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# Oregon Economic and Revenue Forecast

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## **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  
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## EXECUTIVE SUMMARY

### June 2020

While the Covid-19 outbreak has injected a great deal of uncertainty into the outlook, the nature of our forecast is unchanged. As always, the June 2020 economic and revenue forecast represents what the Office of Economic Analysis and its advisors believe is the most probable outcome given available information. Although actual economic growth and state revenues may depart significantly from these projections, we aim to build a forecast that is just as likely to end up too high as it is too low.

Forecast errors on both the high and low side create problems for decision makers. In a recessionary environment, a revenue forecast that is too low may lead to cuts in public programs that are unnecessarily deep. If the revenue forecast proves to be too optimistic, the budget will need to be rebalanced when the truth eventually comes out. Rebalancing becomes increasingly difficult as we approach the end of a budget period, given that much of the allocated resources have already been spent.

In one sense, the sudden stop of economic activity due to the outbreak of Covid-19 has made the revenue outlook clearer. Economists have a particularly difficult time forecasting turning points in the business cycle. This time around, it became clear overnight that Oregon is in recession and that the downturn will be severe. Recovery will take years.

As social distancing restrictions continue to lift in the months ahead, underlying economic activity will return. Pent-up demand will transition the economy from recession to recovery as households are able to venture out to a larger degree. This rebound in consumer spending, business sales, and profits will lead to firms hiring back some employees. Economic growth in the second half of this year will be strong. However this initial bounce back will be far from complete.

After this rebound in economic activity, growth will continue but at a relatively slow pace due to the uncertainty surrounding public health. Firms and households are expected to remain somewhat hesitant and only gradually test the waters. Once business and consumer confidence fully return following available medical treatment or the passing of the pandemic, stronger economic growth will resume and the economy will fully recover.

While this recession is extremely severe – the deepest on record in Oregon with data going back to 1939 – it is expected to be shorter in duration than the Great Recession. The economy should return to health by mid-decade. The reasons for the faster recovery include the fact that there were no major macroeconomic issues or imbalances prior to the virus, much of the initial severity of the recession is due to suppressed economic activity, and the federal policy response, however imperfect, has been swifter and more targeted than in recent cycles.

Combined, these factors should help limit the amount of permanent damage done to the economy during the shutdown phase. Should the number of firms that close, or the number of workers displaced remain relatively limited, or rather the amount of time they spend as such be limited, then the overall economic recovery timeline should be shorter than last decade.

How severe will the revenue slowdown be? During most business cycles, Oregon's state revenues have proven to be more volatile than those in the typical state. Not only is Oregon's underlying economy subject to boom-bust swings, but the state also depends on a very volatile mix of revenue instruments, led by personal and corporate income taxes.

During the current recession, income taxes might not fare so poorly in comparison to other revenue instruments. Given the depth and breadth of the current economic downturn, no state revenue system will be

spared from pain going forward. The need for isolation has led to spending declines that far outstrip what is usually seen during recessions, hitting sales tax states disproportionately hard. States that depend on tourism and energy/mining revenues are also in for a tough year or two.

Oregon will share some of the pain felt by sales tax states since our revenue system has become much more dependent on consumer and business spending over time. Even before the corporate activity tax was enacted in 2019, a wide range of sales-based taxes had been expanded in recent years. Taxes on lodging, gasoline, vehicle purchases, video lottery and marijuana sales are all much more substantial than they were during the last recession.

While some taxes will fare better than others, all major revenue sources will face considerable downward pressure given the severity of the recession. The sudden stop in economic activity has led to the largest downward revision to the quarterly forecast that our office has ever had to make. In the baseline (most likely) scenario, General Fund and other major revenues have been reduced relative to the March forecast by \$2.7 billion in the current biennium and \$4.4 billion in the 2021-23 budget period.

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, and stood at \$1.6 billion in April. In addition to dedicated reserve funds, the General Fund had over one billion dollars in projected balances before the recession hit.

# ECONOMIC OUTLOOK

## **Public Health Assumptions**

This forecast represents a sea change relative to recent quarters. The COVID-19 pandemic dramatically altered the public health environment in recent months. While shelter in place style policies are designed to not only improve public health but also to not overwhelm the health care system, they do impact the economy considerably. That said, this is not a public health versus the economy argument as they are two sides of the same coin. Without confidence in the public health situation, households, firms, and the workforce cannot begin to resume normal activities. Whether restrictions remain in place due to explicit policies, or are enforced via social norms over the uncertainty of the virus, the economy will operate below capacity.

While our office is made up of demographers and economists, our role is to try our best to translate epidemiology and the public health crisis into impacts on the economy and state tax collections. This forecast represents our first effort in doing so. It is important to keep in mind that the virus is in control, and many uncertainties remain. That said, our office has made two key health assumptions regarding the outlook.

First, the shelter in place style policies begin lifting this summer. While 31 Oregon’s 36 counties entered into Phase 1 reopening a few days ago, this is just a start. These 31 counties account for 46% of the state’s population and 39% of all jobs. This initial group excludes the state’s major population centers of Portland and Salem and the majority of their suburbs. Phase 1 is just the beginning from a policy perspective, and activity continues to be limited for the time being. A further lifting of restrictions, and a broader return in consumer confidence is expected in the months ahead.

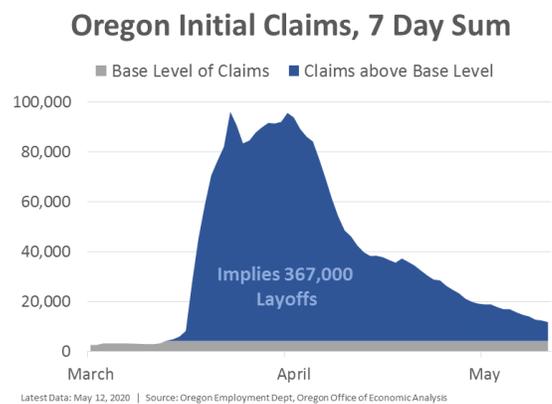
Second, there is some sort of health treatment widely available by late next year. This may be a vaccine, some other sort of medical treatment or possibly, eventually herd immunity. There is also the possibility the virus mutates into a more benign form. When a medical treatment does become available, consumer and business confidence will return, propelling stronger economic growth in the years that follow.

