(3.5)	187.2	(2.1)	(0.5)	(0.3)	(0.2)
Durable Goods	129.8	(5.2)	130.6	(3.3)	(0.8)	(0.6)	(0.9)
Wood Product	22.5	(2.3)	23.2	(1.2)	(0.7)	(3.0)	0.1
Metals and Machinery	36.3	(2.9)	36.7	(0.3)	(0.4)	(1.0)	(1.6)
Computer and Electronic Product	37.8	(10.0)	38.0	(8.9)	(0.2)	(0.5)	0.0
Transportation Equipment	11.8	(7.7)	12.6	4.1	(0.8)	(6.0)	(6.8)
Other Durable Goods	21.3	(1.7)	20.1	(4.5)	1.2	6.1	1.4
Nondurable Goods	56.9	0.4	56.7	0.6	0.3	0.5	1.3
Food	29.4	2.7	29.1	0.2	0.3	1.2	3.4
Other Nondurable Goods	27.5	(2.0)	27.6	1.0	(0.1)	(0.3)	(0.9)
Trade, Transportation & Utilities	342.0	1.6	344.4	3.1	(2.4)	(0.7)	1.6
Retail Trade	205.5	0.8	208.2	3.5	(2.7)	(1.3)	1.1
Wholesale Trade	75.6	1.6	75.8	2.1	(0.2)	(0.2)	2.0
Transportation, Warehousing & Utilities	60.8	4.5	60.3	3.2	0.4	0.7	3.0
Information	33.7	2.5	34.2	3.5	(0.6)	(1.6)	1.8
Financial Activities	95.0	0.3	95.8	2.8	(0.7)	(0.8)	0.4
Professional & Business Services	239.3	4.0	243.5	6.2	(4.2)	(1.7)	4.5
Educational & Health Services	266.7	2.7	267.2	3.1	(0.5)	(0.2)	2.7
Educational Services	36.0	5.0	35.7	0.9	0.3	1.0	0.4
Health Services	230.7	2.4	231.5	3.5	(0.8)	(0.4)	3.1
Leisure and Hospitality	200.0	2.1	200.6	3.3	(0.6)	(0.3)	4.0
Other Services	63.8	2.2	63.4	(0.5)	0.4	0.6	4.3
Government	307.9	2.0	308.5	2.4	(0.6)	(0.2)	2.2
Federal	27.9	(2.8)	28.2	0.7	(0.3)	(1.0)	0.7
State	89.1	1.6	89.6	2.1	(0.4)	(0.5)	2.0
State Education	33.8	1.8	33.8	0.5	0.1	0.3	2.0
Local	190.9	2.9	190.8	2.7	0.1	0.0	2.5
Local Education	99.7	5.7	98.8	2.2	0.9	0.9	3.1

Table A.2 – Short-Term Oregon Economic Summary

	Quarterly					Annual					
	2016:3	2016:4	2017:1	2017:2	2017:3	2015	2016	2017	2018	2019	2020
Personal Income (\$ billions)											
Nominal Personal Income	186.1	188.5	190.7	193.2	195.8	176.4	185.0	194.6	205.8	217.4	229.2
% change	5.2	5.1	4.8	5.3	5.6	6.5	4.9	5.2	5.8	5.7	5.4
Real Personal Income (base year=2005)	167.9	169.1	170.5	171.8	173.3	161.1	167.1	172.7	179.2	185.4	191.5
% change	3.8	3.0	3.5	3.0	3.7	6.2	3.7	3.4	3.8	3.4	3.3
Nominal Wages and Salaries	97.9	99.5	100.9	102.5	104.2	91.1	97.1	103.4	109.9	116.1	122.3
% change	6.7	6.8	6.1	6.5	6.7	7.1	6.6	6.5	6.3	5.7	5.3
Other Indicators											
Per Capita Income (\$1,000)	45.5	45.9	46.3	46.7	47.1	43.8	45.3	46.9	49.0	51.1	53.1
% change	3.3	3.7	3.5	3.8	3.9	5.1	3.3	3.7	4.3	4.3	4.1
Average Wage rate (\$1,000)	52.8	53.4	53.9	54.4	55.0	50.7	52.6	54.7	56.9	59.3	61.9
% change	4.2	4.8	3.4	4.0	4.3	3.8	3.6	4.1	4.0	4.2	4.3
Population (Millions)	4.1	4.1	4.1	4.1	4.2	4.02	4.08	4.15	4.20	4.26	4.31
% change	1.8	1.4	1.3	1.5	1.7	1.3	1.5	1.5	1.4	1.3	1.3
Housing Starts (Thousands)	19.3	19.7	20.5	21.1	21.7	16.0	19.1	21.4	22.9	23.1	23.8
% change	19.2	8.8	17.3	12.8	11.0	2.6	20.0	11.6	7.3	1.0	2.9
Unemployment Rate	5.4	5.5	5.4	5.3	5.3	5.8	5.1	5.3	5.3	5.4	5.4
Point Change	0.8	0.1	(0.1)	(0.1)	0.0	(1.1)	(0.7)	0.3	(0.0)	0.0	0.1
Employment (Thousands)											
Total Nonfarm	1,832.1	1,844.7	1,856.5	1,867.6	1,878.4	1,779.4	1,829.8	1,873.2	1,914.3	1,942.2	1,961.4
% change	1.6	2.8	2.6	2.4	2.3	3.3	2.8	2.4	2.2	1.5	1.0
Private Nonfarm	1,524.2	1,533.9	1,544.1	1,554.0	1,563.5	1,478.9	1,522.4	1,559.0	1,595.5	1,619.3	1,633.0
% change	1.5	2.6	2.7	2.6	2.5	3.6	2.9	2.4	2.3	1.5	0.8
Construction	89.6	90.4	91.1	91.4	91.6	83.2	89.5	91.6	92.8	93.1	93.6
% change	1.2	3.9	2.9	1.3	1.3	3.9	7.5	2.4	1.3	0.3	0.5
Manufacturing	186.7	185.8	185.2	185.3	185.5	186.1	187.5	185.4	187.2	189.0	190.7
% change	(3.5)	(1.9)	(1.4)	0.2	0.5	3.6	0.8	(1.1)	0.9	1.0	0.9
Durable Manufacturing	129.8	128.9	128.2	128.2	128.3	130.4	130.6	128.3	129.4	130.6	131.7
% change	(5.2)	(2.7)	(2.3)	0.1	0.3	3.3	0.1	(1.8)	0.9	0.9	0.9
Wood Product Manufacturing	22.5	22.5	22.5	22.6	22.7	22.5	22.6	22.7	22.8	22.9	23.0
% change	(2.3)	(0.6)	1.0	1.2	1.4	2.2	0.6	0.2	0.8	0.3	0.3
High Tech Manufacturing	37.8	37.0	36.4	36.3	36.2	37.8	38.1	36.3	36.3	36.3	36.3
% change	(10.0)	(7.6)	(6.3)	(1.1)	(1.2)	3.3	0.8	(4.6)	0.0	(0.1)	0.0
Transportation Equipment	11.8	11.9	11.7	11.7	11.6	12.5	12.1	11.6	11.8	11.9	12.1
% change	(7.7)	3.1	(6.0)	(1.7)	(2.5)	8.3	(3.1)	(3.7)	1.2	1.5	1.7
Nondurable Manufacturing	56.9	56.9	57.0	57.1	57.2	55.6	56.9	57.2	57.8	58.4	59.0
% change	0.4	(0.2)	0.6	0.6	1.0	4.3	2.2	0.5	1.0	1.1	1.0
Private nonmanufacturing	1,337.5	1,348.1	1,358.9	1,368.7	1,378.0	1,292.8	1,334.9	1,373.6	1,408.3	1,430.3	1,442.3
% change	2.2	3.2	3.3	2.9	2.8	3.6	3.3	2.9	2.5	1.6	0.8
Retail Trade	205.5	206.4	207.5	208.3	208.8	202.4	205.5	208.6	212.3	214.6	216.5
% change	0.8	1.7	2.1	1.6	0.9	3.1	1.5	1.5	1.8	1.1	0.9
Wholesale Trade	75.6	76.2	76.6	76.7	76.9	73.9	75.6	76.8	77.3	77.8	78.5
% change	1.6	3.2	1.7	0.8	0.8	1.9	2.2	1.6	0.7	0.7	0.8
Information	33.7	33.9	34.1	34.3	34.5	33.0	33.6	34.4	35.2	35.6	35.7
% change	2.5	3.0	2.4	2.1	1.9	2.4	1.9	2.4	2.2	1.4	0.0
Professional and Business Services	239.3	242.6	246.1	249.8	253.6	228.7	238.7	251.7	263.8	272.3	276.7
% change	4.0	5.6	5.8	6.2	6.2	4.1	4.4	5.5	4.8	3.2	1.6
Health Services	230.7	232.7	234.8	236.9	238.9	222.7	230.2	237.8	244.7	248.5	251.8
% change	2.4	3.5	3.7	3.5	3.5	4.2	3.4	3.3	2.9	1.6	1.3
Leisure and Hospitality	200.0	202.3	204.3	205.6	207.0	191.7	199.7	206.3	211.8	214.6	214.7
% change	2.1	4.6	4.0	2.6	2.7	4.8	4.2	3.3	2.6	1.3	0.0
Government	307.9	310.8	312.4	313.7	314.9	300.5	307.4	314.2	318.8	322.9	328.4
% change	2.0	3.8	2.0	1.7	1.6	2.2	2.3	2.2	1.4	1.3	1.7

Table A.3 – Oregon Economic Forecast Change

Oregon Forecast Change (Current vs. Last)

	Quarterly					Annual					
	2016:3	2016:4	2017:1	2017:2	2017:3	2015	2016	2017	2018	2019	2020
Personal Income (\$ billions)											
Nominal Personal Income	186.1	188.5	190.7	193.2	195.8	176.4	185.0	194.6	205.8	217.4	229.2
% change	1.2	1.1	0.8	0.7	0.4	1.7	1.3	0.5	0.1	(0.1)	(0.3)
Real Personal Income (base year=2005)	167.9	169.1	170.5	171.8	173.3	161.1	167.1	172.7	179.2	185.4	191.5
% change	1.1	1.1	0.9	0.7	0.5	1.7	1.2	0.6	0.1	(0.2)	(0.3)
Nominal Wages and Salaries	97.9	99.5	100.9	102.5	104.2	91.1	97.1	103.4	109.9	116.1	122.3
% change	0.1	0.2	0.0	(0.1)	(0.4)	0.2	0.1	(0.3)	(0.5)	(0.3)	(0.3)
Other Indicators											
Per Capita Income (\$1,000)	45.5	45.9	46.3	46.7	47.1	43.8	45.3	46.9	49.0	51.1	53.1
% change	1.0	0.8	0.5	0.3	0.2	1.7	1.0	0.2	(0.3)	(0.5)	(0.7)
Average Wage rate (\$1,000)	52.8	53.4	53.9	54.4	55.0	50.7	52.6	54.7	56.9	59.3	61.9
% change	0.6	0.9	0.8	0.7	0.5	0.3	0.6	0.6	0.2	0.2	0.2
Population (Millions)	4.09	4.11	4.12	4.1	4.2	4.02	4.08	4.15	4.20	4.26	4.31
% change	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.3	0.3	0.4	0.4
Housing Starts (Thousands)	19.3	19.7	20.5	21.1	21.7	16.0	19.1	21.4	22.9	23.1	23.8
% change	3.6	1.1	0.0	(0.0)	0.0	(0.1)	1.3	(0.0)	(0.2)	0.1	0.1
Unemployment Rate	5.4	5.5	5.4	5.3	5.3	5.8	5.1	5.3	5.3	5.4	5.4
Point Change	0.4	0.5	0.4	0.2	0.2	0.0	0.2	0.2	0.0	0.0	0.0
Employment (Thousands)											
Total Nonfarm	1,832.1	1,844.7	1,856.5	1,867.6	1,878.4	1,779.4	1,829.8	1,873.2	1,914.3	1,942.2	1,961.4
% change	(0.6)	(0.6)	(0.6)	(0.7)	(0.8)	(0.0)	(0.4)	(0.7)	(0.7)	(0.5)	(0.4)
Private Nonfarm	1,524.2	1,533.9	1,544.1	1,554.0	1,563.5	1,478.9	1,522.4	1,559.0	1,595.5	1,619.3	1,633.0
% change	(0.6)	(0.7)	(0.8)	(0.9)	(1.0)	0.0	(0.4)	(0.9)	(0.8)	(0.6)	(0.5)
Construction	89.6	90.4	91.1	91.4	91.6	83.2	89.5	91.6	92.8	93.1	93.6
% change	(0.3)	0.1	0.1	0.1	0.1	(0.1)	(0.1)	0.1	0.2	0.2	0.2
Manufacturing	186.7	185.8	185.2	185.3	185.5	186.1	187.5	185.4	187.2	189.0	190.7
% change	(0.3)	(0.2)	(0.4)	(0.6)	(0.7)	0.1	(0.2)	(0.6)	(0.3)	(0.0)	0.2
Durable Manufacturing	129.8	128.9	128.2	128.2	128.3	130.4	130.6	128.3	129.4	130.6	131.7
% change	(0.6)	(0.5)	(0.7)	(0.9)	(1.1)	0.1	(0.4)	(1.0)	(0.6)	(0.2)	0.0
Wood Product Manufacturing	22.5	22.5	22.5	22.6	22.7	22.5	22.6	22.7	22.8	22.9	23.0
% change	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	0.0	(2.8)	(3.0)	(3.0)	(3.0)	(3.0)
High Tech Manufacturing	37.8	37.0	36.4	36.3	36.2	37.8	38.1	36.3	36.3	36.3	36.3
% change	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	0.0	(0.3)	(0.5)	(0.5)	(0.5)	(0.5)
Transportation Equipment	11.8	11.9	11.7	11.7	11.6	12.5	12.1	11.6	11.8	11.9	12.1
% change	(6.0)	(5.3)	(6.2)	(6.2)	(6.8)	0.2	(3.6)	(6.6)	(5.4)	(4.1)	(3.6)
Nondurable Manufacturing	56.9	56.9	57.0	57.1	57.2	55.6	56.9	57.2	57.8	58.4	59.0
% change	0.5	0.5	0.4	0.3	0.2	0.1	0.3	0.3	0.4	0.5	0.6
Private nonmanufacturing	1,337.5	1,348.1	1,358.9	1,368.7	1,378.0	1,292.8	1,334.9	1,373.6	1,408.3	1,430.3	1,442.3
% change	(0.7)	(0.8)	(0.8)	(0.9)	(1.0)	(0.0)	(0.4)	(0.9)	(0.9)	(0.7)	(0.6)
Retail Trade	205.5	206.4	207.5	208.3	208.8	202.4	205.5	208.6	212.3	214.6	216.5
% change	(1.3)	(1.7)	(2.0)	(2.5)	(3.0)	(0.0)	(0.9)	(2.7)	(3.1)	(2.6)	(2.4)
Wholesale Trade	75.6	76.2	76.6	76.7	76.9	73.9	75.6	76.8	77.3	77.8	78.5
% change	(0.2)	0.3	0.2	0.2	0.2	(0.1)	(0.0)	0.2	0.0	(0.1)	(0.1)
Information	33.7	33.9	34.1	34.3	34.5	33.0	33.6	34.4	35.2	35.6	35.7
% change	(1.6)	(1.7)	(1.8)	(1.8)	(1.9)	0.4	(1.2)	(1.9)	(2.1)	(2.3)	(2.3)
Professional and Business Services	239.3	242.6	246.1	249.8	253.6	228.7	238.7	251.7	263.8	272.3	276.7
% change	(1.7)	(1.7)	(1.7)	(1.3)	(1.0)	0.1	(1.2)	(1.2)	(1.0)	(0.4)	(0.5)
Health Services	230.7	232.7	234.8	236.9	238.9	222.7	230.2	237.8	244.7	248.5	251.8
% change	(0.4)	(0.4)	(0.5)	(0.5)	(0.4)	(0.0)	(0.2)	(0.5)	(0.1)	0.2	0.5
Leisure and Hospitality	200.0	202.3	204.3	205.6	207.0	191.7	199.7	206.3	211.8	214.6	214.7
% change	(0.3)	(0.3)	(0.3)	(0.6)	(0.9)	(0.0)	(0.2)	(0.7)	(0.4)	(0.3)	(0.4)
Government	307.9	310.8	312.4	313.7	314.9	300.5	307.4	314.2	318.8	322.9	328.4
% change	(0.2)	0.2	0.1	0.1	0.1	(0.0)	(0.1)	0.1	0.1	0.1	0.1

