



---

# Oregon Economic and Revenue Forecast

---

September 2019

Volume XXXIX, No. 3

*Release Date: August 28, 2019*

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](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

|   |    |
|---|----|
| <b>EXECUTIVE SUMMARY</b> .....                  | 1  |
| <b>ECONOMIC OUTLOOK</b> .....                   | 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 .....                           | 19 |
| State Comparisons .....                         | 19 |
| <b>REVENUE OUTLOOK</b> .....                    | 21 |
| General Fund Revenues, 2017-19 .....            | 22 |
| Extended Outlook .....                          | 23 |
| Tax Law Assumptions .....                       | 24 |
| Alternative Scenarios .....                     | 24 |
| Corporate Activity Tax .....                    | 25 |
| Lottery Outlook .....                           | 26 |
| Budgetary Reserves .....                        | 28 |
| Recreational Marijuana .....                    | 29 |
| <b>POPULATION AND DEMOGRAPHIC OUTLOOK</b> ..... | 32 |
| <b>APPENDIX A: ECONOMIC</b> .....               | 35 |
| <b>APPENDIX B: REVENUE</b> .....                | 43 |
| <b>APPENDIX C: DEMOGRAPHIC</b> .....            | 60 |

## EXECUTIVE SUMMARY

### September 2019

The current expansion is now the longest on record, celebrating its tenth birthday over the summer. The economic data flow remains solid overall and classic recession catalysts like an overheating economy are not rearing their heads. The good news is that expansion do not die of old age and the outlook calls for ongoing growth. However, expansion do tend to die due to bad behavior and policy mistakes. As such, the risk of recession is clearly rising in recent months. Revisions to both GDP and employment reveal a weaker and slower-growing economy than previously believed. The trade war escalation is spilling over and weighing on the economy to a larger degree as well. Businesses are wary as they delay investments and slow their pace of hiring. All of this has financial markets on edge and the Federal Reserve taking out insurance rate cuts in hopes of heading off a recession. Time will tell whether this is the top of the cycle or just a rough patch.

Oregon continues to see healthy rates of economic growth, however the state is no longer outpacing the rest of the country to the same degree as earlier in the expansion. The state is not immune to national and international developments. While topline manufacturing indicators in the state look good, cracks may be forming due to the trade war. All told, Oregon continues to hit the sweet spot for now. Growth is strong enough to keep up with an increasing population and deliver economic and income gains to Oregonians. The share of working-age residents with a job is higher than the average state and both wages and overall household incomes continue to rise at a faster rate.

During odd-numbered years, Oregon's September revenue forecast provides a look back at the biennium that just came to a close. Unlike the nationwide economic expansion, Oregon's revenue picture has yet to show any cracks. Through the end of the 2017-19 biennium, all major types of Oregon's General Fund tax collections continued to outstrip gains in the underlying economy.

The strong growth at the end of the biennium resulted in an increased estimate of the kicker refund. The personal income tax kicker is now expected to be \$1.57 billion, making it the third largest as a share of liability on record. Kickers of this size occur about once every decade, typically around the peak of the business cycle. As was the case with the large kicker generated during the mid-1980's, changes in federal tax policy played a large role in generating above-trend state collections last biennium.

All told, the September forecast reflects a stable economic outlook, with the expected size of General Fund collections increasing slightly over what was expected at the Close of Session. Total available resources have increased around \$300 million, largely due to a bigger beginning balance carryforward.

However, when tax policy changes from the 2019 legislative session are factored in, the General Fund is expected to be significantly smaller over the forecast horizon than what was expected in May. Most notably, the enactment of a Corporate Activity Tax (HB3427) brought with it personal tax rate cuts, and is expected to reduce business tax liability. While the Corporate Activity Tax will clearly be a net positive for the state budget as a whole, it will reduce General Fund resources since the new collections will not be deposited there.

Heading into the new biennium, uncertainty about the performance of the nationwide economy has become paramount. Growth will certainly slow to a sustainable rate in the coming years, but the path taken to get there is unknown. Fortunately, Oregon is better positioned than ever before to weather a revenue downturn. Automatic deposits into the Rainy Day Fund and Education Stability Fund have added up over the decade-long economic expansion. When the expected ending balance for the current biennium is included, Oregon has more than \$2.5 billion in reserves set aside, amounting to more than 12% of the two-year budget.

# ECONOMIC OUTLOOK

## *Economic Summary*

The current expansion is now the longest on record, celebrating its tenth birthday over the summer. The economic data flow remains solid overall and classic recession catalysts like an overheating economy are not rearing their heads. The good news is that expansion do not die of old age and the outlook calls for ongoing growth. However, expansion do tend to die due to bad behavior and policy mistakes. As such, the risk of recession is clearly rising in recent months. Revisions to both GDP and employment reveal a weaker and slower-growing economy than previously believed. The trade war escalation is spilling over and weighing on the economy to a larger degree as well. Businesses are wary as they delay investments and slow their pace of hiring. All of this has financial markets on edge and the Federal Reserve taking out insurance rate cuts in hopes of heading off a recession. Time will tell whether this is the top of the cycle or just a rough patch.

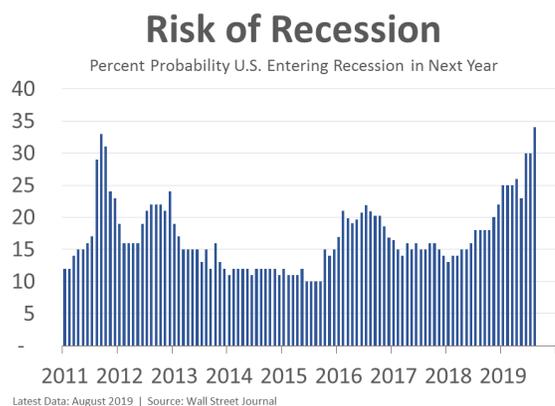
Oregon continues to see healthy rates of economic growth, however the state is no longer outpacing the rest of the country to the same degree as earlier in the expansion. The state is not immune to national and international developments. While topline manufacturing indicators in the state look good, cracks may be forming due to the trade war. All told, Oregon continues to hit the sweet spot for now. Growth is strong enough to keep up with an increasing population and deliver economic and income gains to Oregonians. The share of working-age residents with a job is higher than the average state and both wages and overall household incomes continue to rise at a faster rate.

## *U.S. Economy*

The economic outlook remains intact for now, but risks are mounting. While the current expansion celebrated its tenth birthday over the summer, making it the oldest on record for the U.S., recent data revisions reveal a weaker and slower-growing economy than previously believed. Updated GDP figures show growth peaking in early 2018, slowing since then, and currently growing around its potential. The economic impact of the federal fiscal stimulus – tax cuts and increased spending – was smaller and shorter-lived than economists expected, and those initial expectations were minimal outside of a near-term boost to consumer spending. Similarly, the 2018 acceleration in job growth nationwide is set to be revised away, revealing an improving labor market but one that is closer to treading water than one beyond full employment.

Overall the underlying economic backdrop remains solid, even if it is weakening. Classic recession catalysts, like an overheating economy, financial imbalances, oil shocks, and the like are not rearing their heads either. However, the risk of recession is clearly rising.

Expansions do not die of old age but due to bad behavior and policy mistakes. The ongoing escalation of the trade war has businesses wary and financial markets spooked. While the baseline outlook calls for continued growth, concerns remain over potential policy mistakes. In real time, the Federal Reserve is trying to adjust monetary policy, which is a powerful, but blunt tool, to account for shifting administrative and fiscal policies. Whether or not the Fed can thread the needle and keep the expansion going is the key question.



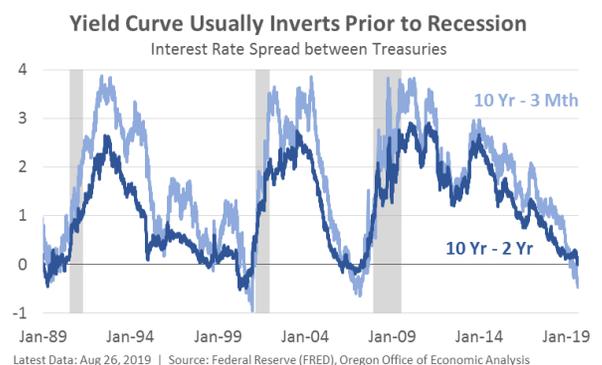
In terms of the trade war, it is not necessarily the direct effect of the tariffs that will send the economy into recession. To date the increases in prices to American businesses and consumers amount to a couple tenths of a percent of GDP, although that number is set to head higher in the coming months given recent escalation. That said, it is really the broader impact of what the tariffs represent: an ongoing dispute between the world's two largest economies with few signs of agreement or de-escalation.

The spillover effects of the trade war are weighing on the economy. The combination of a strong U.S. dollar, slowing global growth, and a weak manufacturing sector is at least in part due to the tariffs and trade tensions. Business behavior reveals them to be wary as investment in structures and equipment is weak, and their pace of hiring is slower. If enough firms delay investment or pull back at the same time, it slows economic growth and can even cause a recessionary dynamic. The U.S. is not there yet, but it remains a risk today.

All of this has financial markets on edge. Equities, while volatile, are largely unchanged over the past year, but it's the bond market signaling the largest cause for concern. The yield curve is at least partially inverted, and nearly fully inverted – meaning short-term interest rates are higher than long-term rates. An inversion is not necessarily causal by itself, although banks may curtail lending given they borrow short and lend long. That said, the signal from an inverted yield curve has long been a reliable leading indicator of a recession in so far as the bond market sees economic weakness and expect the Federal Reserve to cut interest rates.

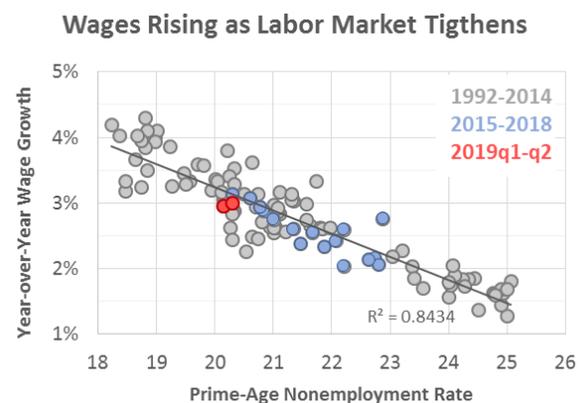
This is exactly the economic environment the U.S. is in today. However the policy dynamics are a bit different this time. Typically, the Fed has continued to raise interest rates after a yield curve inversion. The flow of economic data remains solid at the top of the business cycle and the Fed is more worried about inflation.

Today, however, the Fed has already cut interest rates and expects to do so again, even as the data flow remains solid overall. These cuts can largely be viewed as insurance against the risk of a weakening expansion due to the decelerating growth, trade policy uncertainty and low levels of actual inflation. The cuts can be thought of as prudent risk management. In fact, one way to read the bond market is that the inversion of the 10 year – 3 month spread but not generally the 10 year – 2 year spread is that the market believes the Fed will cut interest rates sufficiently to head off a recession. Time will tell whether this fundamental shift in Fed policy will be enough for a continued expansion or if the yield curve inversion remains a reliable indicator of recession.



Finally, it is important to remember that behind the financial market turmoil and trade uncertainty remains an economy that is largely doing well. U.S. consumer spending is holding up as the labor market remains strong; job opportunities and wages continue to grow. Additionally, households currently have a solid savings rate and the increases in debt remain in-line with income gains.

Now, consumer spending is more of a concurrent or even a lagging indicator of the economy. Households will spend until given a reason to be scared. The scariest prospect is job loss. However, labor market leading indicators continue



Data: ECI Private Wages | Source: BLS, Moody's Analytics, OR Office of Econ Analysis

to largely flash green, particularly as initial claims for unemployment insurance – a measure of layoffs – remain near historic lows.

The concern is that should firms pull back further on hiring and unemployment rises, then expectations are that consumer spending will weaken as household confidence wanes. Another risk for spending is that the latest escalation of the trade war will impact consumer products the most and those higher prices will curb household spending. At that point, a vicious, recessionary cycle can take hold as consumers pull back, giving firms even more reason to be wary, delay investments and lay off workers.

**Bottom Line:** The U.S. economy remains in expansion and the baseline outlook calls for continued, albeit slower, growth. However the risk of recession is clearly rising. The typical catalysts for recession are not rearing their heads but the ongoing and escalating trade tensions are weighing on the economy and business activity. Expansions do not die of old age, but rather due to policy mistakes. All of this has financial markets spooked and the Federal Reserve taking out insurance rate cuts in hopes of heading off a recession. Time will tell whether this is the top of the cycle or just a rough patch. It's important to remember that the U.S. does not know what the eleventh year of an economic expansion looks like as we have never experienced one. The expansion has now entered into uncharted and choppy waters.

### **Oregon Economy**

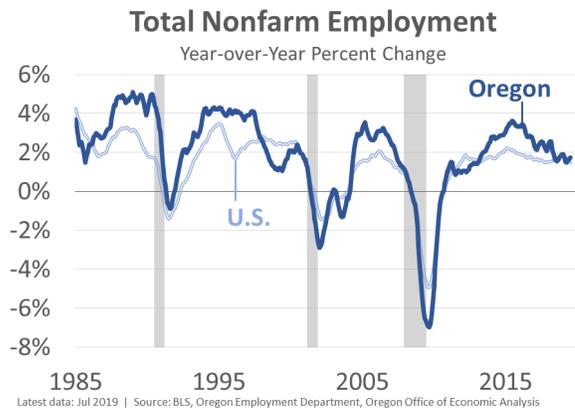
Oregon continues to see healthy rates of growth when it comes to employment, income, and GDP. However the state is no longer significantly outpacing the nation like it was a couple years ago. While local job gains are effectively matching the average state in recent quarters, we know forthcoming U.S. revisions will widen the gap a bit.

Personal income growth remains stronger, meaning Oregon income per capita, per worker, and per household is rising faster than nationwide. This is a continuation of the so-called sweet spot where economic growth is strong enough to keep up with the growing population but also deliver ongoing gains to Oregonians. This pattern of growth is expected to continue until the next recession, whenever it comes.

The slower pace of job gains today is not unexpected. To date it appears that the slower net employment growth is due to higher employment rates among working-age Oregonians, increasing Baby Boomer retirements, and slower in-migration in a mature expansion. Unemployment is not increasing, and new entrants into the labor market represent the largest share of Oregonians currently unemployed. Overall the slowing in Oregon job growth appears to be for good economic reasons.

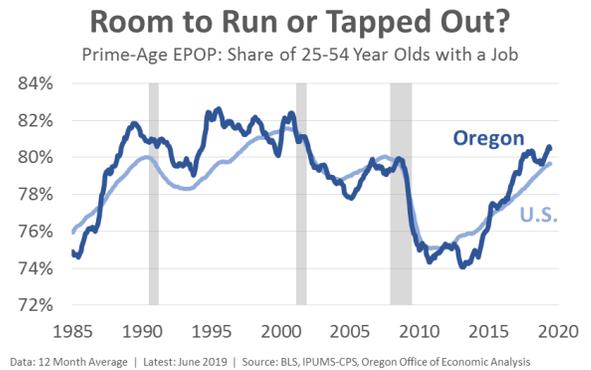
Like the nation overall, the Oregon economic outlook calls for ongoing, but slower growth from today's relatively strong vantage point. This has a few different implications for firms and households.

Businesses face a combination of issues. First, sales will continue to grow. Firms will need to invest and hire to chase those increasing sales, market share, and profits. Second, however, the pace of those sales increases will be slower. Migration and job growth are tapering in a mature expansion, meaning there will be more potential customers but the increases next year will be smaller than this year. Third, the increased uncertainty regarding the economic outlook may have firms wary of investing and hiring as they may be less confident they can recoup



the fixed costs of expanding if the underlying sales do not materialize. Firms, as always, need to find the right balance. Fourth, businesses continue to face a relatively tight labor market in which attracting and retaining workers remains a key issue. To fill positions, firms must compete on price and also continue to cast a wider net and to dig deeper into their resume stacks to find candidates they may have previously passed over in a different labor market.

For households, a slowing economic outlook still brings good news, although a recession clearly does not. For Oregonians not working today, there has not been this strong of a labor market since the late 1990s. Job openings remain plentiful and firms are more willing to overlook incomplete skill sets or gaps on resumes in order to hire and expand. Now, a strong economy cannot overcome structural mismatches in terms of skills or geography, but it does ease cyclical and frictional reasons for unemployment. For those already working, a tighter labor market raises wage growth. The outlook calls for 4 percent average wage growth per year, similar to what Oregon has experienced in recent years.



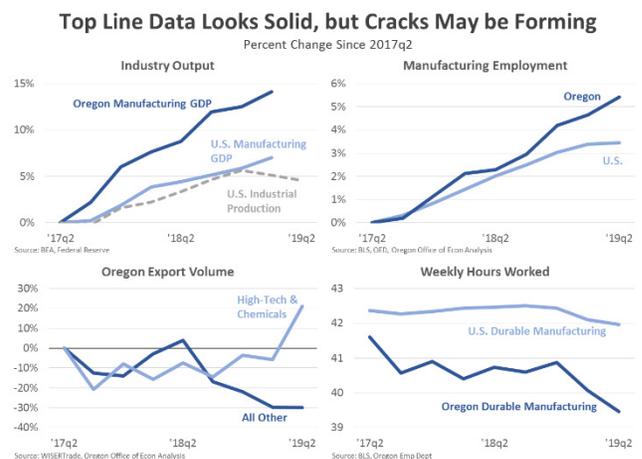
Now, overall household income growth is expected to slow even if per worker wage growth remains strong. The reason is that household incomes, at least for those in the middle of the distribution, are largely about whether or not a household member is working, how many hours they are working, and then their hourly wage. Even if the latter two items remain strong, and expectations are they will be, the slowdown in job growth overall will likely translate into relatively smaller increases in household income as most members of working-age households already have a job. Going from no job to any job is usually a bigger increase in income than going from a part-time job to a full-time job. That said, the strong labor market should continue to result in strong income gains from those in the lower parts of the distribution.

*Note: The 2018 American Community Survey data will be released in late September. It will likely show further statewide improvements in terms of rising income, falling poverty, and the like. Our office will highlight the newest Census data in the December forecast.*

### Oregon and the Trade War

The combination of a strong U.S. dollar, slowing global growth, and escalating trade tensions is weighing on the economy. However, so far the direct impacts of the trade war have yet to really affect top line data here in Oregon. Specifically, manufacturing output and employment are holding up and outpacing national figures. This is undoubtedly good news and contributes to Oregon's stronger overall growth.

Nevertheless, upon a deeper dive, cracks are beginning to form just a bit. Weekly hours worked in manufacturing are dropping quickly so far in 2019, with Oregon's decline more than twice the nation's. This gap between ongoing employment gains and fewer hours worked per employee is not sustainable. Some of it may



be noise in the data, however, given the entire situation, our office’s outlook calls for few manufacturing job gains over the forecast horizon.

Furthermore, while Oregon exports are down over the past year or two, they are holding up relatively well when compared to other states. This is in large part due to a few, isolated increases masking weakness elsewhere in the data.

In particular, Oregon exports to China are surging due to increases in computer and electronic products and chemicals<sup>1</sup>. So far these have not been impacted by the tariffs which would likely dampen export activity. Additionally it is an open question as to whether these increases represent new growth opportunities or firms trying to get ahead of any potential escalation in the trade war. The fact that these exports are likewise not surging to the rest of the world suggests it is more the latter than the former. Another issue to consider is that Oregon tech exports, to a large degree, represent within firm shipments and more closely follow technology product development cycles than the ebbs and flows of global demand.

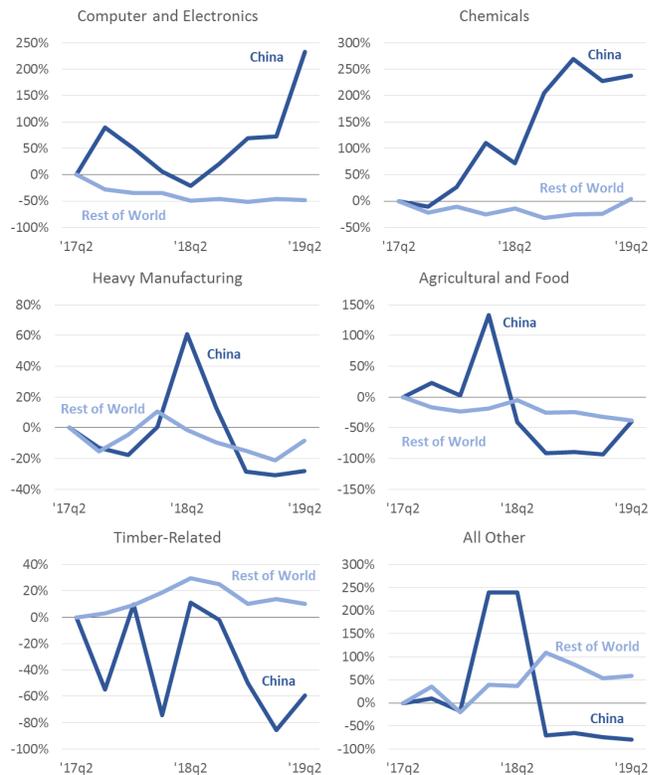
That said, when looking at other sectors, exports to both China and the rest of the world are down in recent years. There have been isolated increases in both machinery and wheat to China in early 2018, but these are outliers and could represent products being shipped in advance of future trade issues. Note that the decline in timber and related exports to China is more pronounced in recent years, however if one were to extend the chart back to when Russian log tariffs were reduced, export trends would be more comparable in the big picture.

In terms of state level impacts, the International Monetary Fund recently modeled various U.S. – China trade scenarios<sup>2</sup> and found that Oregon ranks toward the middle of the pack across states. This is largely due to the fact that while Oregon exports a lot to China, the state is less exposed to the sectors most impacted by the trade dispute. Namely these include auto manufacturing and mining and extraction. The one exception being agriculture, where Oregon does see more exposure than many states and those exports are currently down.

In recent discussions, the Governor’s Council of Economic Advisors highlighted the difference in the outlook or cause for concern in commodities versus specialized products. To the extent that commodity exports are down

### Tech Buoy Oregon Exports during Trade War

Percent Change Since 2017q2 in Volume (weight) of Oregon Exports by Industry



Source: WISERTrade, Oregon Office of Economic Analysis

<sup>1</sup> It has been reported that much of the increase in Oregon chemical exports in the past decade is actually Canadian potash that is railed to Oregon before being exported to Asia. This activity supports trade-related jobs in the state, but these export figures overstate the economic impact of the industry.

<sup>2</sup> <https://www.imf.org/en/Publications/WP/Issues/2019/07/03/Trade-Wars-and-Trade-Deals-Estimated-Effects-using-a-Multi-Sector-Model-46964>

then U.S. exporters can and will need to find other international markets to sell their goods. Additionally, given the recent Chinese retaliation of not buying any U.S. agricultural products, these adjustments will clearly need to be accelerating and ongoing in order to avoid further declines in export activity.

On the other side, it can be even more difficult to establish new markets and find new customers for specialized or niche products and services as they are not as interchangeable as commodities. As such, it will likely take more time for global trade patterns to shift for these customized products.

Finally, most economic data is available through early summer and the trade war escalation is more recent. It is reasonable to expect these cracks to widen as the data begins to catch up to ongoing developments.

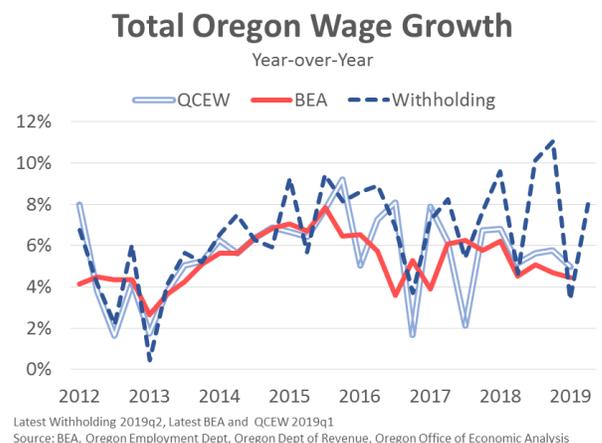
### ***Oregon's Labor Market***

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 rate is holding steady and remains under what would historically be considered full employment for Oregon, although the share of prime working-age Oregonians without a job indicates there is room for further improvement.



While the headline unemployment rate is relatively unchanged in the past year, the underlying dynamics behind its modest rise and fall during this time are worth monitoring. From the fall through the spring, labor force growth was outpacing employment gains, leading to a rising unemployment rate. However, in recent months employment has held steady in the household survey while the labor force participation rate has dropped, leading to a lower unemployment rate. Provided such trends are not revised away – a very real possibility given recent years’ revisions – it would signal economic weakening. Given the preliminary, or unbenchmarked nature of the data, there is no real cause for concern today but these trends are worth keeping a close eye on.

More importantly, wages in Oregon remain strong, although different measures of wages have diverged a bit in recent years. Withholding out of Oregonian paychecks continue to outstrip other measures of economic wages. This gap is larger than it has been historically. It is also seen across nearly all industries and not confined to a particular sector or two. Our office and the Department of Revenue continue to research the topic. One item impacting these trends is the increase in withholding out of retirement accounts (pensions and IRA distributions). Given the increase in retirements and stock market returns, such withholdings are an increasing share of all withholding in the state, but are not directly tied to the labor market. Even so, wage growth for Oregon workers



remains strong. Oregon’s average wage, while lower than the nation’s, is at its highest relative point since the mills closed in the 1980s.

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 revisions<sup>3</sup>. Specifically, our office uses the benchmarked, or revised employment data through 2018q3 and imputes the 2018q4 through 2019q2 employment data based upon the available preliminary Oregon estimates, national data, and our office’s economic forecast model. As such, for this quarterly forecast, the first pure forecast period is 2019q3.

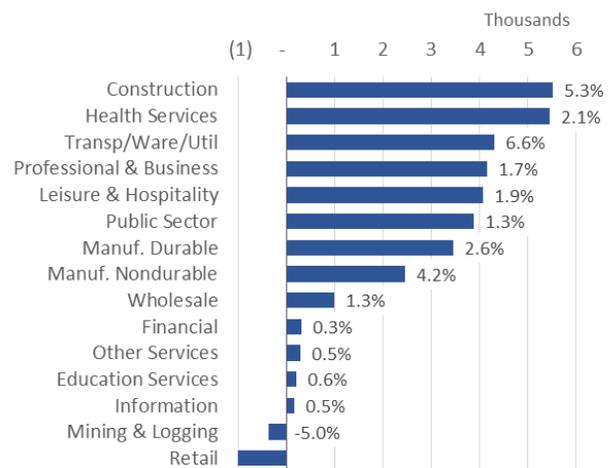
In the second quarter, total nonfarm employment increased 1.8 percent over the past year. Growth was led by the private sector at 1.9 percent, while the public sector increased 1.3 percent. These rates of growth are a clear step down from the full-throttle rates seen a few years ago, however still remain fast enough 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.

So far in recovery, the large service sector industries have generally led job growth in terms of the number of jobs added 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 nearly 14,000 jobs in the past year and account for 40 percent of all job gains across the state. Now, given these industries account for 38 percent of all Oregon jobs, today they are increasing at a similar rate as the rest of the economy. Growth in the past year is being led to a larger degree by construction, manufacturing, and transportation, warehousing, and utilities.

### Oregon Employment Growth

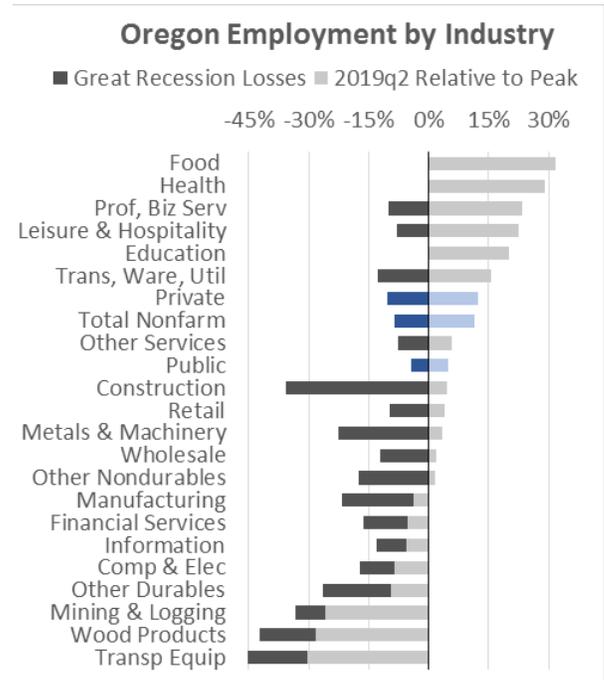
Growth Over Past Year, 2018q2 to 2019q2



<sup>3</sup> 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 2018. The QCEW is currently available through March 2019, thus the preliminary benchmark used here covers the October 2018 – March 2019 period.

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 losses<sup>4</sup> and where each industry stands today relative to pre-recession peak levels.

Currently, thirteen 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. Over the past couple of years retail employment, other services, transportation, warehousing and utilities, and construction, in addition to the public sector have surpassed their pre-recession levels and are at all-time highs. Additionally, wholesale trade and metals and machinery manufacturing have fully regained their recessionary losses. Most recently non-durable manufacturing excluding food is all the way back back; this growth is led by beverages (breweries), chemicals, and plastics and rubber. In total, the twelve private sector industries at all-time highs account for 71 percent of all statewide jobs. The public sector accounts for an additional 16 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 recovering, 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 collapse<sup>5</sup>. With that being said, the subsectors tied to aerospace are doing better 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. The good news, certainly in the short-term, is that much of the manufacturing sector has returned to growth in the past year following declines a year or two ago. 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<sup>6</sup>.

<sup>4</sup> 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.

<sup>5</sup> <http://oregoneconomicanalysis.com/2012/07/10/rv-workers-and-reemployment/>

<sup>6</sup> <https://oregoneconomicanalysis.com/2018/06/27/oregons-food-economy/>

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.

**Leading Indicators**

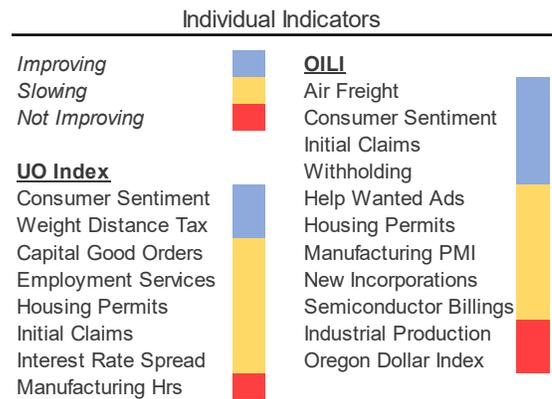
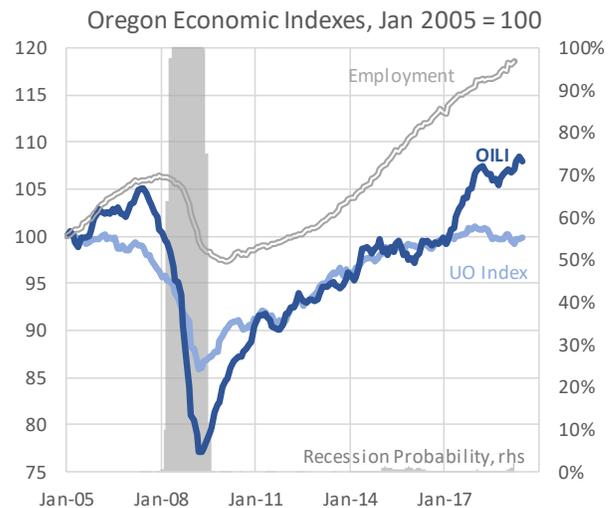
Over the past year both of the Oregon-specific composite leading indicators have largely moved sideways. In any given month about half of the individual indicators are positive and half are negative. Currently, if we step back and look at the bigger picture, the vast majority of indicators are still in expansion territory but clearly slowing down. This signals continued economic growth and not an impending recession, or at least not yet anyway.

In June there are only three clear indicators flashing red: U.S. industrial production, Oregon manufacturing hours worked, and the Oregon dollar index. As discussed earlier, the trade war is weighing on the data which is seen here as well. To date, manufacturing employment is growing but given that *leading* indicators are down suggests less growth moving forward.

All told the data flow and Oregon’s leading indicators remain more of a mixed bag in the past year. Given that most U.S. data has firmed in recent weeks, with the exception being manufacturing for the most part, it is expected Oregon’s data will also firm.

In general, economic forecasters see a heightened risk of recession so far in 2019 but are not altering their baseline forecasts accordingly. They are acknowledging the risks, however. University of Oregon professor Jeremy Piger has created a real time probability of recession<sup>7</sup> model, and finds there is a 0.9 percent chance the U.S. has entered into a recession. However, another recession will come, of that we can be sure. IHS Markit puts the probability of recession in the next year at 35 percent, while the Wall Street Journal Economic Forecasting Survey puts it at 34 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 good track record in their relatively 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



<sup>7</sup> [http://pages.uoregon.edu/jpiger/us\\_recession\\_probs.htm/](http://pages.uoregon.edu/jpiger/us_recession_probs.htm/)

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 and stabilized. 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 – a bit more than 2,000 per month or about 2 percent over this year and into 2020 – 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, supply side constraints and longer-run demographic trends weigh on growth to a larger degree. These supply side constraints include a tighter labor market, infrastructure, energy costs, capacity utilization and the like. The large wave of retiring Baby Boomers will weigh on job growth rates for the coming decade. There will be enough jobs overall, as the generational churn is hidden underneath the labor market’s surface.

The general characteristics of the current forecast remain the same as in recent quarters although total personal income and employment are revised up slightly over the medium- and long-run.

|  |        | Quarterly |        |        |        |        | Annual |      |      |      |      |
|--|--------|-----------|--------|--------|--------|--------|--------|------|------|------|------|
|  |        | 2019:2    | 2019:3 | 2019:4 | 2020:1 | 2020:2 | 2018   | 2019 | 2020 | 2021 | 2022 |
| <b>Personal Income, Nominal</b>        | U.S.   | 5.0       | 4.7    | 4.4    | 4.9    | 4.8    | 4.4    | 4.1  | 4.7  | 4.5  | 4.3  |
| <i>% change</i>                        | Oregon | 6.3       | 5.8    | 5.7    | 5.2    | 5.5    | 5.0    | 5.4  | 5.5  | 5.2  | 5.0  |
| <b>Wages and Salaries, Nominal</b>     | U.S.   | 3.5       | 4.3    | 4.7    | 4.7    | 4.9    | 4.3    | 3.7  | 4.5  | 4.5  | 4.5  |
| <i>% change</i>                        | Oregon | 5.5       | 6.7    | 6.0    | 5.8    | 6.2    | 5.1    | 5.3  | 5.9  | 5.4  | 5.1  |
| <b>Population</b>                      | U.S.   | 0.7       | 0.7    | 0.7    | 0.7    | 0.7    | 0.6    | 0.7  | 0.7  | 0.7  | 0.7  |
| <i>% change</i>                        | Oregon | 1.2       | 1.2    | 1.2    | 1.2    | 1.2    | 1.3    | 1.2  | 1.2  | 1.2  | 1.1  |
| <b>Housing Starts</b>                  | U.S.   | 1.26      | 1.21   | 1.21   | 1.21   | 1.21   | 1.25   | 1.22 | 1.22 | 1.24 | 1.28 |
| <i>U.S. millions, Oregon thousands</i> | Oregon | 21.6      | 21.8   | 21.9   | 22.2   | 22.4   | 19.7   | 21.5 | 22.5 | 23.4 | 24.0 |
| <b>Unemployment Rate</b>               | U.S.   | 3.6       | 3.5    | 3.5    | 3.6    | 3.6    | 3.9    | 3.6  | 3.7  | 3.9  | 4.1  |
|  | Oregon | 4.2       | 4.4    | 4.4    | 4.4    | 4.4    | 4.1    | 4.3  | 4.4  | 4.7  | 4.9  |
| <b>Total Nonfarm Employment</b>        | U.S.   | 1.2       | 1.2    | 1.1    | 1.1    | 1.5    | 1.7    | 1.5  | 1.0  | 0.6  | 0.5  |
| <i>% change</i>                        | Oregon | 1.4       | 2.4    | 1.9    | 1.7    | 2.1    | 2.0    | 1.8  | 1.8  | 1.3  | 1.0  |
| <b>Private Sector Employment</b>       | U.S.   | 1.4       | 1.4    | 1.1    | 1.0    | 0.7    | 1.9    | 1.7  | 1.0  | 0.7  | 0.4  |
| <i>% change</i>                        | Oregon | 1.5       | 2.5    | 2.1    | 1.7    | 1.5    | 3.3    | 1.8  | 1.8  | 1.4  | 1.0  |

There is one categorical change made to the forecast, which is to switch the inflation variable to the Consumer Price Index for All Urban Consumers, West Region (All Items) to align with HB 2118 (2019). For most of our office’s history, we used the Portland-Salem CPI however in 2018 the Bureau of Labor Statistics stopped publishing that series due to budget cuts and realigning their work products. Portland is now the largest metropolitan area in the nation without its own CPI. BLS is still collecting local data but not publishing local estimates. HB 2118 standardizes inflation calculations throughout statute and our office is now forecasting the same inflation metric.