## **Developing the Forecast**

Traditional economic data lags actual activity by weeks or even months. As our office developed this forecast the only real data available were the staggering number of initial claims for unemployment insurance filed in recent weeks. To date these claims indicate that job loss in Oregon is approximately 370,000, equal to nearly 19% of all jobs in the state.

Thanks to the work by the Oregon Employment Department, our office was able to use the underlying details on these initial claims as a starting point to develop sector level impacts from the shelter in place style policies and social distancing.

Yesterday, the April employment report was released for Oregon. As expected it was catastrophic. The preliminary estimates indicate the state lost 267,000 jobs in March and April (-14%) and the headline unemployment rate increased to a record 14.2 percent. While the April report did not come in time to assist in developing this forecast, as discussed in more detail below, the report was certainly in line with our expectations of current economic activity.



## Broad Contours of the Economic Outlook

Oregon is in a severe recession today, the deepest on record with data going back to 1939. Recovery will take years. However the expected course into and out of this recession is unlike any in recent memory.

The swiftness with which the economy went from being strong to being in recession does not look like any other business cycle. The path looks more like what happens to economic activity during a labor strike, or in the aftermath of a natural disaster.

However, when a strike ends or the rebuilding phase begins following a disaster, economic activity quickly returns to previous levels. Unfortunately that will not occur this time for the simple reason that the virus is not fully under control.

That said, the forecast calls for strong growth later this year as firms hire back some employees to meet the increase in demand that follows the lifting of social distancing restrictions. While this initial snapback in economic activity should be sizable – more than one-third of the initial losses – it will be far from complete. It will take the economy from near-depression level readings to something resembling the depths of the early 1980s or the Great Recession here in Oregon. The unemployment rate will remain in record territory.

After this rebound in economic activity, growth will continue but at a relatively slow pace due to the uncertainty surrounding public health. Firms and households are expected to remain somewhat hesitant and only gradually test the waters to a larger degree. Once business and consumer confidence fully return following available medical treatment or the passing of the pandemic, stronger economic growth will resume and the economy will fully recover.

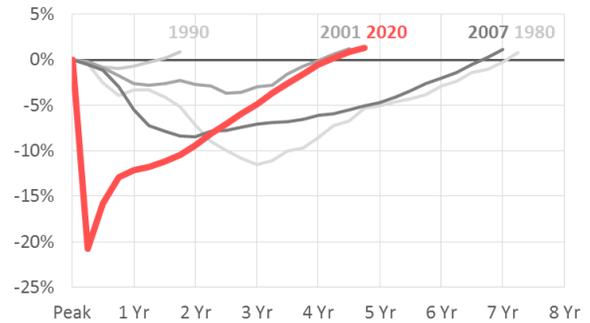
Such a recovery path does not fall neatly into the fabled V-shape nor the prolonged U-shape trajectory. For now our office is referring to it as the square root recovery where the initial bounce back is followed by a period of relative slow growth, which when charted resembles the mathematical symbol. In recent press conferences Federal Reserve Chairman Jerome Powell's remarks indicate he may be thinking along the same lines<sup>1</sup>.

All told, while this recession is extremely severe, it is expected to be shorter in duration than the Great Recession. The economy should return to health by mid-decade. The reasons for this are at least threefold.

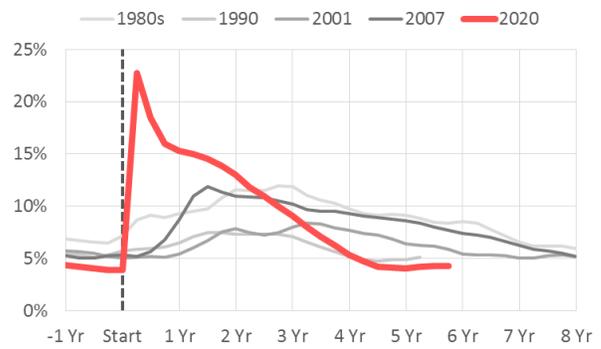
First, there were no major macroeconomic issues or imbalances in the economy prior to the virus. Some economists pointed toward leveraged corporate debt as one potential issue, and closer to home the problems associated with the lack of housing supply and worsening affordability presented risks to the outlook. However

## Oregon Recession Comparisons

Employment Change from Pre-Recession Peak



Unemployment Rate



Source: Oregon Employment Department, Oregon Office of Economic Analysis

<sup>1</sup> <https://www.federalreserve.gov/monetarypolicy/fomcpresconf20200429.htm> See remarks at 24:00 or pg 12 of the transcript

we know that the overinvestment in high-tech two decades ago, and the bursting of the housing bubble and ensuing financial crisis during the late 2000s contributed significantly to the previous protracted recoveries. Today there is not such a glaring economic issue that needs to be overcome.

Second, economic activity and consumer spending are being suppressed today in part due to social distancing. Households, particularly higher-income ones, are building savings as they are unable to spend as much money as they typically do. Once the restrictions begin to lift, some of this savings will be unleashed in the form of pent-up demand. As discussed in the next section, this is the key to turning the recession into a recovery.

Third, the federal policy response, however imperfect it may be, has been swifter and more targeted than in recent cycles. The Federal Reserve moved quickly to first cut interest rates to support economic activity, followed soon after by an alphabet soup of programs designed to keep credit flowing in the economy and prevent the pandemic from turning into a financial crisis. Furthermore, as discussed in two sections, the federal government has passed multiple pieces of legislation designed to help businesses, households, and laid off workers. While public sector policies never make up for the entire economic shortfall, the relatively quick response this time contribute toward taking the edge off the recession and restoring some confidence in the economy.

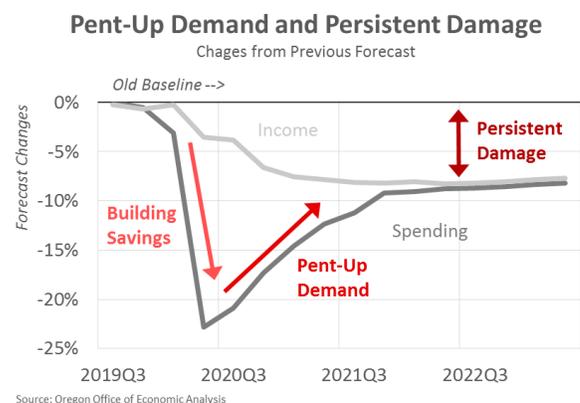
Combined, these factors should help limit the amount of permanent damage done to the economy during the shutdown phase. Should the number of firms that close, or the number of workers displaced remain relatively limited, or rather the amount of time they spend as such be limited, then the overall economic recovery timeline should be shorter than last decade.