Table A.4 – Annual Economic Forecast

Dec 2016 - Personal Income

(Billions of Current Dollars)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Total Personal Income*												
Oregon	165.6	176.4	185.0	194.6	205.8	217.4	229.2	240.1	251.7	263.4	275.6	288.4
% Ch	6.7	6.5	4.9	5.2	5.8	5.7	5.4	4.8	4.9	4.6	4.6	4.6
U.S.	14,809.8	15,458.5	15,979.7	16,686.0	17,507.0	18,382.8	19,274.5	20,173.5	21,144.7	22,160.7	23,193.6	24,253.5
% Ch	5.2	4.4	3.4	4.4	4.9	5.0	4.9	4.7	4.8	4.8	4.7	4.6
Wage and Salary												
Oregon	85.1	91.1	97.1	103.4	109.9	116.1	122.3	128.0	134.1	140.2	146.6	153.5
% Ch	6.1	7.1	6.6	6.5	6.3	5.7	5.3	4.7	4.8	4.5	4.6	4.7
U.S.	7,476.3	7,854.8	8,154.0	8,561.1	8,989.5	9,431.4	9,882.3	10,358.7	10,882.0	11,429.5	11,982.1	12,542.0
% Ch	5.1	5.1	3.8	5.0	5.0	4.9	4.8	4.8	5.1	5.0	4.8	4.7
Other Labor Income												
Oregon	19.7	21.1	22.3	23.2	24.3	25.4	26.7	27.9	29.1	30.3	31.7	33.0
% Ch	0.9	7.0	5.5	4.2	4.5	4.9	4.8	4.5	4.3	4.3	4.4	4.2
U.S.	1,229.8	1,270.5	1,325.5	1,375.2	1,416.0	1,467.1	1,520.5	1,573.3	1,629.3	1,690.0	1,754.3	1,820.9
% Ch	2.6	3.3	4.3	3.8	3.0	3.6	3.6	3.5	3.6	3.7	3.8	3.8
Nonfarm Proprietor's Income												
Oregon	12.2	13.3	14.0	14.6	15.4	16.1	16.8	17.6	18.5	19.4	20.3	21.3
% Ch	8.8	8.9	5.4	4.1	5.4	4.7	4.3	4.7	5.1	5.0	4.7	4.9
U.S.	1,269.2	1,336.8	1,383.6	1,453.3	1,526.9	1,586.9	1,647.0	1,721.5	1,806.0	1,893.2	1,982.5	2,079.3
% Ch	6.0	5.3	3.5	5.0	5.1	3.9	3.8	4.5	4.9	4.8	4.7	4.9
Dividend, Interest and Rent												
Oregon	32.9	34.1	34.8	36.0	38.0	40.4	43.0	45.1	47.1	49.2	51.0	52.9
% Ch	8.0	3.4	2.2	3.4	5.5	6.4	6.4	4.9	4.5	4.4	3.8	3.7
U.S.	2,833.1	2,913.5	2,967.4	3,052.8	3,205.4	3,396.6	3,594.1	3,753.8	3,912.5	4,077.0	4,230.5	4,381.7
% Ch	8.0	2.8	1.8	2.9	5.0	6.0	5.8	4.4	4.2	4.2	3.8	3.6
Transfer Payments												
Oregon	33.5	35.7	36.8	38.7	40.9	43.2	45.5	47.8	50.4	53.1	56.1	59.3
% Ch	8.9	6.4	3.2	5.0	5.8	5.6	5.3	5.0	5.5	5.4	5.8	5.7
U.S.	2,487.2	2,619.5	2,731.5	2,858.3	2,999.2	3,159.3	3,326.8	3,503.8	3,693.0	3,885.1	4,088.9	4,303.7
% Ch	4.3	5.3	4.3	4.6	4.9	5.3	5.3	5.3	5.4	5.2	5.2	5.3
Contributions for Social Security												
Oregon	15.0	15.9	16.8	17.7	18.8	19.9	20.9	22.1	23.2	24.4	25.7	26.9
% Ch	5.9	5.6	5.7	5.7	6.0	5.7	5.4	5.3	5.0	5.4	5.1	5.0
U.S.	607.6	635.7	661.8	695.0	730.2	765.4	802.1	841.6	883.3	928.3	973.2	1,019.0
% Ch	5.1	4.6	4.1	5.0	5.1	4.8	4.8	4.9	5.0	5.1	4.8	4.7
Residence Adjustment												
Oregon	(3.5)	(3.9)	(4.1)	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)	(4.6)	(4.6)	(4.8)	(4.9)
% Ch	(1.1)	11.5	5.2	2.2	2.3	2.0	1.9	1.8	1.7	1.9	2.5	2.7
Farm Proprietor's Income												
Oregon	0.6	0.9	0.8	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3
% Ch	1.7	46.6	(9.0)	(21.9)	(18.4)	(16.9)	(12.3)	(5.4)	(13.1)	(3.4)	0.3	2.0
Per Capita Income (Thousands of \$)												
Oregon	41.7	43.8	45.3	46.9	49.0	51.1	53.1	55.0	57.0	59.0	61.2	63.4
% Ch	5.5	5.1	3.3	3.7	4.3	4.3	4.1	3.5	3.7	3.5	3.6	3.6
U.S.	46.4	48.0	49.2	51.0	53.1	55.3	57.5	59.8	62.2	64.7	67.2	69.7
% Ch	4.4	3.6	2.6	3.6	4.1	4.2	4.0	3.9	4.0	4.0	3.9	3.8

* Personal Income includes all classes of income minus Contributions for Social Security

Dec 2016 - Employment By Industry
(Oregon - Thousands, U.S. - Millions)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Total Nonfarm												
Oregon	1,722.0	1,779.4	1,829.8	1,873.2	1,914.3	1,942.2	1,961.4	1,973.2	1,986.5	1,999.8	2,015.9	2,035.5
% Ch	2.9	3.3	2.8	2.4	2.2	1.5	1.0	0.6	0.7	0.7	0.8	1.0
U.S.	138.9	141.8	144.3	146.0	147.2	148.7	150.0	151.2	152.8	154.5	156.0	157.2
% Ch	1.9	2.1	1.7	1.2	0.9	1.0	0.9	0.8	1.0	1.1	1.0	0.8
Private Nonfarm												
Oregon	1,428.1	1,478.9	1,522.4	1,559.0	1,595.5	1,619.3	1,633.0	1,642.9	1,652.6	1,662.8	1,675.6	1,691.4
% Ch	3.1	3.6	2.9	2.4	2.3	1.5	0.8	0.6	0.6	0.6	0.8	0.9
U.S.	117.1	119.8	122.2	123.8	125.0	126.3	127.3	128.6	130.1	131.6	133.0	134.1
% Ch	2.2	2.4	1.9	1.4	0.9	1.0	0.8	1.0	1.2	1.2	1.0	0.8
Mining and Logging												
Oregon	7.7	7.8	7.6	7.7	7.8	7.8	7.9	7.9	8.0	8.0	8.0	8.1
% Ch	1.8	0.4	(1.5)	0.3	1.5	1.0	0.8	0.4	0.4	0.6	0.4	0.3
U.S.	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9
% Ch	3.2	(7.9)	(14.7)	0.2	4.4	2.6	3.4	2.9	2.1	2.6	1.9	0.6
Construction												
Oregon	80.1	83.2	89.5	91.6	92.8	93.1	93.6	94.2	95.0	96.0	96.6	97.5
% Ch	8.0	3.9	7.5	2.4	1.3	0.3	0.5	0.7	0.8	1.0	0.7	0.8
U.S.	6.1	6.4	6.7	6.8	6.9	7.1	7.2	7.4	7.6	7.8	7.9	8.0
% Ch	5.0	4.8	3.3	1.7	2.1	2.4	2.2	2.2	2.5	2.4	2.0	1.5
Manufacturing												
Oregon	179.6	186.1	187.5	185.4	187.2	189.0	190.7	191.8	192.8	193.5	194.4	195.5
% Ch	2.6	3.6	0.8	(1.1)	0.9	1.0	0.9	0.6	0.5	0.4	0.5	0.6
U.S.	12.2	12.3	12.3	12.3	12.4	12.6	12.8	12.9	12.9	13.0	13.0	13.0
% Ch	1.4	1.1	(0.2)	0.1	0.8	1.6	1.2	0.7	0.5	0.4	0.2	0.3
Durable Manufacturing												
Oregon	126.3	130.4	130.6	128.3	129.4	130.6	131.7	132.4	132.8	133.0	133.4	133.9
% Ch	2.4	3.3	0.1	(1.8)	0.9	0.9	0.9	0.5	0.4	0.1	0.3	0.4
U.S.	7.7	7.8	7.7	7.7	7.8	8.0	8.1	8.2	8.3	8.3	8.4	8.4
% Ch	1.7	1.1	(0.9)	0.3	1.3	2.0	1.7	1.1	0.9	0.7	0.4	0.6
Wood Products												
Oregon	22.0	22.5	22.6	22.7	22.8	22.9	23.0	23.1	23.3	23.3	23.3	23.5
% Ch	4.0	2.2	0.6	0.2	0.8	0.3	0.3	0.8	0.6	0.1	0.2	0.5
U.S.	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
% Ch	5.2	2.1	0.7	4.8	6.3	4.1	4.4	3.7	3.5	3.6	2.7	1.9
Metal and Machinery												
Oregon	35.9	36.8	36.5	36.2	36.9	37.6	38.3	38.6	38.8	39.1	39.5	39.9
% Ch	1.5	2.5	(1.0)	(0.7)	1.8	2.1	1.7	0.9	0.5	0.6	1.0	1.1
U.S.	3.0	3.0	2.9	2.9	2.9	3.0	3.1	3.2	3.2	3.3	3.3	3.4
% Ch	1.6	(0.2)	(2.8)	0.3	1.5	2.7	2.3	1.9	2.2	2.1	1.4	0.9
Computer and Electronic Products												
Oregon	36.6	37.8	38.1	36.3	36.3	36.3	36.3	36.1	36.1	35.9	35.8	35.7
% Ch	(0.1)	3.3	0.8	(4.6)	0.0	(0.1)	0.0	(0.4)	(0.2)	(0.5)	(0.3)	(0.3)
U.S.	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
% Ch	(1.5)	0.1	(1.1)	(0.7)	2.4	1.1	0.7	0.6	0.7	0.5	0.6	0.4
Transportation Equipment												
Oregon	11.5	12.5	12.1	11.6	11.8	11.9	12.1	12.3	12.3	12.2	12.1	12.1
% Ch	6.0	8.3	(3.1)	(3.7)	1.2	1.5	1.7	1.0	(0.1)	(0.6)	(0.6)	(0.4)
U.S.	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5
% Ch	3.3	2.6	0.5	(1.5)	(1.2)	1.6	1.2	(0.6)	(2.8)	(3.6)	(2.8)	(0.0)
Other Durables												
Oregon	20.3	20.9	21.4	21.5	21.7	21.9	22.0	22.2	22.4	22.6	22.7	22.8
% Ch	5.4	3.3	2.3	0.3	0.9	0.9	0.8	0.6	1.0	0.8	0.6	0.5
U.S.	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4
% Ch	2.2	2.2	1.1	2.5	1.9	1.2	1.3	1.7	1.3	1.2	0.8	0.4
Nondurable Manufacturing												
Oregon	53.4	55.6	56.9	57.2	57.8	58.4	59.0	59.4	59.9	60.5	61.0	61.6
% Ch	3.1	4.3	2.2	0.5	1.0	1.1	1.0	0.8	0.8	0.9	0.9	1.0
U.S.	4.5	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.7	4.6
% Ch	0.9	1.1	0.9	(0.2)	0.0	1.0	0.5	0.0	(0.1)	0.0	(0.1)	(0.2)
Food Manufacturing												
Oregon	27.0	28.1	29.3	29.5	29.7	29.9	30.1	30.3	30.5	30.6	30.9	31.2
% Ch	4.2	4.1	4.2	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.8	0.9
U.S.	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8
% Ch	0.7	1.4	1.9	1.5	1.6	2.1	1.6	1.4	1.4	1.6	1.4	1.1
Other Nondurable												
Oregon	26.4	27.6	27.6	27.7	28.1	28.5	28.9	29.1	29.5	29.8	30.1	30.4
% Ch	2.0	4.4	0.2	0.3	1.3	1.5	1.3	1.0	1.1	1.1	1.0	1.1
U.S.	3.0	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9
% Ch	0.9	1.0	0.4	(0.8)	(0.9)	0.2	(0.3)	(0.7)	(1.0)	(1.0)	(1.0)	(1.0)
Trade, Transportation, and Utilities												
Oregon	325.7	335.3	341.5	347.2	352.4	356.3	359.3	360.9	362.0	362.8	363.2	364.9
% Ch	2.4	2.9	1.9	1.7	1.5	1.1	0.8	0.5	0.3	0.2	0.1	0.4
U.S.	26.4	26.9	27.3	27.5	27.5	27.5	27.5	27.5	27.6	27.7	27.7	27.9
% Ch	2.0	2.0	1.6	0.5	(0.0)	0.2	(0.1)	0.0	0.2	0.3	0.3	0.4