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.

Even construction is expected to add jobs at a slower pace even as the housing rebound continues. This is in part due to the fact that growth must cool off after the exceptionally strong gains in construction in recent years. Additionally construction employment growth has far outpaced increases in new home construction. One side effect of this pattern is that productivity within the construction industry is declining. More workers producing fewer units of new housing or remodel activity means industrywide productivity is lower today than a decade or two ago. This is evident in the national data as well and is something researchers continue to dig into. No consensus has been reached as of yet.

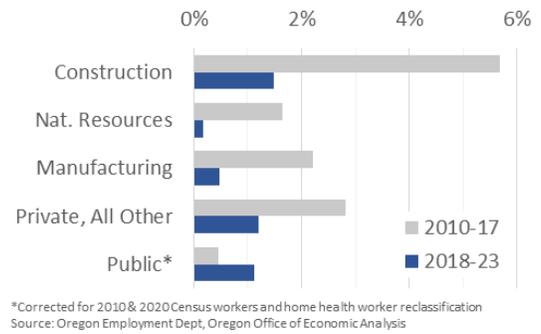
Manufacturing is expected to see growth, albeit very slow growth in the coming years. This growth will be strongest among the state’s food processors, and beverage manufacturers, predominantly breweries. That said, any further global weakening or strengthening of the dollar will weigh further on the outlook. Oregon as a whole is not expected to fully regain all of its Great Recession related manufacturing job losses. That said, both the Portland and Medford metro regions have fully regained their losses. Nationwide about 1 out of 5 metros have done so as well.

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 in line with population growth and the increased demand for public services, albeit just a hair faster than population growth alone. One public sector risk to the outlook is PERS. The extent to which government hiring by local and state entities is impacted in the coming years as contributions increase is unknown.

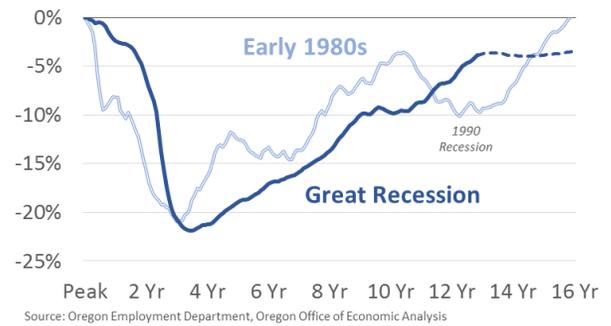
Along with an improving labor market, stronger personal income gains are here, although tax law changes have pushed around growth rates in the recent past (see the expiring Bush tax cuts and the fiscal cliff) and may do so again moving forward. Personal income is forecasted to grow 5.4 percent in 2019, picking up to 5.5 percent in 2020 and then tapering thereafter to 5.2 percent in 2021, 5.0 percent in 2022 and 4.7 percent in 2023.

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

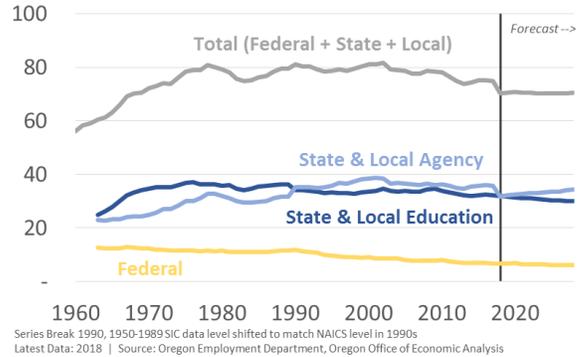
**Goods Producing Sectors To Slow**  
Oregon Employment Annual Growth Rates



**Oregon Manufacturing Employment**  
Oregon's Severe Recessions



**Government Workers in Oregon**  
Number of Employees per 1,000 Residents



and increase in migration have returned in full force. Even as more young Oregonians are living at home, as the Millennials continue to age into their late-20s through their mid-30s, demand for housing will increase as well. In fact, given the underlying demographics, household formation should outpace overall population growth in the coming years.

Housing starts to begin the year have totaled just over 21,000 at an annual pace, which is about the level of Oregon's long-run average, at least prior to the housing bubble. The outlook calls for a few more gains as housing production increases to meet demand. Starts will total 21,500 in 2019, and increase to 22,300 in 2020. Over the extended horizon, starts are expected to average around 24,000 per year to meet demand for a larger population and also, partially, to catch-up for the underbuilding that has occurred in recent years.

*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 more worrisome trends or risks at the U.S. level means there should be concerns about the Oregon outlook. Should the U.S. fall into recession, Oregon will too. That said, should the U.S. economy accelerate, Oregon's economy should receive a similar boost as well.
- **Housing affordability.** Even as the housing market recovers, new supply 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 a bit in the next year or three, to match the increase in demand, which will alleviate some 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 as fewer people can afford to move here, lowering net in-migration and the size of the labor force.
- **Global Spillovers Both Up and Down.** The international list of risks seems to change by the day: a hard Brexit, sovereign debt problems in Europe, equity and property bubbles in places like Canada, South America and Asia, political unrest in Hong Kong, the Middle East and Venezuela, nuclear arsenal concerns with North Korea, 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, or public debt burden – has spillover effects to the Oregon economy. Any economic slowing, or deteriorating relations in or with Asia is a potential threat to the Pacific Northwest.

- Federal fiscal policy. The uncertainty regarding federal fiscal policy remains a risk. Some policies are likely to impact Oregon than the typical state, while others maybe not as much. 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, as was recently passed by Congress. 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 neighboring states have large federal and military workforces.
- Climate and Natural Disasters. Weather forecasting is even more difficult than economic forecasting a year or two into the future. While the severity, duration and timing of catastrophic events like earthquakes, wildfires and droughts are difficult to predict, we do know they impact regional economies. Fires damage forests and tourism. Droughts in particular impact our agricultural sector and rural economies to a larger degree. Whenever Cascadia, the big earthquake, hits, we know our regional economy and its infrastructure will be crippled and in need of immediate repairs. Some economic modeling suggests that Cascadia's impact on Oregon will be similar to Hurricane Katrina's on New Orleans. Longer-term issues like the potential impact of climate change on domestic migration patterns are likewise hard to predict and outside our office's forecast horizon. There is a reasonable expectation that migration flows will continue to be strong as the rest of the country becomes less habitable over time.
- 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. This impact is certainly more muted today<sup>8</sup>, but a risk nonetheless.
- Federal timber policy and transfers impact regional economies and local governments. Reductions in public employment and services are being felt in the impacted counties in recent years and decades. For more information from a historical perspective, see two recent blog posts, here and here<sup>9</sup>.
- 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.

---

<sup>8</sup> <https://oregoneconomicanalysis.com/2018/11/08/oregons-energy-intensity-and-household-spending/>

<sup>9</sup> <http://oregoneconomicanalysis.wordpress.com/2012/01/23/historical-look-at-oregons-wood-product-industry>  
<http://oregoneconomicanalysis.wordpress.com/2013/05/28/timber-counties/>

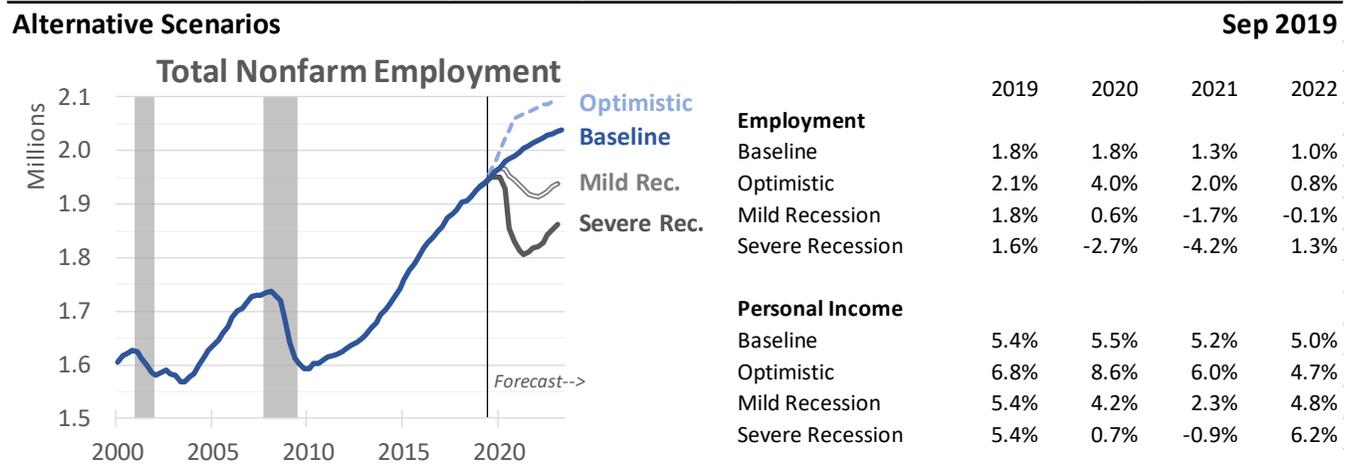
**Alternative Scenarios**

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 expansion is able to gather steam as the trade tensions and manufacturing weakness fade and recede into the rearview mirror of history. The U.S. economy builds momentum into 2020. The economy is soon firing on all cylinders, resulting in faster productivity growth which raises the speed limit of overall gains. Wages and incomes increase likewise increase at a faster rate. All of this results in stronger 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 and even turns positive as more Oregonians enter the labor market. 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 slowdown in economic growth and increased trade tensions carry over and escalate. Financial markets remain spooked and the yield curve remains inverted. Real estate prices correct and the housing market stall worsens, removing one potential driver of growth. Strained trade relations result in falling exports, business confidence tumbles and so does capital spending. The U.S. dollar strengthens further, chocking off the manufacturing cycle entirely. These factors are enough weight on the recovery that by early-2020 the economy slides back into recession. Job losses ensue and while not severe – about 52,000 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 nearly 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:

After expanding for 10 years at relatively lackluster growth rates, the U.S. economy falls back into recession. Industrial production declines and the slower personal income growth in the U.S. worsens. Strained trade relations develop into an all-out trade war. The Fed, already lacking in traditional monetary policy ammunition, is not able to stave off such an impact. 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 145,000 Oregonians lose their jobs by early-2021.

Besides the domestic economic headwinds and Federal Reserve tightening, the likely culprit in this scenario is either a meltdown of the financial markets sparked by some geopolitical shock, or quickly rising inflation. Economic growth in the U.S., while fairly steady as of late, is not nearly strong enough to withstand an external financial shock of this magnitude, nor a Federal Reserve quickly raising rates to fight inflation. Further economic effects of a recession this size are personal income losses of around 5 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 Markit 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 nineteenth fastest among all states across the country in terms of growth with gains averaging 1.9 percent from 2019 through 2024. Total employment is expected to be the tenth strongest among all states at an annualized 0.9 percent, while manufacturing employment will be the second fastest in the country at 0.4 percent. Total personal income growth is expected to be 4.7 percent per year, the eighteenth fastest among all states, according to IHS Economics.

Our office is equally, if not more bullish in terms of Oregon's relative growth prospects. Much of Oregon's advantage comes from population growth, specifically the ability to attract and retain young, working-age households. Our office expects population growth to average 1.1 percent over the next handful of years. Recently, IHS lowered their forecast for Oregon population growth to 0.9 percent over the same time period. These differences are not immaterial. It amounts to a 5 year difference of nearly 50,000 Oregonians of which between two-thirds and three-fourths would be among the working-age population. As such, our overall economic outlooks have diverged just a bit.

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 economy is equally bad elsewhere, particularly in California. Relative housing prices 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 the past two years 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 recent years. Oregon’s labor force has never been larger. However, the participation rate remains a little lower than expected, when adjusting for the size of the population and the aging demographics.

That said, Oregon’s participation rate, at least in the preliminary data, has flattened out and even fallen in recent months. The participation gap remains a cause for concern, however we are currently at the cyclical peak where ongoing job gains effectively offset the aging demographics. So a flat or even falling participation rate in and of itself is not a concern. It’s the level that is a little bit more worrisome.

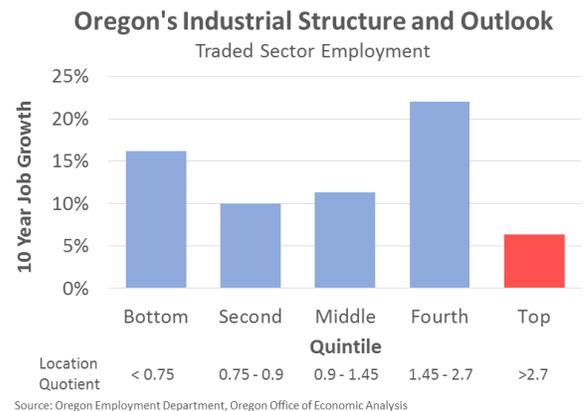
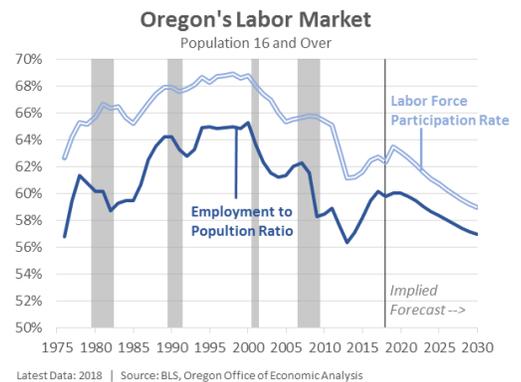
Additionally, while much of the past decade’s patterns can be attributed to the severe nature of the Great Recession, and even the lackluster housing boom itself, some damage is likely permanent. The longer the expansion continues without seeing rising participation rates among some segments of the population, the more likely the damage is permanent. A stronger economy and a longer expansion will minimize any permanent damage.

Oregon’s industrial structure is very similar to the U.S. overall, even moreso than nearly all other states. That said, 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 growth to downward trajectory of the industry in Oregon is likely to continue.

With that being said, certainly not all hope is lost. Those top industries in Oregon comprise approximately 7 percent of all statewide employment. And many industries in which Oregon has a larger concentration than typical state are expected to perform quite well over the coming decade. These industries include management of companies, food and beverage manufacturing, published software along with some health care related firms.

The state’s real challenges and opportunities will come in industries in which Oregon does not have a relatively large concentration. 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,



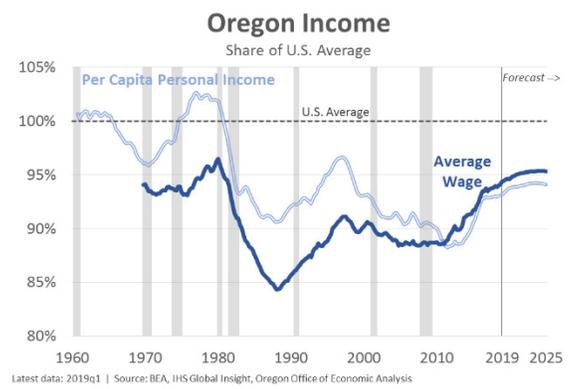
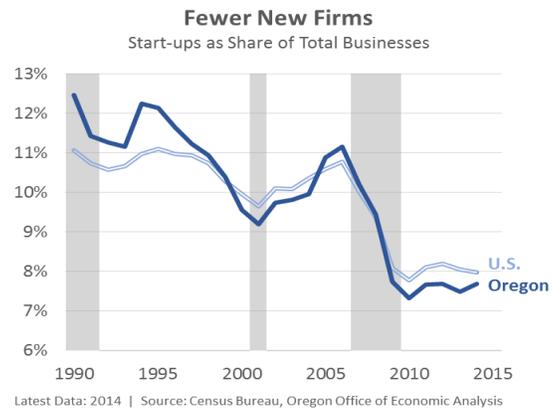
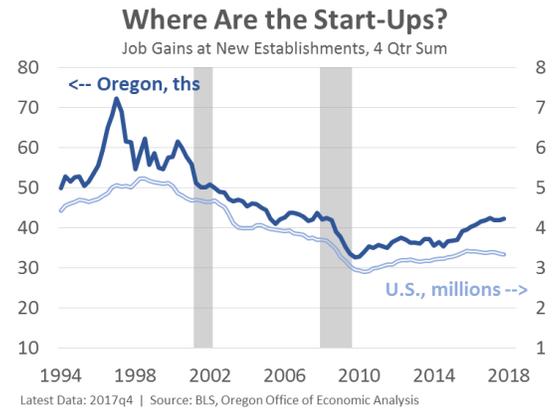
then the state may not fully realize these gains if they rely more on clusters and concentrations of similar firms that may already exist elsewhere in the country.

Another area of potential concern that may impact longer term economic growth is that of new business formation. Over the past few years, 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 fewer start-ups indicate 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.

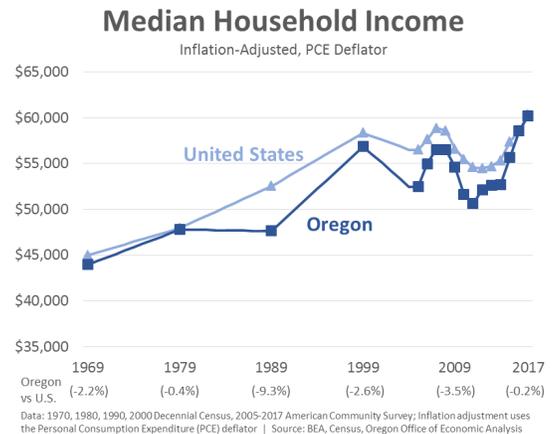
Importantly, Oregon also enjoys the long-term advantages of low electricity costs; a central location between the large markets of California, Vancouver and Asia; clean water; low business rents and living costs when compared to other Left Coast locations; and an increasingly diverse industrial base.

Finally, one long-run concern for some policymakers and think tanks has been Oregon’s relatively low income and wage numbers in recent decades. Back in the heyday of the timber industry, Oregon’s per capita personal income and median household income were in-line with the nation overall. At this time, Oregon’s average wage was lower in part due to the industrial composition, but these lower wages were made up at the statewide level by demographics and household composition.



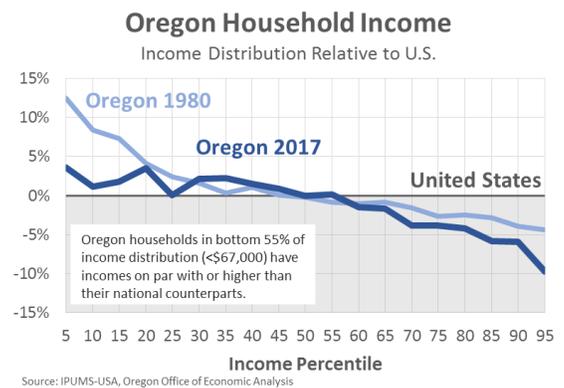
Even since the timber industry restructured following the severe early 1980s recessions, Oregon's relative incomes have been lower. The regional economy experienced a major shock and it took quite a long time to recover. However, finally, in this current economic expansion, Oregon is regaining the ground lost decades ago.

Oregon's median household income now matches the U.S. overall. Average wages in Oregon are at their highest relative point since the mills closed in the early 1980s. And the state's per capita personal income is back to where it was prior to the dotcom crash in 2001.



In terms of the outlook, expectations are for Oregon's relative positions to hold steady in the coming years. 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 by 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.

One major factor influencing per capita personal income trends is the relative incomes at the very top of the distribution. Make no mistake, Oregon's highest-income households have done well financially. However incomes at the top of the national distribution have increased even further. This gap among the richest households is large enough, and the incomes high enough to weigh on Oregon's overall per capita income figures.

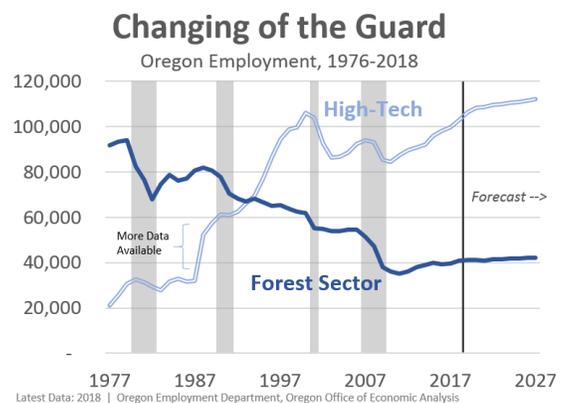


### Regional Comparisons

At a statewide level, Oregon's economy has undergone a changing of the guard in recent decades. The high-tech industry's growth has essentially offset the decline of the timber industry. This is good news for Oregon as a whole and many other places around the country that experienced large manufacturing losses did not have something like this to help balance out their economies.

However, even if these trends tend to offset at the statewide level they did not at the regional level or for individual workers. In the 1970s, timber was important statewide but particularly so outside the Portland region. Even so, Portland had a timber concentration two and a half times the national average. That said, Lane County's was closer to 20 times the U.S. and Douglas County was 40 times. In most eastern and southern Oregon counties, timber accounted for 20-30% or more of all local employment.

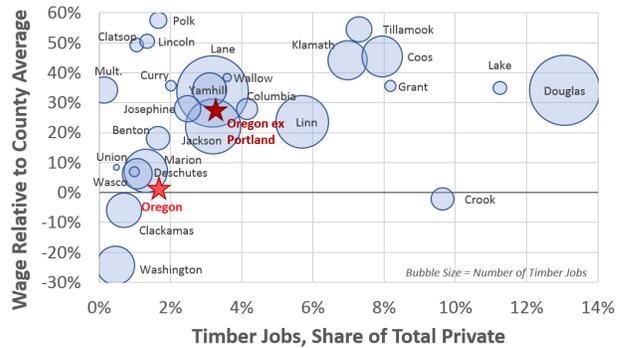
Fast forward to today where the geographic distribution of high-tech jobs is very different. Nearly 80% of tech jobs in Oregon are in the tri-county Portland area.



As such, even with the declines in recent decades, timber remains important for many regional economies across the state. Not only does the sector account for a sizable share of local jobs, it also continues to pay above average wages, when compared with the local alternative. This is in part due to the lower-wage, service type of job growth seen in many communities. Even if travel and tourism, or even lower level health care facilities replace the outright number of jobs that were lost in the timber industry, their wages are generally lower.

See our office's recent report on [What Replaces Timber?](#) for more details.

## Timber Remains Important



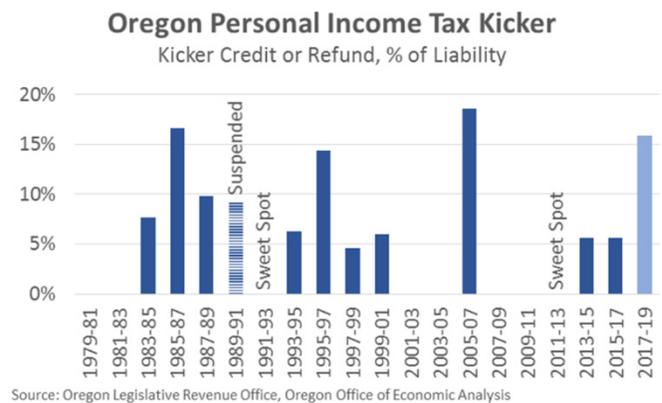
Timber = Forestry and Logging (NAICS 113) + Wood Products Manufacturing (NAICS 321) | Portland = Clackamas, Multnomah, Washington | Not all counties shown nor do those shown have complete data due to confidentiality | Data: 2018 QCEW | Source: BLS, Oregon Office of Economic Analysis

## Revenue Summary

During odd-numbered years, Oregon’s September revenue forecast provides a look back at the biennium that just came to a close. Unlike the nationwide economic expansion, Oregon’s revenue picture has yet to show any cracks. Through the end of the 2017-19 biennium, all major types of Oregon’s General Fund tax collections continued to outstrip gains in the underlying economy.

The largest part of Oregon’s General Fund, personal income tax collections, surged during the peak tax season with collections coming in one-third larger than what was seen in 2018. Both year-end income tax payments net of refunds, as well as withholdings out of paychecks, have been posting growth rates above what economic gains would call for. Corporate tax collections have slowed a bit in recent months, but remain elevated above their typical size as well.

The strong growth at the end of the biennium has resulted in an increased estimate of the kicker refund. The personal income tax kicker is now expected to be \$1.57 billion, making it the third largest as a share of liability on record. Kickers of this size occur about once every decade, typically around the peak of the business cycle. As was the case with the large kicker generated during the mid-1980’s, changes in federal tax policy played a large role in generating above-trend state collections last biennium. Taxpayers are



very sensitive to federal rules, and often shift the timing of their payments in order to minimize their federal liability over time. The federal Tax Cut and Jobs Act has greatly altered taxpayer behavior, suggesting that some of the recent growth in state tax collections may not be sustainable going forward.

Over the next month, the Office of Economic Analysis will double check the accounting records before certifying the size of the kicker by October 1<sup>st</sup>. As it now stands, when taxpayers file at the beginning of next year, they will receive around a 15% refundable credit off of their bill. For the median filer, this amounts to a credit of \$346, while the average filer will receive \$739.

| Income Group   | Adjusted Gross Income*   | Rough Estimate of Kicker Size** |
|----------------|--------------------------|---------------------------------|
| Bottom 20%     | < \$11,700               | \$28                            |
| Second 20%     | \$11,700 - \$27,500      | \$169                           |
| Middle 20%     | \$27,500 - \$49,700      | \$373                           |
| Fourth 20%     | \$49,700 - \$90,500      | \$679                           |
| Next 15%       | \$90,500 - \$184,500     | \$1,379                         |
| Next 4%        | \$184,500 - \$418,500    | \$3,248                         |
| Top 1%         | > \$418,500              | \$15,214                        |
| <b>Average</b> | <b>\$64,300</b>          | <b>\$739</b>                    |
| <b>Median</b>  | <b>\$37,000-\$38,000</b> | <b>\$346</b>                    |

\* Based on 2017 actual tax returns \*\* Based on 2017 actual tax returns, PIT kicker amount (\$1.57 billion) and the Oregon Office of Economic Analysis' forecast for tax liability in 2018

Although the corporate kicker refund is no longer returned as a credit to taxpayers, corporate collections have come in above expectations as well. Similar to personal income taxes, federal tax reforms have clearly played a large role in the surge in collections. As a result of the unexpected corporate collections, an estimated \$676 million will be dedicated to K-12 programs during the 2019-21 biennium. This is \$60 million more than was expected during the May forecast.

While kicker payments have grown as a result of the unexpected revenue gains, so too have Oregon’s cash balances. The General Fund beginning balance is now more than \$200 million larger than what was expected at the close of the session. With the near-term outlook for corporate collections being revised upward as well,

policymakers will have around \$300 million in additional resources to potentially add to the recently-enacted 2019-21 budget.

All told, the September forecast reflects a stable economic outlook, with the expected size of General Fund collections increasing slightly over what was expected at the Close of Session. However, when tax policy changes from the 2019 legislative session are factored in, the General Fund is expected to be significantly smaller than what was expected in May. Most notably, the enactment of a Corporate Activity Tax (HB3427) brought with it personal tax rate cuts, and is expected to reduce business tax liability. While the Corporate Activity Tax will clearly be a net positive for the state budget as a whole, it will reduce General Fund resources since the new collections will not be deposited there. Instead, Corporate Activity Tax collections will be directed to a Fund for Student Success, thus keeping them out of the kicker calculation<sup>10</sup>.

These General Fund cuts, together with a big kicker payment, a slowing economy and the federal tax policy hangover do not bode well for tax collections in 2019-21. Even if we are able to avoid a recession (as is expected in the baseline case), General Fund resources are expected to be smaller than they were last biennium.

Heading into the new biennium, uncertainty about the performance of the nationwide economy has become paramount. Growth will certainly slow to a sustainable rate in the coming years, but the path taken to get there is unknown. Fortunately, Oregon is better positioned than ever before to weather a revenue downturn. Automatic deposits into the Rainy Day Fund and Education Stability Fund have added up over the decade-long economic expansion. When the expected ending balance for the current biennium is included, Oregon has more than \$2.5 billion in reserves set aside, amounting to more than 12% of the two-year budget.

Longer term, 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.

### 2019-21 General Fund Revenues

Gross General Fund revenues for the 2019-21 biennium are expected to reach \$21,112 million. This represents a decrease of \$211 million from the May 2019 forecast, and an increase of \$92 million relative to the Close of Session forecast. Although the economic outlook is stable, policymakers enacted tax laws during the 2019 legislative session that are expected to reduce General Fund resources.

| (Millions)                          | 2019 COS Forecast | May 2019 Forecast | September 2019 Forecast | Change from Prior Forecast | Change from COS Forecast |
|-------------------------------------|-------------------|-------------------|-------------------------|----------------------------|--------------------------|
| <b>Structural Revenues</b>          |                   |                   |                         |                            |                          |
| Personal Income Tax                 | \$18,283.5        | \$18,705.1        | \$18,292.4              | -\$412.6                   | \$8.9                    |
| Corporate Income Tax                | \$1,190.8         | \$1,245.8         | \$1,270.0               | \$24.2                     | \$79.2                   |
| All Other Revenues                  | \$1,546.1         | \$1,372.9         | \$1,549.8               | \$176.9                    | \$3.7                    |
| <b>Gross GF Revenues</b>            | <b>\$21,020.4</b> | <b>\$21,323.7</b> | <b>\$21,112.1</b>       | <b>-\$211.6</b>            | <b>\$91.7</b>            |
| Offsets and Transfers               | -\$203.5          | -\$203.5          | -\$196.8                | \$6.7                      | \$6.7                    |
| Administrative Actions <sup>1</sup> | -\$21.5           | -\$21.5           | -\$21.5                 | \$0.0                      | \$0.0                    |
| Legislative Actions                 | -\$199.5          | -\$199.4          | -\$199.5                | \$0.0                      | \$0.0                    |
| <b>Net Available Resources</b>      | <b>\$22,914.4</b> | <b>\$23,220.9</b> | <b>\$23,226.7</b>       | <b>\$5.8</b>               | <b>\$312.3</b>           |
| <b>Confidence Intervals</b>         |                   |                   |                         |                            |                          |
| <b>67% Confidence</b>               | +/- 8.6%          |                   | \$1,823.9               | \$19.29B to \$22.94B       |                          |
| <b>95% Confidence</b>               | +/- 17.3%         |                   | \$3,647.8               | \$17.46B to \$24.76B       |                          |

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

<sup>10</sup> Hooray!

### Personal Income Tax

Personal income tax collections were \$3,471 million during the fourth quarter of fiscal year 2019, \$260 million (8.1%) above the latest forecast. Compared to the year-ago level, total personal income tax collections rose by 32% relative to a forecast that called for a 22% increase. Table B.8 in Appendix B presents a comparison of actual and projected personal income tax revenues for the April-June quarter. Strong growth in collections has continued into fiscal year 2020.

### Corporate Excise Tax

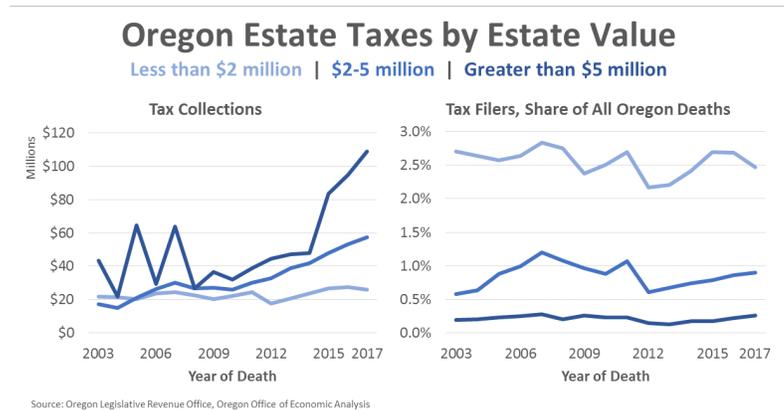
Corporate excise tax collections equaled \$389 million for the fourth quarter of fiscal year 2019, \$26 million below the May forecast. Compared to the year-ago level, net corporate excise tax collections rose by 8.5%.

Federal Tax Law Changes have injected a good deal of uncertainty into the outlook for corporate tax payments. It is likely that the corporate tax base has become larger in Oregon. In part, firms are now recognizing more of their global income streams. Also, some employees, investors, partnerships, S-corps and sole proprietorships face a larger tax incentive to incorporate. Conversely, some C-corporations and employees will benefit from becoming pass-through entities. Accelerated depreciation provisions are also impacting the revenue stream, as is the repatriation of deferred income from multinational corporations. While large, the amount of taxes on repatriated earnings appears to be falling short of expectations, and has been revised downward.

### Other Sources of Revenue

Non-personal and non-corporate revenues in the General Fund account for approximately 7 percent of the total. One-fifth of this amount comes from Oregon Liquor Control Commission revenues, while estate taxes account for another fifth. In terms of forecast changes in recent biennia, estate taxes stand out as they have come in considerably above expectations.

Overall the number of estates impacted by the tax is relatively steady over the past decade, both in absolute numbers and as a share of all Oregon deaths. The growth in tax collections largely reflects the increasing size of a few very large estates. Looking forward, the outlook for collections remains strong, however not quite as strong as demographics and asset markets alone suggest due to household's tax planning capabilities.



All told, General Fund revenues excluding personal and corporate taxes are expected to total \$1.55 billion in 2019-21, an upward revision of \$3.7 million relative to the Close of Session forecast. In the out biennia, these revenues are unchanged as Legislation this past session offsets by raising judicial and liquor revenues but decreasing retaliatory taxes (insurance taxes) as part of HB 3427.

### Extended General Fund Outlook

Table R.2 exhibits the long-run forecast for General Fund revenues through the 2027-29 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 2017-19 |       | Forecast 2019-21 |        | Forecast 2021-23 |       | Forecast 2023-25 |       | Forecast 2025-27 |       | Forecast 2027-29 |       |
|------------------------------|------------------|-------|------------------|--------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|
|                              | Biennium         | % Chg | Biennium         | % Chg  | Biennium         | % Chg | Biennium         | % Chg | Biennium         | % Chg | Biennium         | % Chg |
| Personal Income Taxes        | 18,705.1         | 16.5% | 18,292.4         | -2.2%  | 21,660.6         | 18.4% | 23,647.0         | 9.2%  | 25,534.1         | 8.0%  | 28,139.0         | 10.2% |
| Corporate Income Taxes       | 1,752.7          | 44.8% | 1,270.0          | -27.5% | 1,283.8          | 1.1%  | 1,442.7          | 12.4% | 1,643.4          | 13.9% | 1,821.1          | 10.8% |
| All Others                   | 1,339.3          | 3.9%  | 1,549.8          | 15.7%  | 1,400.7          | -9.6% | 1,466.5          | 4.7%  | 1,537.8          | 4.9%  | 1,622.6          | 5.5%  |
| Gross General Fund           | 21,797.2         | 17.5% | 21,112.1         | -3.1%  | 24,345.0         | 15.3% | 26,556.3         | 9.1%  | 28,715.3         | 8.1%  | 31,582.7         | 10.0% |
| <i>Offsets and Transfers</i> | <i>(129.5)</i>   |       | <i>(196.8)</i>   |        | <i>(100.1)</i>   |       | <i>(101.4)</i>   |       | <i>(113.6)</i>   |       | <i>(117.4)</i>   |       |
| Net Revenue                  | 21,667.6         | 17.0% | 20,915.3         | -3.5%  | 24,244.9         | 15.9% | 26,454.9         | 9.1%  | 28,601.7         | 8.1%  | 31,465.3         | 10.0% |

**Tax Law Assumptions**

The revenue forecast is based on existing law, including measures and actions signed into law during the 2019 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 2019 Legislative Session can be found in Appendix B Table B.3. For a detailed treatment of the components of the 2019 Legislatively Enacted Budget, see: [LFO 2019-21 Budget Summary](#).