Of course uncertainties abound regarding the virus, public health policies, business and consumer confidence, and the path forward. The key to the outlook remains the virus itself. Economically, the major concern is the amount of permanent damage or scar tissue that accumulates before the recovery is in place. See our office's alternative scenarios on page 14 for a discussion on some of these other possible recovery paths.

### **Anatomy of a Recovery**

The key public health goal with social distancing was to slow the spread of the virus and to not overwhelm the health care system. In doing so, we know economic activity and consumer spending are suppressed as households cannot go out to eat or shop as much as they usually do. Additionally firms see less business to business transactions as the supply chains for impacted sectors slow as well.

During this shutdown phase, households are building savings in aggregate. This goes for both households whose employment and income is less impacted by the nature of the shutdowns, and also for households where the expanded unemployment insurance program is replacing income at rates above their previous wages. Overall, once the social distancing restrictions begin to lift and some confidence returns to consumers, spending should rebound considerably from today's extremely low and suppressed levels. Pent-up demand will be unleashed to a certain degree. This rebound is the key to transitioning the economy from recession to recovery.



Sectors most likely to see strong sales in the months ahead include those most impacted by social distancing like bars and restaurants, retail, hair salons, barbershops, and the like. However some interest-rate sensitive sectors like auto sales, home furnishings, and construction may also see rebounds. Households whose employment and incomes are impacted less by the shutdown will try to take advantage of the low interest rate environment and large inventories of products if they can.

As this increase in consumer spending drives business sales and profits higher, firms will need to hire back employees. Given that the shutdown phase is expected to last “only” a few months, and Oregon firms currently believe 86 percent of their layoffs are temporary, staffing partially back up should not prove difficult.

However, consumer spending and therefore business sales, are likely to rebound to current household income levels, not necessarily to their previous levels. There is a difference between a catch up in growth versus a make up in growth. Expectations today are that pent-up demand will largely mean spending will catch up, and not fully make up for the lost sales during the shutdown.

One key result here is that there will be permanent, or persistent damage to the economy. Even after pent-up demand is unleashed, and the initial bounce back in activity occurs, we know the economy will not be fully healthy. There will be fewer businesses continuing to operate as not all will survive, these firms will employ fewer workers, and households will be earning less income overall.

### ***Permanent Damage and Federal Policy***

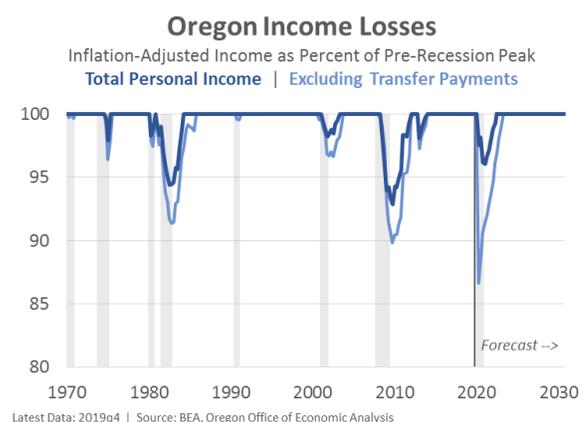
While longer-run growth is closely tied to business and consumer confidence regarding the virus, it is also about the amount of permanent damage that accumulates during the shutdown phase. The crucial question coming out the other side of the public health crisis is “what’s broken?” Followed by “how fast can households and firms ramp back up?”

One key factor designed to help minimize the permanent damage are public policies. In particular federal fiscal policies like the Coronavirus Aid, Relief, and Economic Security (CARES) Act helps to keep households’ heads above water and firms afloat. While the CARES Act response was quick by legislative standards, it was also designed such that the health environment and therefore the economy would be OK by July. It was a short-term bridge to the other side of the public health crisis, assuming the public health crisis was a very short time period. The individual components or programs embedded in the CARES Act are useful, and necessarily, however the expected short duration of need proved too optimistic. The economy will need more support in the months and quarters ahead if the amount of permanent damage is to be minimized.

### ***Federal Policy and Households***

Prior to the virus, households were confident, and why not? They were finally enjoying a few years of solid income gains, had low debt burdens, and elevated savings rates. Now much of that is thrown up in the air due to the uncertainty about the virus and the potential timeline to recovery.

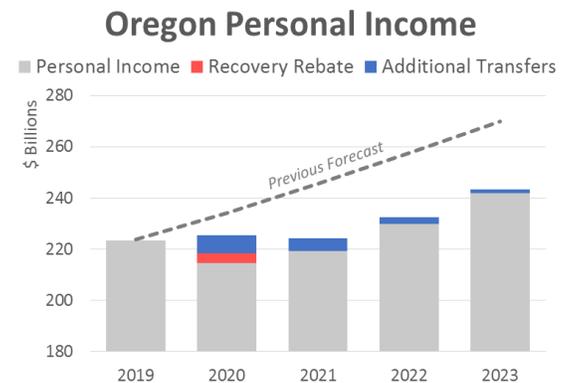
Typically economists track personal income excluding transfer payments – Social Security, SNAP, Medicaid, Unemployment Insurance, etc – as it is a good measure of the economic pain facing households and a measure of the



drop in aggregate demand. Many types of transfer payments are also considered automatic stabilizers in that these programs kick in when households need assistance during recessions, and phase out when things improve. Transfer payments help take the edge off the recession, but never make up for the entire shortfall.

However, this recession looks to be different due to the CARES Act. The combination of the household recovery rebates and the expanded unemployment insurance program will keep household incomes from falling nearly as much as the underlying economy would suggest. The difference between changes in total personal income in Oregon and total personal income excluding transfer payments is considerably larger this recession than any in recent memory. Should the health and economic recoveries begin sooner rather than later, the CARES Act should help tide households over and provide a boost to consumer spending once restrictions begin to lift, or at least negate some of the drop in demand.