Dec 2016 - Employment By Industry
(Oregon - Thousands, U.S. - Millions)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Retail Trade												
Oregon	196.3	202.4	205.5	208.6	212.3	214.6	216.5	217.5	218.1	218.6	218.8	220.1
% Ch	2.5	3.1	1.5	1.5	1.8	1.1	0.9	0.4	0.3	0.2	0.1	0.6
U.S.	15.4	15.6	15.9	16.0	15.9	15.9	15.8	15.7	15.7	15.8	15.8	15.8
% Ch	1.9	1.9	2.0	0.2	(0.4)	0.0	(0.5)	(0.4)	(0.1)	0.1	0.2	0.3
Wholesale Trade												
Oregon	72.6	73.9	75.6	76.8	77.3	77.8	78.5	79.0	79.3	79.6	79.9	80.1
% Ch	1.5	1.9	2.2	1.6	0.7	0.7	0.8	0.7	0.5	0.4	0.3	0.3
U.S.	5.8	5.9	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.3
% Ch	1.4	1.1	0.8	0.3	0.4	0.8	0.8	1.0	0.9	0.8	0.7	0.4
Transportation and Warehousing, and Utilities												
Oregon	56.9	59.0	60.4	61.8	62.8	63.8	64.3	64.5	64.6	64.6	64.6	64.6
% Ch	3.6	3.7	2.4	2.3	1.6	1.6	0.8	0.3	0.1	0.1	(0.0)	0.1
U.S.	5.2	5.4	5.5	5.6	5.6	5.6	5.7	5.7	5.7	5.7	5.7	5.7
% Ch	3.2	3.7	1.4	1.8	0.8	0.4	0.3	0.3	0.3	0.2	0.1	0.6
Information												
Oregon	32.2	33.0	33.6	34.4	35.2	35.6	35.7	35.7	35.8	36.0	36.2	36.5
% Ch	(0.2)	2.4	1.9	2.4	2.2	1.4	0.0	0.0	0.3	0.5	0.6	0.8
U.S.	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9
% Ch	0.8	0.9	1.1	0.4	(0.5)	(0.2)	(0.0)	0.8	1.0	1.3	1.1	0.5
Financial Activities												
Oregon	92.4	94.4	94.8	96.4	98.4	99.4	99.2	99.2	99.2	99.5	99.7	100.0
% Ch	0.9	2.2	0.4	1.7	2.0	1.0	(0.2)	(0.0)	0.1	0.3	0.3	0.3
U.S.	8.0	8.1	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4
% Ch	1.1	1.9	2.0	0.7	(0.5)	(0.2)	(0.4)	0.3	0.4	0.5	0.4	0.1
Professional and Business Services												
Oregon	219.8	228.7	238.7	251.7	263.8	272.3	276.7	280.2	283.8	287.5	292.1	297.2
% Ch	4.9	4.1	4.4	5.5	4.8	3.2	1.6	1.2	1.3	1.3	1.6	1.7
U.S.	19.1	19.7	20.2	21.0	21.6	22.1	22.5	23.0	23.7	24.4	25.1	25.6
% Ch	2.9	3.1	2.8	3.7	3.1	2.4	1.8	2.0	3.1	3.2	2.7	2.2
Education and Health Services												
Oregon	248.5	258.0	266.0	274.2	281.5	285.7	289.3	292.8	296.2	299.9	304.5	309.2
% Ch	2.4	3.8	3.1	3.1	2.6	1.5	1.3	1.2	1.1	1.3	1.5	1.6
U.S.	21.4	22.1	22.7	23.1	23.3	23.6	23.8	24.1	24.4	24.7	25.0	25.2
% Ch	1.7	2.9	2.8	1.7	1.0	1.1	1.1	1.2	1.1	1.2	1.3	1.1
Educational Services												
Oregon	34.7	35.4	35.8	36.4	36.8	37.2	37.5	37.6	37.7	37.8	37.9	38.2
% Ch	1.9	1.8	1.2	1.7	1.1	0.9	0.8	0.4	0.3	0.2	0.4	0.6
U.S.	3.4	3.5	3.5	3.5	3.4	3.4	3.3	3.3	3.3	3.2	3.2	3.1
% Ch	1.8	1.4	1.7	(1.1)	(1.6)	(1.1)	(1.2)	(1.1)	(1.2)	(1.6)	(1.9)	(2.1)
Health Care and Social Assistance												
Oregon	213.7	222.7	230.2	237.8	244.7	248.5	251.8	255.2	258.4	262.1	266.5	271.1
% Ch	2.5	4.2	3.4	3.3	2.9	1.6	1.3	1.4	1.3	1.4	1.7	1.7
U.S.	18.0	18.6	19.2	19.6	19.9	20.2	20.4	20.8	21.1	21.4	21.8	22.1
% Ch	1.6	3.1	3.0	2.2	1.5	1.4	1.4	1.6	1.5	1.6	1.7	1.5
Leisure and Hospitality												
Oregon	182.9	191.7	199.7	206.3	211.8	214.6	214.7	213.8	213.0	212.5	213.2	214.5
% Ch	3.6	4.8	4.2	3.3	2.6	1.3	0.0	(0.4)	(0.3)	(0.3)	0.4	0.6
U.S.	14.7	15.1	15.5	15.8	15.9	16.0	16.1	16.3	16.5	16.6	16.7	16.7
% Ch	3.1	2.9	2.7	1.5	0.7	0.7	1.0	1.2	0.8	0.6	0.5	0.1
Other Services												
Oregon	59.2	60.8	63.5	64.1	64.8	65.6	66.0	66.4	66.9	67.2	67.6	68.1
% Ch	2.0	2.7	4.4	0.9	1.2	1.1	0.7	0.5	0.8	0.4	0.6	0.7
U.S.	5.6	5.6	5.7	5.7	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.5
% Ch	1.5	1.0	1.2	(0.4)	(1.2)	(0.8)	(0.3)	0.0	(0.1)	(0.3)	(0.4)	(0.4)
Government												
Oregon	293.9	300.5	307.4	314.2	318.8	322.9	328.4	330.4	333.9	337.0	340.3	344.1
% Ch	1.8	2.2	2.3	2.2	1.4	1.3	1.7	0.6	1.1	0.9	1.0	1.1
U.S.	21.9	22.0	22.1	22.1	22.3	22.4	22.7	22.6	22.7	22.8	23.0	23.1
% Ch	0.1	0.6	0.6	(0.0)	0.5	0.7	1.3	(0.4)	0.4	0.5	0.5	0.6
Federal Government												
Oregon	27.4	27.8	28.0	28.1	28.1	27.9	29.4	27.7	27.6	27.6	27.6	27.5
% Ch	(0.3)	1.2	0.9	0.5	(0.2)	(0.6)	5.4	(5.8)	(0.2)	(0.1)	(0.1)	(0.1)
U.S.	2.7	2.8	2.8	2.8	2.8	2.7	2.8	2.7	2.7	2.6	2.6	2.6
% Ch	(1.3)	0.7	1.1	0.3	(1.3)	(1.5)	4.6	(6.0)	(0.6)	(0.3)	(0.3)	(0.3)
State Government, Oregon												
State Total	84.2	87.2	89.0	90.7	92.0	93.1	94.0	94.9	95.7	96.4	97.2	98.2
% Ch	3.9	3.6	2.0	1.9	1.5	1.2	1.0	0.9	0.8	0.8	0.8	1.0
State Education	32.5	33.1	33.7	33.9	34.1	34.4	34.6	34.8	34.9	35.0	35.0	35.1
% Ch	1.6	1.8	1.7	0.5	0.8	0.7	0.7	0.5	0.2	0.2	0.2	0.2
Local Government, Oregon												
Local Total	182.3	185.5	190.4	195.4	198.7	201.9	204.9	207.8	210.6	213.0	215.5	218.4
% Ch	1.1	1.8	2.6	2.6	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.4
Local Education	94.5	96.2	99.0	101.3	102.7	104.0	105.1	106.2	107.2	108.1	108.8	109.4
% Ch	1.0	1.8	2.9	2.3	1.4	1.2	1.1	1.0	0.9	0.8	0.6	0.6

Dec 2016 - Other Economic Indicators

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
GDP (Bil of 2009 \$),												
Chain Weight (in billions of \$)	15,982.3	16,397.2	16,628.7	16,989.0	17,366.2	17,748.2	18,116.7	18,509.8	18,941.1	19,367.2	19,780.7	20,178.4
% Ch	2.4	2.6	1.4	2.2	2.2	2.2	2.1	2.2	2.3	2.2	2.1	2.0
Price and Wage Indicators												
GDP Implicit Price Deflator,												
Chain Weight U.S., 2009=100	108.8	110.0	111.6	114.1	116.6	119.1	121.5	124.0	126.5	129.1	131.8	134.5
% Ch	1.8	1.1	1.4	2.3	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1
Personal Consumption Deflator,												
Chain Weight U.S., 2009=100	109.2	109.5	110.7	112.7	114.8	117.3	119.7	122.2	124.7	127.4	130.0	132.8
% Ch	1.5	0.3	1.1	1.8	1.9	2.2	2.1	2.1	2.1	2.1	2.1	2.1
CPI, Urban Consumers,												
1982-84=100												
Portland-Salem, OR-WA	241.2	244.2	248.3	254.0	260.3	266.8	273.2	279.7	286.4	293.2	300.4	307.6
% Ch	2.4	1.2	1.7	2.3	2.5	2.5	2.4	2.4	2.4	2.4	2.5	2.4
U.S.	236.7	237.0	240.0	245.9	251.9	258.5	264.9	271.3	277.9	285.0	292.0	299.1
% Ch	1.6	0.1	1.3	2.5	2.4	2.6	2.5	2.4	2.4	2.5	2.4	2.5
Oregon Average Wage												
Rate (Thous \$)	48.9	50.7	52.6	54.7	56.9	59.3	61.9	64.4	67.0	69.6	72.2	74.9
% Ch	3.2	3.8	3.6	4.1	4.0	4.2	4.3	4.1	4.1	3.9	3.8	3.7
U.S. Average Wage												
Wage Rate (Thous \$)	53.8	55.4	56.5	58.6	61.1	63.4	65.9	68.5	71.2	74.0	76.8	79.8
% Ch	3.1	2.9	2.0	3.8	4.1	3.9	3.8	4.0	4.0	3.9	3.8	3.8
Housing Indicators												
FHFA Oregon Housing Price Index												
1991 Q1=100	306.2	333.8	374.1	413.1	442.4	464.0	484.7	503.2	521.3	540.5	558.4	574.7
% Ch	7.9	9.0	12.1	10.4	7.1	4.9	4.5	3.8	3.6	3.7	3.3	2.9
FHFA National Housing Price Index												
1991 Q1=100	209.5	221.3	233.1	243.8	251.9	258.0	264.5	270.9	277.9	286.8	296.3	306.4
% Ch	5.4	5.6	5.4	4.6	3.3	2.4	2.5	2.4	2.6	3.2	3.3	3.4
Housing Starts												
Oregon (Thous)	15.6	16.0	19.1	21.4	22.9	23.1	23.8	24.2	24.2	24.0	23.5	23.2
% Ch	9.2	2.6	20.0	11.6	7.3	1.0	2.9	1.5	0.2	(0.8)	(2.1)	(1.4)
U.S. (Millions)	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5
% Ch	7.8	10.7	4.7	3.2	8.5	6.9	4.6	3.1	1.0	0.4	(0.3)	(0.9)
Other Indicators												
Unemployment Rate (%)												
Oregon	6.8	5.8	5.1	5.3	5.3	5.4	5.4	5.4	5.5	5.5	5.5	5.5
Point Change	(1.0)	(1.1)	(0.7)	0.3	(0.0)	0.0	0.1	0.0	0.0	(0.0)	0.0	0.0
U.S.	6.2	5.3	4.9	4.8	4.6	4.6	4.7	4.8	4.8	4.6	4.6	4.5
Point Change	(1.2)	(0.9)	(0.4)	(0.1)	(0.2)	(0.0)	0.1	0.1	(0.0)	(0.1)	(0.1)	(0.1)
Industrial Production Index												
U.S. 2002 = 100	104.9	105.2	104.2	105.4	108.5	111.1	113.6	115.7	118.0	120.0	121.7	123.2
% Ch	2.9	0.3	(1.0)	1.1	2.9	2.4	2.2	1.9	2.0	1.7	1.4	1.3
Prime Rate (Percent)	3.3	3.3	3.5	3.8	4.5	5.4	5.8	5.8	5.8	5.8	5.8	5.8
% Ch	0.0	0.3	7.6	8.9	17.0	21.0	6.4	0.0	0.0	0.0	0.0	0.0
Population (Millions)												
Oregon	3.97	4.02	4.08	4.15	4.20	4.26	4.31	4.36	4.41	4.46	4.51	4.55
% Ch	1.1	1.3	1.5	1.5	1.4	1.3	1.3	1.2	1.1	1.1	1.0	1.0
U.S.	319.5	322.0	324.5	327.1	329.8	332.4	335.0	337.6	340.2	342.8	345.3	347.8
% Ch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
Timber Harvest (Mil Bd Ft)												
Oregon	4,125.6	3,788.1	4,180.7	4,748.3	4,776.7	4,811.4	4,812.7	4,813.7	4,832.1	4,817.2	4,809.9	3,833.5
% Ch	(1.8)	(8.2)	10.4	13.6	0.6	0.7	0.0	0.0	0.4	(0.3)	(0.2)	(20.3)

APPENDIX B: REVENUE FORECAST DETAIL

Table B.1a	General Fund Revenue Statement – 2015-17	43
Table B.1b	General Fund Revenue Statement – 2017-19	44
Table B.2	General Fund Revenue Forecast by Fiscal Year	44
Table B.3	Summary of 2013 Legislative Session Adjustments	45
Table B.4	Oregon Personal Income Tax Revenue Forecast	46
Table B.5	Oregon Corporate Income Tax Revenue Forecast	48
Table B.6	Cigarette and Tobacco Tax Distribution	50
Table B.7	Liquor Apportionment and Revenue Distribution to Local Governments	51
Table B.8	Track Record for the May 2013 Forecast	52
Table B.9	Summary of Lottery Resources	53
Table B.10	Budgetary Reserve Summary	54

Table B.1 General Fund Revenue Statement

Table B.1a

General Fund Revenue Statement -- 2015-17

	Estimate at COS 2015	Forecasts Dated: 9/1/2016			Forecasts Dated: 12/1/2016			Difference	
		2015-16	2016-17	Total 2015-17	2015-16	2016-17	Total 2015-17	12/1/2016 Less 9/1/2016	12/1/2016 Less COS
Taxes									
Personal Income Taxes	15,713,459,000	7,752,914,000	7,960,812,000	15,713,726,000	7,762,729,000	7,915,657,000	15,678,386,000	(35,340,000)	(35,073,000)
Shared Service Fund (Gainshare)	(32,663,000)	(16,313,000)	(16,329,000)	(32,642,000)	(16,313,000)	(16,329,000)	(32,642,000)	0	21,000
Corporate Income Taxes	1,100,007,000	609,868,000	500,894,000	1,110,762,000	609,868,000	493,820,000	1,103,688,000	(7,074,000)	3,681,000
Rainy Day Fund Transfer (Minimum Tax)	(10,114,000)	(6,519,000)	(5,282,000)	(11,801,000)	(6,519,000)	(5,015,000)	(11,534,000)	267,000	(1,420,000)
Insurance Taxes	118,885,000	66,085,000	58,957,000	125,042,000	66,085,000	59,634,000	125,719,000	677,000	6,834,000
Estate Taxes	217,126,000	125,970,000	112,062,000	238,032,000	125,970,000	152,062,000	278,032,000	40,000,000	60,906,000
Cigarette Taxes	65,029,000	36,214,000	33,615,000	69,829,000	36,214,000	34,490,000	70,704,000	875,000	5,675,000
Other Tobacco Products Taxes	63,819,000	30,983,000	31,331,000	62,314,000	30,983,000	31,194,000	62,177,000	(137,000)	(1,642,000)
Other Taxes	1,736,000	905,000	868,000	1,773,000	905,000	868,000	1,773,000	0	37,000
Fines and Fees									
State Court Fees	125,978,000	57,444,000	58,421,000	115,865,000	57,444,000	57,903,000	115,347,000	(518,000)	(10,631,000)
Secretary of State Fees	61,627,000	32,138,000	31,923,000	64,061,000	32,138,000	31,923,000	64,061,000	0	2,434,000
Criminal Fines & Assessments	60,419,000	27,758,000	32,805,000	60,563,000	25,028,000	21,524,000	46,552,000	(14,011,000)	(13,867,000)
Securities Fees	21,859,000	12,027,000	11,795,000	23,822,000	12,027,000	11,573,000	23,600,000	(222,000)	1,741,000
Central Service Charges	8,152,000	5,190,000	4,076,000	9,266,000	5,190,000	4,076,000	9,266,000	0	1,114,000
Liquor Apportionment	273,519,000	127,421,000	135,679,000	263,100,000	127,421,000	135,679,000	263,100,000	0	(10,419,000)
Interest Earnings	14,943,000	7,366,000	7,969,000	15,335,000	7,366,000	9,169,000	16,535,000	1,200,000	1,592,000
Miscellaneous Revenues	12,409,960	4,060,000	6,305,000	10,365,000	4,060,000	6,305,000	10,365,000	0	(2,044,960)
One-time Transfers	139,088,000	2,334,000	136,088,000	138,422,000	2,334,000	136,088,000	138,422,000	0	(666,000)
Gross General Fund Revenues	17,998,055,960	8,898,677,000	9,123,600,000	18,022,277,000	8,905,762,000	9,101,965,000	18,007,727,000	(14,550,000)	9,671,040
Offsets and Transfers	(42,777,000)	(22,832,000)	(21,611,000)	(44,443,000)	(22,832,000)	(21,344,000)	(44,176,000)	267,000	(1,399,000)
Net General Fund Revenues	17,955,278,960	8,875,845,000	9,101,989,000	17,977,834,000	8,882,930,000	9,080,621,000	17,963,551,000	(14,283,000)	8,272,040
Plus Beginning Balance	532,887,537			528,792,871			528,792,871	0	(4,094,666)
Less Anticipated Administrative Actions*	(20,200,000)			(14,018,000)			(14,018,000)	0	6,182,000
Less Legislatively Adopted Actions**	(158,894,706)			(158,328,302)			(158,328,302)	0	566,404
Available Resources	18,309,071,791			18,334,280,569			18,319,997,569	(14,283,000)	10,925,778
Appropriations	17,984,668,302			18,074,633,526			18,074,633,526	0	89,965,224
Projected Expenditures	17,984,668,302			18,074,633,526			18,074,633,526	0	89,965,224
Estimated Ending Balance	324,403,489			259,647,043			245,364,043	(14,283,000)	(79,039,446)

