REVENUE OUTLOOK

Revenue Summary

Growth in Oregon’s General Fund revenues has been very rapid this fiscal year, rivaling the gains seen during the technology and housing booms. Gains have been broad-based across Oregon’s primary revenue instruments, due both to a healthy job market as well as to solid growth in taxable investments and business income. Even lottery sales, which have been relatively dormant for years, are now expanding at a solid clip.

As expected, the personal income tax filing season turned out to be a big one for revenue collections due to large gains in reported business profits and investment income. Realizations of capital gains nearly doubled on the year. While the big April filing season was expected, the full impact of Oregon’s rapid job gains and wage growth was not. As a result of booming labor-related income tax collections, it is now highly likely that a personal income tax kicker payment will be triggered at the end of the biennium.

The May 2015 outlook assumes that revenues included in the personal income tax kicker base will exceed the kicker threshold by $182 million at the end of the biennium. Should this outlook hold true, a personal income tax kicker of $473 million will be generated. Due to actions taken by the 2011 Legislature, this potential kicker payment will take the form of a credit on 2015 tax returns rather than being issued as a check at the end of the year.

Despite the larger expected kicker payment, the May revenue outlook now calls for a significant increase in available resources for the upcoming biennium. Widespread optimism is now being voiced by a diverse chorus of local businesspeople and economic forecasters. This optimism has been translated into increased expectations for job growth and taxable wage gains. The March 2015 forecast was an aggressive one, calling for job gains over the upcoming biennium matching the best two years of the housing boom. Even so, business sentiment in Oregon has become so bullish that a strong majority among OEA’s advisory group members pushed for significantly more growth to be added over and above what was assumed in the March forecast.

Although the May 2015 forecast provides more wiggle room for budget writers, none of the additional revenue called for in the outlook has come in the door to date. Business sentiment is fickle, and can sour overnight. With such a large amount of downside risk facing the near-term revenue outlook, well-stocked reserve funds are a must.

Bullish consumer and business sentiment notwithstanding, Oregon’s economy does not appear to be quite as healthy from an empirical perspective as it was a few months ago. Some fault lines are now beginning to emerge among regional economic indicators, which were universally positive in the recent past. Nevertheless, despite a few bad indicators, it does not look as though the wheels are about to fall of the economic recovery anytime soon.
If Oregon’s businesses and households are as confident about the future as they say they are, their combined hiring and spending should go a long way toward ensuring that their bullish expectations come true.

Although the primary downside risk facing the near-term revenue forecast is the uncertain future of the economic expansion, there is also a considerable amount of uncertainty surrounding the outlook for corporate excise taxes. Corporate collections are notoriously volatile, often doubling or being halved in any given year. With many significant corporate tax law changes having been passed in recent years, historical tax collections may not provide an accurate picture of what is to come. Adding to this complexity, the Oregon Department of Revenue has recently replaced its corporate tax processing system, which has made comparing collections over time even more difficult.

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.

### 2013-15 General Fund Revenues

General Fund revenues closely matched expectations for most of the 2013-15 biennium, until labor-related personal income tax collections began to take off last winter. General Fund revenue growth has continued to accelerate during 2015, with personal and corporate income taxes now expanding at double-digit rates. With more taxable income of all types, the May forecast expects that both personal and corporate tax kickers will be triggered.

The forecast for gross General Fund revenues for 2013-15 is now $16,167 million. This represents an increase of $166 million (+1.0%) from the March 2015 forecast. The May 2015 forecast for the 2013-15 biennium is $525 million (3.4%) above the Close of Session forecast.

#### Personal Income Tax

Personal income tax collections were $1,427 million for the third quarter of fiscal year 2015, $90 million (6.3%) above the latest forecast. Compared to the year-ago level, total personal income tax collections grew by 11.7% relative to a forecast that called for 5.1% growth. With processing running a bit slower than last year, much of this gap was made up in the fourth quarter. Table B.8 in Appendix B presents a comparison of actual and projected personal income tax revenues for the January-March quarter.

Excluding corporate excise taxes, the General Fund forecast is now $473 million above the Close of Session forecast. Around one-fifth of this change is due to the impact of law changes, and most of the rest can be traced to a more optimistic economic outlook for Fiscal Year 2015. Should the aggressive growth outlook for Fiscal Year
2015 come to pass, revenues will end up $182 million above of the personal income tax kicker threshold. This would generate a credit of around $284 for the average Oregon income tax filer. The top 1% of income earners would receive an average credit of $5,373.

Corporate Excise Tax

Corporate excise tax collections equaled $107 million for the third quarter of fiscal year 2015, $49 million below the December forecast. Compared to one year ago, net corporate receipts were up 44% with the forecast calling for an increase of 111%. Some of the large increase in corporate tax collections is technical in nature, with the pattern of processing having changed due to an upgraded IT system. After a few more months under the new processing system, the collections data should settle into its new trend.