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 2019-21 Tax Expenditure Report](#) together with more timely updates produced by the Legislative Revenue Office.

**General Fund 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 \$4.7 billion lower than predicted over the next two biennia<sup>11</sup>.

### Corporate Activity Tax

HB 3427 (2019) creates a new state revenue source by implementing a corporate activity tax (CAT). The tax is expected to generate \$1.6 billion in revenue in 2019-21 and \$2.8 billion in 2021-23. These revenues are dedicated to spending on education. The legislation also included personal income tax rate reductions, reducing General Fund revenues. The net impact of HB 3427 was designed to generate approximately \$1 billion per year in new state resources.

This forecast represents the first time the new CAT has been included. Table B.12 in Appendix B has details on 10 year forecast and the allocation of resources, while the personal income tax reductions are built into the General Fund forecasts as shown in Tables B.1 and B.2.

In terms of the big picture economic impacts, as always, our office starts with the Legislative Revenue Office's impact statement and any Oregon Tax Incidence Model (OTIM) results LRO found. At the top line, OTIM results find minimal macroeconomic impacts across Oregon due to the new tax. Personal income, employment, population, investment and the like are less than one-tenth of a percent different under the new tax relative to the baseline. The model results also show that price levels (inflation) will increase above the baseline as some of the CAT is pushed forward onto consumers. Of course these top line, statewide numbers mask the varying experiences that individual firms and different industries will experience. There are likely to be some businesses or sectors that experience large impacts from the CAT, or where pyramiding increases prices to a larger degree, while other businesses or sectors see relatively few impacts.

Today we have no real economic or revenue data to evaluate the impact of the corporate activity tax as it begins in 2020. While businesses will make quarterly payments throughout 2020, it really will not be until April 2021

TABLE R2b

September 2019

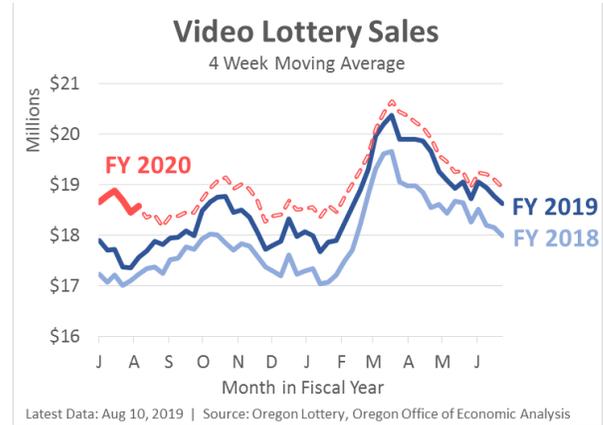
|                           |  | Alternative Cyclical Revenue Forecast (\$ millions) |        |            |        |            |        |            |        |            |        |
|---------------------------|--|---|--------|------------|--------|------------|--------|------------|--------|------------|--------|
|                           |  | 2017-19 BN  |        | 2019-21 BN |        | 2021-23 BN |        | 2023-25 BN |        | 2025-27 BN |        |
| Baseline Case             |  | FY '18  | FY '19 | FY '20     | FY '21 | FY '22     | FY '23 | FY '24     | FY '25 | FY '26     | FY '27 |
| <b>Personal Income</b>    |  |   |        |            |        |            |        |            |        |            |        |
| Level                     |  | 204.2   | 214.6  | 226.7      | 238.6  | 250.6      | 262.8  | 273.6      | 288.1  | 301.9      | 316.2  |
| % change                  |  | 5.1%  | 5.1%   | 5.6%       | 5.3%   | 5.0%       | 4.9%   | 4.1%       | 5.3%   | 4.8%       | 4.7%   |
| <b>Taxes</b>              |  |   |        |            |        |            |        |            |        |            |        |
| Personal Income           |  | 8,872   | 9,790  | 8,654      | 9,638  | 10,635     | 11,026 | 11,552     | 12,095 | 12,507     | 13,027 |
| Corporate Excise & Income |  | 739   | 927    | 695        | 575    | 618        | 666    | 702        | 741    | 801        | 843    |
| Other General Fund        |  | 633   | 706    | 693        | 856    | 692        | 708    | 725        | 741    | 760        | 778    |
| Total General Fund        |  | 10,244  | 11,423 | 10,043     | 11,070 | 11,945     | 12,400 | 12,979     | 13,577 | 14,068     | 14,648 |
| % change                  |  | 4.3%  | 11.5%  | -12.1%     | 10.2%  | 7.9%       | 3.8%   | 4.7%       | 4.6%   | 3.6%       | 4.1%   |
| <b>Moderate Recession</b> |  | FY '18  | FY '19 | FY '20     | FY '21 | FY '22     | FY '23 | FY '24     | FY '25 | FY '26     | FY '27 |
| <b>Personal Income</b>    |  |   |        |            |        |            |        |            |        |            |        |
| Level                     |  | 204.2   | 214.6  | 221.1      | 227.1  | 241.2      | 255.8  | 268.5      | 284.9  | 299.2      | 313.9  |
| % change                  |  | 5.1%  | 5.1%   | 3.0%       | 2.7%   | 6.2%       | 6.1%   | 4.9%       | 6.1%   | 5.0%       | 4.9%   |
| <b>Taxes</b>              |  |   |        |            |        |            |        |            |        |            |        |
| Personal Income           |  | 8,872   | 9,790  | 8,359      | 8,990  | 10,073     | 10,615 | 11,251     | 11,904 | 12,342     | 12,875 |
| Deviation from baseline   |  | 0   | 0      | -295       | -648   | -561       | -411   | -301       | -191   | -165       | -152   |
| Corporate Excise & Income |  | 739   | 927    | 661        | 520    | 572        | 630    | 676        | 724    | 787        | 831    |
| Deviation from baseline   |  | 0   | 0      | -34        | -55    | -47        | -35    | -26        | -17    | -14        | -12    |
| Other General Fund        |  | 633   | 706    | 693        | 856    | 692        | 708    | 725        | 741    | 760        | 778    |
| Total General Fund        |  | 10,244  | 11,423 | 9,713      | 10,366 | 11,337     | 11,954 | 12,652     | 13,369 | 13,888     | 14,484 |
| % change                  |  | 4.3%  | 11.5%  | -15.0%     | 6.7%   | 9.4%       | 5.4%   | 5.8%       | 5.7%   | 3.9%       | 4.3%   |
| Deviation from baseline   |  | 0   | 0      | -329       | -703   | -608       | -446   | -327       | -208   | -179       | -164   |
| Biennial Deviation        |  | 0   | 0      | -1,032     | -1,054 | -535       | -343   |            |        |            |        |
| <b>Severe Recession</b>   |  | FY '18  | FY '19 | FY '20     | FY '21 | FY '22     | FY '23 | FY '24     | FY '25 | FY '26     | FY '27 |
| <b>Personal Income</b>    |  |   |        |            |        |            |        |            |        |            |        |
| Level                     |  | 204.2   | 214.6  | 206.6      | 215.4  | 231.9      | 249.0  | 264.3      | 283.4  | 297.7      | 312.2  |
| % change                  |  | 5.1%  | 5.1%   | -3.8%      | 4.3%   | 7.7%       | 7.4%   | 6.1%       | 7.2%   | 5.0%       | 4.9%   |
| <b>Taxes</b>              |  |   |        |            |        |            |        |            |        |            |        |
| Personal Income           |  | 8,872   | 9,790  | 7,579      | 8,325  | 9,523      | 10,216 | 11,004     | 11,815 | 12,251     | 12,780 |
| Deviation from baseline   |  | 0   | 0      | -1,075     | -1,314 | -1,111     | -810   | -548       | -279   | -256       | -247   |
| Corporate Excise & Income |  | 739   | 927    | 572        | 463    | 526        | 596    | 654        | 716    | 778        | 822    |
| Deviation from baseline   |  | 0   | 0      | -123       | -112   | -92        | -70    | -48        | -24    | -22        | -21    |
| Other General Fund        |  | 633   | 706    | 693        | 856    | 692        | 708    | 725        | 741    | 760        | 778    |
| Total General Fund        |  | 10,244  | 11,423 | 8,845      | 9,644  | 10,742     | 11,520 | 12,384     | 13,273 | 13,789     | 14,380 |
| % change                  |  | 4.3%  | 11.5%  | -22.6%     | 9.0%   | 11.4%      | 7.2%   | 7.5%       | 7.2%   | 3.9%       | 4.3%   |
| Deviation from baseline   |  | 0   | 0      | -1,198     | -1,425 | -1,204     | -880   | -595       | -304   | -279       | -268   |
| Biennial Deviation        |  | 0   | 0      | -2,623     | -2,084 | -899       | -547   |            |        |            |        |

<sup>11</sup> The methodology for computing alternative scenarios has been changed to reflect recent work done by the Legislative Revenue Office. Assumptions: Recessions begin in 2019 and return to baseline income by 2026. The moderate recession scenario assumes personal income growth will be reduced by one-half relative to the baseline in 2019 and 2020. The severe recession scenario assumes personal income will decline in 2019 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.

when their annual tax return is due that we will have a complete look at the revenue, taxpayer behavior and the like. As data does become available, our office, in conjunction with our advisors and the Legislative Revenue Office will work together to better understand the revenue and its impact. Our office will update the outlook accordingly at that time.

### **Lottery Earnings**

While the underlying sales outlook for Lottery is largely unchanged relative to last forecast, available resources are raised due to the incorporation of Scoreboard, or Lottery’s forthcoming sports betting game for the first time in our office’s forecast. The game is set to launch in the coming months and is projected to generate \$8.3 million in available resources in 2019-21. These revenues are dedicated to the PERS Employer Incentive Fund per SB 1049 (2019). Total available resources in 2019-21 are revised higher by \$11.7 million when compared to the May forecast as video lottery sales have come in above expectations in recent weeks as well.



Longer term, sports betting is forecasted to generate \$29.4 million in 2021-23 and \$42.2 million 2023-25 for the Employer Incentive Fund. These estimates are highly uncertain and come from myriad assumptions about the size of the sports betting market overall, industry competition, player adoption rates, administrative costs and the like. The research team at Lottery provided the underlying estimates of the handle, gross gaming revenue and expenses. Our office worked to extend the analysis over the full forecast horizon and to translate the gaming revenue estimates into available resources.

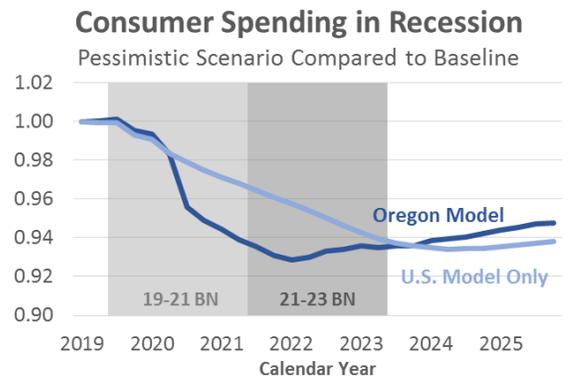
We also know that additional uncertainty arises from the volatility of revenues as wagers come in heavy on one team or another. For this reason, the forecast also assumes that Lottery will build reserves out of the sports betting revenue to help account for the expected volatility.

These figures have been discussed among the Lottery forecast advisory group and represent just a first step in incorporating sports betting revenue into the outlook. As actual sales data comes in, our office, along with the Oregon Lottery, Oregon Legislative Fiscal and Revenue Offices, and the state CFO’s office will discuss trends, issues and risks. We will update the outlook accordingly.

### **Lottery Outlook and Distributions**

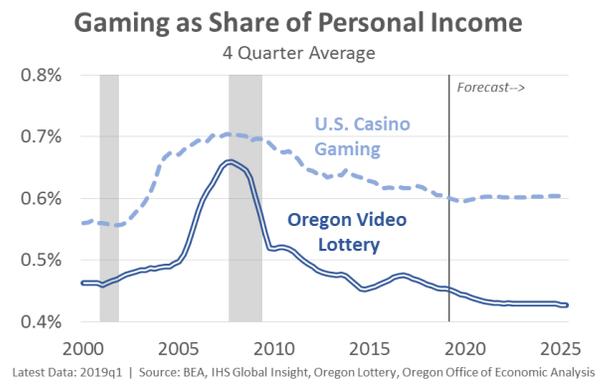
One ongoing issue to monitor is the ilani Casino Resort in southwest Washington. In analyzing casino trends elsewhere in the country, sales increase for a year or two after a new casino opens. Obviously ilani has been open longer than this today so the initial ramp-up period is likely over. There will be ongoing impacts at retailers along the Oregon-Washington border, however the biggest impact on statewide sales is likely in the rearview mirror. That said, the opening of the gaming floor is just phase one for ilani. Future expansions may include a buffet, and a hotel to attract overnight guests and make it more of a destination and not a day trip activity. In the event any of these options materialized, our office would reassess the impact on video lottery sales. Our office will continue to work the Lottery advisory group to monitor sales and discuss the outlook.

Given the uncertain economic outlook and discussions with the advisory group, our office went ahead and modeled the impacts a recession would have on video lottery spending in Oregon. Of course one can model myriad alternative scenarios, however this one starts with IHS Markit's pessimistic scenario of a mild to moderate recession. Our office then ran this through our economic and lottery models and compared the outcomes relative to the baseline.



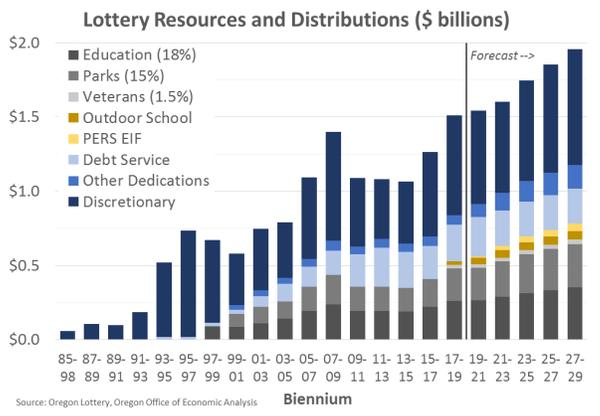
All told, there is a clear impact and a permanent reduction in sales over the forecast horizon amounting to around \$45 million per year (\$29 million in transfers). Consumer spending on recreational services in this scenario is not expected to return to the baseline. However, given that the baseline has ongoing growth built into it, the mild to moderate recession scenario really results in a couple of flat years for video lottery sales. At this point, they also just happen to split into 2019-21 and 2021-23. If this scenario comes to pass, overall lottery resources for both biennia will show growth, albeit slower growth than the baseline. And the more severe a recession is, the larger the impact on consumer spending.

Other big picture issues to watch include broader 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 10 years, consumers have remained cautious with their disposable income. Increases in spending on gaming have largely matched income growth at best.



Over the long-run our office expects increased competition for household entertainment dollars, increased competition within the gaming industry, and potentially shifts in generational preferences and tastes when it comes to gaming. As such, our outlook for video lottery sales is continued growth, however at a rate that is slightly slower than overall personal income growth. Lottery sales will continue to increase as Oregon's population and economy grows, however video lottery sales will likely be a slightly smaller slice of the overall pie.

Finally, in recent years Oregon voters approved two new 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), adjusted for inflation. The Veterans' Services Fund is set to receive 1.5 percent of net proceeds.



For more on the Lottery and overall gaming outlook, see our office's recent report<sup>12</sup>.

*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<sup>13</sup> (ORDF) and the Education Stability Fund<sup>14</sup> (ESF). This section updates balances and recalculates the outlook for these funds based on the May revenue forecast.

As of this forecast the two reserve funds currently total a combined \$1.29 billion. At the end of the upcoming 2019-21 biennium, they will total \$1.76 billion. Due to lower interest rates, the reserve funds' interest earnings outlook have been lowered over the forecast horizon.

The forecast for the ORDF includes one deposit for this biennium relating to the General Fund ending balance from the previous biennium (2017-19). A deposit of \$199.5 million is expected in early 2020 after the accountants close the books. The ORDF deposit relating to the increased corporate taxes from Measure 67 was made in June 2019. We had previously assumed it would occur during the 2019-21 biennium, however statute requires it to occur by the end of the biennium in which the revenues were received. All told, at the end of 2019-21 the ORDF will total \$902.4 million.

The forecast for the ESF calls for \$238.4 million in deposits during the 2019-21 biennium based on the current Lottery forecast. This would bring the ESF balance to \$858.1 million at the end of the current biennium.

Together, the ORDF and ESF are projected to have a combined balance of \$1.76 billion at the close of the 2019-21 biennium. Provided the General Fund ending balance remains unallocated, total effective reserves at the end of 2019-21 would total more than \$2.5 billion, or 12.2 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, such reserves would likely be just sufficient enough to withstand a typical recession's impact on state revenues, but not likely enough to account for the increase in public services and programs during downturns. That said, reserves of approximately 7 percent are generally accepted to withstand a medium sized recession. Oregon now has reached that threshold.

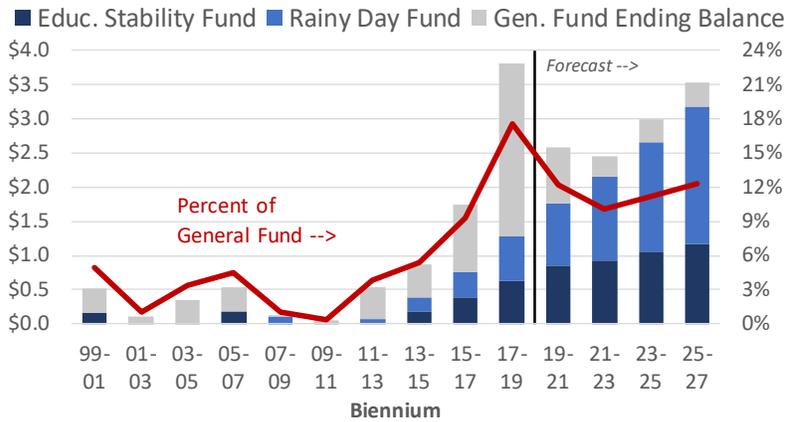
---

<sup>12</sup> <https://oregoneconomicanalysis.com/2019/02/13/lottery-and-gaming-outlook-2019/>

<sup>13</sup> 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.

<sup>14</sup> 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.

## Oregon Budgetary Reserves (billions)



Source: Oregon Office of Economic Analysis

## Effective Reserves (\$ millions)

|                   | End<br>2017-19   | End<br>2019-21   |
|-------------------|------------------|------------------|
| ESF               | \$621.1          | \$858.1          |
| RDF               | \$666.6          | \$902.4          |
| Reserves          | \$1,287.7        | \$1,760.5        |
| Ending<br>Balance | \$2,534.8        | \$819.8          |
| <b>Total</b>      | <b>\$3,747.1</b> | <b>\$2,580.3</b> |
| % of GF           | 17.2%            | 12.2%            |

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

## Recreational Marijuana Tax Collections

The baseline outlook for recreational marijuana remains largely unchanged relative to last quarter. Two minor adjustments to the outlook raise available resources by less than \$4 million in the 2019-21 biennium. The larger impact comes from stronger-than-expected sales in May and in July. The smaller impact comes from HB 5033 (2019) which increases the Department of Revenue's audit abilities and is expected to raise a modest amount of revenue via better tax compliance. This results in around \$0.2 million in additional marijuana revenue per year over the forecast horizon.

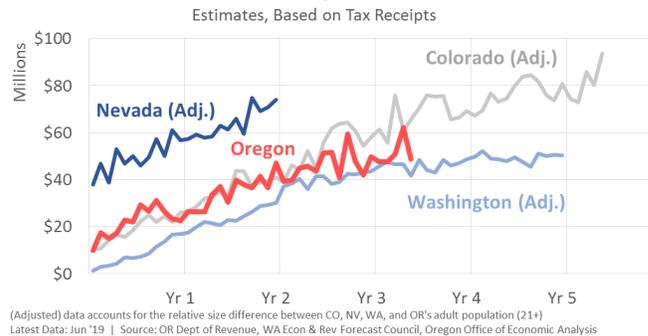
## Recent Market Trends and State Comparisons

Underlying sales and tax collections in recent quarters are matching forecast overall. That said, after strong growth in recent years, retail sales have slowed or even leveled off since late 2018 in many recreational states. That said, growth is ongoing on a year-over-year basis and more timely sales data indicates further gains, at least in Oregon and Colorado.

However, these relatively flat trends in total dollars spent masks important shifts taking place within the market. Shifts that have big implications for Oregon tax collections.

As discussed every quarter since our office began developing the recreational marijuana forecast, prices are a big risk to the outlook. Oregon levies its recreational marijuana tax based on the price of the product. As such if prices fall, then the state receives less tax revenue for every ounce sold, or every edible purchased. This is exactly what has happened. Over the past two years, recreational marijuana prices in Oregon have declined by at least 50 percent across various product types.

## Recreational Marijuana Sales Base



Actual tax collections have increased because the total quantity sold has more than tripled over the same time period. This increase in quantity sold is coming from multiple sources.

First, for normal products, as the price declines, consumers buy more as their dollar stretches further. A customer can now buy two ounces of usable marijuana for the same price as they bought one ounce previously.

Second, black and medical market conversions result in larger recreational sales. As a recent research report from OLCC<sup>15</sup> shows, recreational sales have increased from zero percent of Oregon’s total marijuana market a couple years ago to more than half today. Even if the total marijuana market is stagnant, consumers converting to legal, recreational sales would drive the quantity sold at OLCC-licensed retailers higher.

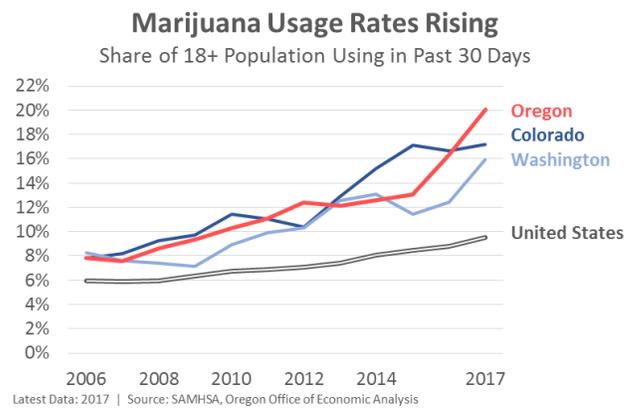
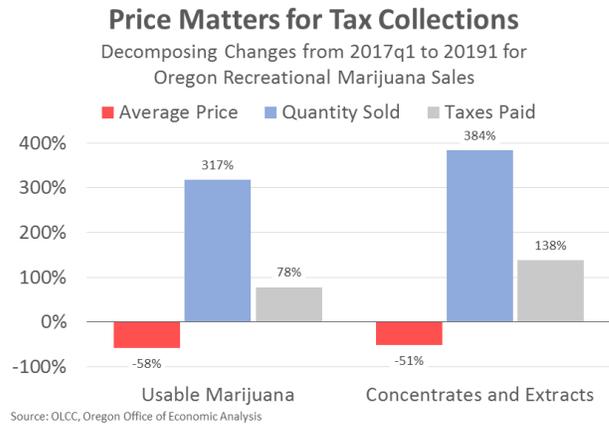
Third, an overall increase in consumption drives the quantity sold higher. This increase can come from existing users buying more and/or new customers entering into the market.

Based on the latest usage data, Oregon now leads the nation in the share of the adult population admitting to federal survey takers that they use marijuana on a regular basis. At 20%, marijuana usage now outstrips cigarette smoking (16%) in Oregon, but trails alcohol usage (60%). It is somewhat of an open question how much this surveyed increase in marijuana usage is truly an increase and how much is due to people being more willing to admit to usage now that it is legal at the state level. Over the long-run, just how high usage goes will determine the ultimate size of the marijuana industry in the state.

All told, lower prices *should* lead to higher volumes of sales, it is just indeterminate to know in advance whether the income or substitution effect will be larger. So far, it seems to be both are driving Oregon tax collections higher, even if in recent months they are closer to offsetting one another.

### Recreational Marijuana Outlook

In terms of the outlook, Oregon is poised for strong growth in the coming years. However, it remains highly uncertain with substantial upside and downside risks. These risks include not only usage rates and prices, as discussed above, but supply constraints and regulatory changes that impact the ability for product to reach consumers, in addition to potential actions by the federal government where marijuana remains a controlled substance and leakage into other states is a big concern.



<sup>15</sup>[https://www.oregon.gov/olcc/marijuana/Documents/Bulletins/2019%20Supply%20and%20Demand%20Legislative%20Report%20FINAL%20for%20Publication\(PDFA\).pdf](https://www.oregon.gov/olcc/marijuana/Documents/Bulletins/2019%20Supply%20and%20Demand%20Legislative%20Report%20FINAL%20for%20Publication(PDFA).pdf)

Long-term the real economic impact from recreational marijuana will come not from the growing and retailing, which are low-wage and low value-added market segments. It will come from higher value-added products like oils, creams, and edibles, in addition to niche, specialty strains. These developments, as economist Beau Whitney points out, would be somewhat similar to the emergence and growth of craft beer in recent decades. It is here, among the value-added manufacturing processes in addition to the building up of a broader cluster of suppliers and ancillary industries that Oregon will see the real economic impacts. Furthermore, the long-term potential of exporting Oregon products and business know-how to the rest of the country remains large, at least once marijuana is legalized nationwide. Such a scenario is still years away at least, but remains a big upside risk to the long-term outlook.

*See Table B.11 in Appendix B for a full breakdown of distributions for recreational marijuana tax collections. Note that these distributions are based on current law.*

## 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 and 2000 to 18th between 2000 and 2010. Oregon's national ranking, including D.C., in population growth rate was 12<sup>th</sup> between 2010 and 2018 lagging behind all of our 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 census 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. Population growth between 2017 and 2018 was 11<sup>th</sup> fastest in the nation. Due to this better than average growth on national scale, Oregon will most likely get an additional seat in the U.S. House of Representatives. Based on the current forecast, Oregon's population of 4.195 million in 2018 will reach 4.705 million in the year 2029 with an annual rate of growth of 1.0 percent between 2018 and 2029.

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 aging population, long-term growth comes mainly from net in-migration. Working-age adults come to Oregon as long as we have favorable economic and living conditions. 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 76 percent of the population change during the booming economy of early 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 registered at 89 percent in 2018 and will continue to rise throughout the forecast horizon. By 2029, all of the population growth and more in Oregon will come from the net migration due to the combination of continued high net migration, decline in the number of births, and the rise in the number of deaths. The natural increase of population, defined as the numbers of births minus deaths, will actually turn negative by the end of the forecast period due to the below replacement level fertility and increase in the number of deaths associated with the increase in the elderly population. With Oregon's favorable economic and environmental conditions, high level of net migration into Oregon will continue through the forecast horizon that will be solely responsible for Oregon's population growth.

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 forecast period of 2018-2029. It will also reflect demographics impacted by the depression era birth cohort combined with changing migration of working age population and elderly retirees through history. 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 2.9 percent

during the 2018-2029 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 4 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. This fast paced growth rate will taper off to negative growth by the end of the forecast period as a sign of end of the baby-boom generation transitioning to elderly age group. Reversing several years of slow growth and a period of 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 is starting to mature into 75-84 age group. Annual growth rate during the forecast period of 2018-2029 is expected to be unusually high 5.3 percent. The oldest elderly (aged 85+) will continue to grow at a slow but steady rate in the near future 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 2.9 percent. An unprecedented growth in oldest elderly will commence near the end of the forecast horizon as the fast growing 75-84 age group population transition into this oldest elderly age cohort. As a sign of massive demographic structure change of Oregon's population, starting in 2023 the number of elderly population will exceed the number of children under the age of 18. To illustrate the contrast, in 1980 elderly population numbered less than half of the number of children in Oregon.

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 has remained and will remain at slow or below zero growth phase for several years. The size of this older working-age population will see only a small increase by 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 but slow 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 (baby-bust) cohort being replaced by larger 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, but college enrollment typically goes up during the time of very competitive job market, 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 in the near future and will see negative growth for the rest of the forecast years. This will translate into slow growth or even decline in the school enrollments. On average for the forecast period, this school-age population will actually decline by -0.2 percent annually. 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. 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 the number of children actually decline over the forecast horizon. The number of working-age adults in general will show fast paced growth after the year 2023. Hence, based solely on demographics of Oregon, demand for public services geared towards children and young adults will likely to decline or 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 2018 are from the Population Research Center, Portland State University. The numbers of births through 2018 and the deaths through 2017 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 be 1.6 per woman in 2018 and this rate is projected to remain below the replacement level of 2.1 children per woman during the forecast period, tracking below the national rate.

Life Table survival rates are developed for the year 2010. Male and female life expectancies for the 2010-2029 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 79.4 years for males and 83.5 years for females by the year 2029.

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 2018 and 2029 is expected to remain in the range of 38,500 to 47,500, averaging 42,600 persons annually. In the recent past, slowdown in Oregon's economy 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. 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, limiting the potential destination choices. 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 aging population and decline in the number of births largely due to the decline in fertility rate.

APPENDIX A: ECONOMIC FORECAST DETAIL

|           |  |    |
|-----------|--|----|
| Table A.1 | Employment Forecast Tracking .....       | 36 |
| Table A.2 | Short-term Oregon Economic Summary ..... | 37 |
| Table A.3 | Oregon Economic Forecast Change .....    | 38 |
| Table A.4 | Annual Economic Forecast .....           | 39 |

Table A.1 – Employment Forecast Tracking

**Total Nonfarm Employment, 2nd quarter 2019**

(Employment in thousands, Annualized Percent Change)

|  | Preliminary Estimate |       | Forecast |       | Forecast Error |       | Y/Y Change |
|--|----------------------|-------|----------|-------|----------------|-------|------------|
|  | level                | % ch  | level    | % ch  | level          | %     | % ch       |
| <b>Total Nonfarm</b>                               | 1,939.6              | 1.4   | 1,948.2  | 2.0   | (8.6)          | (0.4) | 1.8        |
| <b>Total Private</b>                               | 1,640.7              | 1.5   | 1,649.1  | 2.1   | (8.4)          | (0.5) | 1.9        |
| <b>Mining and Logging</b>                          | 6.9                  | (7.8) | 7.2      | 1.4   | (0.4)          | (4.9) | (5.0)      |
| <b>Construction</b>                                | 109.8                | 6.7   | 109.3    | 1.3   | 0.4            | 0.4   | 5.3        |
| <b>Manufacturing</b>                               | 200.0                | 2.9   | 199.4    | 0.2   | 0.6            | 0.3   | 3.1        |
| <b>Durable Goods</b>                               | 138.1                | 1.4   | 138.7    | 0.0   | (0.6)          | (0.4) | 2.6        |
| <b>Wood Product</b>                                | 23.7                 | 1.7   | 23.5     | 0.1   | 0.3            | 1.1   | 1.4        |
| <b>Metals and Machinery</b>                        | 40.6                 | (0.3) | 40.1     | 0.3   | 0.4            | 1.0   | 4.1        |
| <b>Computer and Electronic Product</b>             | 38.5                 | 1.1   | 39.3     | (0.0) | (0.8)          | (2.1) | 2.0        |
| <b>Transportation Equipment</b>                    | 12.8                 | 9.3   | 12.4     | (1.9) | 0.4            | 3.1   | 6.4        |
| <b>Other Durable Goods</b>                         | 22.5                 | 0.8   | 23.3     | 0.7   | (0.8)          | (3.5) | 0.0        |
| <b>Nondurable Goods</b>                            | 61.9                 | 6.4   | 60.7     | 0.5   | 1.2            | 2.0   | 4.2        |
| <b>Food</b>  | 31.0                 | 9.1   | 30.2     | 0.7   | 0.8            | 2.5   | 3.4        |
| <b>Other Nondurable Goods</b>                      | 30.9                 | 3.8   | 30.5     | 0.3   | 0.5            | 1.5   | 4.9        |
| <b>Trade, Transportation &amp; Utilities</b>       | 355.9                | 0.6   | 357.4    | 1.6   | (1.5)          | (0.4) | 1.2        |
| <b>Retail Trade</b>                                | 210.6                | 0.7   | 212.4    | 1.0   | (1.8)          | (0.8) | (0.5)      |
| <b>Wholesale Trade</b>                             | 76.3                 | 0.9   | 75.6     | 2.0   | 0.6            | 0.8   | 1.3        |
| <b>Transportation, Warehousing &amp; Utilities</b> | 69.1                 | 0.1   | 69.4     | 2.8   | (0.4)          | (0.5) | 6.6        |
| <b>Information</b>                                 | 34.2                 | (0.8) | 34.0     | (0.6) | 0.2            | 0.6   | 0.5        |
| <b>Financial Activities</b>                        | 102.5                | (1.1) | 103.3    | 1.9   | (0.8)          | (0.8) | 0.3        |
| <b>Professional &amp; Business Services</b>        | 252.4                | (0.5) | 255.6    | 4.6   | (3.3)          | (1.3) | 1.7        |
| <b>Educational &amp; Health Services</b>           | 299.7                | 2.4   | 302.7    | 2.3   | (3.0)          | (1.0) | 1.9        |
| <b>Educational Services</b>                        | 36.7                 | 1.3   | 36.4     | (2.5) | 0.4            | 1.0   | 0.6        |
| <b>Health Services</b>                             | 263.0                | 2.6   | 266.4    | 3.0   | (3.4)          | (1.3) | 2.1        |
| <b>Leisure and Hospitality</b>                     | 214.6                | 2.2   | 215.8    | 2.7   | (1.2)          | (0.6) | 1.9        |
| <b>Other Services</b>                              | 64.7                 | 0.6   | 64.2     | 0.2   | 0.5            | 0.7   | 0.5        |
| <b>Government</b>                                  | 298.9                | 1.1   | 299.1    | 1.5   | (0.2)          | (0.1) | 1.3        |
| <b>Federal</b>                                     | 29.0                 | 9.8   | 28.0     | (0.4) | 1.0            | 3.5   | 3.6        |
| <b>State</b>                                       | 41.2                 | 1.6   | 40.7     | (3.4) | 0.5            | 1.2   | 3.4        |
| <b>State Education</b>                             | 0.8                  | 35.8  | 0.8      | 0.8   | 0.1            | 6.8   | 14.2       |
| <b>Local</b>                                       | 228.7                | 0.0   | 230.3    | 2.7   | (1.7)          | (0.7) | 0.7        |
| <b>Local Education</b>                             | 133.5                | (0.2) | 132.9    | (1.7) | 0.5            | 0.4   | 0.5        |