Table B.1b
General Fund Revenue Statement -- 2017-19

	Forecasts Dated: 9/1/2016			Forecasts Dated: 12/1/2016			Difference 12/1/2016 Less 9/1/2016
	2017-18	2018-19	Total 2017-19	2017-18	2018-19	Total 2017-19	
Taxes							
Personal Income Taxes (Before Kicker)	8,495,176,000	8,929,607,000	17,424,783,000	8,447,033,000	8,926,045,000	17,373,078,000	(51,705,000)
Offsets and Transfers	(16,345,000)	(16,363,000)	(32,708,000)	(16,345,000)	(16,363,000)	(32,708,000)	0
Corporate Income Taxes (Before Kicker)	504,385,000	513,803,000	1,018,188,000	506,582,000	521,873,000	1,028,455,000	10,267,000
Offsets and Transfers	(19,074,000)	(20,311,000)	(39,385,000)	(19,096,000)	(20,534,000)	(39,630,000)	(245,000)
Insurance Taxes	62,469,000	64,774,000	127,243,000	62,098,000	63,986,000	126,084,000	(1,159,000)
Estate Taxes	119,066,000	124,299,000	243,365,000	122,216,000	126,799,000	249,015,000	5,650,000
Cigarette Taxes	32,158,000	30,500,000	62,658,000	33,338,000	32,207,000	65,545,000	2,887,000
Other Tobacco Products Taxes	32,078,000	32,842,000	64,920,000	32,078,000	32,842,000	64,920,000	0
Other Taxes	843,000	833,000	1,676,000	843,000	833,000	1,676,000	0
Fines and Fees							
State Court Fees	59,029,000	59,646,000	118,675,000	58,144,000	58,747,000	116,891,000	(1,784,000)
Secretary of State Fees	32,140,000	32,567,000	64,707,000	32,140,000	32,567,000	64,707,000	0
Criminal Fines & Assessments	29,973,000	35,423,000	65,396,000	30,266,000	30,266,000	60,532,000	(4,864,000)
Securities Fees	11,893,000	12,250,000	24,143,000	11,732,000	12,109,000	23,841,000	(302,000)
Central Service Charges	4,076,000	4,076,000	8,152,000	4,076,000	4,076,000	8,152,000	0
Liquor Apportionment	143,026,000	151,187,000	294,213,000	143,026,000	151,187,000	294,213,000	0
Interest Earnings	11,763,000	17,516,000	29,279,000	12,763,000	17,516,000	30,279,000	1,000,000
Miscellaneous Revenues	6,425,000	6,602,000	13,027,000	6,425,000	6,602,000	13,027,000	0
One-time Transfers	3,000,000	3,000,000	6,000,000	3,000,000	3,000,000	6,000,000	0
Gross General Fund Revenues	9,547,500,000	10,018,925,000	19,566,425,000	9,505,760,000	10,020,655,000	19,526,415,000	(40,010,000)
Total Kicker Refunds/Credits	(35,419,000)	(36,674,000)	(72,093,000)	(35,441,000)	(36,897,000)	(72,338,000)	(245,000)
Net General Fund Revenues	9,512,081,000	9,982,251,000	19,494,332,000	9,470,319,000	9,983,758,000	19,454,077,000	(40,255,000)
Plus Beginning Balance			259,647,043			245,364,043	(14,283,000)
Less Anticipated Administrative Actions*			0			0	0
Less Legislatively Adopted Actions**			(180,746,335)			(180,746,335)	0
Available Resources			19,573,232,708			19,518,694,708	(54,538,000)

Table B.2 General Fund Revenue Forecast by Fiscal Year

General Fund Revenue Forecast											December 2016	
(\$Millions)												
Fiscal Years	2013-14 Fiscal Year	2014-15 Fiscal Year	2015-16 Fiscal Year	2016-17 Fiscal Year	2017-18 Fiscal Year	2018-19 Fiscal Year	2019-20 Fiscal Year	2020-21 Fiscal Year	2021-22 Fiscal Year	2022-23 Fiscal Year	2023-24 Fiscal Year	2024-25 Fiscal Year
Taxes												
Personal Income	6,628.0	7,330.3	7,762.7	7,915.7	8,447.0	8,926.0	9,325.8	9,909.0	10,465.1	10,936.2	11,423.3	11,945.8
Offsets and Transfers	(24.1)	(38.1)	(16.3)	(16.3)	(16.3)	(16.4)	(16.4)	(16.4)	(16.4)	(16.4)	(16.5)	(16.5)
Corporate Excise & Income	494.8	621.8	609.9	493.8	506.6	521.9	524.6	526.3	539.8	558.0	568.2	578.4
Offsets and Transfers	(6.9)	(5.4)	(6.5)	(5.0)	(19.1)	(20.5)	(21.0)	(21.2)	(21.2)	(21.7)	(20.8)	(24.0)
Insurance	59.8	61.3	66.1	59.6	62.1	64.0	66.0	67.8	69.7	71.8	74.0	76.2
Estate	85.5	111.0	126.0	152.1	122.2	126.8	131.3	136.1	141.4	145.1	149.1	153.1
Cigarette	36.1	37.2	36.2	34.5	33.3	32.2	31.2	30.3	29.4	28.5	26.8	25.2
Other Tobacco Products	30.2	29.9	31.0	31.2	32.1	32.8	33.6	34.4	35.2	36.1	37.1	38.2
Other Taxes	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Other Revenues												
Licenses and Fees	128.2	128.1	126.6	122.9	132.3	133.7	135.0	136.5	136.4	137.8	138.7	139.8
Charges for Services	3.6	5.1	5.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Liquor Apportionment	120.8	125.9	127.4	135.7	143.0	151.2	141.2	149.7	158.7	168.2	178.2	188.9
Interest Earnings	4.2	4.8	7.4	9.2	12.8	17.5	24.4	32.7	35.0	38.0	40.0	42.0
Others	50.8	5.7	6.4	142.4	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8
Gross General Fund	7,643.1	8,461.8	8,905.8	9,102.0	9,505.8	10,020.7	10,427.9	11,037.6	11,625.7	12,134.9	12,651.0	13,203.1
Net General Fund	7,612.1	8,418.3	8,882.9	9,080.6	9,470.3	9,983.8	10,390.5	11,000.0	11,588.2	12,096.8	12,613.7	13,162.6
Biennial Totals	2013-15 Biennium	Percent Change	2015-17 Biennium	Percent Change	2017-19 Biennium	Percent Change	2019-21 Biennium	Percent Change	2021-23 Biennium	Percent Change	2023-25 Biennium	Percent Change
Taxes												
Personal Income	13,958.3	15.2%	15,678.4	12.3%	17,373.1	10.8%	19,234.8	10.7%	21,401.3	11.3%	23,369.1	9.2%
Corporate Excise & Income	1,116.5	26.3%	1,103.7	-1.2%	1,028.5	-6.8%	1,050.9	2.2%	1,097.8	4.5%	1,146.6	4.4%
Insurance	121.0	22.2%	125.7	3.9%	126.1	0.3%	133.8	6.1%	141.5	5.8%	150.2	6.2%
Estate Taxes	196.5	-3.5%	278.0	41.5%	249.0	-10.4%	267.4	7.4%	286.4	7.1%	302.1	5.5%
Cigarette	73.3	-1.8%	70.7	-3.5%	65.5	-7.3%	61.5	-6.1%	57.9	-5.9%	52.0	-10.2%
Other Tobacco Products	60.1	3.2%	62.2	3.4%	64.9	4.4%	68.0	4.8%	71.3	4.8%	75.3	5.6%
Other Taxes	2.0	-15.9%	1.8	-12.2%	1.7	-5.5%	1.6	-2.4%	1.6	-0.6%	1.6	0.0%
Other Revenues												
Licenses and Fees	256.4	-7.1%	249.6	-2.7%	266.0	6.6%	271.5	2.1%	274.2	1.0%	278.5	1.6%
Charges for Services	8.7	-24.7%	9.3	6.2%	8.2	-12.0%	8.2	0.0%	8.2	0.0%	8.2	0.0%
Liquor Apportionment	246.7	5.9%	263.1	6.6%	294.2	11.8%	290.9	-1.1%	326.8	12.4%	367.1	12.3%
Interest Earnings	9.0	-44.1%	16.5	83.5%	30.3	83.1%	57.1	88.7%	73.0	27.8%	82.0	12.3%
Others	56.5	-70.0%	148.8	163.6%	19.0	-87.2%	19.8	4.1%	20.6	4.0%	21.4	3.9%
Gross General Fund	16,105.0	13.7%	18,007.7	11.8%	19,526.4	8.4%	21,465.5	9.9%	23,760.7	10.7%	25,854.1	8.8%
Net General Fund	16,030.5	13.3%	17,963.6	12.1%	19,454.1	8.3%	21,390.5	10.0%	23,685.0	10.7%	25,776.3	8.8%

Table B.3 Summary of 2015 Legislative Session Adjustments

	Biennia				Revenue Impact Statement
	15-17	17-19	19-21	21-23	
Personal Income Tax Impacts (millions)					
DOR Compliance Tools - HB 5035	\$4.0	\$4.2	\$4.4	\$4.6	HB 5035
Gain Share - SB 129	\$53.5	\$24.8	-\$33.1	-\$34.0	SB 129
ABLE (529) Accounts - SB 777	-\$0.2	-\$0.5	-\$0.5	-\$0.6	SB 777
<i>Tax Credits - HB 2171</i>	-\$40.1	-\$112.6	-\$125.3	-\$75.7	HB 2171
Working Family Child & Dependent Care	-\$31.4	-\$62.7	-\$62.7	-\$31.5	
IDA Contributions	-\$6.9	-\$14.3	-\$14.5	-\$7.5	
Oregon Veterans' Home Physicians		< \$50K per year			
Severe Disability	-\$5.3	-\$11.6	-\$13.0	-\$7.1	
Child with a Disability	-\$4.6	-\$10.2	-\$11.7	-\$6.2	
Rural Medical Providers	-\$0.1	-\$2.8	-\$2.3	-\$1.9	
Office of Child Care Contributions	-\$0.4	-\$0.9	-\$1.0	-\$0.5	
Long-term Care Insurance	\$10.4	\$0.0	\$0.0	\$0.0	
Film & Video	\$0.0	-\$9.3	-\$19.3	-\$20.0	
Military active duty	-\$1.8	-\$0.8	-\$0.9	-\$1.0	
<i>Personal Income Tax Total</i>	\$17.2	-\$84.1	-\$154.5	-\$105.7	
Corporate Income Tax Impacts (millions)					
Tax Havens - SB 61	\$0.1	\$0.2	\$0.3	\$0.4	SB 61
<i>Tax Credits - HB 2171</i>	\$19.2	\$20.4	\$20.7	\$0.0	HB 2171
Oregon Life & Health IGA Assessments		< \$50K per year			
Corporate minimum tax	\$19.2	\$20.4	\$20.7	\$0.0	
<i>Corporate Income Tax Total</i>	\$19.3	\$20.6	\$21.0	\$0.4	
Other Tax/Revenue Impacts (millions)					
Program Change Bill - SB 501	\$154.1	\$0.0	\$0.0	\$0.0	SB 501
Lottery CFA - HB 5029	-\$7.1	\$0.0	\$0.0	\$0.0	HB 5029
Racing Commission - HB 2719	-\$0.2	-\$0.4	-\$0.5	-\$0.6	HB 2719
Portland Photo Radar - HB 2621	\$16.1	\$42.5	\$47.4	\$50.0	HB 2621
<i>Other Tax Total</i>	\$162.9	\$42.1	\$46.9	\$49.4	

Table B.4 Oregon Personal Income Tax Revenue Forecast

TABLE B.4	OREGON PERSONAL INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS									
	Thousands of Dollars - Not Seasonally Adjusted									
	December 2016									
	2007:3	2007:4	2008:1	2008:2	FY 2008	2008:3	2008:4	2009:1	2009:2	FY 2009
WITHHOLDING	1,115,359	1,200,822	1,196,532	1,111,034	4,623,747	1,162,107	1,182,763	1,128,994	1,089,305	4,563,169
%CHYA	-0.3%	2.4%	1.2%	2.1%	1.4%	4.2%	-1.5%	-5.6%	-2.0%	-1.3%
EST. PAYMENTS	250,749	217,163	281,441	399,475	1,148,828	264,440	174,826	217,305	263,135	919,707
%CHYA	8.2%	22.7%	5.3%	10.0%	10.6%	5.5%	-19.5%	-22.8%	-34.1%	-19.9%
FINAL PAYMENTS	57,503	129,817	104,841	971,325	1,263,486	70,306	99,430	104,105	529,995	803,836
%CHYA	3.8%	45.2%	4.3%	24.6%	23.3%	22.3%	-23.4%	-0.7%	-45.4%	-36.4%
REFUNDS	71,372	155,912	389,876	365,908	983,068	92,063	180,329	447,706	404,229	1,124,327
%CHYA	-20.0%	23.0%	-12.3%	-1.0%	-4.6%	29.0%	15.7%	14.8%	10.5%	14.4%
OTHER	(177,781)	(1,084,201)	-	182,322	(1,079,660)	(182,322)	-	-	138,521	(43,801)
TOTAL	1,174,457	307,689	1,192,938	2,298,247	4,973,332	1,222,469	1,276,690	1,002,698	1,616,726	5,118,583
%CHYA	3.0%	-76.6%	7.9%	12.7%	-11.1%	4.1%	314.9%	-15.9%	-29.7%	2.9%
	2009:3	2009:4	2010:1	2010:2	FY 2010	2010:3	2010:4	2011:1	2011:2	FY 2011
WITHHOLDING	1,092,795	1,151,673	1,157,857	1,116,552	4,518,878	1,146,189	1,196,214	1,262,781	1,218,439	4,823,622
%CHYA	-6.0%	-2.6%	2.6%	2.5%	-1.0%	4.9%	3.9%	9.1%	9.1%	6.7%
EST. PAYMENTS	176,110	161,759	186,894	265,703	790,467	179,692	148,589	207,036	284,662	819,978
%CHYA	-33.4%	-7.5%	-14.0%	1.0%	-14.1%	2.0%	-8.1%	10.8%	7.1%	3.7%
FINAL PAYMENTS	63,363	77,013	105,745	515,262	761,383	62,259	81,728	114,877	607,592	866,456
%CHYA	-9.9%	-22.5%	1.6%	-2.8%	-5.3%	-1.7%	6.1%	8.6%	17.9%	13.8%
REFUNDS	96,477	188,704	459,550	380,459	1,125,190	92,291	151,515	432,478	340,652	1,016,937
%CHYA	4.8%	4.6%	2.6%	-5.9%	0.1%	-4.3%	-19.7%	-5.9%	-10.5%	-9.6%
OTHER	(138,521)	-	-	136,193	(2,328)	(136,193)	-	-	165,933	29,740
TOTAL	1,097,271	1,201,740	990,947	1,653,251	4,943,210	1,159,655	1,275,015	1,152,216	1,935,973	5,522,860
%CHYA	-10.2%	-5.9%	-1.2%	2.3%	-3.4%	5.7%	6.1%	16.3%	17.1%	11.7%
	2011:3	2011:4	2012:1	2012:2	FY 2012	2012:3	2012:4	2013:1	2013:2	FY 2013
WITHHOLDING	1,235,508	1,287,030	1,348,171	1,269,562	5,140,271	1,262,589	1,364,547	1,354,116	1,321,413	5,302,666
%CHYA	7.8%	7.6%	6.8%	4.2%	6.6%	2.2%	6.0%	0.4%	4.1%	3.2%
EST. PAYMENTS	194,674	185,239	199,238	299,646	878,797	205,533	159,104	278,341	321,896	964,874
%CHYA	8.3%	24.7%	-3.8%	5.3%	7.2%	5.6%	-14.1%	39.7%	7.4%	9.8%
FINAL PAYMENTS	85,889	87,233	117,628	627,762	918,512	72,224	91,338	123,456	785,542	1,072,560
%CHYA	38.0%	6.7%	2.4%	3.3%	6.0%	-15.9%	4.7%	5.0%	25.1%	16.8%
REFUNDS	64,687	156,272	530,800	360,618	1,112,377	52,211	109,503	536,506	383,176	1,081,397
%CHYA	-29.9%	3.1%	22.7%	5.9%	9.4%	-19.3%	-29.9%	1.1%	6.3%	-2.8%
OTHER	(165,933)	-	-	193,614	27,681	(193,614)	-	-	201,367	7,753
TOTAL	1,285,451	1,403,230	1,134,237	2,029,966	5,852,884	1,294,521	1,505,486	1,219,407	2,247,042	6,266,457
%CHYA	10.8%	10.1%	-1.6%	4.9%	6.0%	0.7%	7.3%	7.5%	10.7%	7.1%
	2013:3	2013:4	2014:1	2014:2	FY 2014	2014:3	2014:4	2015:1	2015:2	FY 2015
WITHHOLDING	1,333,946	1,435,630	1,442,755	1,420,313	5,632,644	1,455,822	1,523,453	1,576,188	1,505,337	6,060,801
%CHYA	5.7%	5.2%	6.5%	7.5%	6.2%	9.1%	6.1%	9.2%	6.0%	7.6%
EST. PAYMENTS	221,695	214,342	247,826	357,218	1,041,080	264,823	236,303	305,582	408,957	1,215,665
%CHYA	7.9%	34.7%	-11.0%	11.0%	7.9%	19.5%	10.2%	23.3%	14.5%	16.8%
FINAL PAYMENTS ¹	83,096	112,495	139,923	730,795	1,066,309	92,647	144,239	156,188	847,330	1,240,403
%CHYA	15.1%	23.2%	13.3%	-7.0%	-0.6%	11.5%	28.2%	11.6%	15.9%	16.3%
REFUNDS	67,098	197,448	472,018	354,437	1,091,001	100,729	173,522	520,272	375,119	1,169,642
%CHYA	28.5%	80.3%	-12.0%	-7.5%	0.9%	50.1%	-12.1%	10.2%	5.8%	7.2%
OTHER	(201,367)	-	-	180,356	(21,011)	(180,356)	-	-	163,398	(16,959)
TOTAL	1,370,272	1,565,018	1,358,485	2,334,246	6,628,021	1,532,207	1,730,473	1,517,685	2,549,903	7,330,268
%CHYA	5.9%	4.0%	11.4%	3.9%	5.8%	11.8%	10.6%	11.7%	9.2%	10.6%

Note: "Other" includes kicker and federal pension refunds, as well as July withholding accrued to June. Tax law impacts are reflected in the collections numbers to produce more meaningful projections.