Even while transfer payments are expected to help prop up personal income overall, that does not mean there is not an impact on the outlook. The recession is expected to leave lasting impacts. Our office's forecast for income has been reduced over the entire forecast horizon, even as the outright declines may not be as extreme due to federal policies. That distinction matters considerably for households trying to make ends meet – this is largely good news – and for state revenues where the overall reduction feeds through into fewer collections.



Specifically, Oregon households will receive nearly \$4 billion from the recovery rebates, which are not currently taxable at the federal or state level. The economic benefit of the rebates is most of them were distributed relative quickly and provide broad-based support for households, albeit just one time. The median rebate in Oregon replaces half a month of income, or one to two months of rent or mortgage payments. Clearly the rebates are helpful, however they are not targeted toward those most in need, or those most impacted by the virus and shutdown.

That's where the expanded unemployment insurance program comes in with substantial, targeted aid for workers laid off or had their hours cut due to COVID-19. Between the recession and the federal expansion of the program, Oregonians are expected to receive approximately \$7 billion in unemployment insurance during the current 2019-21 biennium.

Typically unemployment insurance replaces 45 percent of wages in Oregon. However the extra \$600 per week from the federal expansion means benefits for lower-wage workers are larger than their previous take-home pay. While overblown, there are some potential concerns that this dynamic creates a moral hazard in that some workers may not want to come back to their jobs, if offered, since they earn more on unemployment than while working. Undoubtedly this may be the case in some situations. However it is important to keep in mind that the policies were explicitly designed such that workers should not have to choose whether to be healthy or be in financial ruin. Workers impacted by the shutdown through no fault of their own should receive enough money so that they can shelter in place and avoid a contagious disease.

Furthermore, the unemployment insurance expansion is set to end in July. Should the pandemic improve more and the economic expansion be stronger than expected, than any potential issues arising from workers not taking jobs to stay on unemployment is but a temporary speed bump along the road to recovery. Such a situation will resolve itself in a matter of weeks when the extra benefits expire. However, should the expanded

benefits be extended further, it will likely be due to lingering health and economic concerns. As such the benefits will remain a much-needed assistance program for those most impacted by the virus and shutdown.

In terms of good news regarding state policy, at the beginning of May 2020, Oregon’s unemployment insurance trust fund balance stood just north of \$5 billion. Our office’s economic forecast does not expect the labor market to be healthy until the middle of the decade, including a double-digit unemployment rate for the next couple of years. Even so, initial projections by the Oregon Employment Department indicate that the trust fund is expected to remain solvent and not need to borrow from the Federal government. The trust fund balance is expected to dip below \$1 billion from 2023q1 through 2024q1, however ongoing revenues, including rising tax schedules, will replenish the fund and keep it from being fully depleted.

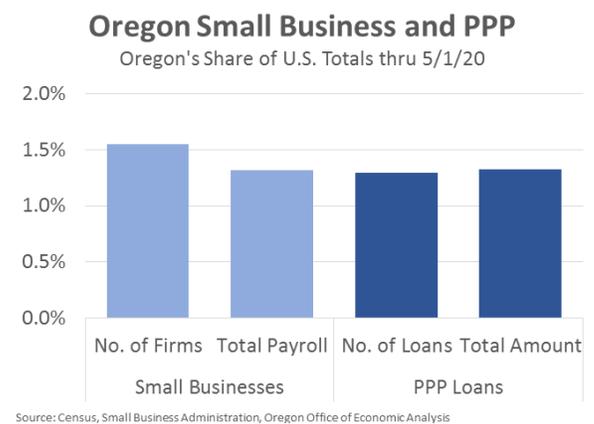
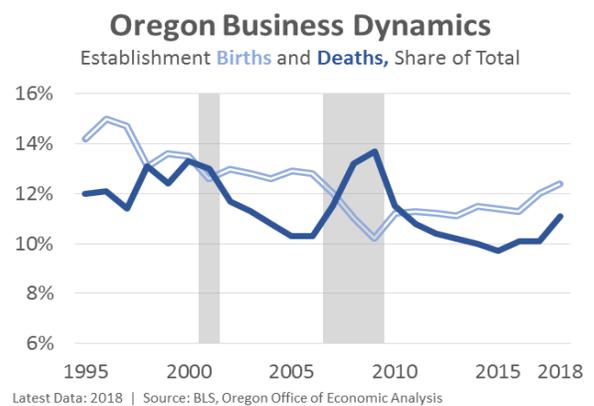
*Federal Policy and Firms*

The massive disruptions in the labor market are one big challenge the economy must overcome on the path to recovery. However it will prove even more difficult should there be significantly fewer firms to hire back employees when public health improves. Without employers it is hard to have employees. This is one reason the CARES Act included both the Paycheck Protection Program, administered by the Small Business Administration, and the Main Street Lending Program, administered by the Federal Reserve. These programs are designed to keep a short-term liquidity problem from turning into a long-term solvency problem.

Running a business is hard. Even during good economic times, about 1 in 10 Oregon establishments close each year. Of course this rises during recessions. National research shows that the typical small business has cash, or liquid reserves equal to one or two months of revenues. Most can withstand a drop in sales, but very few can survive weeks or months of next to none. Given the sudden stop nature of the recession today, it is very likely that the economy will experience a significant rise in the number of closures in the weeks ahead, and potentially through next year depending upon the strength of the recovery.

Through May 1<sup>st</sup>, the Paycheck Protection Program (PPP) approved \$516 billion in short-term loans that will turn into grants if companies keep employees on the payroll. Here in Oregon, more than 49,000 businesses were approved for \$6.8 billion in PPP loans. After the initial round of funding, Oregon’s share of PPP loans were quite low relative to our economy’s size. However when taking into account the latest data, Oregon has received 1.3% of all PPP loans, 1.3% of approved loan amounts, which is identical to the state’s share of small business payroll overall.

Two key policy issues emerged regarding PPP. One, banking capacity in terms of the number of lenders per small business or loan processing capabilities seemed to play a key role in the initial round of PPP. States with more bank branches, and/or a higher penetration of community banks were able to secure a larger share of the loans than the size of their underlying economies alone would suggest. Now, once the pot of PPP funds were replenished and banks had an extra few weeks to process loans,



these state differences appear to have been smoothed out. However that does mean there are limits to the policy in terms of distributing funds quickly, and equitably.