Corporate tax collections would likely be near record levels even without technical issues. Outside of energy production and mining, profitability remains strong in most industries. Also, recent law changes have supported collections, as has a decline in outstanding Business Energy Tax Credits. Even without these issues, corporate tax collections and underlying profits are subject to boom-bust cycles, injecting a considerable amount of downside risk into the outlook.

Following the rapid growth seen in recent months, expectations for corporate income tax collections for 2013-15 are now only $41 million higher than what was called for in the Close of Session forecast. However, due to a law change affecting the distribution of corporate tax collections into the Rainy Day Fund, the General Fund portion of corporate tax collections is now above the Close of Session forecast. During past budget cycles, this would have led to corporate kicker payments of $92 million. Now, however, should these unanticipated revenues be realized, the funds will be directed to education programs.

Table R.1

2013-15 General Fund Forecast Summary

<table>
<thead>
<tr>
<th>(Millions)</th>
<th>2013 COS Forecast</th>
<th>March 2015 Forecast</th>
<th>May 2015 Forecast</th>
<th>Change from Prior Forecast</th>
<th>Change from COS Forecast</th>
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<tr>
<td>Structural Revenues</td>
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<tr>
<td>Personal Income Tax</td>
<td>$13,558.2</td>
<td>$13,914.3</td>
<td>$14,044.2</td>
<td>$129.9</td>
<td>$486.0</td>
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<td>Corporate Income Tax</td>
<td>$1,056.6</td>
<td>$1,060.9</td>
<td>$1,097.6</td>
<td>$36.7</td>
<td>$41.0</td>
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<tr>
<td>All Other Revenues</td>
<td>$1,027.9</td>
<td>$1,025.8</td>
<td>$1,019.4</td>
<td>-$6.4</td>
<td>-$8.5</td>
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<tr>
<td>Gross GF Revenues</td>
<td>$15,642.6</td>
<td>$16,000.9</td>
<td>$16,161.1</td>
<td>$160.2</td>
<td>$518.5</td>
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<td>Offsets and Transfers</td>
<td>-$120.8</td>
<td>-$74.1</td>
<td>-$74.3</td>
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<td>$46.5</td>
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<td>Administrative Actions¹</td>
<td>-$18.2</td>
<td>-$3.3</td>
<td>-$3.3</td>
<td>$0.0</td>
<td>$14.9</td>
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<tr>
<td>Legislative Actions</td>
<td>-$136.9</td>
<td>-$136.7</td>
<td>-$136.7</td>
<td>$0.0</td>
<td>$0.2</td>
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<td>Net Available Resources</td>
<td>$15,910.1</td>
<td>$16,262.4</td>
<td>$16,422.4</td>
<td>$160.0</td>
<td>$512.2</td>
</tr>
</tbody>
</table>

Confidence Intervals

| 67% Confidence | +/- 1.0% | $154.7 | $16.01B to $16.32B |
| 95% Confidence | +/- 1.9% | $309.5 | $15.85B to $16.47B |

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

Other Sources of Revenue
Among other primary sources of revenue, estate taxes, video lottery sales and insurance taxes have been coming in above expectations in recent months. Fines and fees have been coming in somewhat below forecast. Combined, all other sources of general fund revenue are $8.5 million below the Close of Session Forecast.

**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.

### Table R.2

<table>
<thead>
<tr>
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<td></td>
<td>Biennium</td>
<td>Chg</td>
<td>Biennium</td>
<td>Chg</td>
<td>Biennium</td>
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<tr>
<td>Personal Income Taxes</td>
<td>14,044.2</td>
<td>15.9%</td>
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<td>19,466.0</td>
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<td>23,473.2</td>
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<tr>
<td>Corporate Income Taxes</td>
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<td>1,106.4</td>
<td>4.7%</td>
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<td></td>
<td></td>
<td>1,265.2</td>
</tr>
<tr>
<td>All Others</td>
<td>1,019.4</td>
<td>-12.4%</td>
<td>1,021.6</td>
<td>0.2%</td>
<td>1,054.1</td>
<td>3.2%</td>
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<td></td>
<td>1,129.8</td>
<td>7.2%</td>
<td>1,189.3</td>
<td>5.3%</td>
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<td>1,242.2</td>
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<tr>
<td>Gross General Fund</td>
<td>16,161.1</td>
<td>14.1%</td>
<td>17,852.1</td>
<td>10.5%</td>
<td>19,704.3</td>
<td>10.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21,702.2</td>
<td>10.1%</td>
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<td></td>
<td></td>
<td>23,768.9</td>
<td>9.5%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>25,980.5</td>
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<tr>
<td>Offsets and Transfers</td>
<td>(74.3)</td>
<td>(96.3)</td>
<td>(98.0)</td>
<td>(41.9)</td>
<td>(45.9)</td>
<td>(47.2)</td>
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</tbody>
</table>

Expectations for healthy job gains support a strong outlook for personal income tax collections in the 2015-17 biennium. Excluding kicker payments, the net general fund is expected to grow by 13.3% over the biennium. Including kicker payments, growth is expected to be a more modest 10.4%.