TABLE B.4

OREGON PERSONAL INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS

	Thousands of Dollars - Not Seasonally Adjusted									
	2015:3	2015:4	2016:1	2016:2	FY 2016	2016:3	2016:4	2017:1	2017:2	FY 2017
WITHHOLDING	1,551,517	1,644,209	1,711,568	1,634,728	6,542,022	1,675,744	1,693,831	1,798,533	1,707,116	6,875,224
%CHYA	6.6%	7.9%	8.6%	8.6%	7.9%	8.0%	3.0%	5.1%	4.4%	5.1%
EST. PAYMENTS	309,470	141,009	327,008	423,839	1,201,325	300,866	250,627	348,860	446,898	1,347,250
%CHYA	16.9%	-40.3%	7.0%	5.7%	-0.5%	-2.8%	77.7%	6.7%	5.4%	12.1%
FINAL PAYMENTS ¹	99,618	321,345	141,818	813,132	1,375,913	103,631	108,322	145,420	896,616	1,253,990
%CHYA	7.5%	122.8%	-9.2%	-4.9%	10.2%	4.0%	-66.3%	2.5%	10.3%	-8.9%
REFUNDS	85,113	203,981	577,546	562,601	1,429,241	138,825	214,346	692,138	544,640	1,589,950
%CHYA	-15.5%	17.6%	11.0%	50.0%	22.2%	63.1%	5.1%	19.8%	-3.2%	11.2%
OTHER	(163,398)	-	-	236,108	72,710	(236,108)	-	-	265,251	29,144
TOTAL	1,712,094	1,902,583	1,602,848	2,545,205	7,762,729	1,705,308	1,838,434	1,600,674	2,771,240	7,915,657
%CHYA	11.7%	9.9%	5.6%	-0.2%	5.9%	-0.4%	-3.4%	-0.1%	8.9%	2.0%
	2017:3	2017:4	2018:1	2018:2	FY 2018	2018:3	2018:4	2019:1	2019:2	FY 2019
WITHHOLDING	1,764,515	1,784,858	1,904,179	1,808,789	7,262,341	1,869,546	1,891,102	2,003,750	1,901,242	7,665,639
%CHYA	5.3%	5.4%	5.9%	6.0%	5.6%	6.0%	6.0%	5.2%	5.2%	5.6%
EST. PAYMENTS	317,234	264,262	368,113	475,284	1,424,893	337,384	281,047	391,175	500,715	1,510,322
%CHYA	5.4%	5.4%	5.5%	6.4%	5.8%	6.4%	6.4%	6.3%	5.4%	6.0%
FINAL PAYMENTS ¹	84,288	115,669	133,900	1,020,076	1,353,932	89,695	123,525	139,364	1,091,378	1,443,961
%CHYA	-18.7%	6.8%	-7.9%	13.8%	8.0%	6.4%	6.8%	4.1%	7.0%	6.6%
REFUNDS	80,594	195,385	772,910	548,212	1,597,101	84,291	205,386	832,041	591,149	1,712,868
%CHYA	-41.9%	-8.8%	11.7%	0.7%	0.4%	4.6%	5.1%	7.7%	7.8%	7.2%
OTHER	(265,251)	-	-	268,219	2,968	(268,219)	-	-	287,209	18,990
TOTAL	1,820,191	1,969,404	1,633,282	3,024,156	8,447,033	1,944,115	2,090,288	1,702,247	3,189,395	8,926,045
%CHYA	6.7%	7.1%	2.0%	9.1%	6.7%	6.8%	6.1%	4.2%	5.5%	5.7%
	2019:3	2019:4	2020:1	2020:2	FY 2020	2020:3	2020:4	2021:1	2021:2	FY 2021
WITHHOLDING	1,965,197	1,987,854	2,111,111	2,003,867	8,068,030	2,071,242	2,095,121	2,212,514	2,098,175	8,477,052
%CHYA	5.1%	5.1%	5.4%	5.4%	5.2%	5.4%	5.4%	4.8%	4.7%	5.1%
EST. PAYMENTS	358,437	299,086	415,357	534,241	1,607,121	380,106	317,137	440,260	563,112	1,700,615
%CHYA	6.2%	6.4%	6.2%	6.7%	6.4%	6.0%	6.0%	6.0%	5.4%	5.8%
FINAL PAYMENTS ¹	93,195	128,520	146,162	1,158,402	1,526,280	97,709	134,392	153,500	1,215,967	1,601,568
%CHYA	3.9%	4.0%	4.9%	6.1%	5.7%	4.8%	4.6%	5.0%	5.0%	4.9%
REFUNDS	90,682	220,840	878,171	623,132	1,812,825	95,284	232,534	919,239	652,021	1,899,078
%CHYA	7.6%	7.5%	5.5%	5.4%	5.8%	5.1%	5.3%	4.7%	4.6%	4.8%
OTHER	(287,209)	-	-	224,445	(62,764)	(224,445)	-	-	253,241	28,796
TOTAL	2,038,938	2,194,620	1,794,460	3,297,823	9,325,841	2,229,328	2,314,116	1,887,035	3,478,474	9,908,953
%CHYA	4.9%	5.0%	5.4%	3.4%	4.5%	9.3%	5.4%	5.2%	5.5%	6.3%
	2021:3	2021:4	2022:1	2022:2	FY 2022	2022:3	2022:4	2023:1	2023:2	FY 2023
WITHHOLDING	2,168,805	2,193,808	2,316,512	2,196,767	8,875,893	2,270,718	2,296,895	2,421,445	2,295,664	9,284,721
%CHYA	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.5%	4.5%	4.6%
EST. PAYMENTS	397,600	331,209	460,763	586,686	1,776,258	416,464	346,922	482,541	613,294	1,859,221
%CHYA	4.6%	4.4%	4.7%	4.2%	4.4%	4.7%	4.7%	4.7%	4.5%	4.7%
FINAL PAYMENTS ¹	106,705	145,318	165,663	1,236,383	1,654,069	108,183	148,983	168,723	1,279,016	1,704,903
%CHYA	9.2%	8.1%	7.9%	1.7%	3.3%	1.4%	2.5%	1.8%	3.4%	3.1%
REFUNDS	99,871	243,516	911,851	637,374	1,892,612	102,673	249,640	947,123	662,971	1,962,407
%CHYA	4.8%	4.7%	-0.8%	-2.2%	-0.3%	2.8%	2.5%	3.9%	4.0%	3.7%
OTHER	(253,241)	-	-	304,781	51,540	(304,781)	-	-	354,544	49,763
TOTAL	2,319,999	2,426,818	2,031,087	3,687,243	10,465,147	2,387,911	2,543,160	2,125,585	3,879,546	10,936,202
%CHYA	4.1%	4.9%	7.6%	6.0%	5.6%	2.9%	4.8%	4.7%	5.2%	4.5%
	2023:3	2023:4	2024:1	2024:2	FY 2023	2024:3	2024:4	2025:1	2025:2	FY 2025
WITHHOLDING	2,372,970	2,400,325	2,534,271	2,403,223	9,710,789	2,484,125	2,512,762	2,655,843	2,518,954	10,171,685
%CHYA	4.5%	4.5%	4.7%	4.7%	4.6%	4.7%	4.7%	4.8%	4.8%	4.7%
EST. PAYMENTS	435,352	362,656	504,498	642,193	1,944,700	455,866	379,745	528,336	673,428	2,037,375
%CHYA	4.5%	4.5%	4.6%	4.7%	4.6%	4.7%	4.7%	4.7%	4.9%	4.8%
FINAL PAYMENTS ¹	116,771	159,090	179,972	1,336,347	1,792,180	117,667	161,756	183,477	1,388,537	1,851,438
%CHYA	7.9%	6.8%	6.7%	4.5%	5.1%	0.8%	1.7%	1.9%	3.9%	3.3%
REFUNDS	106,585	259,254	979,426	685,670	2,030,935	110,120	267,732	1,016,451	712,069	2,106,372
%CHYA	3.8%	3.9%	3.4%	3.4%	3.5%	3.3%	3.3%	3.8%	3.9%	3.7%
OTHER	(354,544)	-	-	361,155	6,611	(361,155)	-	-	352,779	(8,375)
TOTAL	2,463,964	2,662,818	2,239,316	4,057,246	11,423,345	2,586,383	2,786,532	2,351,206	4,221,629	11,945,750
%CHYA	3.2%	4.7%	5.4%	4.6%	4.5%	5.0%	4.6%	5.0%	4.1%	4.6%

Note: "Other" includes July withholding accrued to June. After a new processing system was launched November 2015, the July withholding number and the split between estimated and other payments has not been made available. Tax law impacts are reflected in the collections numbers to produce more meaningful projections.

Table B.5 Oregon Corporate Income Tax Revenue Forecast

TABLE B.5	OREGON CORPORATE INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS									
	Thousands of Dollars - Not Seasonally Adjusted									
	December 2016									FY
	2007:3	2007:4	2008:1	2008:2	FY 2008	2008:3	2008:4	2009:1	2009:2	FY 2009
ADVANCE PAYMENTS	133,408	205,375	64,256	155,284	558,323	100,589	145,285	63,802	97,368	407,044
%CHYA	2.8%	-13.1%	7.5%	-4.4%	-5.1%	-24.6%	-29.3%	-0.7%	-37.3%	-27.1%
FINAL PAYMENTS	23,631	45,064	35,076	52,143	155,912	23,501	26,721	22,314	21,822	94,357
%CHYA	19.8%	162.7%	37.9%	-20.5%	21.9%	-0.6%	-40.7%	-36.4%	-58.1%	-39.5%
REFUNDS	39,623	158,106	36,380	39,394	273,503	28,134	124,826	67,471	37,218	257,649
%CHYA	76.3%	-20.7%	-6.0%	-21.0%	-11.9%	-29.0%	-21.0%	85.5%	-5.5%	-5.8%
TOTAL	117,416	92,333	62,951	168,032	440,732	95,956	47,181	18,645	81,971	243,753
%CHYA	-7.5%	70.4%	35.4%	-5.7%	8.6%	-18.3%	-48.9%	-70.4%	-51.2%	-44.7%
	FY									FY
	2009:3	2009:4	2010:1	2010:2	FY 2010	2010:3	2010:4	2011:1	2011:2	FY 2011
ADVANCE PAYMENTS	79,579	163,877	66,451	147,313	457,220	115,286	175,561	76,405	165,354	532,606
%CHYA	-20.9%	12.8%	4.2%	51.3%	12.3%	44.9%	7.1%	15.0%	12.2%	16.5%
FINAL PAYMENTS	20,404	24,009	38,412	45,714	128,539	21,781	21,206	35,770	40,805	119,562
%CHYA	-13.2%	-10.2%	72.1%	109.5%	36.2%	6.8%	-11.7%	-6.9%	-10.7%	-7.0%
REFUNDS	29,072	137,244	40,080	25,774	232,170	23,130	89,877	39,065	31,489	183,562
%CHYA	3.3%	9.9%	-40.6%	-30.7%	-9.9%	-20.4%	-34.5%	-2.5%	22.2%	-20.9%
TOTAL	70,910	50,642	64,784	167,254	353,589	113,936	106,890	73,111	174,670	468,606
%CHYA	-26.1%	7.3%	247.5%	104.0%	45.1%	60.7%	111.1%	12.9%	4.4%	32.5%
	FY									FY
	2011:3	2011:4	2012:1	2012:2	FY 2012	2012:3	2012:4	2013:1	2013:2	FY 2013
ADVANCE PAYMENTS	120,766	154,290	86,873	156,652	518,581	130,348	110,207	80,942	282,526	604,023
%CHYA	4.8%	-12.1%	13.7%	-5.3%	-2.6%	7.9%	-28.6%	-6.8%	80.4%	16.5%
FINAL PAYMENTS	19,117	26,841	32,512	33,322	111,792	16,387	21,377	36,660	34,009	108,433
%CHYA	-12.2%	26.6%	-9.1%	-18.3%	-6.5%	-14.3%	-20.4%	12.8%	2.1%	-3.0%
REFUNDS	34,927	91,252	55,051	18,153	199,384	33,212	17,832	25,595	182,929	259,568
%CHYA	51.0%	1.5%	40.9%	-42.4%	8.6%	-4.9%	-80.5%	-53.5%	907.7%	30.2%
TOTAL	104,955	89,878	64,335	171,820	430,989	113,524	113,751	92,007	133,606	452,888
%CHYA	-7.9%	-15.9%	-12.0%	-1.6%	-8.0%	8.2%	26.6%	43.0%	-22.2%	5.1%
	FY									FY
	2013:3	2013:4	2014:1	2014:2	FY 2014	2014:3	2014:4	2015:1	2015:2	FY 2015
ADVANCE PAYMENTS	123,591	187,195	150,401	183,348	644,535	193,248	206,088	106,689	183,611	689,637
%CHYA	-5.2%	69.9%	85.8%	-35.1%	6.7%	56.4%	10.1%	-29.1%	0.1%	7.0%
FINAL PAYMENTS	27,794	18,162	32,218	52,283	130,456	28,815	73,552	57,268	71,415	231,051
%CHYA	69.6%	-15.0%	-12.1%	53.7%	20.3%	3.7%	305.0%	77.8%	36.6%	77.1%
REFUNDS	20,123	118,303	109,296	32,511	280,232	49,952	155,439	58,361	35,167	298,918
%CHYA	-39.4%	563.4%	327.0%	-82.2%	8.0%	148.2%	31.4%	-46.6%	8.2%	6.7%
TOTAL	131,262	87,054	73,323	203,120	494,759	172,111	124,202	105,597	219,860	621,770
%CHYA	15.6%	-23.5%	-20.3%	52.0%	9.2%	31.1%	42.7%	44.0%	8.2%	25.7%