Two, PPP loans are an eight week band aid for struggling firms, or at least those facing uncertain future revenues. What happens when the eight weeks are over will be huge from an economic perspective. Will revenues rebound and firms able to manage through the pandemic? Will PPP loans be augmented and extended until the health and economic crisis passes? Or will there be another wave of bankruptcies, layoffs, and closures here in a few weeks?

The heart of the issue here are supply chains and the complex network of relationships that companies build. This network includes workers who have skills tailored to use a given firm's equipment and serve its specific customers. However the network is broader than that and includes individual suppliers, and things like intellectual property rights related to ideas, brands, and so forth. If a firm closes, another may take its place but it would take considerable time to fully rebuild the complex network. Plus that rebuilt network will not be exactly the same as the new company will employ different individuals and rely on different suppliers. These transitions are not costless, even if the big picture, longer-run economy appear quite similar.

Finally, the economy was already struggling with lower rates of productivity in recent decades. While an imperfect relationship, productivity gains are a key driver of employee wages and a rising standard of living. Many economists point toward the low rate of entrepreneurship as one key reason for low productivity growth. After all, new products and services are usually brought to market by young companies who seize the opportunity to improve efficiencies and generate profits.

COVID-19 may further entrench these trends as the economy will likely see a spike in closures and potentially a large drop in start-ups. A byproduct here would be that the large businesses that have already won out in today's economy may further strengthen their positions. Big companies generally have better access to capital markets to raise money to survive, while small firms rely upon the owner's own worth, and programs like the PPP. Furthermore, benefits that workers generally want, particularly during a pandemic, such as health care, paid time off, the ability to work from home or remotely, and the like, are much more common among large firms than small. When combined overall, these issues may potentially paint a dark picture for small businesses, start-up activity, productivity, and ultimately for workers and job growth.

### ***Permanent Damage and Oregon***

Relative to the nation, Oregon's economy is more volatile. The state falls further in recession, but grows faster in expansion. Given the economy spends many more years in expansion than in recession, Oregon tends to come out ahead over the entire business cycle. The two primary reasons for this volatility are the state's industrial structure and migration, both of which are pro-cyclical.

Over the long run, our office's forecasts have been reduced. Five or ten years down the road, we expect Oregon to have fewer residents, lower levels of employment, and less total income than we assumed pre-virus. Oregon's economy will still grow and we expect the state to outperform the nation, as always. However our office expects some persistent damage as one result of the pandemic and recession.

### ***Migration***

While people pack up and move to Oregon in good times and bad, we know most people follow the jobs. Migration flows are considerably larger when job opportunities are plentiful. As such, the recession is expected to change both the annual pattern of migration to Oregon but also the longer-term population forecast. Now,

Oregon is still expected to see population growth, however these gains are reduced noticeably from recent forecasts.

In thinking through the outlook it is helpful to distinguish between the expected impacts at different points along the way.

In the near term, migration is drastically reduced. Hardly anyone is moving during a pandemic and shelter in place style policies are in effect. Provided these policies lift and households are confident enough over the prime summer moving months, the impacts of the shutdown itself may prove minimal. The risk here is that the public health situation deteriorates such that nobody moves this summer, which is not our baseline forecast.

Over the medium term, migration will be reduced due to the recession. Fewer people will move here as job opportunities are harder to come by. Household formation will also be weaker due to income losses and uncertainty. Overall, our forecast for population growth over the next five years is lowered by 36,000 (-0.8%). What this effectively means, at least relative to our previous forecast, is that Oregon will basically lose one year of migration over the next five. Taking into consideration the typical age of migrants and labor force participation rates, this forecast change reduces the potential size of Oregon’s labor force by about 15,000 a few years down the road. In a stronger economy and given demographics, that’s roughly equivalent to 7 or 8 months of job growth. This is no minor change.

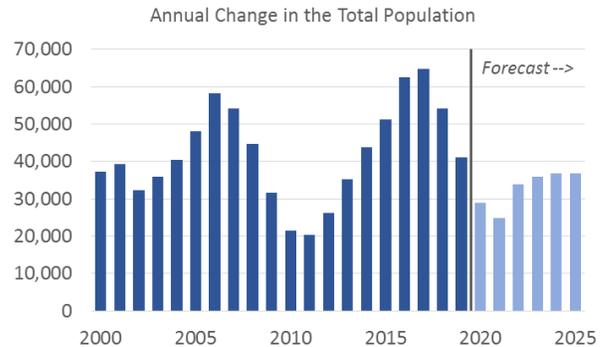
Over the long term, our office does not expect any appreciable differences in the state’s ability to attract and retain working-age households. The combination of available jobs, scenic beauty, and housing affordability that’s bad, but also not the worst along the West Coast are all expected to remain.

Now, the reduced migration from the recession is expected to create persistent damage to the long-run outlook. However once the recession subsides, the damage is not expected to continue to mount or worsen. Migration flows in the second half of the decade are actually raised a few thousand relative to previous forecasts.

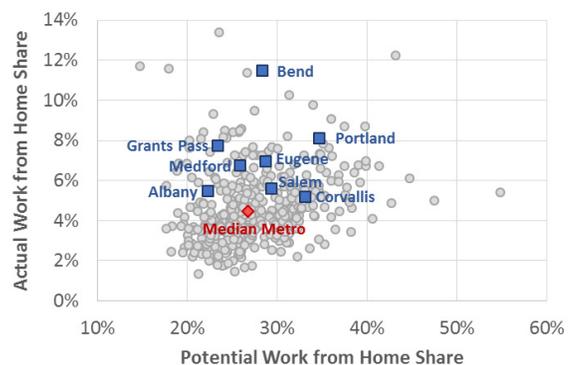
The pandemic itself also has the potential to alter migration patterns and household preferences. However it is far too soon to be able to answer these type of hypotheticals.

Will Oregon become an even more attractive destination given the large swathes of low-density communities and the fact the state, at least so far, is not a hot spot for cases? Will households prefer to live in suburbs like Gresham and Hillsboro relative to the Pearl District? Will the potential ability to work from home increase the attractiveness of Oregon and our secondary metros? Oregon and all of the state’s metros excel at working from home already<sup>2</sup> and

### Oregon Population Growth



### Working from Home by Metro



Source: Census, University of Chicago, Oregon Office of Economic Analysis

<sup>2</sup> <https://oregoneconomicanalysis.com/2019/01/16/working-from-home/>

Bend is a national leader. Will these advantages increase further in the years ahead as households avoid the larger, denser coastal metros?