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.

General Fund revenues are expected to total $19,606 million in the 2017-19 biennium, an increase of 10.4% percent from the prior period, and $267 million above the March forecast. In the 2019-21 biennium, revenue growth is expected to remain stable, followed by rates of around 9% to 10% in subsequent biennia. The slowdown in long-run revenue growth is largely due to the impact of demographic changes 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. 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 2013 Oregon Legislative Session, the October 2013 Special Legislative Session and the 2014 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 2013 Legislative Session can be found in Appendix B Table B.3. For a detailed treatment of the
components of the 2013 Legislatively Enacted Budget, see: [LFO 2013-15 Budget Summary](#). For summary of the revenue impacts for the October 2013 special session see: [LRO HB3601 Revenue Impact Statement](#).

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.

After the 2015 Oregon Legislative Session concludes, the revenue impact of any new laws (as estimated by the Legislative Revenue Office) will be folded into the May forecast. This will serve as the Close of Session Forecast that sets the bar for Oregon’s balanced budget requirement and the kicker law.

### 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 predicted\(^1\).

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\(^1\) The methodology for computing alternative scenarios has been changed to reflect recent work done by the Legislative Revenue Office. Assumptions: Recessions begin in 2015 and return to baseline income by 2022. The moderate recession scenario assumes personal income growth will be reduced by one-half relative to the baseline in 2015 and 2016. The severe recession scenario assumes personal income will decline in 2015 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.
Lottery Earnings

Revenues and available resources from Lottery games and programs are projected to total $1,066.0 million, an increase of $4.2 million from the March outlook and $6.5 million above the Close of Session forecast (0.6%). The near-term increase is the result of both higher than expected sales for video and traditional products alike. Please see Table B.9 in Appendix B for the full extended outlook for lottery earnings.

Overall, video lottery dominates total lottery earnings, accounting for approximately 85 percent of all lottery transfers in the past three years. Over the past decade, video lottery has underwent three distinct phases and has recently entered into a fourth.

The first, during the housing boom era, followed the implementation of line games back in 2005. Not only was video lottery new to the marketplace and experienced somewhat of a novelty factor intrigue from consumers, it
also coincided with an economic expansion. Growth in the early years of line games was in the double digits and spending as a share of statewide income increased by 40 percent.

The second phase followed the onset of the Great Recession and enactment of the smoking ban in Oregon. During this time, video lottery sales plummeted 23 percent from pre-recession highs to the depths of the recession; the same magnitude of losses seen in slot machines in Clark County, Nevada, home of Las Vegas.

The third phase covered the initial years of recovery, fiscal years 2010 to 2014. Even as Oregon video lottery sales rebounded at approximately three times the rate seen in Clark County, Nevada, growth still averaged just 1.2 percent. Similar sales trends were seen nationwide across the gaming industry, although Oregon’s slow growth was better than most where sales were flat to down.

Even as consumers remain cautious with their disposable income, other forms of discretionary spending and entertainment spending have advanced at faster rates. Gaming trends are relatively flat across nearly all states, except for the few locations with new or remodeled casinos. Among mature gaming destinations, revenues continue to decline. The industry is extremely competitive and the share of consumer budgets spent on gaming has not increased. These pressures are unlikely to relent in the near future as more and more jurisdictions turn to gaming as a potential revenue source. See our office’s recent report on gaming and tax collections across the country: *Betting the Minimum*².

This fiscal year marks a new phase in Oregon video lottery history with the capital replacement plan. During this biennium and the next, Lottery will replace the 12,000 existing video lottery terminals throughout the state, some of which will be nine years old when they are replaced. Due to advancements in technology, like a lot of industries, the current machines are becoming obsolete in the marketplace. This replacement plan is expected to cost approximately $215 million over four years, of which Lottery will self-fund $85 million. The remaining $130 million will be deducted from Lottery earnings prior to being transferred for general revenue purposes. The biennial impact of the replacement plan is $71.2 million in 2013-15, or about 6.3 percent of available revenue to be transferred, and $59.2 million in 2015-17, or about 5 percent.