TABLE B.5

OREGON CORPORATE INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS

	Thousands of Dollars - Not Seasonally Adjusted									
										December 2016
										FY
	2015:3	2015:4	2016:1	2016:2	FY 2016	2016:3	2016:4	2017:1	2017:2	FY 2017
ADVANCE PAYMENTS	173,329	220,326	118,673	202,813	715,141	136,698	183,558	95,970	164,655	580,881
%CHYA	-10.3%	6.9%	11.2%	10.5%	3.7%	-21.1%	-16.7%	-19.1%	-18.8%	-18.8%
FINAL PAYMENTS	67,305	59,752	63,509	70,433	260,998	44,746	74,744	69,207	65,987	254,684
%CHYA	133.6%	-18.8%	10.9%	-1.4%	13.0%	-33.5%	25.1%	9.0%	-6.3%	-2.4%
REFUNDS	42,388	156,984	85,446	81,453	366,271	39,680	161,924	86,655	53,485	341,744
%CHYA	-15.1%	1.0%	46.4%	131.6%	22.5%	-6.4%	3.1%	1.4%	-34.3%	-6.7%
TOTAL	198,245	123,094	96,736	191,793	609,868	141,764	96,377	78,523	177,157	493,820
%CHYA	15.2%	-0.9%	-8.4%	-12.8%	-1.9%	-28.5%	-21.7%	-18.8%	-7.6%	-19.0%
	2017:3	2017:4	2018:1	2018:2	FY 2018	2018:3	2018:4	2019:1	2019:2	FY 2019
ADVANCE PAYMENTS	151,037	192,151	99,261	169,021	611,470	155,664	197,981	102,375	173,121	629,140
%CHYA	10.5%	4.7%	3.4%	2.7%	5.3%	3.1%	3.0%	3.1%	2.4%	2.9%
FINAL PAYMENTS	30,702	73,476	70,770	66,966	241,914	31,608	85,372	76,823	69,969	263,772
%CHYA	-31.4%	-1.7%	2.3%	1.5%	-5.0%	3.0%	16.2%	8.6%	4.5%	9.0%
REFUNDS	38,569	164,373	88,718	55,141	346,802	39,349	178,624	94,790	58,276	371,039
%CHYA	-2.8%	1.5%	2.4%	3.1%	1.5%	2.0%	8.7%	6.8%	5.7%	7.0%
TOTAL	143,169	101,253	81,313	180,845	506,582	147,923	104,728	84,408	184,814	521,873
%CHYA	1.0%	5.1%	3.6%	2.1%	2.6%	3.3%	3.4%	3.8%	2.2%	3.0%
	2019:3	2019:4	2020:1	2020:2	FY 2020	2020:3	2020:4	2021:1	2021:2	FY 2021
ADVANCE PAYMENTS	158,887	201,148	103,989	175,600	639,624	161,152	204,210	105,420	178,483	649,264
%CHYA	2.1%	1.6%	1.6%	1.4%	1.7%	1.4%	1.5%	1.4%	1.6%	1.5%
FINAL PAYMENTS	32,016	97,848	81,441	70,824	282,129	31,414	111,550	86,695	72,758	302,417
%CHYA	1.3%	14.6%	6.0%	1.2%	7.0%	-1.9%	14.0%	6.5%	2.7%	7.2%
REFUNDS	40,867	193,915	100,792	61,563	397,136	42,477	210,315	107,452	65,162	425,406
%CHYA	3.9%	8.6%	6.3%	5.6%	7.0%	3.9%	8.5%	6.6%	5.8%	7.1%
TOTAL	150,036	105,082	84,638	184,861	524,617	150,089	105,445	84,663	186,078	526,276
%CHYA	1.4%	0.3%	0.3%	0.0%	0.5%	0.0%	0.3%	0.0%	0.7%	0.3%
	2021:3	2021:4	2022:1	2022:2	FY 2022	2022:3	2022:4	2023:1	2023:2	FY 2023
ADVANCE PAYMENTS	164,286	209,123	108,108	183,297	664,814	168,971	214,880	111,041	188,058	682,949
%CHYA	1.9%	2.4%	2.6%	2.7%	2.4%	2.9%	2.8%	2.7%	2.6%	2.7%
FINAL PAYMENTS	32,349	126,429	93,683	78,120	330,581	35,417	141,568	100,616	82,908	360,509
%CHYA	3.0%	13.3%	8.1%	7.4%	9.3%	9.5%	12.0%	7.4%	6.1%	9.1%
REFUNDS	44,408	227,430	114,646	69,139	455,624	46,510	244,581	121,587	72,781	485,459
%CHYA	4.5%	8.1%	6.7%	6.1%	7.1%	4.7%	7.5%	6.1%	5.3%	6.5%
TOTAL	152,226	108,122	87,146	192,277	539,771	157,877	111,866	90,071	198,185	557,999
%CHYA	1.4%	2.5%	2.9%	3.3%	2.6%	3.7%	3.5%	3.4%	3.1%	3.4%
	2023:3	2023:4	2024:1	2024:2	FY 2024	2024:3	2024:4	2025:1	2025:2	FY 2025
ADVANCE PAYMENTS	172,861	219,266	112,909	190,424	695,461	174,453	220,704	113,709	191,961	700,827
%CHYA	2.3%	2.0%	1.7%	1.3%	1.8%	0.9%	0.7%	0.7%	0.8%	0.8%
FINAL PAYMENTS	36,979	155,289	127,057	97,782	417,106	44,959	222,776	149,871	112,111	529,716
%CHYA	4.4%	9.7%	26.3%	17.9%	15.7%	21.6%	43.5%	18.0%	14.7%	27.0%
REFUNDS	48,254	260,741	148,355	87,032	544,382	55,354	327,731	170,306	98,754	652,145
%CHYA	3.7%	6.6%	22.0%	19.6%	12.1%	14.7%	25.7%	14.8%	13.5%	19.8%
TOTAL	161,586	113,814	91,611	201,174	568,185	164,057	115,748	93,274	205,318	578,398
%CHYA	2.3%	1.7%	1.7%	1.5%	1.8%	1.5%	1.7%	1.8%	2.1%	1.8%

Table B.6 Cigarette and Tobacco Tax Distribution

TABLE B.6 Cigarette & Tobacco Tax Distribution (Millions of \$)											December 2016
	Cigarette Tax Distribution*							Other Tobacco Tax Distribution			
	General Fund	Health Plan	Tobacco Use Reduction	Mental Health	State Total	Cities, Counties & Public Transit	Total	General Fund	Health Plan	Tobacco Use Reduction	State Total
Distribution Forecast*											
2013-14	36.077	140.132	5.675	7.673	189.557	11.086	200.643	30.181	23.416	2.604	56.202
2014-15	37.184	136.842	5.633	15.675	195.334	10.727	206.061	29.927	23.228	2.583	55.738
2013-15 Biennium	73.260	276.974	11.308	23.348	384.891	21.813	406.704	60.108	46.644	5.188	111.940
2015-16	36.214	138.159	5.606	18.920	198.898	10.918	209.817	30.983	23.738	2.640	57.361
2016-17	34.490	134.415	5.362	21.948	196.214	10.723	206.937	31.194	24.067	2.677	57.938
2015-17 Biennium	70.704	272.574	10.968	40.867	395.112	21.641	416.754	62.177	47.805	5.317	115.299
2017-18	33.338	129.929	5.183	21.914	190.364	10.365	200.729	32.078	24.750	2.753	59.580
2018-19	32.207	125.520	5.007	21.959	184.694	10.014	194.707	32.842	25.339	2.818	61.000
2017-19 Biennium	65.546	255.449	10.189	43.874	375.058	20.379	395.436	64.920	50.089	5.571	120.580
2019-20	31.241	121.755	4.857	21.301	179.153	9.713	188.866	33.624	25.942	2.885	62.451
2020-21	30.304	118.102	4.711	20.662	173.778	9.422	183.200	34.423	26.559	2.954	63.936
2019-21 Biennium	61.545	239.857	9.567	41.962	352.931	19.135	372.066	68.047	52.501	5.839	126.387
2021-22	29.395	114.559	4.570	20.042	168.565	9.139	177.704	35.240	27.190	3.024	65.454
2022-23	28.513	111.122	4.432	19.441	163.508	8.865	172.373	36.076	27.834	3.096	67.006
2021-23 Biennium	57.907	225.681	9.002	39.482	332.073	18.004	350.077	71.317	55.024	6.120	132.460
2023-24	26.802	104.455	4.166	18.274	153.698	8.333	162.031	37.122	28.642	3.185	68.949
2024-25	25.194	98.188	3.917	17.178	144.476	7.833	152.309	38.199	29.472	3.278	70.949
2023-25 Biennium	51.996	202.642	8.083	35.452	298.173	16.166	314.339	75.321	58.114	6.463	139.898

* Prior to January 1, 2014 the cigarette tax per pack totaled \$1.18 with the following distribution: \$0.8574 to the Health Plan, \$0.22 to the state general fund, \$0.0342 to Tobacco Use Reduction and \$0.0684 to Cities, Counties and Public Transit. Following the passage of HB 3601 during the 2013 Special Session, the following changes were made to cigarette taxes. Beginning January 1, 2014 taxes per pack were raised \$0.13 to a total of \$1.31 per pack. Beginning January 1, 2016 taxes will increase an additional \$0.01 for a total of \$1.32 per pack with a further \$0.01 increase on January 1, 2018 for a total of \$1.33 per pack. The distribution of the \$0.13 increase beginning in 2014 is split \$0.10 to Mental Health, \$0.013 to the state general fund, \$0.002 to Tobacco Use Reduction and \$0.016 to the Health Plan. Beginning January 1, 2016 the full tax increase of \$0.14 per pack relative to pre-2014 tax rates, is dedicated to Mental Health. Similarly the full \$0.15 post January 1, 2018 is likewise dedicated to Mental Health.

Table B.7 Revenue Distribution to Local Governments

TABLE B.7									December 2016
Liquor Apportionment and Revenue Distribution to Local Governments (Millions of \$)									
	Liquor Apportionment Distribution								Cigarette Tax Distribution²
	Total Liquor Revenue Available	General Fund (56%)	Mental Health¹	Oregon Wine Board	City Revenue			Counties	
					Revenue Sharing	Regular	Total		
2013-14	213.810	121.426	8.626	0.294	26.557	37.938	64.495	18.969	11.086
2014-15	221.681	125.959	8.720	0.295	27.589	39.413	67.001	19.706	10.727
2013-15 Biennium	435.491	247.385	17.345	0.589	54.146	77.351	131.497	38.675	21.813
2015-16	224.137	127.421	8.991	0.307	27.815	39.735	67.550	19.868	10.918
2016-17	238.249	135.679	9.178	0.321	29.613	42.305	71.918	21.152	10.723
2015-17 Biennium	462.385	263.101	18.169	0.628	57.428	82.040	139.468	41.020	21.641
2017-18	250.499	143.026	9.417	0.332	31.094	44.420	75.514	22.210	10.365
2018-19	263.804	151.187	9.662	0.344	32.649	46.641	79.290	23.320	10.014
2017-19 Biennium	514.303	294.214	19.079	0.677	63.743	91.061	154.804	45.530	20.379
2019-20	259.195	141.185	9.913	0.357	34.281	48.973	83.254	24.487	9.713
2020-21	273.338	149.670	10.171	0.370	35.995	51.422	87.417	25.711	9.422
2019-21 Biennium	532.533	290.855	20.084	0.726	70.276	100.395	170.671	50.197	19.135
2021-22	288.256	158.654	10.435	0.383	37.795	53.993	91.788	26.996	9.139
2022-23	303.992	168.166	10.706	0.397	39.685	56.692	96.377	28.346	8.865
2021-23 Biennium	592.248	326.820	21.141	0.779	77.480	110.685	188.165	55.343	18.004
2023-24	320.591	178.235	10.985	0.411	41.669	59.527	101.196	29.764	8.333
2024-25	338.099	188.896	11.270	0.426	43.752	62.503	106.256	31.252	7.833
2023-25 Biennium	658.690	367.131	22.255	0.837	85.421	122.030	207.452	61.015	16.166

¹ Mental Health Alcoholism and Drug Services Account, per ORS 471.810² For details on cigarette revenues see TABLE B.6 on previous page

Table B.8 Track Record for the December 2015 Forecast

Table B.8 Track Record for the September 2016 Forecast

(Quarter ending September 30, 2016)

Personal Income Tax				Forecast Comparison		Year/Year Change	
(Millions of dollars)	Actual Revenues	Latest Forecast	Percent Difference	Prior Year	Percent Change		
Withholding	\$1,675.7	\$1,637.8	2.3%	\$1,551.5	8.0%		
Dollar difference		\$37.9		\$124.2			
Estimated Payments*	\$300.9	\$287.7	4.6%	\$309.5	-2.8%		
Dollar difference		\$13.1		-\$8.6			
Final Payments*	\$103.6	\$89.4	15.9%	\$99.6	4.0%		
Dollar difference		\$14.2		\$4.0			
Refunds	-\$138.8	-\$131.0	6.0%	-\$85.1	63.1%		
Dollar difference		-\$7.9		-\$53.7			
Total Personal Income Tax	\$1,941.4	\$1,884.0	3.0%	\$1,875.5	3.5%		
Dollar difference		\$57.4		\$65.9			
Corporate Income Tax				Forecast Comparison		Year/Year Change	
(Millions of dollars)	Actual Revenues	Latest Forecast	Percent Difference	Prior Year	Percent Change		
Advanced Payments	\$136.7	\$166.4	-17.8%	\$173.3	-21.1%		
Dollar difference		-\$29.7		-\$36.6			
Final Payments	\$44.7	\$32.3	38.4%	\$67.3	-33.5%		
Dollar difference		\$12.4		-\$22.6			
Refunds	-\$39.7	-\$57.8	-31.4%	-\$42.4	-6.4%		
Dollar difference		\$18.1		\$2.7			
Total Corporate Income Tax	\$141.8	\$140.9	0.6%	\$198.2	-28.5%		
Dollar difference		\$0.9		-\$56.5			
Total Income Tax				Forecast Comparison		Year/Year Change	
(Millions of dollars)	Actual Revenues	Latest Forecast	Percent Difference	Prior Year	Percent Change		
Corporate and Personal Tax	\$2,083.2	\$2,024.9	2.9%	\$2,073.7	0.5%		
Dollar difference		\$58.2		\$9.4			

* A new processing system for the personal income tax program was deployed in November. Data on estimated and other personal income tax payments has yet to become available.

Table B.9 Summary of Lottery Resources

TABLE B.9 Summary of Lottery Resources	Dec 2016 Forecast										
	2015-17			2017-19		2019-21		2021-23		2023-25	
	Current Forecast	Change from Sep-16	Change from COS 2015	Current Forecast	Change from Sep-16	Current Forecast	Change from Sep-16	Current Forecast	Change from Sep-16	Current Forecast	Change from Sep-16
(in millions of dollars)											
LOTTERY EARNINGS											
Traditional Lottery	136.848	1.494	19.043	120.685	(5.017)	121.124	(4.905)	120.857	(4.854)	120.896	(4.794)
Video Lottery	1,153.277	(0.613)	82.626	1,111.526	6.003	1,201.815	6.091	1,302.190	4.198	1,385.449	4.466
Administrative Actions	0.918	0.918	0.918	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Video Lottery Terminal Replacement	(59.200)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Available to Transfer	1,231.843	1.799	102.587	1,232.211	0.986	1,322.939	1.186	1,423.047	(0.656)	1,506.345	(0.328)
ECONOMIC DEVELOPMENT FUND											
Beginning Balance	20.500	0.000	1.181	46.667	1.206	0.000	0.000	0.000	0.000	0.000	0.000
Transfers from Lottery	1,231.843	1.799	102.587	1,232.211	0.986	1,322.939	1.186	1,423.047	(0.656)	1,506.345	(0.328)
Other Resources ¹	9.425	0.000	2.085	2.000	0.000	2.000	0.000	2.000	0.000	2.000	0.000
Total Available Resources	1,261.768	1.799	105.854	1,280.878	2.192	1,324.939	1.186	1,425.047	(0.656)	1,508.345	(0.328)
ALLOCATION OF RESOURCES											
Voter Approved Distributions											
Education Stability Fund ²	221.732	0.324	18.466	221.798	0.178	238.129	0.214	256.148	(0.118)	271.142	(0.059)
Parks and Natural Resources Fund ³	184.777	0.270	15.388	184.832	0.148	198.441	0.178	213.457	(0.098)	225.952	(0.049)
Outdoor School Education Fund ⁴	--	--	--	44.503	44.503	46.696	46.696	48.988	48.988	51.363	51.363
Veterans' Services Fund ⁵	--	--	--	18.483	18.483	19.844	19.844	21.346	21.346	22.595	22.595
Other Distributions											
County Economic Development	39.084	0.000	0.000	42.683	0.231	46.871	0.238	52.088	0.168	55.418	0.179
HECC Collegiate Athletic & Scholarships ⁶	8.240	0.000	0.000	12.322	0.010	13.229	0.012	14.230	(0.007)	15.063	(0.003)
Gambling Addiction ⁶	11.349	0.000	0.056	12.322	0.010	13.229	0.012	14.230	(0.007)	15.063	(0.003)
County Fairs	3.864	0.000	0.000	3.648	0.000	3.648	0.000	3.648	0.000	3.648	0.000
Other Legislatively Adopted Allocations ⁷	746.056	0.000	41.277	258.600	0.000	258.600	0.000	258.600	0.000	258.600	0.000
Total Distributions	1,215.101	0.594	75.187	799.190	63.562	838.687	67.193	882.735	70.271	918.845	74.02
Ending Balance/Discretionary Resources	46.667	1.206	30.667	481.687	(61.370)	486.251	(66.006)	542.312	(70.928)	589.500	(74.350)

Note: Some totals may not foot due to rounding.