Table A.2 – Short-Term Oregon Economic Summary

|  | Quarterly |         |         |         |         | Annual  |         |         |         |         |         |
|--|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|  | 2019:2    | 2019:3  | 2019:4  | 2020:1  | 2020:2  | 2018    | 2019    | 2020    | 2021    | 2022    | 2023    |
| <b>Personal Income (\$ billions)</b>         |           |         |         |         |         |         |         |         |         |         |         |
| <b>Nominal Personal Income</b>               | 219.1     | 222.2   | 225.2   | 228.1   | 231.2   | 209.3   | 220.6   | 232.6   | 244.6   | 256.8   | 268.9   |
| % change                                     | 6.3       | 5.8     | 5.7     | 5.2     | 5.5     | 5.0     | 5.4     | 5.5     | 5.2     | 5.0     | 4.7     |
| <b>Real Personal Income (base year=2012)</b> | 199.7     | 201.5   | 203.1   | 204.6   | 206.5   | 193.4   | 200.6   | 207.3   | 213.8   | 220.0   | 226.0   |
| % change                                     | 3.7       | 3.6     | 3.2     | 3.1     | 3.8     | 2.9     | 3.7     | 3.4     | 3.1     | 2.9     | 2.7     |
| <b>Nominal Wages and Salaries</b>            | 110.9     | 112.8   | 114.4   | 116.0   | 117.8   | 106.3   | 111.9   | 118.5   | 124.8   | 131.2   | 137.5   |
| % change                                     | 5.5       | 6.7     | 6.0     | 5.8     | 6.2     | 5.1     | 5.3     | 5.9     | 5.4     | 5.1     | 4.8     |
| <b>Other Indicators</b>                      |           |         |         |         |         |         |         |         |         |         |         |
| <b>Per Capita Income (\$1,000)</b>           | 51.6      | 52.2    | 52.8    | 53.3    | 53.8    | 49.9    | 51.9    | 54.1    | 56.2    | 58.4    | 60.5    |
| % change                                     | 5.0       | 4.5     | 4.4     | 3.9     | 4.2     | 3.6     | 4.1     | 4.2     | 3.9     | 3.8     | 3.6     |
| <b>Average Wage rate (\$1,000)</b>           | 56.7      | 57.3    | 57.9    | 58.5    | 59.0    | 55.1    | 57.0    | 59.3    | 61.8    | 64.3    | 66.9    |
| % change                                     | 3.7       | 4.7     | 4.0     | 4.0     | 4.0     | 3.1     | 3.5     | 4.1     | 4.1     | 4.1     | 4.1     |
| <b>Population (Millions)</b>                 | 4.2       | 4.3     | 4.3     | 4.3     | 4.3     | 4.20    | 4.25    | 4.30    | 4.35    | 4.40    | 4.45    |
| % change                                     | 1.2       | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.2     | 1.2     | 1.2     | 1.1     | 1.1     |
| <b>Housing Starts (Thousands)</b>            | 21.6      | 21.8    | 21.9    | 22.2    | 22.4    | 19.7    | 21.5    | 22.5    | 23.4    | 24.0    | 23.7    |
| % change                                     | 23.5      | 4.0     | 2.1     | 5.4     | 3.4     | 2.1     | 9.3     | 4.9     | 4.0     | 2.2     | (1.3)   |
| <b>Unemployment Rate</b>                     | 4.2       | 4.4     | 4.4     | 4.4     | 4.4     | 4.1     | 4.3     | 4.4     | 4.7     | 4.9     | 4.9     |
| Point Change                                 | (0.2)     | 0.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.2     | 0.1     | 0.3     | 0.2     | 0.0     |
| <b>Employment (Thousands)</b>                |           |         |         |         |         |         |         |         |         |         |         |
| <b>Total Nonfarm</b>                         | 1,939.6   | 1,951.0 | 1,960.2 | 1,968.6 | 1,978.9 | 1,912.3 | 1,945.9 | 1,980.6 | 2,006.0 | 2,026.2 | 2,040.9 |
| % change                                     | 1.4       | 2.4     | 1.9     | 1.7     | 2.1     | 2.0     | 1.8     | 1.8     | 1.3     | 1.0     | 0.7     |
| <b>Private Nonfarm</b>                       | 1,640.7   | 1,650.9 | 1,659.3 | 1,666.3 | 1,672.6 | 1,617.3 | 1,646.4 | 1,676.2 | 1,698.9 | 1,716.0 | 1,728.2 |
| % change                                     | 1.5       | 2.5     | 2.1     | 1.7     | 1.5     | 3.3     | 1.8     | 1.8     | 1.4     | 1.0     | 0.7     |
| <b>Construction</b>                          | 109.8     | 109.7   | 110.0   | 110.3   | 110.6   | 105.3   | 109.4   | 110.8   | 112.3   | 112.9   | 113.7   |
| % change                                     | 6.7       | (0.1)   | 1.0     | 0.9     | 1.3     | 7.6     | 3.9     | 1.3     | 1.3     | 0.6     | 0.7     |
| <b>Manufacturing</b>                         | 200.0     | 200.4   | 200.6   | 200.5   | 200.1   | 195.2   | 199.9   | 200.1   | 200.0   | 200.8   | 201.4   |
| % change                                     | 2.9       | 0.8     | 0.3     | (0.2)   | (0.8)   | 2.8     | 2.4     | 0.1     | (0.0)   | 0.4     | 0.3     |
| <b>Durable Manufacturing</b>                 | 138.1     | 138.4   | 138.6   | 138.5   | 138.2   | 135.6   | 138.2   | 138.1   | 137.7   | 137.9   | 138.1   |
| % change                                     | 1.4       | 0.8     | 0.5     | (0.2)   | (0.9)   | 3.0     | 1.9     | (0.0)   | (0.3)   | 0.2     | 0.1     |
| Wood Product Manufacturing                   | 23.7      | 23.8    | 23.9    | 24.0    | 23.9    | 23.5    | 23.8    | 23.9    | 23.9    | 24.2    | 24.4    |
| % change                                     | 1.7       | 1.6     | 1.0     | 0.9     | (1.0)   | 2.4     | 1.2     | 0.4     | (0.1)   | 1.4     | 0.7     |
| High Tech Manufacturing                      | 38.5      | 38.9    | 39.0    | 39.1    | 38.9    | 38.0    | 38.7    | 38.9    | 38.8    | 38.8    | 38.6    |
| % change                                     | 1.1       | 4.8     | 0.7     | 1.3     | (2.0)   | 3.1     | 1.8     | 0.5     | (0.4)   | 0.2     | (0.5)   |
| Transportation Equipment                     | 12.8      | 12.7    | 12.8    | 12.5    | 12.5    | 12.2    | 12.7    | 12.4    | 12.2    | 12.2    | 12.3    |
| % change                                     | 9.3       | (3.6)   | 2.3     | (10.0)  | (0.1)   | 2.8     | 4.3     | (2.3)   | (1.6)   | 0.0     | 0.2     |
| <b>Nondurable Manufacturing</b>              | 61.9      | 62.0    | 62.0    | 62.0    | 61.9    | 59.6    | 61.7    | 61.9    | 62.3    | 62.9    | 63.3    |
| % change                                     | 6.4       | 0.6     | (0.0)   | (0.2)   | (0.6)   | 2.1     | 3.5     | 0.4     | 0.6     | 1.0     | 0.6     |
| <b>Private nonmanufacturing</b>              | 1,440.7   | 1,450.5 | 1,458.8 | 1,465.9 | 1,472.5 | 1,422.1 | 1,446.5 | 1,476.2 | 1,498.9 | 1,515.2 | 1,526.8 |
| % change                                     | 1.3       | 2.7     | 2.3     | 2.0     | 1.8     | 3.4     | 1.7     | 2.0     | 1.5     | 1.1     | 0.8     |
| Retail Trade                                 | 210.6     | 211.5   | 211.9   | 212.0   | 212.1   | 211.5   | 211.1   | 212.1   | 212.6   | 212.5   | 212.2   |
| % change                                     | 0.7       | 1.6     | 0.7     | 0.2     | 0.2     | 0.3     | (0.2)   | 0.5     | 0.2     | (0.1)   | (0.1)   |
| Wholesale Trade                              | 76.3      | 76.4    | 76.4    | 76.5    | 76.6    | 75.0    | 76.3    | 76.6    | 76.9    | 77.1    | 77.3    |
| % change                                     | 0.9       | 0.7     | 0.2     | 0.5     | 0.1     | 0.1     | 1.7     | 0.4     | 0.4     | 0.2     | 0.3     |
| <b>Information</b>                           | 34.2      | 34.6    | 34.6    | 34.8    | 34.9    | 34.4    | 34.4    | 34.9    | 35.0    | 34.7    | 34.8    |
| % change                                     | (0.8)     | 4.6     | 0.6     | 1.8     | 1.4     | 0.3     | 0.2     | 1.5     | 0.3     | (1.0)   | 0.2     |
| <b>Professional and Business Services</b>    | 252.4     | 256.3   | 259.8   | 262.9   | 265.1   | 249.7   | 255.3   | 266.7   | 276.6   | 283.0   | 286.6   |
| % change                                     | (0.5)     | 6.4     | 5.6     | 4.8     | 3.4     | 2.1     | 2.2     | 4.5     | 3.7     | 2.3     | 1.3     |
| <b>Health Services</b>                       | 263.0     | 264.9   | 266.9   | 268.9   | 270.9   | 258.9   | 264.0   | 271.7   | 278.3   | 284.1   | 289.5   |
| % change                                     | 2.6       | 3.0     | 3.0     | 3.0     | 2.9     | 9.3     | 2.0     | 2.9     | 2.4     | 2.1     | 1.9     |
| <b>Leisure and Hospitality</b>               | 214.6     | 216.7   | 218.5   | 219.8   | 221.4   | 211.2   | 215.8   | 221.9   | 224.1   | 226.7   | 228.4   |
| % change                                     | 2.2       | 4.0     | 3.4     | 2.4     | 2.9     | 2.3     | 2.2     | 2.8     | 1.0     | 1.1     | 0.7     |
| <b>Government</b>                            | 298.9     | 300.0   | 300.8   | 302.2   | 306.3   | 295.0   | 299.5   | 304.4   | 307.1   | 310.2   | 312.7   |
| % change                                     | 1.1       | 1.6     | 1.1     | 1.9     | 5.5     | (4.8)   | 1.5     | 1.7     | 0.9     | 1.0     | 0.8     |

Table A.3 – Oregon Economic Forecast Change

|  | Quarterly |         |         |         |         | Annual  |         |         |         |         |         |
|--|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|  | 2019:1    | 2019:2  | 2019:3  | 2019:4  | 2020:1  | 2018    | 2019    | 2020    | 2021    | 2022    | 2023    |
| <b>Personal Income (\$ billions)</b>         |           |         |         |         |         |         |         |         |         |         |         |
| <b>Nominal Personal Income</b>               | 219.1     | 222.2   | 225.2   | 228.1   | 231.2   | 209.3   | 220.6   | 232.6   | 244.6   | 256.8   | 268.9   |
| % change                                     | 0.6       | 0.6     | 0.6     | 0.5     | 0.4     | 0.1     | 0.5     | 0.4     | 0.3     | 0.3     | 0.5     |
| <b>Real Personal Income (base year=2012)</b> | 199.7     | 201.5   | 203.1   | 204.6   | 206.5   | 193.4   | 200.6   | 207.3   | 213.8   | 220.0   | 226.0   |
| % change                                     | 0.8       | 0.9     | 0.7     | 0.6     | 0.6     | 0.1     | 0.7     | 0.6     | 0.6     | 0.8     | 1.2     |
| <b>Nominal Wages and Salaries</b>            | 110.9     | 112.8   | 114.4   | 116.0   | 117.8   | 106.3   | 111.9   | 118.5   | 124.8   | 131.2   | 137.5   |
| % change                                     | (0.5)     | (0.4)   | (0.3)   | (0.3)   | (0.3)   | 0.2     | (0.4)   | (0.3)   | (0.4)   | (0.2)   | (0.1)   |
| <b>Other Indicators</b>                      |           |         |         |         |         |         |         |         |         |         |         |
| <b>Per Capita Income (\$1,000)</b>           | 51.6      | 52.2    | 52.8    | 53.3    | 53.8    | 49.9    | 51.9    | 54.1    | 56.2    | 58.4    | 60.5    |
| % change                                     | 0.6       | 0.6     | 0.6     | 0.5     | 0.4     | 0.1     | 0.5     | 0.4     | 0.3     | 0.3     | 0.5     |
| <b>Average Wage rate (\$1,000)</b>           | 56.7      | 57.3    | 57.9    | 58.5    | 59.0    | 55.1    | 57.0    | 59.3    | 61.8    | 64.3    | 66.9    |
| % change                                     | (0.2)     | (0.1)   | (0.1)   | (0.2)   | (0.2)   | 0.1     | (0.1)   | (0.2)   | (0.2)   | (0.2)   | (0.2)   |
| <b>Population (Millions)</b>                 | 4.24      | 4.25    | 4.27    | 4.3     | 4.3     | 4.20    | 4.25    | 4.30    | 4.35    | 4.40    | 4.45    |
| % change                                     | (0.0)     | (0.0)   | (0.0)   | (0.0)   | (0.0)   | 0.0     | (0.0)   | (0.0)   | (0.0)   | (0.0)   | (0.0)   |
| <b>Housing Starts (Thousands)</b>            | 21.6      | 21.8    | 21.9    | 22.2    | 22.4    | 19.7    | 21.5    | 22.5    | 23.4    | 24.0    | 23.7    |
| % change                                     | 4.4       | 3.7     | 3.2     | 4.1     | 4.1     | (0.2)   | 4.2     | 3.3     | 0.9     | 0.2     | (0.7)   |
| <b>Unemployment Rate</b>                     | 4.2       | 4.4     | 4.4     | 4.4     | 4.4     | 4.1     | 4.3     | 4.4     | 4.7     | 4.9     | 4.9     |
| Point Change                                 | (0.2)     | 0.0     | 0.0     | 0.0     | 0.0     | (0.0)   | (0.1)   | 0.0     | 0.0     | 0.0     | 0.0     |
| <b>Employment (Thousands)</b>                |           |         |         |         |         |         |         |         |         |         |         |
| <b>Total Nonfarm</b>                         | 1,939.6   | 1,951.0 | 1,960.2 | 1,968.6 | 1,978.9 | 1,912.3 | 1,945.9 | 1,980.6 | 2,006.0 | 2,026.2 | 2,040.9 |
| % change                                     | (0.4)     | (0.3)   | (0.2)   | (0.2)   | (0.1)   | 0.0     | (0.3)   | (0.2)   | (0.2)   | (0.1)   | 0.1     |
| <b>Private Nonfarm</b>                       | 1,640.7   | 1,650.9 | 1,659.3 | 1,666.3 | 1,672.6 | 1,617.3 | 1,646.4 | 1,676.2 | 1,698.9 | 1,716.0 | 1,728.2 |
| % change                                     | (0.5)     | (0.3)   | (0.2)   | (0.2)   | (0.2)   | 0.0     | (0.3)   | (0.2)   | (0.2)   | (0.1)   | 0.1     |
| <b>Construction</b>                          | 109.8     | 109.7   | 110.0   | 110.3   | 110.6   | 105.3   | 109.4   | 110.8   | 112.3   | 112.9   | 113.7   |
| % change                                     | 0.4       | 0.4     | 0.3     | 0.3     | 0.3     | 0.1     | 0.1     | 0.3     | 0.4     | 0.4     | 0.4     |
| <b>Manufacturing</b>                         | 200.0     | 200.4   | 200.6   | 200.5   | 200.1   | 195.2   | 199.9   | 200.1   | 200.0   | 200.8   | 201.4   |
| % change                                     | 0.3       | 0.5     | 0.6     | 0.6     | 0.6     | 0.0     | 0.3     | 0.6     | 0.9     | 0.8     | 0.8     |
| <b>Durable Manufacturing</b>                 | 138.1     | 138.4   | 138.6   | 138.5   | 138.2   | 135.6   | 138.2   | 138.1   | 137.7   | 137.9   | 138.1   |
| % change                                     | (0.4)     | (0.2)   | 0.0     | 0.0     | 0.0     | 0.0     | (0.3)   | 0.1     | 0.5     | 0.3     | 0.2     |
| Wood Product Manufacturing                   | 23.7      | 23.8    | 23.9    | 24.0    | 23.9    | 23.5    | 23.8    | 23.9    | 23.9    | 24.2    | 24.4    |
| % change                                     | 1.1       | 1.1     | 1.1     | 1.1     | 1.3     | 0.1     | 1.0     | 1.4     | 1.8     | 1.9     | 1.9     |
| High Tech Manufacturing                      | 38.5      | 38.9    | 39.0    | 39.1    | 38.9    | 38.0    | 38.7    | 38.9    | 38.8    | 38.8    | 38.6    |
| % change                                     | (2.1)     | (0.9)   | (0.5)   | (0.2)   | (0.5)   | 0.0     | (1.5)   | (0.4)   | (0.3)   | (1.0)   | (1.5)   |
| Transportation Equipment                     | 12.8      | 12.7    | 12.8    | 12.5    | 12.5    | 12.2    | 12.7    | 12.4    | 12.2    | 12.2    | 12.3    |
| % change                                     | 3.1       | 2.3     | 3.1     | 1.3     | 1.9     | 0.3     | 2.2     | 2.4     | 4.2     | 4.3     | 4.2     |
| <b>Nondurable Manufacturing</b>              | 61.9      | 62.0    | 62.0    | 62.0    | 61.9    | 59.6    | 61.7    | 61.9    | 62.3    | 62.9    | 63.3    |
| % change                                     | 2.0       | 2.1     | 1.9     | 1.9     | 1.8     | 0.0     | 1.6     | 1.8     | 1.8     | 1.8     | 2.0     |
| <b>Private nonmanufacturing</b>              | 1,440.7   | 1,450.5 | 1,458.8 | 1,465.9 | 1,472.5 | 1,422.1 | 1,446.5 | 1,476.2 | 1,498.9 | 1,515.2 | 1,526.8 |
| % change                                     | (0.6)     | (0.4)   | (0.3)   | (0.3)   | (0.3)   | 0.0     | (0.4)   | (0.3)   | (0.3)   | (0.2)   | (0.0)   |
| Retail Trade                                 | 210.6     | 211.5   | 211.9   | 212.0   | 212.1   | 211.5   | 211.1   | 212.1   | 212.6   | 212.5   | 212.2   |
| % change                                     | (0.8)     | (0.7)   | (0.7)   | (0.9)   | (0.9)   | 0.0     | (0.8)   | (1.0)   | (1.6)   | (1.9)   | (2.1)   |
| Wholesale Trade                              | 76.3      | 76.4    | 76.4    | 76.5    | 76.6    | 75.0    | 76.3    | 76.6    | 76.9    | 77.1    | 77.3    |
| % change                                     | 0.8       | 0.9     | 0.9     | 0.9     | 0.7     | (0.3)   | 0.9     | 0.7     | 0.4     | 0.5     | 0.8     |
| <b>Information</b>                           | 34.2      | 34.6    | 34.6    | 34.8    | 34.9    | 34.4    | 34.4    | 34.9    | 35.0    | 34.7    | 34.8    |
| % change                                     | 0.6       | 1.1     | 0.7     | 0.5     | 0.6     | 0.3     | 0.7     | 0.8     | 1.0     | 0.7     | 1.1     |
| <b>Professional and Business Services</b>    | 252.4     | 256.3   | 259.8   | 262.9   | 265.1   | 249.7   | 255.3   | 266.7   | 276.6   | 283.0   | 286.6   |
| % change                                     | (1.3)     | (0.9)   | (0.5)   | (0.5)   | (0.3)   | 0.2     | (0.7)   | (0.3)   | 0.0     | 0.2     | 0.2     |
| <b>Health Services</b>                       | 263.0     | 264.9   | 266.9   | 268.9   | 270.9   | 258.9   | 264.0   | 271.7   | 278.3   | 284.1   | 289.5   |
| % change                                     | (1.3)     | (1.2)   | (1.0)   | (0.8)   | (0.7)   | (0.2)   | (1.1)   | (0.8)   | (1.0)   | (0.8)   | (0.2)   |
| <b>Leisure and Hospitality</b>               | 214.6     | 216.7   | 218.5   | 219.8   | 221.4   | 211.2   | 215.8   | 221.9   | 224.1   | 226.7   | 228.4   |
| % change                                     | (0.6)     | (0.1)   | 0.1     | 0.0     | 0.2     | 0.0     | (0.3)   | 0.3     | 0.7     | 0.9     | 1.2     |
| <b>Government</b>                            | 298.9     | 300.0   | 300.8   | 302.2   | 306.3   | 295.0   | 299.5   | 304.4   | 307.1   | 310.2   | 312.7   |
| % change                                     | (0.1)     | (0.0)   | (0.1)   | (0.1)   | (0.1)   | 0.0     | (0.0)   | (0.1)   | (0.1)   | (0.1)   | (0.1)   |

Table A.4 – Annual Economic Forecast

**Sept 2019 - Personal Income**

(Billions of Current Dollars)

|  | 2017     | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     | 2024     | 2025     | 2026     | 2027     | 2028     |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Total Personal Income*</b>              |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 199.4    | 209.3    | 220.6    | 232.6    | 244.6    | 256.8    | 268.9    | 281.5    | 294.9    | 308.9    | 323.6    | 339.0    |
| % Ch                                       | 5.2      | 5.0      | 5.4      | 5.5      | 5.2      | 5.0      | 4.7      | 4.7      | 4.8      | 4.7      | 4.7      | 4.8      |
| U.S.                                       | 16,830.9 | 17,569.5 | 18,295.4 | 19,155.4 | 20,022.3 | 20,888.0 | 21,776.5 | 22,736.4 | 23,774.6 | 24,836.7 | 25,948.5 | 27,134.6 |
| % Ch                                       | 4.4      | 4.4      | 4.1      | 4.7      | 4.5      | 4.3      | 4.3      | 4.4      | 4.6      | 4.5      | 4.5      | 4.6      |
| <b>Wage and Salary</b>                     |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 101.1    | 106.3    | 111.9    | 118.5    | 124.8    | 131.2    | 137.5    | 144.1    | 151.0    | 158.2    | 165.6    | 173.4    |
| % Ch                                       | 5.5      | 5.1      | 5.3      | 5.9      | 5.4      | 5.1      | 4.8      | 4.8      | 4.8      | 4.7      | 4.7      | 4.7      |
| U.S.                                       | 8,453.8  | 8,821.3  | 9,143.6  | 9,558.0  | 9,985.3  | 10,432.5 | 10,884.2 | 11,369.7 | 11,911.9 | 12,478.0 | 13,058.0 | 13,669.8 |
| % Ch                                       | 4.6      | 4.3      | 3.7      | 4.5      | 4.5      | 4.5      | 4.3      | 4.5      | 4.8      | 4.8      | 4.6      | 4.7      |
| <b>Other Labor Income</b>                  |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 24.8     | 25.9     | 26.9     | 28.3     | 29.8     | 31.4     | 32.9     | 34.4     | 36.2     | 38.1     | 40.0     | 41.9     |
| % Ch                                       | 5.7      | 4.3      | 4.1      | 4.9      | 5.4      | 5.2      | 4.8      | 4.8      | 5.1      | 5.2      | 4.9      | 4.9      |
| U.S.                                       | 1,348.1  | 1,389.8  | 1,429.6  | 1,491.0  | 1,557.6  | 1,627.4  | 1,697.9  | 1,773.6  | 1,858.2  | 1,946.5  | 2,037.0  | 2,132.5  |
| % Ch                                       | 4.2      | 3.1      | 2.9      | 4.3      | 4.5      | 4.5      | 4.3      | 4.5      | 4.8      | 4.8      | 4.6      | 4.7      |
| <b>Nonfarm Proprietor's Income</b>         |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 17.6     | 18.6     | 19.2     | 19.5     | 19.7     | 19.9     | 20.1     | 20.5     | 21.2     | 22.0     | 23.0     | 24.0     |
| % Ch                                       | 13.3     | 5.7      | 3.1      | 1.6      | 1.2      | 1.0      | 1.1      | 1.9      | 3.1      | 4.1      | 4.4      | 4.3      |
| U.S.                                       | 1,462.0  | 1,541.8  | 1,582.9  | 1,599.7  | 1,616.8  | 1,633.7  | 1,651.6  | 1,677.6  | 1,709.4  | 1,748.0  | 1,803.4  | 1,873.1  |
| % Ch                                       | 5.8      | 5.5      | 2.7      | 1.1      | 1.1      | 1.0      | 1.1      | 1.6      | 1.9      | 2.3      | 3.2      | 3.9      |
| <b>Dividend, Interest and Rent</b>         |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 40.6     | 42.6     | 44.6     | 47.2     | 49.6     | 52.0     | 54.6     | 57.2     | 59.6     | 62.1     | 64.7     | 67.5     |
| % Ch                                       | 4.6      | 5.1      | 4.5      | 6.0      | 5.0      | 4.9      | 5.0      | 4.7      | 4.3      | 4.1      | 4.2      | 4.4      |
| U.S.                                       | 3,361.8  | 3,528.1  | 3,668.1  | 3,887.2  | 4,082.6  | 4,274.9  | 4,472.1  | 4,677.6  | 4,885.1  | 5,079.4  | 5,282.4  | 5,504.1  |
| % Ch                                       | 4.7      | 4.9      | 4.0      | 6.0      | 5.0      | 4.7      | 4.6      | 4.6      | 4.4      | 4.0      | 4.0      | 4.2      |
| <b>Transfer Payments</b>                   |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 37.7     | 39.6     | 42.7     | 44.8     | 47.2     | 50.0     | 52.7     | 55.6     | 58.5     | 61.6     | 64.8     | 68.1     |
| % Ch                                       | 2.6      | 4.9      | 7.9      | 4.9      | 5.5      | 5.8      | 5.5      | 5.4      | 5.3      | 5.2      | 5.2      | 5.1      |
| U.S.                                       | 2,804.0  | 2,920.0  | 3,115.8  | 3,274.6  | 3,435.6  | 3,607.7  | 3,799.4  | 4,004.0  | 4,216.1  | 4,432.6  | 4,658.6  | 4,891.9  |
| % Ch                                       | 3.2      | 4.1      | 6.7      | 5.1      | 4.9      | 5.0      | 5.3      | 5.4      | 5.3      | 5.1      | 5.1      | 5.0      |
| <b>Contributions for Social Security</b>   |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 17.9     | 19.0     | 19.9     | 20.7     | 21.7     | 22.6     | 23.7     | 24.8     | 26.1     | 27.3     | 28.5     | 29.7     |
| % Ch                                       | 7.5      | 5.9      | 4.6      | 4.3      | 4.5      | 4.4      | 4.8      | 4.8      | 4.9      | 4.6      | 4.4      | 4.5      |
| U.S.                                       | 693.3    | 729.1    | 759.7    | 789.2    | 820.9    | 855.5    | 891.0    | 929.8    | 973.3    | 1,019.0  | 1,066.1  | 1,115.9  |
| % Ch                                       | 5.3      | 5.2      | 4.2      | 3.9      | 4.0      | 4.2      | 4.2      | 4.4      | 4.7      | 4.7      | 4.6      | 4.7      |
| <b>Residence Adjustment</b>                |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | (4.7)    | (4.9)    | (5.1)    | (5.2)    | (5.3)    | (5.4)    | (5.6)    | (5.7)    | (5.9)    | (6.1)    | (6.3)    | (6.4)    |
| % Ch                                       | 3.4      | 4.0      | 3.5      | 2.1      | 2.0      | 2.2      | 2.5      | 3.0      | 3.1      | 2.7      | 3.2      | 3.0      |
| <b>Farm Proprietor's Income</b>            |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 0.4      | 0.3      | 0.3      | 0.3      | 0.4      | 0.3      | 0.3      | 0.3      | 0.3      | 0.3      | 0.3      | 0.3      |
| % Ch                                       | (35.9)   | (7.9)    | (15.7)   | 7.1      | 25.0     | (13.2)   | (11.0)   | 2.9      | 6.6      | 2.7      | 0.9      | 1.5      |
| <b>Per Capita Income (Thousands of \$)</b> |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                     | 48.2     | 49.9     | 51.9     | 54.1     | 56.2     | 58.4     | 60.5     | 62.6     | 65.0     | 67.4     | 70.0     | 72.7     |
| % Ch                                       | 3.5      | 3.6      | 4.1      | 4.2      | 3.9      | 3.8      | 3.6      | 3.6      | 3.7      | 3.7      | 3.8      | 3.9      |
| U.S.                                       | 51.7     | 53.6     | 55.4     | 57.6     | 59.8     | 62.0     | 64.2     | 66.6     | 69.1     | 71.8     | 74.5     | 77.4     |
| % Ch                                       | 3.7      | 3.7      | 3.4      | 4.0      | 3.8      | 3.6      | 3.5      | 3.7      | 3.9      | 3.8      | 3.8      | 3.9      |

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

**Sept 2019 - Employment By Industry  
(Oregon - Thousands, U.S. - Millions)**

|   | 2017    | 2018    | 2019    | 2020    | 2021    | 2022    | 2023    | 2024    | 2025    | 2026    | 2027    | 2028    |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Total Nonfarm</b>                        |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 1,875.3 | 1,912.3 | 1,945.9 | 1,980.6 | 2,006.0 | 2,026.2 | 2,040.9 | 2,055.6 | 2,072.1 | 2,086.4 | 2,099.0 | 2,112.6 |
| % Ch  | 2.3     | 2.0     | 1.8     | 1.8     | 1.3     | 1.0     | 0.7     | 0.7     | 0.8     | 0.7     | 0.6     | 0.6     |
| U.S.  | 146.6   | 149.1   | 151.4   | 152.9   | 153.9   | 154.6   | 155.1   | 155.7   | 156.5   | 157.3   | 158.1   | 158.9   |
| % Ch  | 1.6     | 1.7     | 1.5     | 1.0     | 0.6     | 0.5     | 0.3     | 0.4     | 0.5     | 0.5     | 0.5     | 0.5     |
| <b>Private Nonfarm</b>                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 1,565.5 | 1,617.3 | 1,646.4 | 1,676.2 | 1,698.9 | 1,716.0 | 1,728.2 | 1,740.3 | 1,753.8 | 1,764.9 | 1,773.9 | 1,783.9 |
| % Ch  | 2.5     | 3.3     | 1.8     | 1.8     | 1.4     | 1.0     | 0.7     | 0.7     | 0.8     | 0.6     | 0.5     | 0.6     |
| U.S.  | 124.3   | 126.6   | 128.8   | 130.1   | 131.0   | 131.6   | 131.9   | 132.3   | 133.0   | 133.7   | 134.3   | 135.0   |
| % Ch  | 1.8     | 1.9     | 1.7     | 1.0     | 0.7     | 0.4     | 0.2     | 0.3     | 0.5     | 0.5     | 0.5     | 0.5     |
| <b>Mining and Logging</b>                   |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 7.0     | 7.2     | 7.0     | 7.1     | 7.2     | 7.2     | 7.2     | 7.2     | 7.3     | 7.3     | 7.3     | 7.3     |
| % Ch  | (1.8)   | 3.2     | (3.3)   | 1.7     | 0.9     | 0.7     | 0.4     | 0.1     | 0.5     | 0.3     | 0.2     | 0.4     |
| U.S.  | 0.7     | 0.7     | 0.8     | 0.8     | 0.8     | 0.8     | 0.8     | 0.8     | 0.8     | 0.8     | 0.8     | 0.8     |
| % Ch  | 1.1     | 8.3     | 3.9     | 1.9     | 0.8     | 1.9     | 1.1     | 1.4     | 0.6     | (0.7)   | (0.4)   | (0.1)   |
| <b>Construction</b>                         |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 97.8    | 105.3   | 109.4   | 110.8   | 112.3   | 112.9   | 113.7   | 114.1   | 114.4   | 114.8   | 115.4   | 115.9   |
| % Ch  | 8.2     | 7.6     | 3.9     | 1.3     | 1.3     | 0.6     | 0.7     | 0.3     | 0.3     | 0.4     | 0.5     | 0.4     |
| U.S.  | 7.0     | 7.3     | 7.5     | 7.5     | 7.5     | 7.5     | 7.6     | 7.7     | 7.9     | 8.1     | 8.2     | 8.4     |
| % Ch  | 3.6     | 4.6     | 2.7     | 0.1     | (0.0)   | 0.6     | 0.8     | 1.4     | 2.1     | 2.3     | 2.1     | 2.0     |
| <b>Manufacturing</b>                        |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 190.0   | 195.2   | 199.9   | 200.1   | 200.0   | 200.8   | 201.4   | 201.6   | 202.1   | 202.8   | 203.3   | 203.6   |
| % Ch  | 0.9     | 2.8     | 2.4     | 0.1     | (0.0)   | 0.4     | 0.3     | 0.1     | 0.2     | 0.4     | 0.2     | 0.1     |
| U.S.  | 12.4    | 12.7    | 12.8    | 12.7    | 12.5    | 12.5    | 12.4    | 12.3    | 12.3    | 12.3    | 12.2    | 12.1    |
| % Ch  | 0.7     | 2.0     | 1.2     | (0.9)   | (1.4)   | (0.6)   | (0.5)   | (0.5)   | (0.4)   | (0.1)   | (0.7)   | (1.2)   |
| <b>Durable Manufacturing</b>                |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 131.6   | 135.6   | 138.2   | 138.1   | 137.7   | 137.9   | 138.1   | 138.1   | 138.3   | 138.8   | 139.0   | 139.0   |
| % Ch  | 0.3     | 3.0     | 1.9     | (0.0)   | (0.3)   | 0.2     | 0.1     | 0.0     | 0.2     | 0.3     | 0.1     | 0.0     |
| U.S.  | 7.7     | 7.9     | 8.1     | 8.0     | 7.9     | 7.8     | 7.8     | 7.7     | 7.7     | 7.7     | 7.7     | 7.5     |
| % Ch  | 0.3     | 2.7     | 1.5     | (0.7)   | (1.7)   | (0.9)   | (0.6)   | (0.5)   | (0.2)   | 0.1     | (0.7)   | (1.4)   |
| <b>Wood Products</b>                        |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 23.0    | 23.5    | 23.8    | 23.9    | 23.9    | 24.2    | 24.4    | 24.5    | 24.6    | 24.7    | 24.7    | 24.8    |
| % Ch  | 0.9     | 2.4     | 1.2     | 0.4     | (0.1)   | 1.4     | 0.7     | 0.5     | 0.5     | 0.3     | 0.2     | 0.3     |
| U.S.  | 0.4     | 0.4     | 0.4     | 0.4     | 0.5     | 0.5     | 0.5     | 0.5     | 0.5     | 0.5     | 0.5     | 0.5     |
| % Ch  | 1.1     | 2.4     | 1.9     | 4.9     | 3.5     | 4.3     | 2.1     | 0.3     | 2.0     | 2.4     | (0.3)   | (1.4)   |
| <b>Metal and Machinery</b>                  |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 37.4    | 39.3    | 40.4    | 39.7    | 39.2    | 38.8    | 38.9    | 39.2    | 39.5    | 39.7    | 39.7    | 39.7    |
| % Ch  | 1.9     | 5.1     | 2.9     | (1.7)   | (1.4)   | (0.9)   | 0.1     | 0.7     | 0.8     | 0.5     | 0.1     | (0.0)   |
| U.S.  | 2.9     | 3.0     | 3.0     | 3.0     | 2.9     | 2.9     | 3.0     | 3.0     | 3.0     | 3.0     | 2.9     | 2.9     |
| % Ch  | 0.1     | 3.1     | 1.6     | (0.2)   | (2.2)   | (0.1)   | 1.0     | 0.4     | (0.2)   | (0.0)   | (1.1)   | (2.0)   |
| <b>Computer and Electronic Products</b>     |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 36.9    | 38.0    | 38.7    | 38.9    | 38.8    | 38.8    | 38.6    | 38.2    | 37.9    | 37.7    | 37.6    | 37.5    |
| % Ch  | (2.4)   | 3.1     | 1.8     | 0.5     | (0.4)   | 0.2     | (0.5)   | (1.1)   | (0.9)   | (0.5)   | (0.4)   | (0.3)   |
| U.S.  | 1.0     | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     | 1.1     | 1.0     |
| % Ch  | (0.9)   | 1.6     | 1.9     | (1.3)   | (0.8)   | (0.1)   | 0.1     | 0.5     | 0.4     | (0.1)   | (0.5)   | (1.0)   |
| <b>Transportation Equipment</b>             |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 11.9    | 12.2    | 12.7    | 12.4    | 12.2    | 12.2    | 12.3    | 12.2    | 12.2    | 12.3    | 12.4    | 12.5    |
| % Ch  | (2.3)   | 2.8     | 4.3     | (2.3)   | (1.6)   | 0.0     | 0.2     | (0.4)   | (0.0)   | 1.0     | 0.9     | 0.7     |
| U.S.  | 1.6     | 1.7     | 1.7     | 1.7     | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     | 1.4     | 1.4     | 1.4     |
| % Ch  | 0.8     | 3.6     | 1.8     | (3.5)   | (2.7)   | (4.0)   | (5.0)   | (3.0)   | (1.1)   | 0.1     | (0.1)   | (0.8)   |
| <b>Other Durables</b>                       |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 22.6    | 22.7    | 22.6    | 23.2    | 23.7    | 23.8    | 24.0    | 24.0    | 24.2    | 24.4    | 24.5    | 24.5    |
| % Ch  | 3.4     | 0.3     | (0.3)   | 2.7     | 2.0     | 0.6     | 0.6     | 0.3     | 0.6     | 0.9     | 0.6     | (0.1)   |
| U.S.  | 2.2     | 2.2     | 2.2     | 2.3     | 2.3     | 2.3     | 2.3     | 2.2     | 2.2     | 2.3     | 2.2     | 2.2     |
| % Ch  | 0.9     | 1.8     | 1.1     | 1.1     | (0.7)   | 0.0     | 0.0     | (0.5)   | (0.0)   | 0.5     | (0.7)   | (1.3)   |
| <b>Nondurable Manufacturing</b>             |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 58.4    | 59.6    | 61.7    | 61.9    | 62.3    | 62.9    | 63.3    | 63.5    | 63.7    | 64.0    | 64.3    | 64.5    |
| % Ch  | 2.3     | 2.1     | 3.5     | 0.4     | 0.6     | 1.0     | 0.6     | 0.3     | 0.3     | 0.5     | 0.4     | 0.3     |
| U.S.  | 4.7     | 4.7     | 4.8     | 4.7     | 4.7     | 4.7     | 4.6     | 4.6     | 4.6     | 4.6     | 4.5     | 4.5     |
| % Ch  | 1.3     | 0.9     | 0.6     | (1.2)   | (0.9)   | (0.2)   | (0.3)   | (0.6)   | (0.7)   | (0.5)   | (0.6)   | (0.7)   |
| <b>Food Manufacturing</b>                   |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 29.8    | 29.9    | 30.9    | 31.2    | 31.6    | 32.0    | 32.2    | 32.3    | 32.3    | 32.5    | 32.6    | 32.8    |
| % Ch  | 2.2     | 0.6     | 3.0     | 1.2     | 1.2     | 1.2     | 0.6     | 0.3     | 0.2     | 0.5     | 0.5     | 0.4     |
| U.S.  | 1.6     | 1.6     | 1.6     | 1.6     | 1.7     | 1.7     | 1.7     | 1.7     | 1.7     | 1.8     | 1.8     | 1.8     |
| % Ch  | 2.7     | 1.3     | 1.2     | 0.6     | 0.9     | 1.7     | 1.4     | 1.0     | 0.7     | 0.8     | 0.5     | 0.1     |
| <b>Other Nondurable</b>                     |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 28.6    | 29.7    | 30.8    | 30.7    | 30.7    | 30.9    | 31.1    | 31.3    | 31.4    | 31.6    | 31.7    | 31.8    |
| % Ch  | 2.5     | 3.7     | 4.0     | (0.5)   | 0.1     | 0.8     | 0.6     | 0.4     | 0.5     | 0.5     | 0.3     | 0.3     |
| U.S.  | 3.1     | 3.1     | 3.1     | 3.1     | 3.0     | 3.0     | 2.9     | 2.9     | 2.8     | 2.8     | 2.8     | 2.7     |
| % Ch  | 0.6     | 0.7     | 0.3     | (2.2)   | (1.8)   | (1.2)   | (1.3)   | (1.5)   | (1.5)   | (1.3)   | (1.3)   | (1.2)   |
| <b>Trade, Transportation, and Utilities</b> |         |         |         |         |         |         |         |         |         |         |         |         |
| Oregon                                      | 349.0   | 352.2   | 356.4   | 357.9   | 358.7   | 358.8   | 358.8   | 359.4   | 360.1   | 360.3   | 360.5   | 360.4   |
| % Ch  | 2.0     | 0.9     | 1.2     | 0.4     | 0.2     | 0.0     | (0.0)   | 0.2     | 0.2     | 0.1     | 0.0     | (0.0)   |
| U.S.  | 27.4    | 27.7    | 27.8    | 27.7    | 27.6    | 27.3    | 27.1    | 26.9    | 26.7    | 26.7    | 26.6    | 26.5    |
| % Ch  | 0.7     | 0.9     | 0.6     | (0.5)   | (0.4)   | (0.8)   | (0.9)   | (0.9)   | (0.5)   | (0.2)   | (0.2)   | (0.3)   |