In terms of the new video lottery terminals, the baseline outlook has assumed that older machines would be replaced on a regular basis, given the wear and tear on the machines over time and as technology improves. Clearly this has not been the case, and may be one contributing factor to slow sales growth in recent years. As such, the baseline forecast had been taking more of a wait and see approach to the new machines in terms of the longer-run sales outlook. However, as the first wave of these new video lottery terminals has been deployed across Oregon, there does appear to be a sizable initial sales bump. Not only are these trends and impacts seen in the statewide sales figures, they are nearly uniform across the state by region, albeit with different timing as the new terminals were installed at different times depending upon the location. Even in some of Oregon’s hardest

hit counties, those that have yet to full partake in the economic recovery, growth in video lottery sales is roughly 10 percent over the past year. Sales have started to slow somewhat in the locations where the new terminals were first installed, e.g. Portland MSA.

Expectations are not that double digit growth is baseline, they are such that growth will slow moving forward. Exactly how strong and how long the initial sales bump lasts are still open ended questions at this time. The current forecast builds in a largely one-time novelty factory increase in sales that starts in late 2014 and lasts through mid-2015. Due to the continued fundamental improvement in the economy – jobs and income growth – along with these increase video lottery sales, the longer term forecast has been raised somewhat from the previous forecast. Growth still remains somewhat subdued relative to pre-Great Recession rates of growth.

Such an outlook does leave room for both upside and downside risks. Should the combination of a stronger economy and the new terminals unlock permanently higher sales over a longer period, instead of one-time novelty factor bump, then the forecast will need to be revised up. Possibly considerably so. However, sales growth has been lackluster to disappointing across the country. Even in brand new casinos, after a year or two of strong growth, sales start to plateau or even fall in some locations.

Given all of these trends, the outlook for video lottery has been reduced in recent years. However not completely down to growth along the lines of the adult population (our office’s pessimistic scenario.) Such changes to the outlook have reduced available resources over the 10 year horizon. Overall, expectations are certainly for video lottery sales to continue to increase, however, much like the broader economic outlook, at rates of growth lower than in the past.

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 Fund\(^3\) (ORDF) and the Education Stability Fund\(^4\) (ESF). This section updates balances and recalculates the outlook for these funds based on the May revenue forecast.

Following the close of the 2011-13 BN, the two reserve funds totaled $69.4 million. Given the General Fund’s positive ending balance for 2011-13, one percent of appropriations, $136.9 million, was deposited into the ORDF during 2013-15.

As of this forecast, the two reserve funds currently total $378 million, plus a projected General Fund ending balance of $503 million. One additional deposits is still to come in 2013-15 as well. The ORDF will receive an estimated $12.1 million deposit due to the increases in corporate tax rates from Measure 67. Assuming no further administrative actions, the two reserve funds are forecasted to total $391.3 million at the end of 2013-15, or 2.4 percent of General Fund revenues. Including the projected ending balance brings effective budgetary reserves $895 million, or 5.5 percent.

Such levels of reserve balances are as big as 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 size. (This figure is based on a one standard deviation change in revenues. Larger reserves would be needed to insure against a more severe recession.)

Provided the economic expansion

\(^3\) 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.

\(^4\) 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.
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.
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 has dropped further to 20th between 2010 and 2014 lagging behind all of the neighboring states. 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 recent economic downturn and sluggish recovery, Oregon’s population increased at a slow pace in the recent past. However, Oregon’s population growth in 2014 rebounded nicely and ranked 13th fastest in the nation. Based on the current forecast, Oregon’s population will reach 4.35 million in the year 2022 with an annual rate of growth of 1.16 percent between 2014 and 2022.

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. As a sign of slow to modest economic gain, the ratio of net migration-to-population change will increase gradually and will reach 79 percent by the end of the forecast horizon due largely to rising number of deaths among elderly population associated with increasing 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 2014-2022. It will also reflect demographics impacted by the depression era birth cohort combined with diminished migration of the 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. The average annual growth of the elderly population will be 3.9 percent during the forecast period as the boomers continue to enter retirement age. However, the youngest elderly (aged 65-74) will grow at an extremely fast pace 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. 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 will dissipate. An
unprecedented fast pace of growth of population in this age group will begin once the baby-boom generation starts to mature into 65-74 age group. The oldest elderly (aged 85+) will continue to grow at a moderately 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 1.5 percent.

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 1.5 percent annual average rate during the forecast horizon mainly because of the exiting smaller birth cohort following the baby-boom 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 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 only after 2015. 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 and 2011-2013 postcensal totals from the Population Research Center, Portland State University. The numbers of births and deaths through 2013 are from Oregon's Center for Health Statistics.

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 83.25 years for females by the year 2022.

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 2014 and 2022 is expected to remain in the range of 33,700 to 38,800, averaging 37,000 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 is expected a gradual recovery in the 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. As Oregon’s economy gets better, net migration and population growth will increase. However, 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.