It is unlikely that the pandemic will drastically alter any of these patterns. However even changes on the margin, a percent here or there, could have big impacts on the type of housing needed, the level of services residents expect, and the like. Only time will tell to what extent any of these may come to pass.

*Nature of the Shock*

This recession is different, at least initially. The sectors most impacted by social distancing – air travel, restaurants, gyms, barbershops, many types of retail, etc. – led the decline in large part because these activities are suppressed. States and regions with larger exposures to these industries are likely to see deeper recessions themselves. Other key severity factors include exposure energy and mining activity following the oil crash, whether local demographics skew older and/or more at risk of the virus, and reliance on international trade as the global economy is in recession.

While Oregon’s industrial structure tends to be more volatile over the business cycle that has much more to do with our larger goods-producing industries like natural resources, construction, and manufacturing. Specifically regarding the severity factors for this recession, Oregon has average exposure to most. The only one Oregon is overweight in would be the reliance on international trade, while the state’s mining industry is related to aggregates and not oil or gas.

**Recession Severity Factors for Oregon**

Less Severe	Average	More Severe
<ul style="list-style-type: none"> <li>• Energy/mining</li> </ul>	<ul style="list-style-type: none"> <li>• Leisure &amp; Hospitality</li> <li>• Demographics</li> <li>• Wealth/asset markets</li> </ul>	<ul style="list-style-type: none"> <li>• International trade</li> </ul>

As such, Oregon’s experience this recession is expected to be much closer to the nation’s or the typical state’s than in recent cycles. While it is very early, preliminary data indicates that this may be true. The increases in initial claims for unemployment insurance, and the changes in the April employment report all point toward Oregon seeing similar impacts as the U.S. overall. This is a very severe recession, however Oregon’s may not be significantly deeper than the typical state, for a change.

That said, the cycle is far from over. While bars and restaurants may have been the tip of the spear for this recession, every sector is seeing impacts. The economy is bleeding out. Furthermore, not every industry is expected to recover on the same timeline or follow the same path.

*Industry Outlook and Structural Changes*

The overall square root pattern of the employment recovery is primarily drive the sectors most impacted by social distancing – leisure and hospitality, retail, and other services. As restrictions are lifted, and consumers resume *some* of their normal activities, sales, profits, and the need to hire workers will provide a substantial snapback among these industries. Other sectors like health care, with the return of elective surgeries, and real estate, as households search and move more in the months ahead, will likely follow a similar trajectory, however their initial declines are significantly less severe.

Goods-producing industries, on the other hand, are more likely to follow a traditional recessionary pattern. The initial decent in recent months is relatively sharp, in keeping with the sudden stop nature of the economy overall. However instead of bouncing back some next quarter, goods-producing industries – natural resources, construction, and manufacturing – will see their losses mount over the course of 2020. It can take some time for

a drop in household income or consumer spending to weigh on the production of goods, as that loss of income means households do not buy a house later this year, or upgrade their electronics or the like. Consumers are able to delay the purchase of big-ticket durable goods until their incomes recover or they feel more confident. That said, goods producers do not decline forever. Demand for such products is expected to drive economic activity and employment higher beginning next year, as the overall economy strengthens.

Over the long run, the economy is likely to see some structural changes as it always does during recessions. Comparing our office’s current forecast with our previous one indicates that most of these structural changes are centered around trends in the goods-producing industries and retail.

A key issue among goods producers is turning off the lights is relatively easy, but turning them back on is not as simple as flipping the switch. Goods production relies more on complex, international supply chains that when broken, are not as easy to put back together again. Even a relatively short disruption as expected today is likely to leave lasting scars for many of these industries.

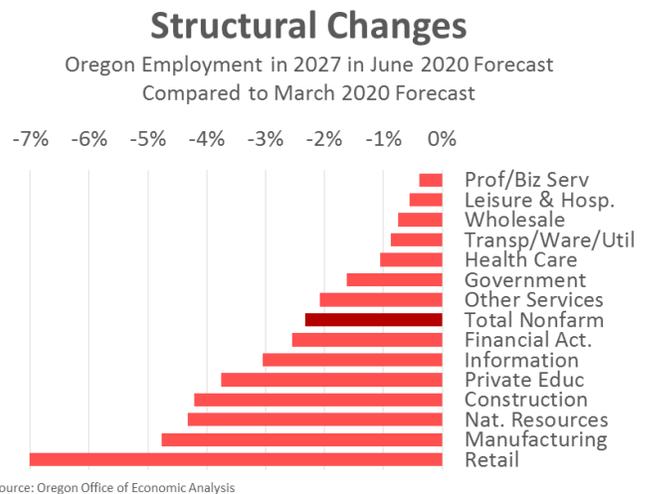
Natural resources (mainly logging in Oregon), wood product manufacturing, and residential construction are all about current demand for housing. There are noticeable declines today due to job loss, fewer people migrating, buying or renting. However these industries are expected to rebound in a couple of quarters as the overall economy improves. Increased demand will be due to both larger migration flows, but also stronger household formation rates among current residents as their incomes and confidence return. Prior to the virus, Oregon had finally started to see the share of young adults living at home decline, as the kids moved out of the basement and lived on their own to a greater degree.

Nonresidential construction on the other hand is likely to take longer to come back than residential. A key issue here will be the increase in vacancies in offices, warehouses, industrial parks, and the like as firms close due to the shutdown and recession. Additionally, with lower levels of travel overall, other nonresidential projects like hotels will be few and far between in the next few years. For nonresidential construction to pencil out financially, these vacancies will need to begin being filled before new projects can begin.

Similar to the goods producers, traditional retail is likely to see an increase in closures due to the shutdowns and lower levels of employment moving forward. Our office’s long-run trajectory for the industry is lowered noticeably, even despite the initial snapback expected later this year as customers return to the showroom floor.

Sectors expected to see noticeable but not as severe of persistent damage include education, and other services.