- Includes interest earnings on Economic Development Fund and reversions.
- Eighteen percent of proceeds accrue to the Ed. Stability Fund, until the balance equals 5% of GF Revenues. Thereafter, 15% of proceeds accrue to the School Capital Matching Fund.
- The Parks and Natural Resources Fund Constitutional amendment requires 15% of net proceeds be transferred to this fund.
- Per Ballot Measure 99 (2016), the lesser of 4% of Lottery transfers or \$22 million per year is transferred to the Outdoor Education Account. Adjusted annually for inflation.
- Per Ballot Measure 96 (2016), 1.5% of net lottery proceeds are dedicated to the Veterans' Services Fund
- Approximately one percent of net lottery proceeds are dedicated to each program. Certain limits are imposed by the Legislature.
- Includes Debt Service Allocations, Allocations to State School Fund and Other Agency Allocations

Table B.10 Budgetary Reserve Summary and Outlook

Table B.10: Budgetary Reserve Summary and Outlook

Dec 2016

Rainy Day Fund

(Millions)	2013-15	2015-17	2017-19	2019-21	2021-23	2023-25
Beginning Balance	\$61.9	\$211.8	\$387.6	\$626.9	\$906.5	\$1,224.1
Interest Earnings	\$1.3	\$6.0	\$18.9	\$44.6	\$63.0	\$83.5
Deposits ¹	\$148.7	\$169.9	\$220.4	\$235.0	\$254.6	\$279.3
Triggered Withdrawals	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Ending Balance²	\$211.8	\$387.6	\$626.9	\$906.5	\$1,224.1	\$1,586.9

Education Stability Fund³

(Millions)	2013-15	2015-17	2017-19	2019-21	2021-23	2023-25
Beginning Balance	\$7.4	\$179.4	\$383.2	\$582.8	\$797.1	\$968.5
Interest Earnings ⁴	\$1.0	\$5.0	\$18.6	\$41.8	\$55.4	\$64.0
Deposits ⁵	\$171.9	\$203.8	\$199.6	\$214.3	\$171.4	\$89.4
Distributions	\$1.0	\$5.0	\$18.6	\$41.8	\$55.4	\$64.0
Oregon Education Fund	\$0.7	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0
Oregon Opportunity Grant	\$0.2	\$4.9	\$18.6	\$41.8	\$55.4	\$64.0
Withdrawals	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Ending Balance	\$179.4	\$383.2	\$582.8	\$797.1	\$968.5	\$1,057.9

Total Reserves

(Millions)	2013-15	2015-17	2017-19	2019-21	2021-23	2023-25
Ending Balances	\$391.2	\$770.8	\$1,209.7	\$1,703.6	\$2,192.6	\$2,644.8
Percent of General Fund Revenues	2.4%	4.3%	6.2%	8.0%	9.3%	10.3%

Footnotes:

1. Includes transfer of ending General Fund balances up to 1% of budgeted appropriations as well as private donations. Assumes future appropriations equal to 98.75 percent of available resources. Includes forecast for corporate income taxes above rate of 6.6% for the biennium are deposited on or before Jun 30 of each odd-numbered year.
2. Available funds in a given biennium equal 2/3rds of the beginning balance under current law.
3. Excludes funds in the Oregon Growth and the Oregon Resource and Technology Development subaccounts.
4. Interest earnings are distributed to the Oregon Education Funds (75%) and the State Scholarship Fund (25%), provided there remains debt outstanding. In the event that debt is paid off, all interest earnings distributed to the State Scholarship Fund.
5. Contributions to the ESF are capped at 5% of the prior biennium's General Fund revenue total. Quarterly contributions are made until the balance exceeds the cap.

APPENDIX C: POPULATION FORECASTS BY AGE AND SEX

Table C.1	Population Forecasts Component of Change 1990-2026	58
Table C.2	Population Forecasts by Age and Sex: 2000-2026	59
Table C.3	Population of Oregon: 1980-2026	60
Table C.4	Children: Ages 0-4	60
Table C.5	School Age Population: Ages 5-17	60
Table C.6	Young Adult Population: Ages 18-24	60
Table C.7	Criminally At Risk Population: Males Ages 15-39	61
Table C.8	Prime Wage Earners: Ages 25-44	61
Table C.9	Older Wage Earners: Ages 45-64	61
Table C.10	Elderly Population by Age Group	61

Table C.1 Population Forecasts Component of Change 1990-2026

STATE OF OREGON POPULATION FORECASTS COMPONENTS OF CHANGE 1990 -2026										
Year (July 1)	Population	Population Change		Births		Deaths		Natural	Net Migration	
		Number	Percent	Number	Rate/1000	Number	Rate/1000	Increase	Number	Rate/1000
1990	2,860,400	69,800	2.50	42,008	14.87	24,763	8.76	17,245	52,555	18.60
1991	2,928,500	68,100	2.38	42,682	14.75	24,944	8.62	17,738	50,362	17.40
1992	2,991,800	63,300	2.16	42,427	14.33	25,166	8.50	17,261	46,039	15.55
1993	3,060,400	68,600	2.29	41,442	13.69	26,543	8.77	14,899	53,701	17.75
1994	3,121,300	60,900	1.99	41,487	13.42	27,564	8.92	13,923	46,977	15.20
1995	3,184,400	63,100	2.02	42,426	13.46	27,552	8.74	14,874	48,226	15.30
1990-1995		324,000		210,464		131,769		78,695	245,305	
1996	3,247,100	62,700	1.97	43,196	13.43	28,768	8.95	14,428	48,272	15.01
1997	3,304,300	57,200	1.76	43,625	13.32	29,201	8.91	14,424	42,776	13.06
1998	3,352,400	48,100	1.46	44,696	13.43	28,705	8.62	15,991	32,109	9.65
1999	3,393,900	41,500	1.24	45,188	13.40	29,848	8.85	15,340	26,160	7.76
2000	3,431,100	37,200	1.10	45,534	13.34	28,909	8.47	16,625	20,575	6.03
1995-2000		246,700		222,239		145,431		76,808	169,892	
2001	3,470,400	39,300	1.15	45,536	13.20	29,934	8.67	15,602	23,698	6.87
2002	3,502,600	32,200	0.93	44,995	12.91	30,828	8.84	14,167	18,033	5.17
2003	3,538,600	36,000	1.03	45,686	12.98	30,604	8.69	15,082	20,918	5.94
2004	3,578,900	40,300	1.14	45,599	12.81	30,721	8.63	14,878	25,422	7.14
2005	3,626,900	48,000	1.34	45,892	12.74	30,717	8.53	15,175	32,825	9.11
2000-2005		195,800		227,708		152,804		74,904	120,896	
2006	3,685,200	58,300	1.61	46,946	12.84	30,771	8.42	16,175	42,125	11.52
2007	3,739,400	54,200	1.47	49,404	13.31	31,396	8.46	18,008	36,192	9.75
2008	3,784,200	44,800	1.20	49,659	13.20	32,008	8.51	17,651	27,149	7.22
2009	3,815,800	31,600	0.84	47,960	12.62	31,382	8.26	16,578	15,022	3.95
2010	3,837,300	21,500	0.56	46,256	12.09	31,689	8.28	14,567	6,933	1.81
2005-2010		210,400		240,225		157,246		82,979	127,421	
2011	3,857,625	20,325	0.53	45,381	11.80	32,437	8.43	12,944	7,381	1.92
2012	3,883,735	26,110	0.68	44,897	11.60	32,804	8.47	12,093	14,017	3.62
2013	3,919,020	35,285	0.91	44,969	11.53	33,168	8.50	11,801	23,484	6.02
2014	3,962,710	43,691	1.11	45,447	11.53	33,968	8.62	11,479	32,212	8.17
2015	4,013,845	51,135	1.29	45,658	11.45	35,110	8.80	10,548	40,586	10.18
2010-2015		176,545		226,352		167,487		58,865	117,680	
2016	4,076,400	62,555	1.56	46,269	11.44	36,230	8.96	10,038	52,517	12.98
2017	4,137,000	60,600	1.49	46,929	11.43	37,015	9.01	9,913	50,687	12.34
2018	4,195,200	58,200	1.41	47,498	11.40	37,586	9.02	9,912	48,288	11.59
2019	4,251,400	56,199	1.34	48,023	11.37	38,157	9.03	9,866	46,334	10.97
2020	4,305,500	54,100	1.27	48,506	11.34	38,786	9.07	9,720	44,379	10.37
2015-2020		291,655		237,224		187,774		49,450	242,205	
2021	4,356,700	51,201	1.19	48,877	11.29	39,496	9.12	9,381	41,820	9.66
2022	4,406,500	49,800	1.14	49,159	11.22	40,258	9.19	8,901	40,899	9.33
2023	4,454,300	47,800	1.08	49,354	11.14	41,071	9.27	8,282	39,518	8.92
2024	4,500,700	46,400	1.04	49,460	11.05	41,967	9.37	7,493	38,907	8.69
2025	4,546,000	45,300	1.01	49,467	10.94	42,887	9.48	6,580	38,720	8.56
2020-2025		240,501		246,317		205,680		40,637	199,864	
2026	4,590,300	44,300	0.97	49,376	10.81	43,799	9.59	5,578	38,722	8.48
1990-2000		570,700		432,703		277,200		155,503	415,197	13.20
2000-2010		406,200		467,933		310,050		157,883	248,317	6.83
2010-2020		468,199		463,576		355,261		108,314	359,885	8.84
2016-2026		513,899		486,649		401,023		85,626	428,273	9.88

Sources: 1990-1999 population - U.S. Census Bureau; 2000-2009 population - intercensal estimates by Office of Economic Analysis; population estimates 2010-2015 by Population Research Center, PSU; births and deaths 1990-15: Oregon Center for Health Statistics.

Table C.2 Population Forecasts by Age and Sex: 2000-2026

		State of Oregon Oregon's Population Forecasts by Age and Sex: 2000-2026 (July 1 population) (July 1 Population)																											
		2000				2001				2002				2003				2004				2005				2006			
Age		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total				
0-4	114,100	109,107	114,742	109,903	224,645	115,219	109,865	225,084	116,118	110,533	226,652	117,038	111,315	228,353	117,847	112,161	230,008	118,832	113,050	231,882									
5-9	119,699	113,984	233,683	118,879	113,240	232,119	117,908	112,625	230,533	117,595	112,522	230,117	118,055	112,983	231,038	118,737	113,851	232,588	119,959	115,315	235,274								
10-14	124,726	118,350	243,076	125,990	119,470	245,421	126,474	120,344	246,818	127,007	120,408	247,415	126,169	119,728	245,898	124,732	118,604	243,336	124,400	118,240	242,639								
15-19	126,002	119,265	245,267	127,311	119,879	247,190	127,250	119,862	247,112	126,490	120,236	246,726	127,484	121,227	248,711	129,634	122,978	252,612	131,680	124,886	256,567								
20-24	119,300	113,318	232,618	120,814	115,792	236,605	122,925	118,001	240,926	125,433	119,922	245,356	127,001	121,951	248,952	128,090	122,777	250,867	129,625	123,869	253,494								
25-29	120,547	112,269	232,816	119,436	111,809	231,245	119,216	112,937	232,153	120,690	114,847	235,536	122,799	117,484	240,282	125,208	121,121	246,329	128,110	125,220	253,330								
30-34	122,441	114,757	237,198	125,882	117,768	243,651	127,842	119,417	247,259	128,373	120,485	248,858	127,650	119,951	247,601	126,179	119,324	245,503	126,016	119,767	245,782								
35-39	128,698	126,230	254,928	125,463	122,883	248,346	123,019	119,340	242,360	121,225	116,792	238,017	121,489	116,438	237,927	124,789	119,125	243,914	128,779	122,827	251,606								
40-44	134,421	137,137	271,558	134,585	136,761	271,346	133,102	135,121	268,224	131,876	133,467	265,343	131,106	132,016	263,121	129,401	129,428	258,829	126,728	126,664	253,391								
45-49	135,644	137,430	273,074	136,214	138,948	275,162	136,992	140,305	277,297	136,336	140,343	276,679	134,864	139,381	274,245	134,310	139,320	273,629	135,135	139,543	274,678								
50-54	118,659	119,623	238,282	127,295	125,826	253,120	126,548	128,354	254,902	129,544	132,212	261,756	132,767	136,330	269,097	135,022	138,899	273,921	136,187	140,978	277,165								
55-59	85,965	88,187	174,151	89,314	91,758	181,072	98,235	100,967	199,202	103,863	106,956	210,840	109,932	112,923	222,855	117,120	120,794	237,914	124,581	129,098	253,680								
60-64	64,543	67,459	132,003	67,383	70,539	137,922	70,666	74,175	144,841	75,490	79,114	154,604	80,995	83,740	164,735	84,062	88,300	172,361	87,811	92,304	180,115								
65-69	53,103	59,261	112,364	53,861	59,438	113,299	54,996	60,295	115,291	56,889	62,083	118,972	59,083	64,273	123,356	61,643	66,384	128,027	64,860	69,850	134,710								
70-74	48,532	58,102	106,633	48,249	57,290	105,539	47,788	56,535	104,323	47,448	55,941	110,389	47,523	55,493	103,016	48,249	55,650	103,899	49,222	55,999	105,221								
75-79	40,475	54,794	95,269	40,503	54,397	94,900	40,508	53,697	94,204	40,627	52,917	93,545	40,403	52,009	92,412	40,366	51,512	91,878	40,359	51,026	91,385								
80-84	26,649	40,650	67,299	27,465	41,513	68,978	28,398	42,507	70,905	28,798	43,326	72,124	29,266	44,164	73,430	29,725	44,574	74,199	29,996	44,406	74,402								
85+	18,517	39,538	58,055	19,293	40,549	59,843	19,854	41,313	61,167	20,727	42,323	63,050	21,444	43,325	64,769	22,398	44,689	67,087	23,554	46,323	69,877								
Total	1,701,841	1,729,259	3,431,100	1,721,170	1,749,230	3,470,400	1,736,939	1,765,661	3,502,600	1,754,532	1,784,068	3,538,600	1,774,167	1,804,733	3,578,900	1,797,511	1,829,389	3,626,900	1,825,834	1,859,366	3,685,200								
Mdn. Age	35.2	37.6	36.4	35.3	37.8	36.6	35.5	38.0	36.8	35.7	38.2	36.9	35.8	38.4	37.1	36.0	38.5	37.2	36.3	38.6	37.3								
		2007				2008				2009				2010				2011				2012				2013			
Age		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total				
0-4	121,058	115,102	236,160	122,723	116,618	239,340	123,056	116,873	239,929	123,227	116,130	239,357	121,092	115,088	236,180	119,516	113,359	232,875	118,293	111,850	230,142								
5-9	120,925	115,818	236,743	121,906	116,639	238,545	122,109	116,793	238,901	122,539	116,369	238,908	121,767	115,893	237,660	122,733	116,900	239,634	124,024	117,953	241,977								
10-14	124,017	118,145	242,162	124,144	118,401	242,545	124,495	118,646	243,140	124,508	118,732	243,241	124,074	119,044	243,118	123,603	118,287	241,800	123,386	118,206	241,593								
15-19	123,027	126,562	249,589	134,019	127,039	261,058	133,034	126,245	259,339	131,126	124,540	255,667	129,068	121,927	250,996	127,517	120,587	248,104	126,643	119,875	246,518								
20-24	129,491	124,047	253,538	128,090	124,102	252,192	128,034	124,294	252,328	128,787	124,503	253,290	130,576	126,691	257,267	132,853	128,787	261,640	135,293	130,705	266,098								
25-29	131,446	128,899	260,335	134,251	131,308	265,559	134,893	132,724	267,617	134,019	131,816	265,835	133,302	130,829	264,132	132,463	129,927	262,390	132,508	130,403	262,911								
30-34	126,936	121,971	248,907	128,841	124,231	253,072	130,499	126,264	256,763	131,489	128,525	259,814	133,512	130,743	264,255	135,689	133,329	269,018	137,321	135,074	272,395								
35-39	131,387	125,260	256,647	132,046	126,581	258,627	130,807	125,534	256,341	128,070	123,596	251,665	125,924	121,787	247,710	126,018	122,275	248,293	128,683	124,338	253,022								
40-44	124,917	123,759	248,677	123,362	121,440	244,802	123,395	120,853	244,249	125,669	122,843	248,511	128,974	125,358	254,332	130,795	126,620	257,415	131,487	127,467	258,950								
45-49	134,349	138,533	272,882	133,523	137,181	270,705	132,802	135,635	268,437	130,825	132,538	263,363	127,795	128,542	256,337	125,434	124,976	250,410	128,664	127,179	255,843								
50-54	137,589	142,901	280,490	137,266	143,176	280,443	135,862	142,064	277,926	135,129	141,566	276,693	134,682	140,654	275,335	133,445	139,197	272,643	132,080	137,545	269,625								
55-59	126,683	130,760	257,443	128,665	134,868	263,533	131,454	138,782	270,236	133,011	140,802	273,812	134,009	142,349	276,358	134,403	143,058	277,461	134,376	142,746	277,122								
60-64	97,117	102,059	199,171	102,948	107,873	210,821	108,952	114,138	223,090	115,236	121,045	236,281	121,440	129,548	249,258	122,921	129,548	252,470	129,821	132,821	262,642								
65-69	68,563	73,945	142,509	73,612	79,164	152,776	78,191	83,768	161,959	81,854	87,917	169,771	84,425	90,852	175,277	92,096	98,785	190,881	97,983	105,059	203,042								
70-74	50,569	57,022	107,592	52,510	58,915	111,425	54,604	61,042	115,646	56,925	62,949	119,874	59,485	65,640	125,125	62,496	69,113	131,609	67,184	73,899	141,083								
75-79	40,218	50,594	90,812	40,073	50,211	90,285	40,236	49,905	90,141	40,932	50,101	91,034	41,549	50,075	91,624	42,654	50,692	93,346	44,224	52,064	96,287								
80-84	30,251	44,085	74,336	30,464	43,606	74,069	30,361	43,011	73,372	30,391	42,734	73,126	30,500	42,287	72,787	30,560	41,822	72,381	30,774	41,257	72,031								
85+	24,885	47,794	72,679	25,325	49,078	74,403	26,014	50,369	76,383	26,800	51,458	78,258	27,598	52,275	79,874	28,360	52,915	81,276	28,995	53,538	82,533								
Total	1,852,129	1,887,211	3,739,400	1,873,769	1,910,431	3,784,200	1,888,859	1,926,941	3,815,800	1,898,938	1,938,362	3,837,300	1,909,773	1,947,852	3,857,625	1,923,557	1,960,178	3,883,735	1,942,040	1,976,890	3,919,020								
Mdn. Age	36.5	38.7	37.5	36.7	38.8	37.8	37.0	39.1	38.0	37.2	39.4	38.3	37.4	39.7	38.5	37.6	39.9	38.7	37.8	40.0	38.9								
		2014				2015				2016				2017				2018				2019				2020			
Age		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total				
0-4	117,878	111,497	229,375	118,064	111,540	229,604	119,479	112,542	232,021	120,860	113,924	234,785	122,270	115,148	237,418	123,519	116,289	239,808	124,804	117,512	242,315								
5-9	124,740	118,043	242,783	125,504	118,322	243,826	125,569	118,137	243,706	125,233	117,335	242,568	124,953	116,393	241,345	124,999	116,332	241,330	125,288	116,421	241,709								
10-14	123,406	118,466	241,872	122,975	118,329	241,304	123,809	118,644	242,453	125,608	120,614	246,222	127,453	122,270	249,723	128,511	122,697	251,208	127,459	125,129	252,586								
15-19	126,855	119,977	246,832	127,736	126,632	254,368	128,402	121,550	249,952	129,002	121,744	250,745	129,331	122,079	251,411	129,602	122,564	252,166	129,159	122									