**Sept 2019 - Employment By Industry  
(Oregon - Thousands, U.S. - Millions)**

|  | 2017  | 2018   | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  |
|--|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Retail Trade</b>                                  |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 210.9 | 211.5  | 211.1 | 212.1 | 212.6 | 212.5 | 212.2 | 212.6 | 213.1 | 213.2 | 213.1 | 212.8 |
| % Ch   | 1.9   | 0.3    | (0.2) | 0.5   | 0.2   | (0.1) | (0.1) | 0.2   | 0.2   | 0.1   | (0.0) | (0.1) |
| U.S.   | 15.8  | 15.8   | 15.8  | 15.6  | 15.5  | 15.4  | 15.2  | 15.0  | 14.9  | 14.8  | 14.8  | 14.7  |
| % Ch   | 0.0   | (0.1)  | (0.3) | (1.0) | (0.7) | (1.1) | (1.1) | (1.1) | (0.9) | (0.5) | (0.2) | (0.2) |
| <b>Wholesale Trade</b>                               |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 75.0  | 75.0   | 76.3  | 76.6  | 76.9  | 77.1  | 77.3  | 77.5  | 77.6  | 77.7  | 77.8  | 78.0  |
| % Ch   | 1.4   | 0.1    | 1.7   | 0.4   | 0.4   | 0.2   | 0.3   | 0.2   | 0.2   | 0.1   | 0.1   | 0.2   |
| U.S.   | 5.8   | 5.9    | 5.9   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 5.9   | 5.9   | 5.9   |
| % Ch   | 0.5   | 0.7    | 1.6   | 0.5   | 0.3   | (0.1) | (0.3) | (0.1) | (0.1) | (0.1) | (0.0) | (0.6) |
| <b>Transportation and Warehousing, and Utilities</b> |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 63.1  | 65.7   | 69.1  | 69.1  | 69.2  | 69.2  | 69.3  | 69.3  | 69.4  | 69.4  | 69.5  | 69.6  |
| % Ch   | 3.3   | 4.0    | 5.2   | 0.1   | 0.1   | 0.0   | 0.0   | 0.1   | 0.1   | 0.0   | 0.1   | 0.1   |
| U.S.   | 5.7   | 6.0    | 6.1   | 6.1   | 6.1   | 6.0   | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   |
| % Ch   | 3.1   | 3.9    | 2.2   | (0.3) | (0.5) | (0.8) | (1.0) | (0.9) | (0.1) | 0.3   | (0.1) | (0.3) |
| <b>Information</b>                                   |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 34.2  | 34.4   | 34.4  | 34.9  | 35.0  | 34.7  | 34.8  | 34.9  | 34.8  | 34.8  | 34.8  | 34.8  |
| % Ch   | 1.9   | 0.3    | 0.2   | 1.5   | 0.3   | (1.0) | 0.2   | 0.4   | (0.1) | (0.1) | 0.1   | (0.0) |
| U.S.   | 2.8   | 2.8    | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.7   | 2.7   | 2.7   |
| % Ch   | 0.7   | 0.5    | (1.2) | (0.8) | 0.6   | (1.2) | 0.3   | 0.3   | (0.4) | (0.4) | (0.9) | (1.6) |
| <b>Financial Activities</b>                          |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 100.0 | 102.3  | 102.9 | 103.9 | 105.3 | 106.1 | 106.2 | 106.0 | 105.7 | 105.2 | 104.9 | 104.9 |
| % Ch   | 3.0   | 2.2    | 0.7   | 0.9   | 1.4   | 0.8   | 0.1   | (0.2) | (0.3) | (0.5) | (0.3) | 0.0   |
| U.S.   | 8.4   | 8.6    | 8.7   | 8.7   | 8.8   | 8.9   | 8.8   | 8.8   | 8.8   | 8.7   | 8.7   | 8.7   |
| % Ch   | 2.0   | 1.4    | 1.2   | 0.7   | 0.9   | 0.5   | (0.1) | (0.3) | (0.4) | (0.5) | (0.6) | (0.0) |
| <b>Professional and Business Services</b>            |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 244.6 | 249.7  | 255.3 | 266.7 | 276.6 | 283.0 | 286.6 | 291.3 | 297.9 | 303.1 | 306.8 | 311.8 |
| % Ch   | 2.2   | 2.1    | 2.2   | 4.5   | 3.7   | 2.3   | 1.3   | 1.7   | 2.3   | 1.7   | 1.2   | 1.6   |
| U.S.   | 20.5  | 21.0   | 21.5  | 22.5  | 23.1  | 23.4  | 23.6  | 24.0  | 24.5  | 25.0  | 25.4  | 25.8  |
| % Ch   | 2.0   | 2.4    | 2.5   | 4.4   | 2.8   | 1.4   | 0.9   | 1.6   | 2.3   | 1.9   | 1.4   | 1.6   |
| <b>Education and Health Services</b>                 |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 272.9 | 295.5  | 300.7 | 308.5 | 315.2 | 321.1 | 326.5 | 331.3 | 335.3 | 338.3 | 340.9 | 343.3 |
| % Ch   | 2.9   | 8.3    | 1.8   | 2.6   | 2.2   | 1.9   | 1.7   | 1.5   | 1.2   | 0.9   | 0.8   | 0.7   |
| U.S.   | 23.2  | 23.7   | 24.2  | 24.4  | 24.8  | 25.0  | 25.2  | 25.4  | 25.6  | 25.7  | 25.9  | 26.1  |
| % Ch   | 2.4   | 2.1    | 2.3   | 0.9   | 1.4   | 1.0   | 0.8   | 0.8   | 0.6   | 0.5   | 0.7   | 0.9   |
| <b>Educational Services</b>                          |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 36.0  | 36.6   | 36.6  | 36.7  | 36.9  | 37.0  | 37.0  | 37.1  | 37.1  | 37.2  | 37.2  | 37.2  |
| % Ch   | 0.9   | 1.5    | 0.1   | 0.3   | 0.4   | 0.2   | 0.2   | 0.2   | 0.2   | 0.0   | 0.0   | 0.0   |
| U.S.   | 3.7   | 3.7    | 3.8   | 3.7   | 3.7   | 3.6   | 3.5   | 3.4   | 3.4   | 3.3   | 3.3   | 3.3   |
| % Ch   | 2.8   | 1.6    | 1.4   | (1.8) | (1.7) | (2.1) | (2.1) | (1.8) | (1.7) | (1.5) | (1.3) | (1.0) |
| <b>Health Care and Social Assistance</b>             |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 236.8 | 258.9  | 264.0 | 271.7 | 278.3 | 284.1 | 289.5 | 294.2 | 298.1 | 301.2 | 303.8 | 306.1 |
| % Ch   | 3.2   | 9.3    | 2.0   | 2.9   | 2.4   | 2.1   | 1.9   | 1.6   | 1.3   | 1.0   | 0.9   | 0.8   |
| U.S.   | 19.5  | 19.9   | 20.4  | 20.7  | 21.1  | 21.4  | 21.7  | 22.0  | 22.2  | 22.4  | 22.6  | 22.8  |
| % Ch   | 2.4   | 2.1    | 2.4   | 1.4   | 1.9   | 1.5   | 1.3   | 1.2   | 1.0   | 0.8   | 1.0   | 1.1   |
| <b>Leisure and Hospitality</b>                       |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 206.4 | 211.2  | 215.8 | 221.9 | 224.1 | 226.7 | 228.4 | 229.7 | 231.2 | 232.7 | 234.4 | 235.9 |
| % Ch   | 3.3   | 2.3    | 2.2   | 2.8   | 1.0   | 1.1   | 0.7   | 0.6   | 0.7   | 0.7   | 0.7   | 0.7   |
| U.S.   | 16.1  | 16.4   | 16.8  | 17.2  | 17.3  | 17.6  | 17.8  | 17.9  | 17.9  | 18.0  | 18.0  | 18.2  |
| % Ch   | 2.5   | 1.9    | 2.7   | 2.2   | 0.8   | 1.6   | 1.0   | 0.6   | 0.2   | 0.2   | 0.5   | 0.8   |
| <b>Other Services</b>                                |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 63.5  | 64.4   | 64.6  | 64.4  | 64.5  | 64.7  | 64.7  | 64.9  | 65.1  | 65.5  | 65.7  | 66.0  |
| % Ch   | (0.6) | 1.4    | 0.4   | (0.3) | 0.2   | 0.3   | (0.0) | 0.3   | 0.4   | 0.6   | 0.3   | 0.5   |
| U.S.   | 5.8   | 5.8    | 5.9   | 5.9   | 5.8   | 5.8   | 5.8   | 5.7   | 5.7   | 5.7   | 5.7   | 5.7   |
| % Ch   | 1.4   | 1.3    | 1.3   | (0.9) | (0.4) | (0.6) | (0.7) | (0.5) | (0.3) | (0.1) | 0.2   | 0.4   |
| <b>Government</b>                                    |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 309.8 | 295.0  | 299.5 | 304.4 | 307.1 | 310.2 | 312.7 | 315.3 | 318.3 | 321.5 | 325.1 | 328.7 |
| % Ch   | 1.0   | (4.8)  | 1.5   | 1.7   | 0.9   | 1.0   | 0.8   | 0.8   | 1.0   | 1.0   | 1.1   | 1.1   |
| U.S.   | 22.4  | 22.4   | 22.6  | 22.8  | 22.9  | 23.0  | 23.2  | 23.4  | 23.5  | 23.7  | 23.8  | 24.0  |
| % Ch   | 0.5   | 0.4    | 0.5   | 1.3   | 0.2   | 0.7   | 0.7   | 0.7   | 0.7   | 0.6   | 0.6   | 0.6   |
| <b>Federal Government</b>                            |       |        |       |       |       |       |       |       |       |       |       |       |
| Oregon   | 28.2  | 28.1   | 28.6  | 29.7  | 28.4  | 28.4  | 28.3  | 28.3  | 28.2  | 28.2  | 28.1  | 28.1  |
| % Ch   | (0.2) | (0.4)  | 1.8   | 4.0   | (4.4) | (0.2) | (0.2) | (0.2) | (0.1) | (0.2) | (0.1) | (0.1) |
| U.S.   | 2.8   | 2.8    | 2.8   | 2.9   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   |
| % Ch   | 0.4   | (0.3)  | 0.6   | 4.6   | (4.2) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| <b>State Government, Oregon</b>                      |       |        |       |       |       |       |       |       |       |       |       |       |
| State Total  | 56.2  | 39.5   | 41.0  | 41.1  | 41.6  | 42.1  | 42.4  | 42.7  | 43.1  | 43.6  | 44.2  | 44.8  |
| % Ch   | 1.0   | (29.7) | 3.7   | 0.2   | 1.2   | 1.0   | 0.8   | 0.8   | 0.9   | 1.1   | 1.3   | 1.4   |
| State Education                                      | 0.8   | 0.8    | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   |
| % Ch   | 3.4   | 2.0    | 1.5   | 1.1   | (0.3) | (0.2) | (0.4) | 0.2   | 0.0   | (0.0) | 0.3   | 0.5   |
| <b>Local Government, Oregon</b>                      |       |        |       |       |       |       |       |       |       |       |       |       |
| Local Total  | 225.3 | 227.4  | 229.8 | 233.6 | 237.0 | 239.8 | 242.0 | 244.3 | 247.0 | 249.7 | 252.8 | 255.8 |
| % Ch   | 1.2   | 0.9    | 1.1   | 1.6   | 1.5   | 1.2   | 0.9   | 1.0   | 1.1   | 1.1   | 1.2   | 1.2   |
| Local Education                                      | 132.7 | 132.9  | 133.2 | 133.8 | 134.9 | 135.7 | 136.4 | 136.9 | 137.3 | 138.0 | 138.7 | 139.0 |
| % Ch   | 1.2   | 0.1    | 0.2   | 0.4   | 0.9   | 0.6   | 0.5   | 0.3   | 0.3   | 0.5   | 0.5   | 0.2   |

**Sept 2019 - Other Economic Indicators**

|  | 2017     | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     | 2024     | 2025     | 2026     | 2027     | 2028     |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>GDP (Bil of 2009 \$),</b>             |          |          |          |          |          |          |          |          |          |          |          |          |
| Chain Weight (in billions of \$)         | 18,050.7 | 18,566.4 | 19,047.6 | 19,394.9 | 19,725.9 | 20,047.1 | 20,365.6 | 20,750.7 | 21,188.7 | 21,624.0 | 22,066.3 | 22,542.9 |
| % Ch                                     | 2.2      | 2.9      | 2.6      | 1.8      | 1.7      | 1.6      | 1.6      | 1.9      | 2.1      | 2.1      | 2.0      | 2.2      |
| <b>Price and Wage Indicators</b>         |          |          |          |          |          |          |          |          |          |          |          |          |
| <b>GDP Implicit Price Deflator,</b>      |          |          |          |          |          |          |          |          |          |          |          |          |
| Chain Weight U.S., 2009=100              | 107.9    | 110.3    | 112.3    | 114.9    | 117.6    | 120.4    | 123.1    | 125.8    | 128.4    | 131.2    | 134.1    | 137.1    |
| % Ch                                     | 1.9      | 2.2      | 1.8      | 2.3      | 2.4      | 2.4      | 2.3      | 2.2      | 2.1      | 2.1      | 2.2      | 2.2      |
| <b>Personal Consumption Deflator,</b>    |          |          |          |          |          |          |          |          |          |          |          |          |
| Chain Weight U.S., 2009=100              | 106.1    | 108.2    | 110.0    | 112.2    | 114.4    | 116.7    | 119.0    | 121.3    | 123.7    | 126.2    | 128.7    | 131.4    |
| % Ch                                     | 1.8      | 2.0      | 1.6      | 2.0      | 2.0      | 2.0      | 2.0      | 1.9      | 2.0      | 2.0      | 2.1      | 2.1      |
| <b>CPI, Urban Consumers,</b>             |          |          |          |          |          |          |          |          |          |          |          |          |
| 1982-84=100                              |          |          |          |          |          |          |          |          |          |          |          |          |
| West Region, Urban Size A                | 254.7    | 263.3    | 270.7    | 277.3    | 284.0    | 291.0    | 297.9    | 305.0    | 312.2    | 319.7    | 327.5    | 335.6    |
| % Ch                                     | 2.8      | 3.3      | 2.8      | 2.5      | 2.4      | 2.4      | 2.4      | 2.4      | 2.4      | 2.4      | 2.4      | 2.5      |
| U.S.                                     | 245.1    | 251.1    | 255.9    | 261.4    | 267.1    | 273.0    | 278.9    | 285.0    | 291.1    | 297.5    | 304.2    | 311.1    |
| % Ch                                     | 2.1      | 2.4      | 1.9      | 2.2      | 2.2      | 2.2      | 2.2      | 2.2      | 2.2      | 2.2      | 2.2      | 2.3      |
| <b>Oregon Average Wage</b>               |          |          |          |          |          |          |          |          |          |          |          |          |
| Rate (Thous \$)                          | 53.4     | 55.1     | 57.0     | 59.3     | 61.8     | 64.3     | 66.9     | 69.6     | 72.4     | 75.4     | 78.4     | 81.7     |
| % Ch                                     | 3.2      | 3.1      | 3.5      | 4.1      | 4.1      | 4.1      | 4.1      | 4.0      | 4.0      | 4.0      | 4.1      | 4.1      |
| <b>U.S. Average Wage</b>                 |          |          |          |          |          |          |          |          |          |          |          |          |
| Wage Rate (Thous \$)                     | 57.7     | 59.2     | 60.4     | 62.5     | 64.9     | 67.5     | 70.2     | 73.0     | 76.1     | 79.3     | 82.6     | 86.0     |
| % Ch                                     | 3.0      | 2.6      | 2.1      | 3.5      | 3.8      | 4.0      | 4.0      | 4.1      | 4.2      | 4.2      | 4.1      | 4.1      |
| <b>Housing Indicators</b>                |          |          |          |          |          |          |          |          |          |          |          |          |
| <b>FHFA Oregon Housing Price Index</b>   |          |          |          |          |          |          |          |          |          |          |          |          |
| 1991 Q1=100                              | 394.3    | 425.4    | 438.8    | 454.0    | 471.2    | 489.4    | 508.6    | 528.1    | 547.5    | 567.4    | 588.0    | 608.8    |
| % Ch                                     | 8.1      | 7.9      | 3.2      | 3.4      | 3.8      | 3.9      | 3.9      | 3.8      | 3.7      | 3.6      | 3.6      | 3.5      |
| <b>FHFA National Housing Price Index</b> |          |          |          |          |          |          |          |          |          |          |          |          |
| 1991 Q1=100                              | 245.8    | 262.1    | 273.0    | 281.0    | 289.0    | 297.5    | 307.1    | 317.0    | 326.8    | 336.6    | 346.6    | 356.6    |
| % Ch                                     | 6.6      | 6.6      | 4.2      | 2.9      | 2.8      | 2.9      | 3.2      | 3.2      | 3.1      | 3.0      | 3.0      | 2.9      |
| <b>Housing Starts</b>                    |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon (Thous)                           | 19.3     | 19.7     | 21.5     | 22.5     | 23.4     | 24.0     | 23.7     | 23.9     | 23.4     | 23.3     | 23.0     | 22.8     |
| % Ch                                     | 1.6      | 2.1      | 9.3      | 4.9      | 4.0      | 2.2      | (1.3)    | 0.9      | (1.8)    | (0.7)    | (1.4)    | (0.6)    |
| U.S. (Millions)                          | 1.2      | 1.2      | 1.2      | 1.2      | 1.2      | 1.3      | 1.3      | 1.3      | 1.3      | 1.2      | 1.2      | 1.2      |
| % Ch                                     | 2.6      | 3.4      | (2.1)    | (0.6)    | 1.6      | 3.3      | (1.0)    | (0.4)    | 0.9      | (2.4)    | (3.3)    | (1.1)    |
| <b>Other Indicators</b>                  |          |          |          |          |          |          |          |          |          |          |          |          |
| <b>Unemployment Rate (%)</b>             |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                   | 4.1      | 4.1      | 4.3      | 4.4      | 4.7      | 4.9      | 4.9      | 4.9      | 4.9      | 4.9      | 4.9      | 4.9      |
| Point Change                             | (0.7)    | 0.0      | 0.2      | 0.1      | 0.3      | 0.2      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |
| U.S.                                     | 4.4      | 3.9      | 3.6      | 3.7      | 3.9      | 4.1      | 4.4      | 4.5      | 4.5      | 4.5      | 4.5      | 4.5      |
| Point Change                             | (0.5)    | (0.5)    | (0.3)    | 0.0      | 0.2      | 0.2      | 0.3      | 0.1      | (0.0)    | (0.0)    | 0.0      | 0.0      |
| <b>Industrial Production Index</b>       |          |          |          |          |          |          |          |          |          |          |          |          |
| U.S, 2002 = 100                          | 104.4    | 108.6    | 109.7    | 110.7    | 111.7    | 112.7    | 113.6    | 115.0    | 117.0    | 119.0    | 121.0    | 123.3    |
| % Ch                                     | 2.3      | 3.9      | 1.1      | 1.0      | 0.9      | 0.9      | 0.8      | 1.3      | 1.7      | 1.7      | 1.7      | 1.9      |
| <b>Prime Rate (Percent)</b>              |          |          |          |          |          |          |          |          |          |          |          |          |
| % Ch                                     | 4.1      | 4.9      | 5.4      | 5.3      | 5.5      | 5.5      | 5.7      | 5.7      | 5.7      | 5.7      | 5.7      | 5.7      |
| % Ch                                     | 16.7     | 19.7     | 9.9      | (1.3)    | 3.3      | (0.0)    | 4.2      | 0.3      | 0.0      | 0.0      | (0.0)    | (0.0)    |
| <b>Population (Millions)</b>             |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                   | 4.14     | 4.20     | 4.25     | 4.30     | 4.35     | 4.40     | 4.45     | 4.49     | 4.54     | 4.58     | 4.63     | 4.67     |
| % Ch                                     | 1.6      | 1.3      | 1.2      | 1.2      | 1.2      | 1.1      | 1.1      | 1.1      | 1.0      | 1.0      | 0.9      | 0.9      |
| U.S.                                     | 325.7    | 327.7    | 330.1    | 332.4    | 334.7    | 337.1    | 339.4    | 341.6    | 343.9    | 346.1    | 348.3    | 350.5    |
| % Ch                                     | 0.6      | 0.6      | 0.7      | 0.7      | 0.7      | 0.7      | 0.7      | 0.7      | 0.7      | 0.6      | 0.6      | 0.6      |
| <b>Timber Harvest (Mil Bd Ft)</b>        |          |          |          |          |          |          |          |          |          |          |          |          |
| Oregon                                   | 3,692.1  | 3,619.9  | 3,568.4  | 3,654.9  | 3,706.3  | 3,790.9  | 3,828.8  | 3,847.6  | 3,906.0  | 3,910.4  | 3,914.7  | 3,916.7  |
| % Ch                                     | (1.9)    | (2.0)    | (1.4)    | 2.4      | 1.4      | 2.3      | 1.0      | 0.5      | 1.5      | 0.1      | 0.1      | 0.1      |

## APPENDIX B: REVENUE FORECAST DETAIL

|            |  |    |
|------------|--|----|
| Table B.1a | General Fund Revenue Statement – 2017-19 .....                           | 44 |
| Table B.1b | General Fund Revenue Statement – 2019-21 Close of Session .....          | 45 |
| Table B.1c | General Fund Revenue Statement – 2019-21 .....                           | 46 |
| Table B.2  | General Fund Revenue Forecast by Fiscal Year .....                       | 47 |
| Table B.3  | Summary of 2019 Legislative Session Adjustments .....                    | 48 |
| Table B.4  | Oregon Personal Income Tax Revenue Forecast .....                        | 49 |
| Table B.5  | Oregon Corporate Income Tax Revenue Forecast .....                       | 51 |
| Table B.6  | Cigarette and Tobacco Tax Distribution .....                             | 53 |
| Table B.7  | Liquor Apportionment and Revenue Distribution to Local Governments ..... | 54 |
| Table B.8  | Track Record for the May 2019 Forecast .....                             | 55 |
| Table B.9  | Summary of Lottery Resources .....                                       | 56 |
| Table B.10 | Budgetary Reserve Summary .....  | 57 |
| Table B.11 | Recreational Marijuana Resources and Distributions .....                 | 58 |
| Table B.12 | Fund for Student Success (Corporate Activity Tax) .....                  | 59 |

Table B.1a General Fund Revenue Statement

Table B.1a

General Fund Revenue Statement -- 2017-19

|  | Estimate at<br>COS 2017 | Forecasts Dated: 5/15/2019 |                |                  | Forecasts Dated: 9/1/2019 |                |                  | Difference                   |                       |
|--|-------------------------|----------------------------|----------------|------------------|---------------------------|----------------|------------------|------------------------------|-----------------------|
|  |                         | 2017-18                    | 2018-19        | Total<br>2017-19 | 2017-18                   | 2018-19        | Total<br>2017-19 | 09/1/2019 Less<br>05/15/2019 | 09/1/2019 Less<br>COS |
| <b>Taxes</b>                             |                         |                            |                |                  |                           |                |                  |                              |                       |
| Personal Income Taxes                    | 17,147,386,000          | 8,860,793,000              | 9,726,251,000  | 18,587,044,000   | 8,893,055,000             | 9,812,082,000  | 18,705,137,000   | 118,093,000                  | 1,557,751,000         |
| Film and Video and Transfer to Counties  | (32,956,000)            | (20,576,000)               | (21,670,000)   | (42,246,000)     | (20,576,000)              | (21,670,000)   | (42,246,000)     | 0                            | (9,290,000)           |
| Corporate Income Taxes                   | 1,076,977,000           | 736,786,000                | 956,082,000    | 1,692,868,000    | 754,980,000               | 997,769,000    | 1,752,749,000    | 59,881,000                   | 675,772,000           |
| Transfer to Rainy Day Fund (Minimum Tax) | (42,504,000)            | (16,183,000)               | (65,934,000)   | (82,117,000)     | (16,183,000)              | (71,100,000)   | (87,283,000)     | (5,166,000)                  | (44,779,000)          |
| Insurance Taxes                          | 129,852,000             | 76,748,000                 | 72,838,000     | 149,586,000      | 76,748,000                | 83,516,000     | 160,264,000      | 10,678,000                   | 30,412,000            |
| Estate Taxes                             | 290,015,000             | 176,453,000                | 185,232,000    | 361,685,000      | 176,453,000               | 204,734,000    | 381,187,000      | 19,502,000                   | 91,172,000            |
| Cigarette Taxes                          | 67,837,000              | 33,743,000                 | 32,593,000     | 66,336,000       | 33,743,000                | 31,855,000     | 65,598,000       | (738,000)                    | (2,239,000)           |
| Other Tobacco Products Taxes             | 66,329,000              | 32,424,000                 | 31,988,000     | 64,412,000       | 32,424,000                | 31,173,000     | 63,597,000       | (815,000)                    | (2,732,000)           |
| Other Taxes                              | 1,676,000               | 891,000                    | 833,000        | 1,724,000        | 891,000                   | 1,084,000      | 1,975,000        | 251,000                      | 299,000               |
| <b>Fines and Fees</b>                    |                         |                            |                |                  |                           |                |                  |                              |                       |
| State Court Fees                         | 114,733,000             | 59,623,000                 | 63,505,000     | 123,128,000      | 59,623,000                | 64,895,000     | 124,518,000      | 1,390,000                    | 9,785,000             |
| Secretary of State Fees                  | 64,707,000              | 35,773,000                 | 35,339,000     | 71,112,000       | 35,773,000                | 37,709,000     | 73,482,000       | 2,370,000                    | 8,775,000             |
| Criminal Fines & Assessments             | 66,796,000              | 19,422,000                 | 20,193,000     | 39,615,000       | 19,422,000                | 18,338,000     | 37,760,000       | (1,855,000)                  | (29,036,000)          |
| Securities Fees                          | 23,008,000              | 11,488,000                 | 12,082,000     | 23,570,000       | 11,488,000                | 11,763,000     | 23,251,000       | (319,000)                    | 243,000               |
| <b>Central Service Charges</b>           | 10,876,000              | 5,438,000                  | 5,438,000      | 10,876,000       | 5,438,000                 | 5,438,000      | 10,876,000       | 0                            | 0                     |
| <b>Liquor Apportionment</b>              | 326,090,000             | 142,612,000                | 150,293,000    | 292,905,000      | 142,612,000               | 151,767,000    | 294,379,000      | 1,474,000                    | (31,711,000)          |
| <b>Interest Earnings</b>                 | 35,279,000              | 30,171,000                 | 48,874,000     | 79,045,000       | 30,171,000                | 57,011,000     | 87,182,000       | 8,137,000                    | 51,903,000            |
| <b>Miscellaneous Revenues</b>            | 19,027,000              | 5,089,000                  | 6,000,000      | 11,089,000       | 5,089,000                 | 5,099,000      | 10,188,000       | (901,000)                    | (8,839,000)           |
| <b>One-time Transfers</b>                | 111,340,000             | 3,125,000                  | 0              | 3,125,000        | 3,125,000                 | 1,895,000      | 5,020,000        | 1,895,000                    | (106,320,000)         |
| <b>Gross General Fund Revenues</b>       | 19,551,928,000          | 10,230,579,000             | 11,347,541,000 | 21,578,120,000   | 10,281,035,000            | 11,516,128,000 | 21,797,163,000   | 219,043,000                  | 2,245,235,000         |
| Total Personal and Corporate Transfers   | (75,460,000)            | (36,759,000)               | (87,604,000)   | (124,363,000)    | (36,759,000)              | (92,770,000)   | (129,529,000)    | (5,166,000)                  | (54,069,000)          |
| <b>Net General Fund Revenues</b>         | 19,476,468,000          | 10,193,820,000             | 11,259,937,000 | 21,453,757,000   | 10,244,276,000            | 11,423,358,000 | 21,667,634,000   | 213,877,000                  | 2,191,166,000         |
| <b>Plus Beginning Balance</b>            | 780,836,010             |                            |                | 1,000,385,138    |                           |                | 1,000,385,138    | 0                            | 219,549,128           |
| Less Anticipated Administrative Actions* | (21,472,000)            |                            |                | (10,369,772)     |                           |                | (10,369,772)     | 0                            | 11,102,228            |
| Less Legislatively Adopted Actions**     | (180,120,396)           |                            |                | (179,424,096)    |                           |                | (179,424,096)    | 0                            | 696,300               |
| <b>Available Resources</b>               | 20,055,711,615          |                            |                | 22,264,348,270   |                           |                | 22,478,225,270   | 213,877,000                  | 2,422,513,656         |
| Appropriations                           | 19,858,800,000          |                            |                | 19,942,703,408   |                           |                | 19,945,903,558   | 3,200,150                    | 87,103,558            |
| <b>Estimated Ending Balance</b>          | 196,911,615             |                            |                | 2,321,644,862    |                           |                | 2,532,321,712    | 210,676,850                  | 2,335,410,098         |

Table B.1b General Fund Revenue Statement

Table B.1b

General Fund Revenue Statement -- 2019-21 -- Close of Session

|  | Forecasts Dated: 5/15/2019 |                |                  | Forecasts Dated: Close of Session |                |                  | Difference                  |
|--|----------------------------|----------------|------------------|-----------------------------------|----------------|------------------|-----------------------------|
|  | 2019-20                    | 2020-21        | Total<br>2019-21 | 2019-20                           | 2020-21        | Total<br>2019-21 | COS 2019 Less<br>05/15/2019 |
| <b>Taxes</b>                             |                            |                |                  |                                   |                |                  |                             |
| Personal Income Taxes                    | 8,731,368,000              | 9,973,700,000  | 18,705,068,000   | 8,534,499,000                     | 9,749,009,000  | 18,283,508,000   | (421,560,000)               |
| Film and Video and Transfer to Counties  | (22,230,000)               | (23,032,000)   | (45,262,000)     | (22,230,000)                      | (23,032,000)   | (45,262,000)     | 0                           |
| Corporate Income Taxes                   | 614,871,000                | 630,913,000    | 1,245,784,000    | 580,370,040                       | 610,434,960    | 1,190,805,000    | (54,979,000)                |
| Transfer to Rainy Day Fund & PERS UAL    | (101,500,000)              | (56,754,000)   | (158,254,000)    | (101,500,000)                     | (56,754,000)   | (158,254,000)    | 0                           |
| Insurance Taxes                          | 72,778,000                 | 74,646,000     | 147,424,000      | 72,778,000                        | 59,785,000     | 132,563,000      | (14,861,000)                |
| Estate Taxes                             | 176,354,000                | 184,835,000    | 361,189,000      | 176,354,000                       | 184,835,000    | 361,189,000      | 0                           |
| Cigarette Taxes                          | 32,663,000                 | 32,335,000     | 64,998,000       | 32,663,000                        | 32,335,000     | 64,998,000       | 0                           |
| Other Tobacco Products Taxes             | 33,053,000                 | 33,481,000     | 66,534,000       | 33,053,000                        | 33,481,000     | 66,534,000       | 0                           |
| Other Taxes                              | 823,000                    | 813,000        | 1,636,000        | 823,000                           | 813,000        | 1,636,000        | 0                           |
| <b>Fines and Fees</b>                    |                            |                |                  |                                   |                |                  |                             |
| State Court Fees                         | 61,797,000                 | 61,962,000     | 123,759,000      | 69,281,000                        | 69,449,000     | 138,730,000      | 14,971,000                  |
| Secretary of State Fees                  | 35,392,000                 | 35,445,000     | 70,837,000       | 35,392,000                        | 35,445,000     | 70,837,000       | 0                           |
| Criminal Fines & Assessments             | 19,267,000                 | 19,267,000     | 38,534,000       | 25,874,000                        | 25,874,000     | 51,748,000       | 13,214,000                  |
| Securities Fees                          | 13,512,000                 | 13,757,000     | 27,269,000       | 13,512,000                        | 13,757,000     | 27,269,000       | 0                           |
| <b>Central Service Charges</b>           | 5,438,000                  | 5,438,000      | 10,876,000       | 5,188,000                         | 5,188,000      | 10,376,000       | (500,000)                   |
| <b>Liquor Apportionment</b>              | 164,802,000                | 178,535,000    | 343,337,000      | 167,298,000                       | 181,239,000    | 348,537,000      | 5,200,000                   |
| <b>Interest Earnings</b>                 | 51,477,000                 | 51,488,000     | 102,965,000      | 51,477,000                        | 51,488,000     | 102,965,000      | 0                           |
| <b>Miscellaneous Revenues</b>            | 6,500,000                  | 7,000,000      | 13,500,000       | 6,500,000                         | 7,000,000      | 13,500,000       | 0                           |
| <b>One-time Transfers</b>                | 0                          | 0              | 0                | 0                                 | 155,200,000    | 155,200,000      | 155,200,000                 |
| <b>Gross General Fund Revenues</b>       | 10,020,095,000             | 11,303,615,000 | 21,323,710,000   | 9,805,062,040                     | 11,215,332,960 | 21,020,395,000   | (303,315,000)               |
| Total Personal and Corporate Transfers   | (123,730,000)              | (79,786,000)   | (203,516,000)    | (123,730,000)                     | (79,786,000)   | (203,516,000)    | 0                           |
| <b>Net General Fund Revenues</b>         | 9,896,365,000              | 11,223,829,000 | 21,120,194,000   | 9,681,332,040                     | 11,135,546,960 | 20,816,879,000   | (303,315,000)               |
| <b>Plus Beginning Balance</b>            |                            |                | 2,321,644,862    |                                   |                | 2,318,444,712    | (3,200,150)                 |
| Less Anticipated Administrative Actions* |                            |                | (21,472,000)     |                                   |                | (21,472,000)     | 0                           |
| Less Legislatively Adopted Actions**     |                            |                | (199,427,034)    |                                   |                | (199,459,036)    | (32,002)                    |
| <b>Available Resources</b>               |                            |                | 23,220,939,828   |                                   |                | 22,914,392,677   | (306,547,151)               |
| Appropriations                           |                            |                | NA               |                                   |                | 22,409,455,625   | NA                          |
| <b>Estimated Ending Balance</b>          |                            |                | NA               |                                   |                | 504,937,052      | NA                          |