The outlook for education, whether public or private, is somewhat of a mixed bag at best. The good news for the industry is demand increases for higher education in recession. However long-term demographics for the school-age population are relatively flat. As such enrollments and tuition revenues rely increasingly on out-of-state and foreign students. With the potential for online education in the school year ahead due to the virus,



students are likely unwilling to pay full tuition for this service, and restrictions – both formal policies and informal rhetoric – on international immigration are likely to hurt enrollments this fall and possibly beyond.

Other services are likely to see some gyms, nail salons, and the like close during the recession. Additionally service and membership organizations are seeing less charitable contributions, hurting their financial viability.

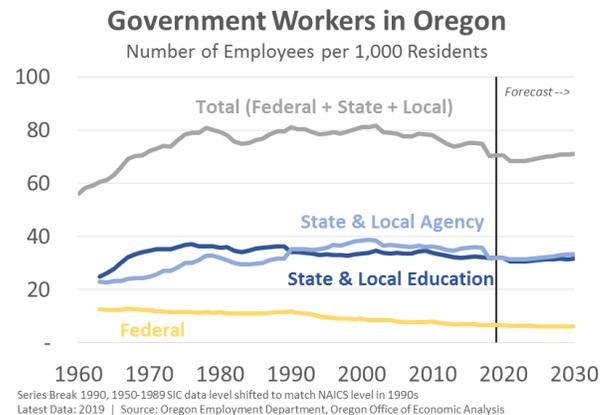
On the more positive end, our office expects relatively little permanent damage or structural changes to wholesale, transportation excluding business travel and conventions, warehousing, and utilities. These industries are expected to rebound strongly in the quarters ahead and the ongoing rise of e-commerce sales will drive longer-run strength.

The two biggest service sector industries – professional and business, and leisure and hospitality – are expected to drive statewide employment growth in the years ahead and to see minimal persistent damage.

Professional and business services are feeling more of the secondary impacts of the virus and shutdown in other sectors as they act as consultants, and provide needed financial, legal, and administrative support to the rest of the economy. Most of these jobs represent, on average, higher wage and growth sectors of the economy, plus they are more amenable to working from home and are thus more resilient to the disruption as well.

While leisure and hospitality is experiencing the deepest declines to date, there is likely to be hardly any long-run structural changes. Households are going out to eat and are traveling less in 2020, and will do so in 2021 as well. However once public health increases and consumer confidence returns, households are expected to take vacations and gather with friends for food and drinks as much as they used to. Prior to the virus, U.S. households were spending as much money on going out to eat as they were on groceries. This multi-decade, long-run societal trend is unlikely to permanently reverse.

Finally, the public sector will be smaller than previously forecasted in the future due to fewer Oregon residents and lower personal income. While tax revenues are likely to see large near-term declines as the economy is in recession, public sector employment is likely to experience less significant swings. Additionally demand for public services rises during recessions. Over the long-run, public sector employment is closely tied to population growth. Counterbalancing the downside recessionary risks to the outlook are upside risks associated with increased federal assistance. Additionally the new corporate activity tax revenues were originally going to result in more hires, however those new hires may now partially offset layoffs elsewhere in government, holding total employment more stable. Note that the drop in the chart in 2018 is related a reclassification of home health care workers from public sector to private.



*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.*

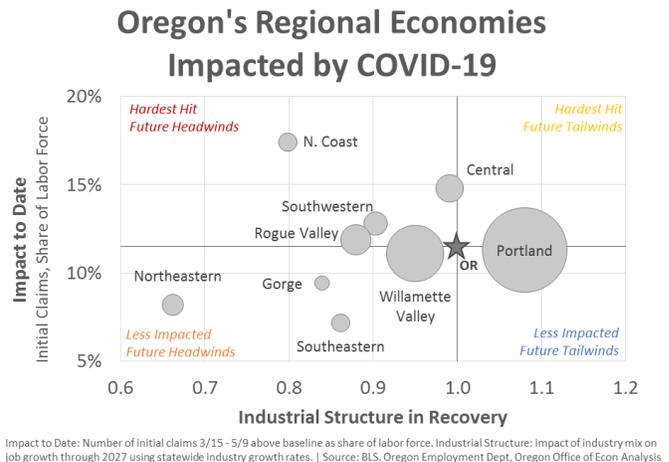
### **Regional Outlook**

Given that social distancing impacted consumer services to a larger degree, regional economies in the state that rely more upon these industries have been hit harder to date. Both the North Coast and Central Oregon have a

larger tourism and leisure and hospitality sectors, and have seen the largest number of initial claims for unemployment insurance. While all sectors and regions of the state are seeing a recession, the severity, at least initially is not uniform.

Looking forward and mapping our office’s statewide industry trends to the regional economic structures highlights which areas are primed for growth and which more likely face future headwinds.

A key long-run driver of growth is professional and business services, which tends to be concentrated in metro areas. As such, the Portland region, the Willamette Valley and Central Oregon are best suited to see stronger gains due to their strengths in this industry. Among rural counties, Coos, Douglas and Klamath all have concentrations in professional and business services twice that of rural Oregon overall.



Conversely, regions that may face headwinds due to their industrial structures differ for the reasons why. While the North Coast is hard-hit today due to their exposure to leisure and hospitality, this is not a long-run headwind. Our office fully expects travel, tourism, and going out to eat to essentially recovery fully in the decade ahead. Really it is the lack of professional and business services that is weighing on the projected growth in the North Coast in the coming years. The North Coast does not necessarily face headwinds, rather it lacks tailwinds.

Conversely, Northeastern Oregon is expected to grow slower due to its reliance on natural resources (ag) and manufacturing, both of which are likely to see slower growth and more permanent damage than other industries. Among urban counties that are expected to see slower gains from an industrial perspective both Linn and Yamhill similarly have a high concentration in goods-producing sectors which are expected to grow slower over the decade ahead.

Of course mapping local industrial structures to statewide trends is not perfect, even if it provides one way to gauge potential strengths and weaknesses.

As discussed in-depth in the March 2020 forecast<sup>3</sup>, long-run growth is determined by labor and capital. What the really means is it is all about the number of workers an economy has and how productive each worker is. As such, key issues to watch are migration trends and changes in the working-age population. Additionally productivity gains can come from many different sources, be it financial, natural, physical, human, or social capital.