Table C.3 Population of Oregon: 1990-2022

Year (July 1)	Total Population	Change from previous year	
		Number	Percent
1990	2,860,400	-	-
1991	2,928,500	68,100	2.38%
1992	2,991,800	63,300	2.16%
1993	3,060,400	68,600	2.29%
1994	3,121,300	60,900	1.99%
1995	3,184,400	63,100	2.02%
1996	3,247,100	62,700	1.97%
1997	3,304,300	57,200	1.76%
1998	3,352,400	48,100	1.46%
1999	3,393,900	41,500	1.24%
2000	3,431,100	37,200	1.10%
2001	3,470,400	39,300	1.15%
2002	3,502,600	32,200	0.93%
2003	3,538,600	36,000	1.03%
2004	3,578,900	40,300	1.14%
2005	3,626,900	48,000	1.34%
2006	3,685,200	58,300	1.61%
2007	3,739,400	54,200	1.47%
2008	3,784,200	44,800	1.20%
2009	3,815,800	31,600	0.84%
2010	3,837,300	21,500	0.56%
2011	3,857,625	20,325	0.53%
2012	3,883,735	26,110	0.68%
2013	3,919,020	35,285	0.91%
2014	3,962,710	43,691	1.11%
2015	4,013,845	51,135	1.29%
2016	4,076,400	62,555	1.56%
2017	4,137,000	60,600	1.49%
2018	4,195,200	58,200	1.41%
2019	4,251,400	56,199	1.34%
2020	4,305,500	54,100	1.27%
2021	4,356,700	51,201	1.19%
2022	4,406,500	49,800	1.14%
2023	4,454,300	47,800	1.08%
2024	4,500,700	46,400	1.04%
2025	4,546,000	45,300	1.01%
2026	4,590,300	44,300	0.97%

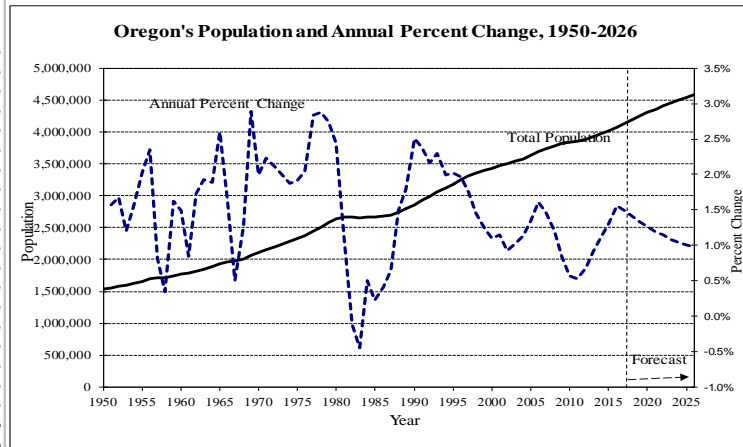


Table C.4 Children: Ages 0-4

Table C.5 School Age
Population: Ages 5-17

Table C.6 Young Adult
Population: Ages 18-24

Year (July 1)	% Change from previous decade/y.r.			% Change from previous decade/y.r.			% Change from previous decade/y.r.		
	Population	Number	Percent	Population	Number	Percent	Population	Number	Percent
1980	199,525	---	---	524,446	---	---	329,407	---	---
1990	209,638	10,113	5.07%	532,727	8,281	1.58%	268,134	-61,273	-18.60%
2000	223,207	13,569	6.47%	624,316	91,589	17.19%	330,328	62,194	23.20%
2001	224,645	1,438	0.64%	624,675	358	0.06%	336,660	6,333	1.92%
2002	225,084	439	0.20%	624,611	-64	-0.01%	340,778	4,118	1.22%
2003	226,652	1,568	0.70%	624,349	-262	-0.04%	345,266	4,487	1.32%
2004	228,353	1,701	0.75%	625,461	1,112	0.18%	349,138	3,873	1.12%
2005	230,008	1,655	0.72%	628,326	2,865	0.46%	351,076	1,938	0.55%
2006	231,882	1,874	0.81%	633,646	5,320	0.85%	354,328	3,252	0.93%
2007	236,160	4,278	1.85%	635,720	2,074	0.33%	356,311	1,983	0.56%
2008	239,340	3,180	1.35%	635,372	-348	-0.05%	358,967	2,656	0.75%
2009	239,929	589	0.25%	633,575	-1,797	-0.28%	360,134	1,166	0.32%
2010	238,457	-1,472	-0.61%	630,741	-2,835	-0.45%	359,764	-370	-0.10%
2011	236,180	-2,277	-0.95%	628,366	-2,375	-0.38%	360,675	911	0.25%
2012	232,875	-3,305	-1.40%	628,688	323	0.05%	362,580	1,904	0.53%
2013	230,142	-2,733	-1.17%	630,161	1,473	0.23%	365,925	3,346	0.92%
2014	229,375	-767	-0.33%	631,776	1,614	0.26%	368,568	2,643	0.72%
2015	229,604	228	0.10%	633,307	1,531	0.24%	370,168	1,599	0.43%
2016	232,021	2,417	1.05%	635,555	2,249	0.36%	370,420	252	0.07%
2017	234,785	2,764	1.19%	638,384	2,829	0.45%	370,946	527	0.14%
2018	237,418	2,634	1.12%	639,493	1,109	0.17%	372,462	1,516	0.41%
2019	239,808	2,390	1.01%	641,283	1,790	0.28%	373,655	1,193	0.32%
2020	242,315	2,507	1.05%	644,002	2,719	0.42%	373,404	-252	-0.07%
2021	244,746	2,431	1.00%	646,273	2,271	0.35%	373,184	-220	-0.06%
2022	246,852	2,105	0.86%	648,062	1,789	0.28%	373,590	406	0.11%
2023	248,569	1,718	0.70%	650,497	2,435	0.38%	374,349	758	0.20%
2024	249,869	1,300	0.52%	652,505	2,008	0.31%	375,098	749	0.20%
2025	251,015	1,146	0.46%	653,690	1,185	0.18%	376,052	955	0.25%
2026	252,071	1,056	0.42%	655,054	1,364	0.21%	377,256	1,204	0.32%

Table C.7 Criminally At Risk
Population (males): Ages 15-39

Table C.8 Prime Wage
Earners: Ages 25-44

Table C.9 Older Wage
Earners: Ages 45-64

Year (July 1)	% Change from previous decade/yr.			% Change from previous decade/yr.			% Change from previous decade/yr.		
	Population	Number	Percent	Population	Number	Percent	Population	Number	Percent
1980	561,931	---	---	790,750	---	---	491,249	---	---
1990	544,738	-17,193	-3.06%	926,326	135,576	17.15%	531,181	39,932	8.13%
2000	616,988	72,250	13.26%	996,500	70,174	7.58%	817,510	286,329	53.90%
2001	618,906	1,918	0.31%	994,587	-1,913	-0.19%	847,276	29,766	3.64%
2002	620,252	1,347	0.22%	989,996	-4,591	-0.46%	876,242	28,966	3.42%
2003	622,211	1,959	0.32%	987,755	-2,241	-0.23%	903,499	27,257	3.11%
2004	626,423	4,212	0.68%	988,932	1,177	0.12%	930,032	26,533	2.94%
2005	633,901	7,478	1.19%	994,575	5,644	0.57%	957,826	27,793	2.99%
2006	644,210	10,309	1.63%	1,004,110	9,535	0.96%	985,638	27,813	2.90%
2007	652,287	8,077	1.25%	1,014,565	10,455	1.04%	1,008,986	23,348	2.37%
2008	657,248	4,961	0.76%	1,022,060	7,495	0.74%	1,025,501	16,515	1.64%
2009	657,327	79	0.01%	1,024,971	2,911	0.28%	1,039,689	14,188	1.38%
2010	653,491	-3,836	-0.58%	1,026,126	1,155	0.11%	1,050,150	10,461	1.01%
2011	652,382	-1,109	-0.17%	1,030,430	4,304	0.42%	1,057,288	7,138	0.68%
2012	654,540	2,158	0.33%	1,037,116	6,686	0.65%	1,052,983	-4,305	-0.41%
2013	660,449	5,909	0.90%	1,047,277	10,162	0.98%	1,050,536	-2,447	-0.23%
2014	669,017	8,568	1.30%	1,060,044	12,766	1.22%	1,053,471	2,935	0.28%
2015	679,017	10,000	1.49%	1,074,899	14,855	1.40%	1,059,768	6,297	0.60%
2016	691,344	12,327	1.82%	1,096,597	21,698	2.02%	1,068,831	9,063	0.86%
2017	702,760	11,416	1.65%	1,120,974	24,377	2.22%	1,070,597	1,766	0.17%
2018	712,299	9,540	1.36%	1,145,910	24,935	2.22%	1,068,781	-1,816	-0.17%
2019	722,419	10,119	1.42%	1,170,006	24,096	2.10%	1,065,956	-2,825	-0.26%
2020	729,216	6,797	0.94%	1,190,754	20,748	1.77%	1,064,762	-1,194	-0.11%
2021	736,339	7,122	0.98%	1,210,600	19,847	1.67%	1,063,900	-862	-0.08%
2022	743,079	6,740	0.92%	1,229,386	18,785	1.55%	1,063,233	-667	-0.06%
2023	749,443	6,364	0.86%	1,244,510	15,124	1.23%	1,064,433	1,200	0.11%
2024	755,259	5,816	0.78%	1,260,985	16,475	1.32%	1,066,091	1,658	0.16%
2025	759,548	4,289	0.57%	1,273,261	12,275	0.97%	1,070,731	4,640	0.44%
2026	763,335	3,787	0.50%	1,285,580	12,320	0.97%	1,075,776	5,045	0.47%

Table C.10 Elderly Population by Age Group

Year (July 1)	%Change from previous decade/yr.		%Change from previous decade/yr.		%Change from previous decade/yr.		%Change from previous decade/yr.	
	Ages 65+		Ages 65-74		Ages 75-84		Ages 85+	
1980	305,841	---	185,863	---	91,137	---	28,841	---
1990	392,369	28.29%	224,772	20.93%	128,813	41.34%	38,784	34.48%
2000	439,239	11.95%	218,997	-2.57%	162,187	25.91%	58,055	49.69%
2001	442,558	0.76%	218,838	-0.07%	163,878	1.04%	59,843	3.08%
2002	445,890	0.75%	219,614	0.35%	165,109	0.75%	61,167	2.21%
2003	451,080	1.16%	222,361	1.25%	165,669	0.34%	63,050	3.08%
2004	456,984	1.31%	226,373	1.80%	165,842	0.10%	64,769	2.73%
2005	465,089	1.77%	231,926	2.45%	166,077	0.14%	67,087	3.58%
2006	475,596	2.26%	239,931	3.45%	165,787	-0.17%	69,877	4.16%
2007	487,657	2.54%	250,131	4.25%	165,148	-0.39%	72,379	3.58%
2008	502,959	3.14%	264,201	5.63%	164,354	-0.48%	74,403	2.80%
2009	517,502	2.89%	277,606	5.07%	163,513	-0.51%	76,383	2.66%
2010	532,062	2.81%	289,645	4.34%	164,159	0.40%	78,258	2.45%
2011	544,686	2.37%	300,402	3.71%	164,410	0.15%	79,874	2.06%
2012	569,493	4.55%	322,490	7.35%	165,727	0.80%	81,276	1.75%
2013	594,977	4.47%	344,125	6.71%	168,319	1.56%	82,533	1.55%
2014	619,476	4.12%	363,776	5.71%	172,371	2.41%	83,329	0.96%
2015	646,100	4.30%	384,839	5.79%	177,209	2.81%	84,052	0.87%
2016	672,977	4.16%	405,114	5.27%	182,983	3.26%	84,880	0.99%
2017	701,314	4.21%	425,300	4.98%	190,586	4.16%	85,428	0.65%
2018	731,138	4.25%	443,638	4.31%	201,673	5.82%	85,827	0.47%
2019	760,692	4.04%	461,640	4.06%	212,979	5.61%	86,073	0.29%
2020	790,263	3.89%	479,983	3.97%	223,171	4.79%	87,109	1.20%
2021	817,997	3.51%	497,390	3.63%	232,211	4.05%	88,396	1.48%
2022	845,377	3.35%	504,361	1.40%	250,910	8.05%	90,106	1.93%
2023	871,942	3.14%	510,800	1.28%	268,836	7.14%	92,306	2.44%
2024	896,152	2.78%	516,198	1.06%	284,696	5.90%	95,258	3.20%
2025	921,252	2.80%	521,437	1.01%	301,482	5.90%	98,333	3.23%
2026	944,563	2.53%	525,770	0.83%	316,900	5.11%	101,893	3.62%