Table B.1c General Fund Revenue Statement

Table B.1c

General Fund Revenue Statement -- 2019-21

|  | Estimate at<br>COS 2019 | Forecasts Dated: 5/15/2019 |                |                  | Forecasts Dated: 9/1/2019 |                |                  | Difference                   |                       |
|--|-------------------------|----------------------------|----------------|------------------|---------------------------|----------------|------------------|------------------------------|-----------------------|
|  |                         | 2019-20                    | 2020-21        | Total<br>2019-21 | 2019-20                   | 2020-21        | Total<br>2019-21 | 09/1/2019 Less<br>05/15/2019 | 09/1/2019 Less<br>COS |
| <b>Taxes</b>                             |                         |                            |                |                  |                           |                |                  |                              |                       |
| Personal Income Taxes                    | 18,283,508,000          | 8,731,368,000              | 9,973,700,000  | 18,705,068,000   | 8,654,067,000             | 9,638,356,000  | 18,292,423,000   | (412,645,000)                | 8,915,000             |
| Film and Video and Transfer to Counties  | (45,262,000)            | (22,230,000)               | (23,032,000)   | (45,262,000)     | (22,230,000)              | (23,032,000)   | (45,262,000)     | 0                            | 0                     |
| Corporate Income Taxes                   | 1,190,805,000           | 614,871,000                | 630,913,000    | 1,245,784,000    | 695,166,000               | 574,792,000    | 1,269,958,000    | 24,174,000                   | 79,153,000            |
| Transfer to Rainy Day Fund & PERS UAL    | (158,254,000)           | (101,500,000)              | (56,754,000)   | (158,254,000)    | 0                         | (151,541,000)  | (151,541,000)    | 6,713,000                    | 6,713,000             |
| Insurance Taxes                          | 132,563,000             | 72,778,000                 | 74,646,000     | 147,424,000      | 73,071,000                | 59,321,000     | 132,392,000      | (15,032,000)                 | (171,000)             |
| Estate Taxes                             | 361,189,000             | 176,354,000                | 184,835,000    | 361,189,000      | 179,554,000               | 185,935,000    | 365,489,000      | 4,300,000                    | 4,300,000             |
| Cigarette Taxes                          | 64,998,000              | 32,663,000                 | 32,335,000     | 64,998,000       | 32,663,000                | 32,335,000     | 64,998,000       | 0                            | 0                     |
| Other Tobacco Products Taxes             | 66,534,000              | 33,053,000                 | 33,481,000     | 66,534,000       | 33,053,000                | 33,481,000     | 66,534,000       | 0                            | 0                     |
| Other Taxes                              | 1,636,000               | 823,000                    | 813,000        | 1,636,000        | 823,000                   | 813,000        | 1,636,000        | 0                            | 0                     |
| <b>Fines and Fees</b>                    |                         |                            |                |                  |                           |                |                  |                              |                       |
| State Court Fees                         | 138,730,000             | 61,797,000                 | 61,962,000     | 123,759,000      | 69,281,000                | 69,449,000     | 138,730,000      | 14,971,000                   | 0                     |
| Secretary of State Fees                  | 70,837,000              | 35,392,000                 | 35,445,000     | 70,837,000       | 35,392,000                | 35,445,000     | 70,837,000       | 0                            | 0                     |
| Criminal Fines & Assessments             | 51,748,000              | 19,267,000                 | 19,267,000     | 38,534,000       | 25,874,000                | 25,874,000     | 51,748,000       | 13,214,000                   | 0                     |
| Securities Fees                          | 27,269,000              | 13,512,000                 | 13,757,000     | 27,269,000       | 13,206,000                | 13,606,000     | 26,812,000       | (457,000)                    | (457,000)             |
| <b>Central Service Charges</b>           | 10,376,000              | 5,438,000                  | 5,438,000      | 10,876,000       | 5,188,000                 | 5,188,000      | 10,376,000       | (500,000)                    | 0                     |
| <b>Liquor Apportionment</b>              | 348,537,000             | 164,802,000                | 178,535,000    | 343,337,000      | 167,298,000               | 181,239,000    | 348,537,000      | 5,200,000                    | 0                     |
| <b>Interest Earnings</b>                 | 102,965,000             | 51,477,000                 | 51,488,000     | 102,965,000      | 51,477,000                | 51,488,000     | 102,965,000      | 0                            | 0                     |
| <b>Miscellaneous Revenues</b>            | 13,500,000              | 6,500,000                  | 7,000,000      | 13,500,000       | 6,500,000                 | 7,000,000      | 13,500,000       | 0                            | 0                     |
| <b>One-time Transfers</b>                | 155,200,000             | 0                          | 0              | 0                | 0                         | 155,200,000    | 155,200,000      | 155,200,000                  | 0                     |
| <b>Gross General Fund Revenues</b>       | 21,020,395,000          | 10,020,095,000             | 11,303,615,000 | 21,323,710,000   | 10,042,613,000            | 11,069,522,000 | 21,112,135,000   | (211,575,000)                | 91,740,000            |
| Total Personal and Corporate Transfers   | (203,516,000)           | (123,730,000)              | (79,786,000)   | (203,516,000)    | (22,230,000)              | (174,573,000)  | (196,803,000)    | 6,713,000                    | 6,713,000             |
| <b>Net General Fund Revenues</b>         | 20,816,879,000          | 9,896,365,000              | 11,223,829,000 | 21,120,194,000   | 10,020,383,000            | 10,894,949,000 | 20,915,332,000   | (204,862,000)                | 98,453,000            |
| <b>Plus Beginning Balance</b>            | 2,318,444,712           |                            |                | 2,321,644,862    |                           |                | 2,532,321,712    | 210,676,850                  | 213,877,000           |
| Less Anticipated Administrative Actions* | (21,472,000)            |                            |                | (21,472,000)     |                           |                | (21,472,000)     | 0                            | 0                     |
| Less Legislatively Adopted Actions**     | (199,459,036)           |                            |                | (199,427,034)    |                           |                | (199,459,036)    | (32,002)                     | 0                     |
| <b>Available Resources</b>               | 22,914,392,677          |                            |                | 23,220,939,828   |                           |                | 23,226,722,677   | 5,782,849                    | 312,330,000           |
| Appropriations                           | 22,409,455,625          |                            |                |                  |                           |                | 22,409,455,625   | NA                           | 0                     |
| <b>Estimated Ending Balance</b>          | 504,937,052             |                            |                |                  |                           |                | 817,267,052      | NA                           | 312,330,000           |

Table B.2 General Fund Revenue Forecast by Fiscal Year

**TABLE B.2**

| General Fund Revenue Forecast |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        | September 2019         |                        |
|-------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| (\$Millions)                  |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Fiscal Years                  | 2017-18<br>Fiscal Year | 2018-19<br>Fiscal Year | 2019-20<br>Fiscal Year | 2020-21<br>Fiscal Year | 2021-22<br>Fiscal Year | 2022-23<br>Fiscal Year | 2023-24<br>Fiscal Year | 2024-25<br>Fiscal Year | 2025-26<br>Fiscal Year | 2026-27<br>Fiscal Year | 2027-28<br>Fiscal Year | 2028-29<br>Fiscal Year |
| <b>Taxes</b>                  |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Personal Income               | 8,893.1                | 9,812.1                | 8,654.1                | 9,638.4                | 10,634.8               | 11,025.8               | 11,552.1               | 12,094.9               | 12,507.4               | 13,026.7               | 13,763.4               | 14,375.6               |
| Offsets and Transfers         | (20.6)                 | (21.7)                 | (22.2)                 | (23.0)                 | (23.3)                 | (26.7)                 | (24.8)                 | (24.0)                 | (24.4)                 | (24.9)                 | (25.3)                 | (25.7)                 |
| Corporate Excise & Income     | 755.0                  | 997.8                  | 695.2                  | 574.8                  | 618.3                  | 665.5                  | 701.8                  | 740.9                  | 800.6                  | 842.8                  | 891.5                  | 929.6                  |
| Offsets and Transfers         | (16.2)                 | (71.1)                 | 0.0                    | (151.5)                | 0.0                    | (50.1)                 | 0.0                    | (52.6)                 | 0.0                    | (64.3)                 | 0.0                    | (66.4)                 |
| Insurance                     | 76.7                   | 83.5                   | 73.1                   | 59.3                   | 60.0                   | 61.9                   | 64.0                   | 65.9                   | 68.2                   | 70.5                   | 73.1                   | 75.5                   |
| Estate                        | 176.5                  | 204.7                  | 179.6                  | 185.9                  | 189.9                  | 195.3                  | 200.7                  | 205.6                  | 211.9                  | 218.3                  | 228.3                  | 235.2                  |
| Cigarette                     | 33.7                   | 31.9                   | 32.7                   | 32.3                   | 32.0                   | 31.7                   | 31.5                   | 31.0                   | 30.6                   | 30.2                   | 29.9                   | 29.6                   |
| Other Tobacco Products        | 32.4                   | 31.2                   | 33.1                   | 33.5                   | 33.9                   | 34.5                   | 34.9                   | 35.1                   | 35.3                   | 35.5                   | 35.7                   | 35.8                   |
| Other Taxes                   | 0.9                    | 1.1                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    | 0.8                    |
| <b>Other Revenues</b>         |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Licenses and Fees             | 126.3                  | 132.7                  | 143.8                  | 144.4                  | 145.6                  | 146.3                  | 147.0                  | 147.6                  | 148.3                  | 148.9                  | 149.9                  | 150.5                  |
| Charges for Services          | 5.4                    | 5.4                    | 5.2                    | 5.2                    | 5.4                    | 5.4                    | 5.4                    | 5.4                    | 5.4                    | 5.4                    | 5.4                    | 5.4                    |
| Liquor Apportionment          | 142.6                  | 151.8                  | 167.3                  | 181.2                  | 166.1                  | 173.8                  | 181.6                  | 190.0                  | 198.6                  | 207.8                  | 217.0                  | 226.7                  |
| Interest Earnings             | 30.2                   | 57.0                   | 51.5                   | 51.5                   | 51.0                   | 50.8                   | 50.8                   | 50.7                   | 50.8                   | 50.8                   | 50.7                   | 50.7                   |
| Others                        | 8.2                    | 7.0                    | 6.5                    | 162.2                  | 7.5                    | 8.0                    | 8.5                    | 9.0                    | 9.5                    | 10.0                   | 10.5                   | 11.0                   |
| <b>Gross General Fund</b>     | <b>10,281.0</b>        | <b>11,516.1</b>        | <b>10,042.6</b>        | <b>11,069.5</b>        | <b>11,945.3</b>        | <b>12,399.7</b>        | <b>12,979.2</b>        | <b>13,577.1</b>        | <b>14,067.5</b>        | <b>14,647.8</b>        | <b>15,456.2</b>        | <b>16,126.5</b>        |
| <b>Net General Fund</b>       | <b>10,244.3</b>        | <b>11,423.4</b>        | <b>10,020.4</b>        | <b>10,894.9</b>        | <b>11,922.0</b>        | <b>12,322.9</b>        | <b>12,954.4</b>        | <b>13,500.5</b>        | <b>14,043.1</b>        | <b>14,558.7</b>        | <b>15,430.9</b>        | <b>16,034.4</b>        |
| <b>Biennial Totals</b>        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
|                               | 2017-19 BN             | Change (%)             | 2019-21 BN             | Change (%)             | 2021-23 BN             | Change (%)             | 2023-25 BN             | Change (%)             | 2025-27 BN             | Change (%)             | 2027-29 BN             | Change (%)             |
| <b>Taxes</b>                  |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Personal Income               | 18,705.1               | 16.5%                  | 18,292.4               | -2.2%                  | 21,660.6               | 18.4%                  | 23,647.0               | 9.2%                   | 25,534.1               | 8.0%                   | 28,139.0               | 10.2%                  |
| Corporate Excise & Income     | 1,752.7                | 44.8%                  | 1,270.0                | -27.5%                 | 1,283.8                | 1.1%                   | 1,442.7                | 12.4%                  | 1,643.4                | 13.9%                  | 1,821.1                | 10.8%                  |
| Insurance                     | 160.3                  | 15.1%                  | 132.4                  | -17.4%                 | 121.9                  | -8.0%                  | 129.9                  | 6.6%                   | 138.7                  | 6.7%                   | 148.6                  | 7.1%                   |
| Estate Taxes                  | 381.2                  | 18.1%                  | 365.5                  | -4.1%                  | 385.1                  | 5.4%                   | 406.3                  | 5.5%                   | 430.2                  | 5.9%                   | 463.5                  | 7.7%                   |
| Cigarette                     | 65.6                   | -6.9%                  | 65.0                   | -0.9%                  | 63.7                   | -1.9%                  | 62.5                   | -1.9%                  | 60.8                   | -2.8%                  | 59.4                   | -2.2%                  |
| Other Tobacco Products        | 63.6                   | 2.0%                   | 66.5                   | 4.6%                   | 68.4                   | 2.8%                   | 70.0                   | 2.3%                   | 70.8                   | 1.2%                   | 71.5                   | 0.9%                   |
| Other Taxes                   | 2.0                    | 9.6%                   | 1.6                    | -17.2%                 | 1.6                    | -0.6%                  | 1.6                    | 0.0%                   | 1.6                    | 0.0%                   | 1.6                    | 0.0%                   |
| <b>Other Revenues</b>         |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Licenses and Fees             | 259.0                  | 5.2%                   | 288.1                  | 11.2%                  | 291.9                  | 1.3%                   | 294.6                  | 0.9%                   | 297.2                  | 0.9%                   | 300.5                  | 1.1%                   |
| Charges for Services          | 10.9                   | 5.8%                   | 10.4                   | -4.6%                  | 10.9                   | 4.8%                   | 10.9                   | 0.0%                   | 10.9                   | 0.0%                   | 10.9                   | 0.0%                   |
| Liquor Apportionment          | 294.4                  | 12.4%                  | 348.5                  | 18.4%                  | 339.9                  | -2.5%                  | 371.7                  | 9.4%                   | 406.4                  | 9.4%                   | 443.7                  | 9.2%                   |
| Interest Earnings             | 87.2                   | 250.5%                 | 103.0                  | 18.1%                  | 101.8                  | -1.1%                  | 101.5                  | -0.3%                  | 101.5                  | 0.0%                   | 101.5                  | -0.1%                  |
| Others                        | 15.2                   | -89.8%                 | 168.7                  | 1009.3%                | 15.5                   | -90.8%                 | 17.5                   | 12.9%                  | 19.5                   | 11.4%                  | 21.5                   | 10.3%                  |
| <b>Gross General Fund</b>     | <b>21,797.2</b>        | <b>17.5%</b>           | <b>21,112.1</b>        | <b>-3.1%</b>           | <b>24,345.0</b>        | <b>15.3%</b>           | <b>26,556.3</b>        | <b>9.1%</b>            | <b>28,715.3</b>        | <b>8.1%</b>            | <b>31,582.7</b>        | <b>10.0%</b>           |
| <b>Net General Fund</b>       | <b>21,667.6</b>        | <b>17.0%</b>           | <b>20,915.3</b>        | <b>-3.5%</b>           | <b>24,244.9</b>        | <b>15.9%</b>           | <b>26,454.9</b>        | <b>9.1%</b>            | <b>28,601.7</b>        | <b>8.1%</b>            | <b>31,465.3</b>        | <b>10.0%</b>           |

Table B.3 Summary of 2019 Legislative Session Adjustments

|  | 19-21           | 21-23           | 23-25           | Revenue Impact Statement                          |
|--|-----------------|-----------------|-----------------|---|
| <b>Personal Income Tax Impacts (millions)</b>  |                 |                 |                 |   |
| Tax Expenditure Extension - HB 2164            | -\$70.5         | -\$146.0        | -\$156.4        | <a href="#">HB 2164</a>                           |
| Rural Medical Provider – HB 2847               | -\$0.2          | -\$0.4          | -\$0.4          | <a href="#">HB 2847</a>                           |
| Corporate Activity Tax – HB 3427               | -\$352.0        | -\$548.0        | -\$599.0        | <a href="#">HB 3427</a>                           |
| DOR Tax Compliance – SB 523 & HB 5033          | \$1.1           | \$1.4           | \$1.4           | <a href="#">SB 523</a><br><a href="#">HB 3206</a> |
| <b>Personal Income Tax Total</b>               | <b>-\$421.6</b> | <b>-\$693.0</b> | <b>-\$754.4</b> |   |
| <b>Corporate Income Tax Impacts (millions)</b> |                 |                 |                 |   |
| Medical Provider Taxes - HB 2010               | -\$5.0          | -\$8.0          | -\$8.0          | <a href="#">HB 2010</a>                           |
| Medical Provider Taxes - SB 523                | \$1.20          | \$1.2           | \$1.2           | <a href="#">SB 523</a>                            |
| Corporate Activity Tax – HB 3427               | -\$71.0         | -\$151.0        | -\$163.0        | <a href="#">HB 3427</a>                           |
| <b>Corporate Income Tax Total</b>              | <b>-\$74.8</b>  | <b>-\$157.8</b> | <b>-\$169.8</b> |   |
| <b>Other Tax/Revenue Impacts (millions)</b>    |                 |                 |                 |   |
| Court Filing Fees - HB 3447                    | \$3.1           | \$3.6           | \$3.8           | <a href="#">HB 3447</a>                           |
| OLCC Fees - SB 248                             | \$5.2           | \$5.6           | \$5.7           | <a href="#">SB 248</a>                            |
| DOR Collections - SB 980                       | \$0.5           | \$0.5           | \$0.5           | <a href="#">SB 980</a>                            |
| DOR Tax Compliance - HB 5033                   | \$0.2           | \$0.4           | \$0.4           | <a href="#">HB 5033</a>                           |
| Fund Shifts and Adjustments – HB 2377          | \$179.6         | \$26.5          | \$10.0          | <a href="#">HB 2377</a>                           |
| <b>Other Tax Total</b>                         | <b>\$188.5</b>  | <b>\$36.6</b>   | <b>\$20.4</b>   |   |

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                                |           |           |           |           |           |           |           |           |           |                |
|   |           |           |           |           |           |           |           |           |           | September 2019 |
|   | 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  | 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%          |
|   | 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 | 1,705,280 | 1,835,155 | 1,769,354 | 6,985,533      |
| %CHYA   | 6.6%      | 7.9%      | 8.6%      | 8.6%      | 7.9%      | 8.0%      | 3.7%      | 7.2%      | 8.2%      | 6.8%           |
| EST. PAYMENTS   | 309,470   | 141,009   | 327,008   | 423,839   | 1,201,325 | 300,866   | 319,225   | 382,445   | 450,241   | 1,452,777      |
| %CHYA   | 16.9%     | -40.3%    | 7.0%      | 5.7%      | -0.5%     | -2.8%     | 126.4%    | 17.0%     | 6.2%      | 20.9%          |
| FINAL PAYMENTS <sup>1</sup>   | 99,618    | 321,345   | 141,818   | 813,132   | 1,375,913 | 103,631   | 144,248   | 175,235   | 919,186   | 1,342,301      |
| %CHYA   | 7.5%      | 122.8%    | -9.2%     | -4.9%     | 10.2%     | 4.0%      | -55.1%    | 23.6%     | 13.0%     | -2.4%          |
| REFUNDS   | 85,113    | 203,981   | 577,546   | 562,601   | 1,429,241 | 138,825   | 254,851   | 574,417   | 454,899   | 1,422,992      |
| %CHYA   | -15.5%    | 17.6%     | 11.0%     | 50.0%     | 22.2%     | 63.1%     | 24.9%     | -0.5%     | -19.1%    | -0.4%          |
| OTHER   | (163,398) | -         | -         | 236,108   | 72,710    | (236,108) | -         | -         | 192,251   | (43,856)       |
| TOTAL   | 1,712,094 | 1,902,583 | 1,602,848 | 2,545,205 | 7,762,729 | 1,705,308 | 1,913,902 | 1,818,419 | 2,876,134 | 8,313,763      |
| %CHYA   | 11.7%     | 9.9%      | 5.6%      | -0.2%     | 5.9%      | -0.4%     | 0.6%      | 13.4%     | 13.0%     | 7.1%           |
|   | 2017:3    | 2017:4    | 2018:1    | 2018:2    | FY 2018   | 2018:3    | 2018:4    | 2019:1    | 2019:2    | FY 2019        |
| WITHHOLDING   | 1,748,844 | 1,836,249 | 2,011,564 | 1,851,177 | 7,447,834 | 1,925,880 | 2,039,120 | 2,079,900 | 1,999,015 | 8,043,914      |
| %CHYA   | 4.4%      | 7.7%      | 9.6%      | 4.6%      | 6.6%      | 10.1%     | 11.0%     | 3.4%      | 8.0%      | 8.0%           |
| EST. PAYMENTS   | 321,032   | 451,037   | 464,534   | 512,671   | 1,749,274 | 367,772   | 284,002   | 321,858   | 532,273   | 1,505,905      |
| %CHYA   | 6.7%      | 41.3%     | 21.5%     | 13.9%     | 20.4%     | 14.6%     | -37.0%    | -30.7%    | 3.8%      | -13.9%         |
| FINAL PAYMENTS <sup>1</sup>   | 92,364    | 169,785   | 174,096   | 878,587   | 1,314,832 | 104,644   | 156,592   | 225,515   | 1,385,562 | 1,872,312      |
| %CHYA   | -10.9%    | 17.7%     | -0.6%     | -4.4%     | -2.0%     | 13.3%     | -7.8%     | 29.5%     | 57.7%     | 42.4%          |
| REFUNDS   | 133,143   | 266,467   | 686,100   | 610,486   | 1,696,196 | 140,701   | 335,635   | 546,225   | 445,573   | 1,468,133      |
| %CHYA   | -4.1%     | 4.6%      | 19.4%     | 34.2%     | 19.2%     | 5.7%      | 26.0%     | -20.4%    | -27.0%    | -13.4%         |
| OTHER   | (192,251) | -         | -         | 237,300   | 45,049    | (237,300) | -         | -         | 222,477   | (14,823)       |
| TOTAL   | 1,836,845 | 2,190,604 | 1,964,094 | 2,869,249 | 8,860,793 | 2,020,295 | 2,144,078 | 2,081,049 | 3,693,754 | 9,939,176      |
| %CHYA   | 7.7%      | 14.5%     | 8.0%      | -0.2%     | 6.6%      | 10.0%     | -2.1%     | 6.0%      | 28.7%     | 12.2%          |

Note: "Other" includes 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

September 2019

|                             | 2019:3    | 2019:4    | 2020:1    | 2020:2    | FY 2020    | 2020:3    | 2020:4    | 2021:1    | 2021:2    | FY 2021    |
|-----------------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|
| WITHHOLDING                 | 2,094,931 | 2,156,447 | 2,181,048 | 1,981,972 | 8,414,397  | 2,071,601 | 2,185,219 | 2,291,709 | 2,094,583 | 8,643,113  |
| %CHYA                       | 8.8%      | 5.8%      | 4.9%      | -0.9%     | 4.6%       | -1.1%     | 1.3%      | 5.1%      | 5.7%      | 2.7%       |
| EST. PAYMENTS               | 392,965   | 318,898   | 398,239   | 530,079   | 1,640,181  | 319,931   | 306,908   | 386,900   | 561,827   | 1,575,565  |
| %CHYA                       | 6.9%      | 12.3%     | 23.7%     | -0.4%     | 8.9%       | -18.6%    | -3.8%     | -2.8%     | 6.0%      | -3.9%      |
| FINAL PAYMENTS <sup>1</sup> | 104,968   | 219,959   | 154,376   | 620,220   | 1,099,523  | 90,509    | 132,205   | 169,372   | 998,669   | 1,390,755  |
| %CHYA                       | 0.3%      | 40.5%     | -31.5%    | -55.2%    | -41.3%     | -13.8%    | -39.9%    | 9.7%      | 61.0%     | 26.5%      |
| REFUNDS                     | 145,600   | 219,229   | 1,166,889 | 924,232   | 2,455,951  | 190,232   | 434,482   | 776,436   | 580,141   | 1,981,292  |
| %CHYA                       | 3.5%      | -34.7%    | 113.6%    | 107.4%    | 67.3%      | 30.7%     | 98.2%     | -33.5%    | -37.2%    | -19.3%     |
| OTHER                       | (222,477) | -         | -         | 178,393   | (44,084)   | (178,393) | -         | -         | 188,608   | 10,215     |
| TOTAL                       | 2,224,786 | 2,476,075 | 1,566,774 | 2,386,432 | 8,654,067  | 2,113,415 | 2,189,850 | 2,071,545 | 3,263,546 | 9,638,356  |
| %CHYA                       | 10.1%     | 15.5%     | -24.7%    | -35.4%    | -12.9%     | -5.0%     | -11.6%    | 32.2%     | 36.8%     | 11.4%      |
|                             | 2021:3    | 2021:4    | 2022:1    | 2022:2    | FY 2022    | 2022:3    | 2022:4    | 2023:1    | 2023:2    | FY 2023    |
| WITHHOLDING                 | 2,188,270 | 2,308,108 | 2,412,224 | 2,203,495 | 9,112,098  | 2,301,685 | 2,427,752 | 2,532,944 | 2,313,158 | 9,575,539  |
| %CHYA                       | 5.6%      | 5.6%      | 5.3%      | 5.2%      | 5.4%       | 5.2%      | 5.2%      | 5.0%      | 5.0%      | 5.1%       |
| EST. PAYMENTS               | 338,965   | 325,167   | 409,286   | 586,268   | 1,659,687  | 353,651   | 339,255   | 427,003   | 611,444   | 1,731,353  |
| %CHYA                       | 5.9%      | 5.9%      | 5.8%      | 4.4%      | 5.3%       | 4.3%      | 4.3%      | 4.3%      | 4.3%      | 4.3%       |
| FINAL PAYMENTS <sup>1</sup> | 107,256   | 167,185   | 189,581   | 1,072,631 | 1,536,652  | 114,835   | 176,437   | 181,627   | 1,088,141 | 1,561,039  |
| %CHYA                       | 18.5%     | 26.5%     | 11.9%     | 7.4%      | 10.5%      | 7.1%      | 5.5%      | -4.2%     | 1.4%      | 1.6%       |
| REFUNDS                     | 129,866   | 284,685   | 742,171   | 576,809   | 1,733,531  | 133,975   | 294,223   | 795,622   | 619,718   | 1,843,538  |
| %CHYA                       | -31.7%    | -34.5%    | -4.4%     | -0.6%     | -12.5%     | 3.2%      | 3.4%      | 7.2%      | 7.4%      | 6.3%       |
| OTHER                       | (188,608) | -         | -         | 248,506   | 59,898     | (248,506) | -         | -         | 249,873   | 1,367      |
| TOTAL                       | 2,316,017 | 2,515,775 | 2,268,920 | 3,534,092 | 10,634,804 | 2,387,690 | 2,649,221 | 2,345,951 | 3,642,898 | 11,025,760 |
| %CHYA                       | 9.6%      | 14.9%     | 9.5%      | 8.3%      | 10.3%      | 3.1%      | 5.3%      | 3.4%      | 3.1%      | 3.7%       |
|                             | 2023:3    | 2023:4    | 2024:1    | 2024:2    | FY 2024    | 2024:3    | 2024:4    | 2025:1    | 2025:2    | FY 2025    |
| WITHHOLDING                 | 2,414,256 | 2,546,498 | 2,659,876 | 2,429,513 | 10,050,143 | 2,534,666 | 2,673,497 | 2,798,353 | 2,556,825 | 10,563,340 |
| %CHYA                       | 4.9%      | 4.9%      | 5.0%      | 5.0%      | 5.0%       | 5.0%      | 5.0%      | 5.2%      | 5.2%      | 5.1%       |
| EST. PAYMENTS               | 368,534   | 353,532   | 445,253   | 641,159   | 1,808,478  | 386,288   | 370,564   | 466,927   | 675,229   | 1,899,008  |
| %CHYA                       | 4.2%      | 4.2%      | 4.3%      | 4.9%      | 4.8%       | 4.8%      | 4.8%      | 4.9%      | 4.5%      | 5.0%       |
| FINAL PAYMENTS <sup>1</sup> | 109,673   | 173,792   | 196,090   | 1,132,988 | 1,612,543  | 118,873   | 185,448   | 205,773   | 1,193,895 | 1,703,988  |
| %CHYA                       | -4.5%     | -1.5%     | 8.0%      | 4.1%      | 3.3%       | 8.4%      | 6.7%      | 4.9%      | 5.4%      | 5.7%       |
| REFUNDS                     | 143,999   | 315,642   | 839,503   | 653,750   | 1,952,895  | 151,127   | 331,865   | 886,153   | 690,421   | 2,059,565  |
| %CHYA                       | 7.5%      | 7.3%      | 5.5%      | 5.5%      | 5.9%       | 4.9%      | 5.1%      | 5.6%      | 5.6%      | 5.5%       |
| OTHER                       | (249,873) | -         | -         | 283,720   | 33,848     | (283,720) | -         | -         | 271,857   | (11,864)   |
| TOTAL                       | 2,498,591 | 2,758,180 | 2,461,716 | 3,833,631 | 11,552,117 | 2,604,979 | 2,897,644 | 2,584,900 | 4,007,384 | 12,094,907 |
| %CHYA                       | 4.6%      | 4.1%      | 4.9%      | 5.2%      | 4.8%       | 4.3%      | 5.1%      | 5.0%      | 4.5%      | 4.7%       |
|                             | 2025:3    | 2025:4    | 2026:1    | 2026:2    | FY 2026    | 2026:3    | 2026:4    | 2027:1    | 2027:2    | FY 2027    |
| WITHHOLDING                 | 2,650,100 | 2,795,241 | 2,922,519 | 2,669,807 | 11,037,668 | 2,762,647 | 2,913,959 | 3,046,455 | 2,783,001 | 11,506,063 |
| %CHYA                       | 4.6%      | 4.6%      | 4.4%      | 4.4%      | 4.5%       | 4.2%      | 4.2%      | 4.2%      | 4.2%      | 4.2%       |
| EST. PAYMENTS               | 404,165   | 387,713   | 488,394   | 704,466   | 1,984,738  | 420,970   | 403,834   | 508,766   | 734,687   | 2,068,257  |
| %CHYA                       | 4.6%      | 4.6%      | 4.6%      | 4.3%      | 4.5%       | 4.2%      | 4.2%      | 4.2%      | 4.3%      | 4.2%       |
| FINAL PAYMENTS <sup>1</sup> | 124,005   | 193,659   | 214,259   | 1,249,887 | 1,781,809  | 128,785   | 201,543   | 223,002   | 1,301,619 | 1,854,949  |
| %CHYA                       | 4.3%      | 4.4%      | 4.1%      | 4.7%      | 4.7%       | 3.9%      | 4.1%      | 4.1%      | 4.1%      | 4.1%       |
| REFUNDS                     | 160,287   | 352,017   | 970,701   | 763,214   | 2,246,219  | 170,287   | 373,838   | 1,031,714 | 811,219   | 2,387,058  |
| %CHYA                       | 6.1%      | 6.1%      | 9.5%      | 10.5%     | 9.1%       | 6.2%      | 6.2%      | 6.3%      | 6.3%      | 6.3%       |
| OTHER                       | (271,857) | -         | -         | 221,240   | (50,617)   | (221,240) | -         | -         | 233,083   | (15,482)   |
| TOTAL                       | 2,746,125 | 3,024,596 | 2,654,471 | 4,082,186 | 12,507,379 | 2,920,874 | 3,145,498 | 2,746,509 | 4,241,171 | 13,026,728 |
| %CHYA                       | 5.4%      | 4.4%      | 2.7%      | 1.9%      | 3.4%       | 6.4%      | 4.0%      | 3.5%      | 3.9%      | 4.2%       |
|                             | 2027:3    | 2027:4    | 2028:1    | 2028:2    | FY 2028    | 2028:3    | 2028:4    | 2029:1    | 2029:2    | FY 2029    |
| WITHHOLDING                 | 2,899,179 | 3,057,969 | 3,197,992 | 2,921,573 | 12,076,713 | 3,047,055 | 3,213,943 | 3,363,315 | 3,072,920 | 12,697,232 |
| %CHYA                       | 5.1%      | 5.1%      | 5.1%      | 5.1%      | 5.1%       | 5.1%      | 5.1%      | 5.2%      | 5.2%      | 5.1%       |
| EST. PAYMENTS               | 441,986   | 423,995   | 534,088   | 770,246   | 2,170,315  | 463,915   | 445,031   | 560,641   | 809,248   | 2,278,835  |
| %CHYA                       | 5.1%      | 5.1%      | 5.1%      | 5.0%      | 5.1%       | 5.0%      | 5.0%      | 5.0%      | 5.1%      | 5.0%       |
| FINAL PAYMENTS <sup>1</sup> | 134,908   | 211,222   | 234,209   | 1,367,009 | 1,947,348  | 141,869   | 222,102   | 245,951   | 1,434,285 | 2,044,207  |
| %CHYA                       | 4.9%      | 4.9%      | 5.1%      | 5.1%      | 5.1%       | 5.2%      | 5.2%      | 5.0%      | 4.9%      | 5.0%       |
| REFUNDS                     | 179,758   | 394,652   | 1,083,998 | 852,198   | 2,510,606  | 188,709   | 414,170   | 1,144,099 | 899,626   | 2,646,603  |
| %CHYA                       | 5.4%      | 5.4%      | 4.9%      | 4.9%      | 5.1%       | 5.0%      | 4.9%      | 5.5%      | 5.6%      | 5.4%       |
| OTHER                       | (233,083) | -         | -         | 312,689   | 79,606     | (312,689) | -         | -         | 314,605   | 1,916      |
| TOTAL                       | 3,063,232 | 3,298,535 | 2,882,291 | 4,519,319 | 13,763,376 | 3,151,442 | 3,466,906 | 3,025,809 | 4,731,431 | 14,375,588 |
| %CHYA                       | 5.0%      | 5.0%      | 5.2%      | 6.7%      | 5.8%       | 2.9%      | 5.1%      | 5.0%      | 4.7%      | 4.4%       |

Note: "Other" includes July withholding accrued to June. Tax law impacts are reflected in the collections numbers to produce more meaningful projections.

Table B.5 Oregon Corporate Income Tax Revenue Forecast

|                  | OREGON CORPORATE INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS |         |         |         |            |         |         |         |         |            |
|------------------|--|---------|---------|---------|------------|---------|---------|---------|---------|------------|
|                  | Thousands of Dollars - Not Seasonally Adjusted                       |         |         |         |            |         |         |         |         |            |
|                  | September 2019   |         |         |         |            |         |         |         |         | FY         |
|                  | 2009:3   | 2009:4  | 2010:1  | 2010:2  | FY<br>2010 | 2010:3  | 2010:4  | 2011:1  | 2011:2  | FY<br>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%      |
|                  | 2011:3   | 2011:4  | 2012:1  | 2012:2  | FY<br>2012 | 2012:3  | 2012:4  | 2013:1  | 2013:2  | FY<br>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%       |
|                  | 2013:3   | 2013:4  | 2014:1  | 2014:2  | FY<br>2014 | 2014:3  | 2014:4  | 2015:1  | 2015:2  | FY<br>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%      |
|                  | 2015:3   | 2015:4  | 2016:1  | 2016:2  | FY<br>2016 | 2016:3  | 2016:4  | 2017:1  | 2017:2  | FY<br>2017 |
| ADVANCE PAYMENTS | 173,329  | 220,326 | 118,673 | 202,813 | 715,141    | 136,698 | 215,677 | 102,663 | 195,412 | 650,449    |
| %CHYA            | -10.3%   | 6.9%    | 11.2%   | 10.5%   | 3.7%       | -21.1%  | -2.1%   | -13.5%  | -3.6%   | -9.0%      |
| FINAL PAYMENTS   | 67,305   | 59,752  | 63,509  | 70,433  | 260,998    | 44,746  | 93,441  | 52,164  | 81,824  | 272,175    |
| %CHYA            | 133.6%   | -18.8%  | 10.9%   | -1.4%   | 13.0%      | -33.5%  | 56.4%   | -17.9%  | 16.2%   | 4.3%       |
| REFUNDS          | 42,388   | 156,984 | 85,446  | 81,453  | 366,271    | 39,680  | 166,537 | 73,066  | 57,733  | 337,016    |
| %CHYA            | -15.1%   | 1.0%    | 46.4%   | 131.6%  | 22.5%      | -6.4%   | 6.1%    | -14.5%  | -29.1%  | -8.0%      |
| TOTAL            | 198,245  | 123,094 | 96,736  | 191,793 | 609,868    | 141,764 | 142,581 | 81,761  | 219,503 | 585,608    |
| %CHYA            | 15.2%  | -0.9%   | -8.4%   | -12.8%  | -1.9%      | -28.5%  | 15.8%   | -15.5%  | 14.4%   | -4.0%      |
|                  | 2017:3   | 2017:4  | 2018:1  | 2018:2  | FY<br>2018 | 2018:3  | 2018:4  | 2019:1  | 2019:2  | FY<br>2019 |
| ADVANCE PAYMENTS | 179,603  | 185,787 | 182,395 | 303,835 | 851,620    | 222,891 | 249,768 | 158,748 | 264,445 | 895,852    |
| %CHYA            | 31.4%  | -13.9%  | 77.7%   | 55.5%   | 30.9%      | 24.1%   | 34.4%   | -13.0%  | -13.0%  | 5.2%       |
| FINAL PAYMENTS   | 42,600   | 66,460  | 46,270  | 108,539 | 263,869    | 74,735  | 102,942 | 68,818  | 174,861 | 421,356    |
| %CHYA            | -4.8%  | -28.9%  | -11.3%  | 32.6%   | -3.1%      | 75.4%   | 54.9%   | 48.7%   | 61.1%   | 59.7%      |
| REFUNDS          | 72,225   | 129,963 | 122,291 | 54,224  | 378,703    | 43,428  | 167,871 | 128,586 | 50,616  | 390,501    |
| %CHYA            | 82.0%  | -22.0%  | 67.4%   | -6.1%   | 12.4%      | -39.9%  | 29.2%   | 5.1%    | -6.7%   | 3.1%       |
| TOTAL            | 149,978  | 122,284 | 106,374 | 358,150 | 736,786    | 254,198 | 184,839 | 98,980  | 388,690 | 926,707    |
| %CHYA            | 5.8%   | -14.2%  | 30.1%   | 63.2%   | 25.8%      | 69.5%   | 51.2%   | -7.0%   | 8.5%    | 25.8%      |

TABLE B.5

## OREGON CORPORATE INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS

Thousands of Dollars - Not Seasonally Adjusted

September 2019

|                  | 2019:3  | 2019:4  | 2020:1  | 2020:2  | FY<br>2020 | 2020:3  | 2020:4  | 2021:1  | 2021:2  | FY<br>2021 |
|------------------|---------|---------|---------|---------|------------|---------|---------|---------|---------|------------|
| ADVANCE PAYMENTS | 196,208 | 224,875 | 132,827 | 217,380 | 771,291    | 167,590 | 206,820 | 127,068 | 212,069 | 713,547    |
| %CHYA            | -12.0%  | -10.0%  | -16.3%  | -17.8%  | -13.9%     | -14.6%  | -8.0%   | -4.3%   | -2.4%   | -7.5%      |
| FINAL PAYMENTS   | 82,726  | 104,865 | 92,337  | 83,662  | 363,590    | 38,405  | 107,436 | 93,630  | 78,571  | 318,041    |
| %CHYA            | 10.7%   | 1.9%    | 34.2%   | -52.2%  | -13.7%     | -53.6%  | 2.5%    | 1.4%    | -6.1%   | -12.5%     |
| REFUNDS          | 57,990  | 187,985 | 131,323 | 62,416  | 439,714    | 51,613  | 199,537 | 139,210 | 66,436  | 456,796    |
| %CHYA            | 33.5%   | 12.0%   | 2.1%    | 23.3%   | 12.6%      | -11.0%  | 6.1%    | 6.0%    | 6.4%    | 3.9%       |
| TOTAL            | 220,944 | 141,755 | 93,841  | 238,626 | 695,166    | 154,382 | 114,719 | 81,488  | 224,203 | 574,792    |
| %CHYA            | -13.1%  | -23.3%  | -5.2%   | -38.6%  | -25.0%     | -30.1%  | -19.1%  | -13.2%  | -6.0%   | -17.3%     |

|                  | 2021:3  | 2021:4  | 2022:1  | 2022:2  | FY<br>2022 | 2022:3  | 2022:4  | 2023:1  | 2023:2  | FY<br>2023 |
|------------------|---------|---------|---------|---------|------------|---------|---------|---------|---------|------------|
| ADVANCE PAYMENTS | 172,662 | 215,693 | 133,040 | 222,892 | 744,288    | 180,090 | 225,045 | 139,587 | 233,663 | 778,385    |
| %CHYA            | 3.0%    | 4.3%    | 4.7%    | 5.1%    | 4.3%       | 4.3%    | 4.3%    | 4.9%    | 4.8%    | 4.6%       |
| FINAL PAYMENTS   | 39,486  | 122,576 | 103,093 | 86,955  | 352,110    | 43,951  | 137,919 | 113,884 | 97,612  | 393,366    |
| %CHYA            | 2.8%    | 14.1%   | 10.1%   | 10.7%   | 10.7%      | 11.3%   | 12.5%   | 10.5%   | 12.3%   | 11.7%      |
| REFUNDS          | 52,593  | 211,161 | 145,347 | 69,001  | 478,102    | 54,569  | 224,945 | 153,979 | 72,753  | 506,246    |
| %CHYA            | 1.9%    | 5.8%    | 4.4%    | 3.9%    | 4.7%       | 3.8%    | 6.5%    | 5.9%    | 5.4%    | 5.9%       |
| TOTAL            | 159,556 | 127,108 | 90,786  | 240,847 | 618,296    | 169,473 | 138,019 | 99,492  | 258,522 | 665,505    |
| %CHYA            | 3.4%    | 10.8%   | 11.4%   | 7.4%    | 7.6%       | 6.2%    | 8.6%    | 9.6%    | 7.3%    | 7.6%       |

|                  | 2023:3  | 2023:4  | 2024:1  | 2024:2  | FY<br>2024 | 2024:3  | 2024:4  | 2025:1  | 2025:2  | FY<br>2025 |
|------------------|---------|---------|---------|---------|------------|---------|---------|---------|---------|------------|
| ADVANCE PAYMENTS | 186,209 | 232,612 | 144,917 | 241,950 | 805,688    | 191,758 | 239,039 | 148,889 | 248,594 | 828,280    |
| %CHYA            | 3.4%    | 3.4%    | 3.8%    | 3.5%    | 3.5%       | 3.0%    | 2.8%    | 2.7%    | 2.7%    | 2.8%       |
| FINAL PAYMENTS   | 49,609  | 153,220 | 149,024 | 122,128 | 473,982    | 64,541  | 216,466 | 178,742 | 145,994 | 605,742    |
| %CHYA            | 12.9%   | 11.1%   | 30.9%   | 25.1%   | 20.5%      | 30.1%   | 41.3%   | 19.9%   | 19.5%   | 27.8%      |
| REFUNDS          | 57,845  | 243,610 | 188,840 | 87,562  | 577,856    | 67,072  | 307,181 | 218,631 | 100,223 | 693,108    |
| %CHYA            | 6.0%    | 8.3%    | 22.6%   | 20.4%   | 14.1%      | 16.0%   | 26.1%   | 15.8%   | 14.5%   | 19.9%      |
| TOTAL            | 177,973 | 142,222 | 105,101 | 276,516 | 701,813    | 189,227 | 148,324 | 108,999 | 294,364 | 740,915    |
| %CHYA            | 5.0%    | 3.0%    | 5.6%    | 7.0%    | 5.5%       | 6.3%    | 4.3%    | 3.7%    | 6.5%    | 5.6%       |

|                  | 2025:3  | 2025:4  | 2026:1  | 2026:2  | FY<br>2026 | 2026:3  | 2026:4  | 2027:1  | 2027:2  | FY<br>2027 |
|------------------|---------|---------|---------|---------|------------|---------|---------|---------|---------|------------|
| ADVANCE PAYMENTS | 199,066 | 247,922 | 154,227 | 257,257 | 858,472    | 204,518 | 254,555 | 158,342 | 264,118 | 881,533    |
| %CHYA            | 3.8%    | 3.7%    | 3.6%    | 3.5%    | 3.6%       | 2.7%    | 2.7%    | 2.7%    | 2.7%    | 2.7%       |
| FINAL PAYMENTS   | 79,924  | 270,257 | 184,005 | 160,186 | 694,371    | 88,419  | 274,498 | 188,219 | 173,922 | 725,058    |
| %CHYA            | 23.8%   | 24.8%   | 2.9%    | 9.7%    | 14.6%      | 10.6%   | 1.6%    | 2.3%    | 8.6%    | 4.4%       |
| REFUNDS          | 74,143  | 356,404 | 220,511 | 101,196 | 752,254    | 75,596  | 361,188 | 223,982 | 102,976 | 763,741    |
| %CHYA            | 10.5%   | 16.0%   | 0.9%    | 1.0%    | 8.5%       | 2.0%    | 1.3%    | 1.6%    | 1.8%    | 1.5%       |
| TOTAL            | 204,847 | 161,775 | 117,721 | 316,247 | 800,589    | 217,341 | 167,865 | 122,579 | 335,064 | 842,850    |
| %CHYA            | 8.3%    | 9.1%    | 8.0%    | 7.4%    | 8.1%       | 6.1%    | 3.8%    | 4.1%    | 6.0%    | 5.3%       |

|                  | 2027:3  | 2027:4  | 2028:1  | 2028:2  | FY<br>2028 | 2028:3  | 2028:4  | 2029:1  | 2029:2  | FY<br>2029 |
|------------------|---------|---------|---------|---------|------------|---------|---------|---------|---------|------------|
| ADVANCE PAYMENTS | 210,808 | 262,561 | 162,194 | 270,722 | 906,284    | 215,914 | 269,040 | 165,134 | 275,675 | 925,764    |
| %CHYA            | 3.1%    | 3.1%    | 2.4%    | 2.5%    | 2.8%       | 2.4%    | 2.5%    | 1.8%    | 1.8%    | 2.1%       |
| FINAL PAYMENTS   | 97,984  | 280,658 | 192,021 | 186,607 | 757,271    | 106,338 | 285,009 | 195,366 | 197,217 | 783,929    |
| %CHYA            | 10.8%   | 2.2%    | 2.0%    | 7.3%    | 4.4%       | 8.5%    | 1.6%    | 1.7%    | 5.7%    | 3.5%       |
| REFUNDS          | 76,969  | 365,242 | 225,898 | 103,972 | 772,081    | 77,994  | 368,536 | 228,334 | 105,199 | 780,064    |
| %CHYA            | 1.8%    | 1.1%    | 0.9%    | 1.0%    | 1.1%       | 1.3%    | 0.9%    | 1.1%    | 1.2%    | 1.0%       |
| TOTAL            | 231,823 | 177,977 | 128,317 | 353,357 | 891,474    | 244,257 | 185,514 | 132,166 | 367,693 | 929,630    |
| %CHYA            | 6.7%    | 6.0%    | 4.7%    | 5.5%    | 5.8%       | 5.4%    | 4.2%    | 3.0%    | 4.1%    | 4.3%       |

Table B.6 Cigarette and Tobacco Tax Distribution

| September 2019   |                             |             |                       |               |             |                                   |                                |              |             |                       |             |
|--|-----------------------------|-------------|-----------------------|---------------|-------------|-----------------------------------|--------------------------------|--------------|-------------|-----------------------|-------------|
| TABLE B.6<br>Cigarette & Tobacco Tax Distribution (Millions of \$) |                             |             |                       |               |             |                                   |                                |              |             |                       |             |
|  | 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 |
| <b>Distribution Forecast*</b>                                      |                             |             |                       |               |             |                                   |                                |              |             |                       |             |
| <b>2019-20</b>   | 32.663                      | 127.297     | 5.078                 | 22.270        | 187.308     | 10.155                            | 197.463                        | 33.053       | 25.502      | 2.836                 | 61.391      |
| <b>2020-21</b>   | 32.335                      | 126.018     | 5.027                 | 22.047        | 185.426     | 10.053                            | 195.480                        | 33.481       | 25.832      | 2.873                 | 62.186      |
| <b>2019-21 Biennium</b>  | 64.998                      | 253.315     | 10.104                | 44.317        | 372.734     | 20.208                            | 392.942                        | 66.533       | 51.334      | 5.709                 | 123.576     |
| <b>2021-22</b>   | 32.024                      | 124.806     | 4.978                 | 21.834        | 183.642     | 9.957                             | 193.599                        | 33.915       | 26.167      | 2.910                 | 62.992      |
| <b>2022-23</b>   | 31.709                      | 123.580     | 4.929                 | 21.620        | 181.839     | 9.859                             | 191.698                        | 34.485       | 26.607      | 2.959                 | 64.051      |
| <b>2021-23 Biennium</b>  | 63.733                      | 248.386     | 9.908                 | 43.454        | 365.481     | 19.815                            | 385.296                        | 68.400       | 52.774      | 5.869                 | 127.043     |
| <b>2023-24</b>   | 31.511                      | 122.807     | 4.899                 | 21.485        | 180.702     | 9.797                             | 190.499                        | 34.873       | 26.906      | 2.992                 | 64.771      |
| <b>2024-25</b>   | 31.025                      | 120.913     | 4.823                 | 21.153        | 177.914     | 9.646                             | 187.560                        | 35.119       | 27.096      | 3.014                 | 65.228      |
| <b>2023-25 Biennium</b>  | 62.536                      | 243.720     | 9.722                 | 42.638        | 358.616     | 19.443                            | 378.059                        | 69.991       | 54.001      | 6.006                 | 129.999     |
| <b>2025-26</b>   | 30.595                      | 119.236     | 4.756                 | 20.860        | 175.447     | 9.512                             | 184.959                        | 35.330       | 27.258      | 3.032                 | 65.620      |
| <b>2026-27</b>   | 30.213                      | 117.749     | 4.697                 | 20.600        | 173.259     | 9.394                             | 182.653                        | 35.510       | 27.398      | 3.047                 | 65.955      |
| <b>2025-27 Biennium</b>  | 60.808                      | 236.985     | 9.453                 | 41.460        | 348.706     | 18.906                            | 367.611                        | 70.840       | 54.656      | 6.079                 | 131.574     |
| <b>2027-28</b>   | 29.875                      | 116.429     | 4.644                 | 20.369        | 171.317     | 9.288                             | 180.605                        | 35.664       | 27.517      | 3.060                 | 66.241      |
| <b>2028-29</b>   | 29.573                      | 115.256     | 4.597                 | 20.164        | 169.590     | 9.195                             | 178.785                        | 35.796       | 27.618      | 3.072                 | 66.486      |
| <b>2027-29 Biennium</b>  | 59.448                      | 231.685     | 9.241                 | 40.533        | 340.907     | 18.483                            | 359.390                        | 71.460       | 55.135      | 6.132                 | 132.727     |

Table B.7 Revenue Distribution to Local Governments

| <b>TABLE B.7</b>   |  |                           |                                  |                          |                        |                |              |                 | <b>September 2019</b>                         |
|--|--|---------------------------|----------------------------------|--------------------------|------------------------|----------------|--------------|-----------------|---|
| <b>Liquor Apportionment and Revenue Distribution to Local Governments (Millions of \$)</b> |  |                           |                                  |                          |                        |                |              |                 |   |
|  | <b>Liquor Apportionment Distribution</b> |                           |                                  |                          | <b>City Revenue</b>    |                |              | <b>Counties</b> | <b>Cigarette Tax Distribution<sup>2</sup></b> |
|  | <b>Total Liquor Revenue Available</b>    | <b>General Fund (56%)</b> | <b>Mental Health<sup>1</sup></b> | <b>Oregon Wine Board</b> | <b>Revenue Sharing</b> | <b>Regular</b> | <b>Total</b> |                 |   |
| <b>2019-20</b>   | 294.383                                  | 167.298                   | 9.518                            | 0.336                    | 53.287                 | 37.301         | 90.587       | 26.643          | 10.155  |
| <b>2020-21</b>   | 318.914                                  | 181.239                   | 10.311                           | 0.364                    | 57.727                 | 40.409         | 98.136       | 28.864          | 10.053  |
| <b>2019-21 Biennium</b>  | 613.297                                  | 348.537                   | 19.829                           | 0.701                    | 111.014                | 77.710         | 188.724      | 55.507          | 20.208  |
| <b>2021-22</b>   | 307.245                                  | 166.083                   | 10.258                           | 0.364                    | 59.337                 | 41.536         | 100.873      | 29.668          | 9.957   |
| <b>2022-23</b>   | 321.058                                  | 173.776                   | 10.494                           | 0.373                    | 62.007                 | 43.405         | 105.412      | 31.003          | 9.859   |
| <b>2021-23 Biennium</b>  | 628.303                                  | 339.859                   | 20.751                           | 0.736                    | 121.344                | 84.941         | 206.285      | 60.672          | 19.815  |
| <b>2023-24</b>   | 335.143                                  | 181.627                   | 10.735                           | 0.382                    | 64.727                 | 45.309         | 110.036      | 32.363          | 9.797   |
| <b>2024-25</b>   | 350.215                                  | 190.035                   | 10.982                           | 0.392                    | 67.640                 | 47.348         | 114.987      | 33.820          | 9.646   |
| <b>2023-25 Biennium</b>  | 685.358                                  | 371.661                   | 21.717                           | 0.774                    | 132.366                | 92.657         | 225.023      | 66.183          | 19.443  |
| <b>2025-26</b>   | 365.608                                  | 198.627                   | 11.234                           | 0.401                    | 49.428                 | 70.611         | 120.039      | 35.306          | 9.512   |
| <b>2026-27</b>   | 382.056                                  | 207.817                   | 11.493                           | 0.411                    | 51.652                 | 73.789         | 125.441      | 36.894          | 9.394   |
| <b>2025-27 Biennium</b>  | 747.664                                  | 406.444                   | 22.727                           | 0.813                    | 101.080                | 144.400        | 245.480      | 72.200          | 18.906  |
| <b>2027-28</b>   | 398.875                                  | 216.959                   | 12.010                           | 0.430                    | 53.924                 | 77.034         | 130.958      | 38.517          | 9.288   |
| <b>2028-29</b>   | 416.820                                  | 226.720                   | 12.550                           | 0.449                    | 56.350                 | 80.500         | 136.850      | 40.250          | 9.195   |
| <b>2027-29 Biennium</b>  | 815.694                                  | 443.680                   | 24.560                           | 0.879                    | 110.274                | 157.534        | 267.809      | 78.767          | 18.483  |

<sup>1</sup> Mental Health Alcoholism and Drug Services Account, per ORS 471.810<sup>2</sup> For details on cigarette revenues see TABLE B.6 on previous page

Table B.8 Track Record for the May 2019 Forecast

**Table B.8 Track Record for the May 2019 Forecast**

(Quarter ending May 30, 2019)

| <b>Personal Income Tax</b>        |                  |                  |                    | <b>Forecast Comparison</b> |                | <b>Year/Year Change</b> |  |
|-----------------------------------|------------------|------------------|--------------------|----------------------------|----------------|-------------------------|--|
| (Millions of dollars)             | Actual Revenues  | Latest Forecast  | Percent Difference | Prior Year                 | Percent Change |                         |  |
| Withholding                       | \$1,999.0        | \$1,969.7        | 1.5%               | \$1,851.2                  | 8.0%           |                         |  |
| Dollar difference                 |                  | \$29.3           |                    | \$131.0                    |                |                         |  |
| Estimated Payments*               | \$532.3          | \$472.1          | 12.7%              | \$512.7                    | 3.8%           |                         |  |
| Dollar difference                 |                  | \$60.2           |                    | \$131.8                    |                |                         |  |
| Final Payments*                   | \$1,385.6        | \$1,252.8        | 10.6%              | \$878.6                    | 57.7%          |                         |  |
| Dollar difference                 |                  | \$132.8          |                    | \$25.5                     |                |                         |  |
| Refunds                           | -\$445.6         | -\$483.6         | -7.9%              | -\$610.5                   | -27.0%         |                         |  |
| Dollar difference                 |                  | \$38.0           |                    | \$164.9                    |                |                         |  |
| <b>Total Personal Income Tax</b>  | <b>\$3,471.3</b> | <b>\$3,211.0</b> | <b>8.1%</b>        | <b>\$2,631.9</b>           | <b>31.9%</b>   |                         |  |
| Dollar difference                 |                  | \$260.3          |                    | \$839.3                    |                |                         |  |
| <b>Corporate Income Tax</b>       |                  |                  |                    | <b>Forecast Comparison</b> |                | <b>Year/Year Change</b> |  |
| (Millions of dollars)             | Actual Revenues  | Latest Forecast  | Percent Difference | Prior Year                 | Percent Change |                         |  |
| Advanced Payments                 | \$264.4          | \$330.8          | -20.1%             | \$303.8                    | -13.0%         |                         |  |
| Dollar difference                 |                  | -\$66.4          |                    | -\$39.4                    |                |                         |  |
| Final Payments                    | \$174.9          | \$136.4          | 28.2%              | \$108.5                    | 61.1%          |                         |  |
| Dollar difference                 |                  | \$38.5           |                    | \$66.3                     |                |                         |  |
| Refunds                           | -\$50.6          | -\$52.8          | -4.1%              | -\$54.2                    | -6.7%          |                         |  |
| Dollar difference                 |                  | \$2.2            |                    | \$3.6                      |                |                         |  |
| <b>Total Corporate Income Tax</b> | <b>\$388.7</b>   | <b>\$414.4</b>   | <b>-6.2%</b>       | <b>\$358.2</b>             | <b>8.5%</b>    |                         |  |
| Dollar difference                 |                  | -\$25.8          |                    | \$30.5                     |                |                         |  |
| <b>Total Income Tax</b>           |                  |                  |                    | <b>Forecast Comparison</b> |                | <b>Year/Year Change</b> |  |
| (Millions of dollars)             | Actual Revenues  | Latest Forecast  | Percent Difference | Prior Year                 | Percent Change |                         |  |
| <b>Corporate and Personal Tax</b> | <b>\$3,860.0</b> | <b>\$3,625.4</b> | <b>6.5%</b>        | <b>\$2,990.1</b>           | <b>29.1%</b>   |                         |  |
| Dollar difference                 |                  | \$234.6          |                    | \$869.9                    |                |                         |  |

\* 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<br>Summary of Lottery Resources            | Sept 2019 Forecast |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
|--|--------------------|--------------------|----------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|
|  | 2019-21            |                    |                      | 2021-23          |                    | 2023-25          |                    | 2025-2027        |                    | 2027-29          |                    |
|  | Current Forecast   | Change from May-19 | Change from COS 2019 | Current Forecast | Change from May-19 |
| (in millions of dollars)                             |                    |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
| <b>LOTTERY EARNINGS</b>                              |                    |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
| Traditional Lottery                                  | 153.598            | (1.303)            | (1.303)              | 155.144          | (0.286)            | 155.409          | (0.586)            | 155.238          | (0.658)            | 155.250          | (0.670)            |
| Video Lottery  | 1,309.709          | 4.765              | 4.765                | 1,417.334        | (0.689)            | 1,547.480        | 1.553              | 1,650.357        | 4.208              | 1,750.356        | 4.462              |
| Scoreboard (Sports Betting) <sup>1</sup>             | 8.252              | 8.252              | 8.252                | 29.425           | 29.425             | 42.198           | 42.198             | 46.404           | 46.404             | 49.901           | 49.901             |
| Administrative Actions                               | 0.000              | 0.000              | 0.000                | 0.000            | 0.000              | 0.000            | 0.000              | 0.000            | 0.000              | 0.000            | 0.000              |
| <b>Total Available to Transfer</b>                   | <b>1,471.559</b>   | <b>11.714</b>      | <b>11.714</b>        | <b>1,601.903</b> | <b>28.450</b>      | <b>1,745.087</b> | <b>43.164</b>      | <b>1,851.999</b> | <b>49.953</b>      | <b>1,955.507</b> | <b>53.694</b>      |
| <b>ECONOMIC DEVELOPMENT FUND</b>                     |                    |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
| Beginning Balance                                    | 65.340             | 0.000              | 0.000                | 0.000            | 0.000              | 0.000            | 0.000              | 0.000            | 0.000              | 0.000            | 0.000              |
| Transfers from Lottery                               | 1,471.559          | 11.714             | 11.714               | 1,601.903        | 28.450             | 1,745.087        | 43.164             | 1,851.999        | 49.953             | 1,955.507        | 53.694             |
| Other Resources <sup>2</sup>                         | 5.731              | 3.731              | 0.000                | 2.000            | 0.000              | 2.000            | 0.000              | 2.000            | 0.000              | 2.000            | 0.000              |
| <b>Total Available Resources</b>                     | <b>1,542.629</b>   | <b>15.445</b>      | <b>11.714</b>        | <b>1,603.903</b> | <b>28.450</b>      | <b>1,747.087</b> | <b>43.164</b>      | <b>1,853.999</b> | <b>49.953</b>      | <b>1,957.507</b> | <b>53.694</b>      |
| <b>ALLOCATION OF RESOURCES</b>                       |                    |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
| Constitutional Distributions                         |                    |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
| Education Stability Fund <sup>3</sup>                | 264.881            | 2.109              | 2.109                | 288.343          | 5.121              | 314.116          | 7.770              | 333.360          | 8.992              | 351.991          | 9.665              |
| Parks and Natural Resources Fund <sup>4</sup>        | 220.734            | 1.757              | 1.757                | 240.285          | 4.268              | 261.763          | 6.475              | 277.800          | 7.493              | 293.326          | 8.054              |
| Veterans' Services Fund <sup>5</sup>                 | 22.073             | 0.176              | 0.176                | 24.029           | 0.427              | 26.176           | 0.647              | 27.780           | 0.749              | 29.333           | 0.805              |
| Other Distributions                                  |                    |                    |                      |                  |                    |                  |                    |                  |                    |                  |                    |
| Outdoor School Education Fund <sup>5</sup>           | 45.306             | (2.364)            | 0.000                | 49.722           | (0.408)            | 52.133           | (0.428)            | 54.661           | (0.449)            | 57.313           | (0.471)            |
| County Economic Development                          | 50.231             | (1.966)            | 0.000                | 54.341           | (2.380)            | 59.330           | (2.507)            | 63.275           | (2.571)            | 67.109           | (2.727)            |
| HECC Collegiate Athletic & Scholarships <sup>6</sup> | 14.100             | (0.499)            | 0.000                | 16.019           | 0.285              | 17.451           | 0.432              | 18.520           | 0.500              | 19.555           | 0.537              |
| Gambling Addiction <sup>7</sup>                      | 14.593             | (0.005)            | 0.000                | 16.019           | 0.285              | 17.451           | 0.432              | 18.520           | 0.500              | 19.555           | 0.537              |
| County Fairs   | 3.828              | 0.000              | 0.000                | 3.828            | 0.000              | 3.828            | 0.000              | 3.828            | 0.000              | 3.828            | 0.000              |
| Other Legislatively Adopted Allocations <sup>8</sup> | 879.210            | 643.910            | 0.000                | 238.900          | 0.000              | 234.300          | 0.000              | 234.300          | 0.000              | 234.300          | 0.000              |
| Employer Incentive Fund (PERS) <sup>1</sup>          | 8.252              | 8.252              | 8.252                | 29.425           | 29.425             | 42.198           | 42.198             | 46.404           | 46.404             | 49.901           | 49.901             |
| <b>Total Distributions</b>                           | <b>1,523.208</b>   | <b>651.370</b>     | <b>12.294</b>        | <b>960.910</b>   | <b>37.020</b>      | <b>1,028.746</b> | <b>55.018</b>      | <b>1,078.448</b> | <b>61.616</b>      | <b>1,126.210</b> | <b>66.30</b>       |
| <b>Ending Balance/Discretionary Resources</b>        | <b>19.421</b>      | <b>(635.924)</b>   | <b>(0.579)</b>       | <b>642.993</b>   | <b>(8.570)</b>     | <b>718.341</b>   | <b>(11.853)</b>    | <b>775.552</b>   | <b>(11.663)</b>    | <b>831.297</b>   | <b>(12.608)</b>    |

Note: Some totals may not foot due to rounding.

- Per SB 1049 (2019), Sports Betting revenues are transferred to Economic Development Fund making them subject to the constitutional distributions, then an equal amount is transferred to the Employer Incentive Fund
- 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 96 (2016), 1.5% of net lottery proceeds are dedicated to the Veterans' Services 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.
- 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****Sep 2019****Rainy Day Fund**

| (Millions)                        | <b>2017-19</b> | <b>2019-21</b> | <b>2021-23</b>   | <b>2023-25</b>   | <b>2025-27</b>   |
|-----------------------------------|----------------|----------------|------------------|------------------|------------------|
| Beginning Balance                 | \$376.4        | \$666.6        | \$902.4          | \$1,228.9        | \$1,598.1        |
| Interest Earnings                 | \$23.5         | \$36.4         | \$52.4           | \$73.8           | \$93.8           |
| Deposits <sup>1</sup>             | \$266.7        | \$199.5        | \$274.1          | \$295.4          | \$314.5          |
| Triggered Withdrawals             | \$0.0          | \$0.0          | \$0.0            | \$0.0            | \$0.0            |
| <b>Ending Balance<sup>2</sup></b> | <b>\$666.6</b> | <b>\$902.4</b> | <b>\$1,228.9</b> | <b>\$1,598.1</b> | <b>\$2,006.3</b> |

**Education Stability Fund<sup>3</sup>**

| (Millions)                     | <b>2017-19</b> | <b>2019-21</b> | <b>2021-23</b> | <b>2023-25</b>   | <b>2025-27</b>   |
|--------------------------------|----------------|----------------|----------------|------------------|------------------|
| Beginning Balance              | \$384.2        | \$621.1        | \$858.1        | \$920.0          | \$1,058.6        |
| Interest Earnings <sup>4</sup> | \$22.4         | \$34.8         | \$44.7         | \$53.6           | \$60.1           |
| Deposits <sup>5</sup>          | \$235.9        | \$238.4        | \$61.9         | \$138.7          | \$109.7          |
| Distributions                  | \$21.0         | \$36.2         | \$44.7         | \$53.6           | \$60.1           |
| Oregon Education Fund          | \$0.0          | \$0.0          | \$0.0          | \$0.0            | \$0.0            |
| Oregon Opportunity Grant       | \$21.0         | \$36.2         | \$44.7         | \$53.6           | \$60.1           |
| Withdrawals                    | \$0.0          | \$0.0          | \$0.0          | \$0.0            | \$0.0            |
| <b>Ending Balance</b>          | <b>\$621.1</b> | <b>\$858.1</b> | <b>\$920.0</b> | <b>\$1,058.6</b> | <b>\$1,061.0</b> |

**Total Reserves**

| (Millions)                       | <b>2017-19</b>   | <b>2019-21</b>   | <b>2021-23</b>   | <b>2023-25</b>   | <b>2025-27</b>   |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Ending Balances</b>           | <b>\$1,287.7</b> | <b>\$1,760.5</b> | <b>\$2,148.9</b> | <b>\$2,656.7</b> | <b>\$3,067.3</b> |
| Percent of General Fund Revenues | 5.9%             | 8.4%             | 8.9%             | 10.0%            | 10.7%            |

## 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.

Table B.11 Recreational Marijuana Resources and Distributions

| TABLE B.11<br>Summary of Marijuana Resources<br><br>(in millions of dollars) | Sep 2019            |                       |                            |                     |                       |                     |                       |                     |                       |                     |                       |
|--|---------------------|-----------------------|----------------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|
|  | 2019-21             |                       |                            | 2021-23             |                       | 2023-25             |                       | 2025-27             |                       | 2027-29             |                       |
|  | Current<br>Forecast | Change<br>from May-19 | Change<br>from COS<br>2019 | Current<br>Forecast | Change<br>from May-19 |
| <b>MARIJUANA EARNINGS</b>  |                     |                       |                            |                     |                       |                     |                       |                     |                       |                     |                       |
| + Tax Revenue <sup>1</sup>   | 241.514             | 3.864                 | 3.544                      | 298.841             | 0.400                 | 326.435             | 0.400                 | 352.873             | 0.400                 | 379.312             | 0.400                 |
| - Administrative Costs <sup>2</sup>  | 14.193              | 0.000                 | 0.000                      | 14.193              | 0.000                 | 14.193              | 0.000                 | 14.193              | 0.000                 | 14.193              | 0.000                 |
| <b>Net Available to Transfer</b>   | <b>227.320</b>      | <b>3.864</b>          | <b>3.544</b>               | <b>284.648</b>      | <b>0.400</b>          | <b>312.242</b>      | <b>0.400</b>          | <b>338.680</b>      | <b>0.400</b>          | <b>365.118</b>      | <b>0.400</b>          |
| <b>OREGON MARIJUANA ACCOUNT</b>  |                     |                       |                            |                     |                       |                     |                       |                     |                       |                     |                       |
| Beginning Balance  | 28.765              | 0.000                 | 0.000                      | 3.091               | 3.091                 | 0.000               | 0.000                 | 0.000               | 0.000                 | 0.000               | 0.000                 |
| Revenue Transfers  | 227.320             | 3.864                 | 3.544                      | 284.648             | 0.400                 | 312.242             | 0.400                 | 338.680             | 0.400                 | 365.118             | 0.400                 |
| Other Resources  | 0.000               | 0.000                 | 0.000                      | 0.000               | 0.000                 | 0.000               | 0.000                 | 0.000               | 0.000                 | 1.000               | 0.000                 |
| <b>Total Available Resources</b>   | <b>256.085</b>      | <b>3.864</b>          | <b>3.544</b>               | <b>287.739</b>      | <b>3.491</b>          | <b>312.242</b>      | <b>0.400</b>          | <b>338.680</b>      | <b>0.400</b>          | <b>366.118</b>      | <b>0.400</b>          |
| <b>ALLOCATION OF RESOURCES</b>   |                     |                       |                            |                     |                       |                     |                       |                     |                       |                     |                       |
| State School Fund (40%)  | 103.765             | 0.000                 | 0.000                      | 115.096             | 1.397                 | 124.897             | 0.160                 | 135.472             | 0.160                 | 146.447             | 0.160                 |
| Mental Health, Alcoholism, & Drug Services (20%)                             | 51.882              | 0.000                 | 0.000                      | 57.548              | 0.698                 | 62.448              | 0.080                 | 67.736              | 0.080                 | 73.224              | 0.080                 |
| State Police (15%)   | 38.912              | 0.000                 | 0.000                      | 43.161              | 0.524                 | 46.836              | 0.060                 | 50.802              | 0.060                 | 54.918              | 0.060                 |
| Cities (10%)   | 22.732              | 0.386                 | 0.354                      | 28.774              | 0.349                 | 31.224              | 0.040                 | 33.868              | 0.040                 | 36.612              | 0.040                 |
| Counties (10%)   | 22.732              | 0.386                 | 0.354                      | 28.774              | 0.349                 | 31.224              | 0.040                 | 33.868              | 0.040                 | 36.612              | 0.040                 |
| Alcohol & Drug Abuse Prevention, Intervention & Treatment (5%)               | 12.971              | 0.000                 | 0.000                      | 14.387              | 0.175                 | 15.612              | 0.020                 | 16.934              | 0.020                 | 18.306              | 0.020                 |
| <b>Total Distributions</b>   | <b>252.994</b>      | <b>0.773</b>          | <b>0.709</b>               | <b>287.739</b>      | <b>3.491</b>          | <b>312.242</b>      | <b>0.400</b>          | <b>338.680</b>      | <b>0.400</b>          | <b>366.118</b>      | <b>0.400</b>          |
| <b>Ending Balance</b>  | <b>3.091</b>        | <b>3.091</b>          | <b>2.955</b>               | <b>0.000</b>        | <b>0.000</b>          | <b>0.000</b>        | <b>0.000</b>          | <b>0.000</b>        | <b>0.000</b>          | <b>0.000</b>        | <b>0.000</b>          |

Note: Some totals may not foot due to rounding.

1. Retailers pay taxes monthly, however taxes are not available for distribution to recipient programs until the Department of Revenue receives and processes retailers' quarterly tax returns. As such, there is a one to two quarter lag between when the initial monthly payments are made and when monies be come available to distribute.

2. Administrative Costs reflect monthly collection costs for the Department of Revenue in addition to distributions to the Criminal Justice Commission and OLCC per SB 1544 (2018)

Table B.12 Fund for Student Success (Corporate Activity Tax)

| <b>TABLE B.12</b>                                  |                         |                           |                             | <b>Sept 2019</b>        |                           |                         |                           |                         |                           |                         |                           |
|--|-------------------------|---------------------------|-----------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|
| <b>Summary of Corporate Activity Tax Resources</b> |                         |                           |                             |                         |                           |                         |                           |                         |                           |                         |                           |
|  | <b>2019-21</b>          |                           |                             | <b>2021-23</b>          |                           | <b>2023-25</b>          |                           | <b>2025-27</b>          |                           | <b>2027-29</b>          |                           |
| (in millions of dollars)                           | <b>Current Forecast</b> | <i>Change from May-19</i> | <i>Change from COS 2019</i> | <b>Current Forecast</b> | <i>Change from May-19</i> |
| <b>Corporate Activity Tax</b>                      |                         |                           |                             |                         |                           |                         |                           |                         |                           |                         |                           |
| + Tax Revenue                                      | 1,596.267               | NA                        | 0.000                       | 2,806.156               | NA                        | 3,063.290               | NA                        | 3,344.575               | NA                        | 3,657.172               | NA                        |
| - Administrative Costs                             | 9.520                   | NA                        | 0.000                       | 19.200                  | NA                        | 21.312                  | NA                        | 23.656                  | NA                        | 26.259                  | NA                        |
| <b>Net Available to Transfer</b>                   | <b>1,586.747</b>        | NA                        | 0.000                       | <b>2,786.956</b>        | NA                        | <b>3,041.978</b>        | NA                        | <b>3,320.918</b>        | NA                        | <b>3,630.913</b>        | NA                        |
| <b>Fund for Student Success</b>                    |                         |                           |                             |                         |                           |                         |                           |                         |                           |                         |                           |
| Beginning Balance                                  | 0.000                   | NA                        | 0.000                       | 34.760                  | NA                        | 0.000                   | NA                        | 0.000                   | NA                        | 0.000                   | NA                        |
| Revenue Transfers                                  | 1,586.747               | NA                        | 0.000                       | 2,786.956               | NA                        | 3,041.978               | NA                        | 3,320.918               | NA                        | 3,630.913               | NA                        |
| Other Resources                                    | 0.000                   | NA                        | 0.000                       | 0.000                   | NA                        | 0.000                   | NA                        | 0.000                   | NA                        | 0.000                   | NA                        |
| <b>Total Available Resources</b>                   | <b>1,586.747</b>        | NA                        | 0.000                       | <b>2,821.716</b>        | NA                        | <b>3,041.978</b>        | NA                        | <b>3,320.918</b>        | NA                        | <b>3,630.913</b>        | NA                        |
| <b>ALLOCATION OF RESOURCES</b>                     |                         |                           |                             |                         |                           |                         |                           |                         |                           |                         |                           |
| State School Fund                                  | 643.000                 | NA                        | 0.000                       | 739.000                 | NA                        | 796.686                 | NA                        | 869.740                 | NA                        | 950.927                 | NA                        |
| Student Investment Account                         | 472.740                 | NA                        | 0.000                       | 1,041.358               | NA                        | 1,122.646               | NA                        | 1,225.589               | NA                        | 1,339.993               | NA                        |
| Statewide Education Initiative Account             | 265.122                 | NA                        | 0.000                       | 624.815                 | NA                        | 673.588                 | NA                        | 735.354                 | NA                        | 803.996                 | NA                        |
| Early Learning Account                             | 171.125                 | NA                        | 0.000                       | 416.543                 | NA                        | 449.058                 | NA                        | 490.236                 | NA                        | 535.997                 | NA                        |
| <b>Total Distributions</b>                         | <b>1,551.987</b>        | NA                        | 0.000                       | <b>2,821.716</b>        | NA                        | <b>3,041.978</b>        | NA                        | <b>3,320.918</b>        | NA                        | <b>3,630.913</b>        | NA                        |
| <b>Ending Balance</b>                              | <b>34.760</b>           | NA                        | 0.000                       | <b>0.000</b>            | NA                        | <b>0.000</b>            | NA                        | <b>0.000</b>            | NA                        | <b>0.000</b>            | NA                        |

Note: Some totals may not foot due to rounding.

## APPENDIX C: POPULATION FORECASTS BY AGE AND SEX

|            |   |    |
|------------|---|----|
| Table C.1  | Oregon’s Population Forecasts and Component of Change 1990-2029 ..... | 61 |
| Table C.2  | Population Forecasts by Age and Sex: 2010-2029 .....                  | 62 |
| Table C.3  | Population of Oregon: 1980-2029 .....                                 | 63 |
| Table C.4  | Children: Ages 0-4 .....  | 63 |
| Table C.5  | School Age Population: Ages 5-17 .....                                | 63 |
| Table C.6  | Young Adult Population: Ages 18-24 .....                              | 63 |
| Table C.7  | Criminally At Risk Population: Males Ages 15-39 .....                 | 64 |
| Table C.8  | Prime Wage Earners: Ages 25-44 .....                                  | 64 |
| Table C.9  | Older Wage Earners: Ages 45-64 .....                                  | 64 |
| Table C.10 | Elderly Population by Age Group .....                                 | 64 |

Table C.1 Oregon's Population Forecasts and Component of Change 1990-2029

| Year<br>(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     |
| <b>1990-1995</b> |            | <b>324,000</b>    |         | <b>210,464</b> |           | <b>131,769</b> |           | <b>78,695</b>  | <b>245,305</b> |           |
| 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      |
| <b>1995-2000</b> |            | <b>246,700</b>    |         | <b>222,239</b> |           | <b>145,431</b> |           | <b>76,808</b>  | <b>169,892</b> |           |
| 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      |
| <b>2000-2005</b> |            | <b>195,800</b>    |         | <b>227,708</b> |           | <b>152,804</b> |           | <b>74,904</b>  | <b>120,896</b> |           |
| 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      |
| <b>2005-2010</b> |            | <b>210,400</b>    |         | <b>240,225</b> |           | <b>157,246</b> |           | <b>82,979</b>  | <b>127,421</b> |           |
| 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  | 43,690            | 1.11    | 45,447         | 11.53     | 33,731         | 8.56      | 11,716         | 31,974         | 8.11      |
| 2015             | 4,013,845  | 51,135            | 1.29    | 45,660         | 11.45     | 35,318         | 8.86      | 10,342         | 40,793         | 10.23     |
| <b>2010-2015</b> |            | <b>176,545</b>    |         | <b>226,354</b> |           | <b>167,458</b> |           | <b>58,896</b>  | <b>117,649</b> |           |
| 2016             | 4,076,350  | 62,505            | 1.56    | 45,647         | 11.28     | 35,339         | 8.74      | 10,308         | 52,197         | 12.90     |
| 2017             | 4,141,100  | 64,750            | 1.59    | 44,602         | 10.86     | 36,773         | 8.95      | 7,829          | 56,921         | 13.85     |
| 2018             | 4,195,300  | 54,200            | 1.31    | 42,906         | 10.29     | 36,900         | 8.85      | 6,006          | 48,194         | 11.56     |
| 2019             | 4,247,700  | 52,399            | 1.25    | 42,872         | 10.16     | 38,549         | 9.13      | 4,323          | 48,076         | 11.39     |
| 2020             | 4,299,400  | 51,701            | 1.22    | 42,867         | 10.03     | 39,169         | 9.17      | 3,699          | 48,002         | 11.23     |
| <b>2015-2020</b> |            | <b>285,555</b>    |         | <b>218,894</b> |           | <b>186,729</b> |           | <b>32,165</b>  | <b>253,390</b> |           |
| 2021             | 4,349,800  | 50,400            | 1.17    | 42,861         | 9.91      | 39,880         | 9.22      | 2,981          | 47,418         | 10.96     |
| 2022             | 4,399,000  | 49,200            | 1.13    | 42,849         | 9.80      | 40,654         | 9.29      | 2,196          | 47,004         | 10.75     |
| 2023             | 4,447,100  | 48,100            | 1.09    | 42,822         | 9.68      | 41,490         | 9.38      | 1,332          | 46,768         | 10.57     |
| 2024             | 4,493,800  | 46,699            | 1.05    | 42,790         | 9.57      | 42,413         | 9.49      | 377            | 46,322         | 10.36     |
| 2025             | 4,539,300  | 45,500            | 1.01    | 42,750         | 9.47      | 43,364         | 9.60      | -614           | 46,114         | 10.21     |
| <b>2020-2025</b> |            | <b>239,899</b>    |         | <b>214,073</b> |           | <b>207,801</b> |           | <b>6,272</b>   | <b>233,627</b> |           |
| 2026             | 4,583,000  | 43,700            | 0.96    | 42,711         | 9.36      | 44,306         | 9.71      | -1,596         | 45,296         | 9.93      |
| 2027             | 4,625,300  | 42,300            | 0.92    | 42,667         | 9.27      | 45,293         | 9.84      | -2,625         | 44,926         | 9.76      |
| 2028             | 4,666,000  | 40,700            | 0.88    | 42,621         | 9.17      | 46,389         | 9.99      | -3,768         | 44,468         | 9.57      |
| 2029             | 4,705,100  | 39,100            | 0.84    | 42,570         | 9.09      | 47,452         | 10.13     | -4,883         | 43,983         | 9.39      |
| <b>1990-2000</b> |            | <b>570,700</b>    |         | <b>432,703</b> |           | <b>277,200</b> |           | <b>155,503</b> | <b>415,197</b> | 13.10     |
| <b>2000-2010</b> |            | <b>406,200</b>    |         | <b>467,933</b> |           | <b>310,050</b> |           | <b>157,883</b> | <b>248,317</b> | 6.83      |
| <b>2010-2020</b> |            | <b>462,100</b>    |         | <b>445,248</b> |           | <b>354,187</b> |           | <b>91,061</b>  | <b>371,039</b> | 9.19      |
| <b>2019-2029</b> |            | <b>457,400</b>    |         | <b>427,509</b> |           | <b>430,410</b> |           | <b>-2,901</b>  | <b>460,301</b> | 10.26     |

Sources: 1990-1999 population - U.S. Census Bureau; 2000-2009 population - intercensal estimates by Office of Economic Analysis; population estimates 2010-2018 by Population Research Center, PSU; births and deaths 1990-18/17: Oregon Center for Health Statistics.

Table C.2 Population Forecasts by Age and Sex: 2010-2029

| Age      | 2010      |           |           |          | 2011      |           |           |          | 2012      |           |           |          | 2013      |           |           |          | 2014      |           |           |  |
|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|--|
|          | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     |  |
| 0-4      | 122,327   | 116,130   | 238,457   | 37.2     | 121,092   | 115,088   | 236,180   | 37.4     | 119,516   | 113,359   | 232,875   | 37.6     | 118,293   | 111,850   | 230,143   | 37.8     | 117,872   | 111,493   | 229,365   |  |
| 5-9      | 121,539   | 116,369   | 237,908   | 39.4     | 121,767   | 115,893   | 237,660   | 39.7     | 122,733   | 116,900   | 239,634   | 39.9     | 124,024   | 117,953   | 241,977   | 40.1     | 124,734   | 118,038   | 242,772   |  |
| 10-14    | 124,508   | 118,732   | 243,241   | 40.6     | 124,074   | 119,044   | 243,118   | 40.8     | 123,603   | 118,287   | 241,890   | 41.0     | 123,386   | 118,206   | 241,593   | 41.2     | 123,403   | 118,463   | 241,865   |  |
| 15-19    | 131,126   | 124,540   | 255,667   | 42.2     | 129,068   | 121,927   | 250,996   | 42.4     | 127,517   | 120,587   | 248,104   | 42.6     | 126,643   | 119,875   | 246,518   | 42.8     | 126,847   | 119,972   | 246,819   |  |
| 20-24    | 128,787   | 124,903   | 253,689   | 43.2     | 130,576   | 126,691   | 257,267   | 43.4     | 132,853   | 128,787   | 261,640   | 43.6     | 135,293   | 130,705   | 265,998   | 43.8     | 136,741   | 132,080   | 268,821   |  |
| 25-29    | 134,019   | 131,816   | 265,835   | 44.2     | 133,302   | 130,829   | 264,132   | 44.4     | 132,463   | 129,927   | 262,390   | 44.6     | 132,508   | 130,403   | 262,911   | 44.8     | 134,578   | 132,874   | 267,452   |  |
| 30-34    | 131,489   | 128,325   | 259,814   | 45.2     | 133,512   | 130,743   | 264,255   | 45.4     | 135,689   | 133,329   | 269,018   | 45.6     | 137,321   | 135,074   | 272,395   | 45.8     | 139,932   | 137,412   | 277,344   |  |
| 35-39    | 128,070   | 123,596   | 251,665   | 46.2     | 125,924   | 121,787   | 247,710   | 46.4     | 126,018   | 122,275   | 248,293   | 46.6     | 128,683   | 124,338   | 253,022   | 46.8     | 130,858   | 126,562   | 257,420   |  |
| 40-44    | 125,969   | 122,843   | 248,811   | 47.2     | 128,974   | 125,358   | 254,332   | 47.4     | 130,795   | 126,620   | 257,415   | 47.6     | 131,483   | 127,467   | 258,950   | 47.8     | 131,047   | 126,698   | 257,745   |  |
| 45-49    | 130,825   | 132,538   | 263,363   | 48.2     | 127,795   | 128,542   | 256,337   | 48.4     | 125,434   | 124,976   | 250,410   | 48.6     | 123,864   | 122,179   | 246,043   | 48.8     | 124,309   | 121,474   | 245,783   |  |
| 50-54    | 135,129   | 141,565   | 276,693   | 49.2     | 134,682   | 140,654   | 275,335   | 49.4     | 133,445   | 139,197   | 272,643   | 49.6     | 132,080   | 137,545   | 269,625   | 49.8     | 131,568   | 136,140   | 267,708   |  |
| 55-59    | 133,011   | 140,802   | 273,812   | 50.2     | 134,009   | 142,349   | 276,358   | 50.4     | 134,403   | 143,058   | 277,461   | 50.6     | 134,376   | 142,746   | 277,122   | 50.8     | 133,344   | 142,041   | 275,385   |  |
| 60-64    | 115,236   | 121,045   | 236,281   | 51.2     | 121,440   | 127,818   | 249,258   | 51.4     | 122,921   | 129,548   | 252,470   | 51.6     | 124,925   | 132,821   | 257,745   | 51.8     | 127,753   | 136,837   | 264,590   |  |
| 65-69    | 81,854    | 87,917    | 169,771   | 52.2     | 84,425    | 90,852    | 175,277   | 52.4     | 82,096    | 88,785    | 170,881   | 52.6     | 80,509    | 86,824    | 167,333   | 52.8     | 80,544    | 86,824    | 167,368   |  |
| 70-74    | 56,925    | 62,949    | 119,874   | 53.2     | 59,485    | 65,640    | 125,125   | 53.4     | 62,496    | 69,113    | 131,609   | 53.6     | 67,184    | 73,899    | 141,083   | 53.8     | 71,303    | 78,473    | 149,776   |  |
| 75-79    | 40,932    | 50,101    | 91,034    | 54.2     | 41,549    | 50,075    | 91,624    | 54.4     | 42,654    | 50,692    | 93,346    | 54.6     | 44,224    | 52,064    | 96,287    | 54.8     | 46,443    | 54,145    | 100,588   |  |
| 80-84    | 30,391    | 42,734    | 73,126    | 55.2     | 30,500    | 42,287    | 72,787    | 55.4     | 30,560    | 41,822    | 72,381    | 55.6     | 30,774    | 41,257    | 72,031    | 55.8     | 31,046    | 40,788    | 71,834    |  |
| 85+      | 26,800    | 51,458    | 78,258    | 56.2     | 27,598    | 52,275    | 79,874    | 56.4     | 28,360    | 52,915    | 81,276    | 56.6     | 28,995    | 53,538    | 82,533    | 56.8     | 29,522    | 53,890    | 83,411    |  |
| Total    | 1,898,938 | 1,938,362 | 3,837,300 | 38.3     | 1,909,773 | 1,947,852 | 3,857,625 | 38.5     | 1,923,557 | 1,960,178 | 3,883,735 | 38.7     | 1,942,040 | 1,976,980 | 3,919,020 | 38.9     | 1,964,844 | 1,997,866 | 3,962,710 |  |
| Mdn. Age | 37.2      | 39.4      | 38.3      | 37.4     | 39.7      | 38.5      | 37.6      | 39.9     | 38.7      | 37.8      | 40.0      | 38.9     | 38.0      | 40.1      | 39.0      |          |           |           |           |  |
| Age      | 2015      |           |           |          | 2016      |           |           |          | 2017      |           |           |          | 2018      |           |           |          | 2019      |           |           |  |
|          | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     |  |
| 0-4      | 118,065   | 111,542   | 229,607   | 38.1     | 112,182   | 107,176   | 219,358   | 38.2     | 110,623   | 105,617   | 216,240   | 38.3     | 109,157   | 104,151   | 213,308   | 38.4     | 107,772   | 102,745   | 210,517   |  |
| 5-9      | 125,502   | 118,321   | 243,824   | 40.2     | 125,342   | 118,120   | 243,462   | 40.4     | 125,253   | 117,281   | 242,534   | 40.6     | 125,164   | 116,409   | 241,573   | 40.8     | 125,075   | 115,538   | 240,613   |  |
| 10-14    | 122,735   | 118,328   | 241,063   | 41.2     | 123,807   | 118,633   | 242,441   | 41.4     | 125,568   | 120,566   | 246,134   | 41.6     | 127,404   | 122,223   | 249,627   | 41.8     | 128,481   | 122,681   | 251,162   |  |
| 15-19    | 127,735   | 120,633   | 248,368   | 42.2     | 128,448   | 121,638   | 250,085   | 42.4     | 129,149   | 121,889   | 251,038   | 42.6     | 129,338   | 122,073   | 251,411   | 42.8     | 129,610   | 122,533   | 252,143   |  |
| 20-24    | 137,304   | 132,672   | 269,977   | 43.2     | 137,526   | 132,652   | 270,178   | 43.4     | 138,151   | 133,323   | 271,474   | 43.6     | 137,916   | 133,230   | 271,146   | 43.8     | 138,362   | 133,523   | 271,885   |  |
| 25-29    | 139,959   | 137,056   | 277,015   | 44.2     | 143,647   | 143,914   | 287,561   | 44.4     | 149,363   | 150,285   | 299,648   | 44.6     | 154,128   | 155,225   | 309,353   | 44.8     | 158,424   | 158,424   | 316,848   |  |
| 30-34    | 141,525   | 138,707   | 280,232   | 45.2     | 144,070   | 140,722   | 284,792   | 45.4     | 146,205   | 142,880   | 289,086   | 45.6     | 148,173   | 145,415   | 293,588   | 45.8     | 151,745   | 149,552   | 301,297   |  |
| 35-39    | 134,484   | 129,808   | 264,292   | 46.2     | 138,181   | 133,110   | 271,291   | 46.4     | 142,320   | 136,983   | 279,303   | 46.6     | 145,127   | 139,407   | 284,534   | 46.8     | 148,589   | 142,255   | 290,844   |  |
| 40-44    | 130,400   | 125,302   | 255,702   | 47.2     | 129,051   | 124,315   | 253,366   | 47.4     | 126,612   | 122,672   | 249,284   | 47.6     | 124,587   | 120,815   | 245,402   | 47.8     | 122,815   | 119,170   | 241,985   |  |
| 45-49    | 127,060   | 123,545   | 250,605   | 48.2     | 131,246   | 126,804   | 258,050   | 48.4     | 134,157   | 128,892   | 263,049   | 48.6     | 135,475   | 130,160   | 265,635   | 48.8     | 135,400   | 129,637   | 265,037   |  |
| 50-54    | 129,981   | 133,569   | 263,550   | 49.2     | 127,847   | 130,622   | 258,469   | 49.4     | 127,711   | 127,711   | 255,422   | 49.6     | 125,327   | 125,340   | 250,667   | 49.8     | 126,116   | 124,882   | 251,000   |  |
| 55-59    | 133,245   | 142,271   | 275,516   | 50.2     | 133,803   | 142,713   | 276,516   | 50.4     | 133,264   | 142,249   | 275,513   | 50.6     | 132,346   | 141,198   | 273,544   | 50.8     | 132,091   | 140,121   | 272,213   |  |
| 60-64    | 130,407   | 139,689   | 270,096   | 51.2     | 132,872   | 142,414   | 275,286   | 51.4     | 134,431   | 144,220   | 278,651   | 51.6     | 135,166   | 144,565   | 279,730   | 51.8     | 134,545   | 144,218   | 278,764   |  |
| 65-69    | 109,922   | 117,550   | 227,472   | 52.2     | 116,860   | 124,952   | 241,812   | 52.4     | 119,222   | 127,460   | 246,682   | 52.6     | 121,835   | 131,164   | 253,000   | 52.8     | 124,984   | 135,379   | 260,363   |  |
| 70-74    | 74,860    | 82,510    | 157,370   | 53.2     | 77,688    | 85,607    | 163,295   | 53.4     | 80,391    | 89,610    | 170,001   | 53.6     | 83,229    | 92,843    | 176,072   | 53.8     | 86,191    | 95,357    | 181,548   |  |
| 75-79    | 48,615    | 56,084    | 104,699   | 54.2     | 51,000    | 58,692    | 109,692   | 54.4     | 53,744    | 62,024    | 115,768   | 54.6     | 57,958    | 66,449    | 124,407   | 54.8     | 61,575    | 70,575    | 132,149   |  |
| 80-84    | 31,707    | 40,809    | 72,517    | 55.2     | 32,509    | 40,934    | 73,443    | 55.4     | 33,587    | 41,566    | 75,152    | 55.6     | 35,014    | 42,755    | 77,768    | 55.8     | 36,838    | 44,438    | 81,275    |  |
| 85+      | 30,095    | 53,967    | 84,062    | 56.2     | 30,836    | 54,337    | 85,173    | 56.4     | 31,428    | 54,414    | 85,842    | 56.6     | 32,073    | 54,392    | 86,465    | 56.8     | 32,525    | 54,071    | 86,596    |  |
| Total    | 1,991,483 | 2,022,363 | 4,013,845 | 38.1     | 2,023,989 | 2,052,361 | 4,076,350 | 38.2     | 2,057,401 | 2,083,700 | 4,141,100 | 38.3     | 2,085,686 | 2,109,614 | 4,195,300 | 38.4     | 2,112,990 | 2,134,710 | 4,247,700 |  |
| Mdn. Age | 38.1      | 40.2      | 39.1      | 38.2     | 40.2      | 39.2      | 38.3      | 40.2     | 39.2      | 38.5      | 40.3      | 39.4     | 38.7      | 40.4      | 39.5      |          |           |           |           |  |
| Age      | 2020      |           |           |          | 2021      |           |           |          | 2022      |           |           |          | 2023      |           |           |          | 2024      |           |           |  |
|          | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     | Mdn. Age | Male      | Female    | Total     |  |
| 0-4      | 115,485   | 108,642   | 224,127   | 38.9     | 113,931   | 107,176   | 221,107   | 39.0     | 112,949   | 106,283   | 219,232   | 39.1     | 112,889   | 106,251   | 219,140   | 39.2     | 112,803   | 106,195   | 218,998   |  |
| 5-9      | 125,506   | 116,608   | 242,114   | 40.8     | 126,190   | 117,019   | 243,209   | 41.0     | 126,211   | 116,888   | 243,099   | 41.2     | 126,498   | 117,019   | 243,517   | 41.4     | 126,661   | 117,142   | 243,803   |  |
| 10-14    | 129,473   | 123,177   | 252,650   | 41.8     | 129,378   | 122,864   | 252,242   | 42.0     | 128,764   | 121,686   | 250,450   | 42.2     | 128,230   | 120,542   | 248,771   | 42.4     | 128,215   | 120,388   | 248,603   |  |
| 15-19    | 129,295   | 122,504   | 251,799   | 42.8     | 130,034   | 122,642   | 252,676   | 43.0     | 131,486   | 124,263   | 255,749   | 43.2     | 133,139   | 125,739   | 258,879   | 43.4     | 134,049   | 126,027   | 260,076   |  |
| 20-24    | 139,146   | 134,064   | 273,210   | 43.8     | 139,370   | 134,748   | 274,118   | 44.0     | 139,512   | 134,273   | 273,785   | 44.2     | 139,835   | 134,571   | 274,406   | 44.4     | 140,136   | 135,049   | 275,185   |  |
| 25-29    | 157,870   | 159,525   | 317,395   | 44.8     | 157,414   | 158,576   | 315,990   | 45.0     | 156,779   | 158,150   | 314,929   | 45.2     | 156,251   | 157,705   | 313,956   | 45.4     | 156,516   | 157,335   | 313,851   |  |
| 30-34    | 156,098   | 154,904   | 311,001   | 45.8     | 161,955   | 162,013   | 323,968   | 46.0     | 167,721   | 168,672   | 336,394   | 46.2     | 172,714   | 173,797   | 346,511   | 46.4     | 175,452   | 176,885   | 352,338   |  |
| 35-39    | 150,607   | 143,816   | 294,423   | 46.8     | 152,900   | 145,650   | 298,550   | 47.0     | 154,603   | 147,310   | 301,913   | 47.2     | 156,541   | 149,866   | 306,407   | 47.4     | 160,174   | 154,062   | 314,236   |  |
| 40-44    | 140,210   | 134,153   | 274,363   | 47.8     | 143,934   | 137,509   | 281,443   | 48.0     | 147,691   | 141,001   | 288,693   | 48.2     | 150,499   | 143,431   | 293,930   | 48.4     | 153,970   | 146,282   | 300,252   |  |
| 45-49    | 134,517   | 128,324   | 262,840   | 48.8     | 133,318   | 127,191   | 260,509   | 49.0     | 134,247   | 128,200   | 262,447   | 49.2     | 137,643   | 130,719   | 268,362   | 49.4     | 140,276   | 133,237   | 273,513   |  |
| 50-54    | 129,084   | 127,220   | 256,304   | 49.8     | 133,179   | 130,476   | 263,655   | 50.0     | 132,376   | 126,820   | 259,196   | 50.2     | 137,064   | 133,618   | 270,682   | 50.4     | 136,888   | 133,011   | 269,899   |  |
| 55-59    | 130,616   | 137,485   | 268       |          |           |           |           |          |           |           |           |          |           |           |           |          |           |           |           |  |

Table C.3 Population of Oregon: 1990-2029

| Year (July 1) | Total Population | Change from previous year Number | Change from previous year 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        | 43,690                           | 1.11%                             |
| 2015          | 4,013,845        | 51,135                           | 1.29%                             |
| 2016          | 4,076,350        | 62,505                           | 1.56%                             |
| 2017          | 4,141,100        | 64,750                           | 1.59%                             |
| 2018          | 4,195,300        | 54,200                           | 1.31%                             |
| 2019          | 4,247,700        | 52,399                           | 1.25%                             |
| 2020          | 4,299,400        | 51,701                           | 1.22%                             |
| 2021          | 4,349,800        | 50,400                           | 1.17%                             |
| 2022          | 4,399,000        | 49,200                           | 1.13%                             |
| 2023          | 4,447,100        | 48,100                           | 1.09%                             |
| 2024          | 4,493,800        | 46,699                           | 1.05%                             |
| 2025          | 4,539,300        | 45,500                           | 1.01%                             |
| 2026          | 4,583,000        | 43,700                           | 0.96%                             |
| 2027          | 4,625,300        | 42,300                           | 0.92%                             |
| 2028          | 4,666,000        | 40,700                           | 0.88%                             |
| 2029          | 4,705,100        | 39,100                           | 0.84%                             |

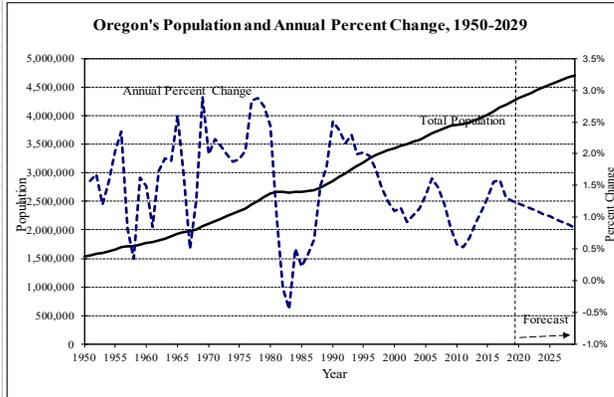


Table C.4 Children: Ages 0-4

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/yr. |        |         | % Change from previous decade/yr. |        |         | % Change from previous decade/yr. |         |         |
|---------------|-----------------------------------|--------|---------|-----------------------------------|--------|---------|-----------------------------------|---------|---------|
|               | 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          | 230,143                           | -2,733 | -1.17%  | 630,161                           | 1,473  | 0.23%   | 365,925                           | 3,346   | 0.92%   |
| 2014          | 229,365                           | -777   | -0.34%  | 631,753                           | 1,592  | 0.25%   | 368,525                           | 2,600   | 0.71%   |
| 2015          | 229,607                           | 242    | 0.11%   | 633,304                           | 1,550  | 0.25%   | 370,167                           | 1,642   | 0.45%   |
| 2016          | 231,240                           | 1,632  | 0.71%   | 635,485                           | 2,182  | 0.34%   | 370,880                           | 712     | 0.19%   |
| 2017          | 232,236                           | 996    | 0.43%   | 638,094                           | 2,608  | 0.41%   | 373,086                           | 2,206   | 0.59%   |
| 2018          | 230,170                           | -2,065 | -0.89%  | 639,287                           | 1,194  | 0.19%   | 374,200                           | 1,114   | 0.30%   |
| 2019          | 227,327                           | -2,843 | -1.24%  | 641,363                           | 2,076  | 0.32%   | 375,292                           | 1,092   | 0.29%   |
| 2020          | 224,127                           | -3,200 | -1.41%  | 644,564                           | 3,200  | 0.50%   | 375,209                           | -83     | -0.02%  |
| 2021          | 221,107                           | -3,020 | -1.35%  | 646,828                           | 2,264  | 0.35%   | 375,418                           | 209     | 0.06%   |
| 2022          | 219,232                           | -1,875 | -0.85%  | 646,809                           | -19    | 0.00%   | 376,274                           | 856     | 0.23%   |
| 2023          | 219,140                           | -92    | -0.04%  | 645,104                           | -1,705 | -0.26%  | 377,612                           | 1,338   | 0.36%   |
| 2024          | 218,998                           | -142   | -0.06%  | 642,387                           | -2,718 | -0.42%  | 378,981                           | 1,369   | 0.36%   |
| 2025          | 219,108                           | 110    | 0.05%   | 638,308                           | -4,078 | -0.63%  | 380,563                           | 1,582   | 0.42%   |
| 2026          | 219,496                           | 388    | 0.18%   | 633,913                           | -4,396 | -0.69%  | 382,035                           | 1,472   | 0.39%   |
| 2027          | 219,018                           | -478   | -0.22%  | 630,474                           | -3,438 | -0.54%  | 384,437                           | 2,402   | 0.63%   |
| 2028          | 218,505                           | -513   | -0.23%  | 627,201                           | -3,273 | -0.52%  | 386,228                           | 1,791   | 0.47%   |
| 2029          | 217,958                           | -547   | -0.25%  | 624,676                           | -2,524 | -0.40%  | 386,048                           | -180    | -0.05%  |

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<br>(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             | 668,956                           | 8,507   | 1.29%   | 1,059,961                         | 12,683  | 1.21%   | 1,053,466                         | 2,930   | 0.28%   |
| 2015             | 679,008                           | 10,051  | 1.50%   | 1,074,881                         | 14,920  | 1.41%   | 1,059,767                         | 6,301   | 0.60%   |
| 2016             | 691,871                           | 12,863  | 1.89%   | 1,097,009                         | 22,128  | 2.06%   | 1,068,321                         | 8,554   | 0.81%   |
| 2017             | 705,188                           | 13,317  | 1.92%   | 1,123,925                         | 26,916  | 2.45%   | 1,071,315                         | 2,993   | 0.28%   |
| 2018             | 714,682                           | 9,493   | 1.35%   | 1,149,254                         | 25,330  | 2.25%   | 1,069,577                         | -1,738  | -0.16%  |
| 2019             | 725,247                           | 10,565  | 1.48%   | 1,174,471                         | 25,216  | 2.19%   | 1,067,011                         | -2,565  | -0.24%  |
| 2020             | 733,015                           | 7,768   | 1.07%   | 1,197,182                         | 22,712  | 1.93%   | 1,066,447                         | -564    | -0.05%  |
| 2021             | 741,672                           | 8,657   | 1.18%   | 1,219,950                         | 22,768  | 1.90%   | 1,066,602                         | 155     | 0.01%   |
| 2022             | 750,102                           | 8,430   | 1.14%   | 1,241,929                         | 21,979  | 1.80%   | 1,067,088                         | 486     | 0.05%   |
| 2023             | 758,480                           | 8,378   | 1.12%   | 1,260,804                         | 18,876  | 1.52%   | 1,069,649                         | 2,561   | 0.24%   |
| 2024             | 766,327                           | 7,848   | 1.03%   | 1,281,076                         | 20,272  | 1.61%   | 1,072,681                         | 3,032   | 0.28%   |
| 2025             | 772,617                           | 6,289   | 0.82%   | 1,297,118                         | 16,041  | 1.25%   | 1,078,714                         | 6,034   | 0.56%   |
| 2026             | 778,111                           | 5,494   | 0.71%   | 1,313,031                         | 15,913  | 1.23%   | 1,085,018                         | 6,304   | 0.58%   |
| 2027             | 783,676                           | 5,565   | 0.72%   | 1,326,272                         | 13,241  | 1.01%   | 1,093,846                         | 8,828   | 0.81%   |
| 2028             | 788,868                           | 5,192   | 0.66%   | 1,339,199                         | 12,927  | 0.97%   | 1,103,670                         | 9,824   | 0.90%   |
| 2029             | 792,357                           | 3,489   | 0.44%   | 1,352,822                         | 13,624  | 1.02%   | 1,114,465                         | 10,796  | 0.98%   |

Table C.10 Elderly Population by Age Group

| Year<br>(July 1) | %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             | 619,639                          | 4.15%  | 363,807                          | 5.72%  | 172,422                          | 2.44%  | 83,411                           | 1.06%  |
| 2015             | 646,119                          | 4.27%  | 384,842                          | 5.78%  | 177,215                          | 2.78%  | 84,062                           | 0.78%  |
| 2016             | 673,416                          | 4.22%  | 405,107                          | 5.27%  | 183,136                          | 3.34%  | 85,173                           | 1.32%  |
| 2017             | 702,446                          | 4.31%  | 425,682                          | 5.08%  | 190,921                          | 4.25%  | 85,842                           | 0.79%  |
| 2018             | 732,812                          | 4.32%  | 444,171                          | 4.34%  | 202,175                          | 5.89%  | 86,465                           | 0.73%  |
| 2019             | 762,236                          | 4.02%  | 462,215                          | 4.06%  | 213,424                          | 5.56%  | 86,596                           | 0.15%  |
| 2020             | 791,871                          | 3.89%  | 480,732                          | 4.01%  | 223,599                          | 4.77%  | 87,540                           | 1.09%  |
| 2021             | 819,896                          | 3.54%  | 498,470                          | 3.69%  | 232,670                          | 4.06%  | 88,756                           | 1.39%  |
| 2022             | 847,668                          | 3.39%  | 505,831                          | 1.48%  | 251,431                          | 8.06%  | 90,407                           | 1.86%  |
| 2023             | 874,790                          | 3.20%  | 512,771                          | 1.37%  | 269,455                          | 7.17%  | 92,564                           | 2.39%  |
| 2024             | 899,677                          | 2.84%  | 518,717                          | 1.16%  | 285,429                          | 5.93%  | 95,530                           | 3.20%  |
| 2025             | 925,488                          | 2.87%  | 524,558                          | 1.13%  | 302,355                          | 5.93%  | 98,575                           | 3.19%  |
| 2026             | 949,507                          | 2.60%  | 529,481                          | 0.94%  | 317,918                          | 5.15%  | 102,108                          | 3.58%  |
| 2027             | 971,253                          | 2.29%  | 531,012                          | 0.29%  | 333,717                          | 4.97%  | 106,524                          | 4.32%  |
| 2028             | 991,198                          | 2.05%  | 529,855                          | -0.22% | 348,578                          | 4.45%  | 112,764                          | 5.86%  |
| 2029             | 1,009,129                        | 1.81%  | 527,445                          | -0.45% | 362,963                          | 4.13%  | 118,721                          | 5.28%  |