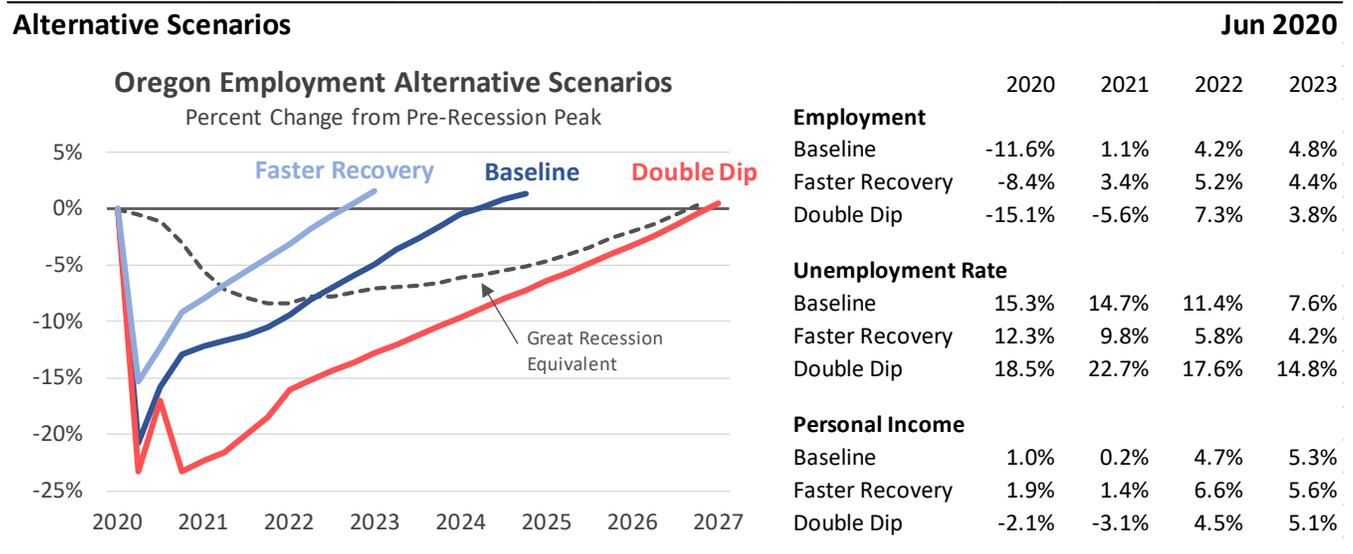
Looking forward, all of the different types of capital can help drive future economic growth. If a regional economy lacks one type, it is not a deathblow to growth. Rather it signals the area must rely on other types or avenues for growth. And one type of capital is not inherently better than the others, even if the mix between natural and human capital plays strongly into our office’s statewide industry forecasts.

<sup>3</sup> <https://digital.osl.state.or.us/islandora/object/osl%3A942496>

In the quarters ahead our office will continue to dig into the data as it becomes available to gauge the severity of the recession and its impacts, but also step back and take stock of where Oregon’s economy has been over the past expansion that just ended, plus look into who will lose the most in recessions

**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. Given the uncertainty about the path of the virus and public health, the range of potential outcomes is larger than usual. The key points on the path to recovery revolve around the depth of the initial recession, the timing of the recovery, and the duration of the entire cycle. The two alternative scenarios below are not the upper and lower bounds of these outcomes. These alternative scenarios are modeled on realistic assumptions that are somewhat more optimistic or pessimistic than the baseline. See page 20 for the General Fund revenue implications of these scenarios.



Optimistic Scenario – A Faster Recovery:

The initial severity of the recession is not as deep as under the baseline with the unemployment rate peaking at 18 percent instead of 23 percent. The overall economic recovery is considerably faster primarily due to the accelerated timeline for the development and widespread availability of a vaccine or medical treatment. As the public health situation improves, business and consumer confidence returns to a greater degree, strengthening the economic recovery. Even so, the economy does not fully recover until late 2022. What took 3 weeks to break, takes 30 months to put back together.

Pessimistic Scenario – A Double-Dip Recession:

A second wave of cases surge this fall resulting in another round of strict social distancing. The recession is deeper and more prolonged, while the overall recovery is also slower. The resurgence in cases may be due to a seasonal component of the virus, an economy that reopens too soon, or people simply ignoring the ongoing public health guidelines. Regardless of the exact reason, under the double-dip scenario, Oregon’s economy does not fully return to health until late 2027, putting it on the same timeline or trajectory as the aftermath of the Great Recession and the early 1980s recessions.

## REVENUE OUTLOOK

### *Revenue Summary*

While the Covid-19 outbreak has injected a great deal of uncertainty into the outlook, the nature of our forecast is unchanged. As always, the June 2020 economic and revenue forecast represents what the Office of Economic Analysis and its advisors believe is the most probable outcome given available information. Although actual economic growth and state revenues may depart significantly from these projections, we aim to build a forecast that is just as likely to end up too high as it is too low.

Forecast errors on both the high and low side create problems for decision makers. In a recessionary environment, a revenue forecast that is too low may lead to cuts in public programs that are unnecessarily deep. This extra belt-tightening is relatively costly given that the least painful budget balancing options are usually exhausted first.

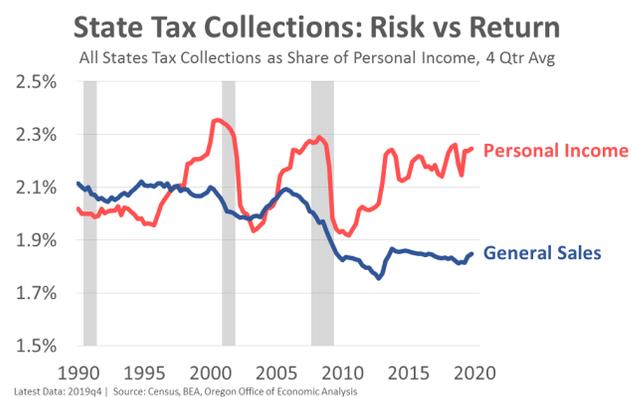
If the revenue forecast proves to be too optimistic, the budget will need to be rebalanced when the truth eventually comes out. Rebalancing becomes increasingly difficult as we approach the end of a budget period, given that much of the allocated resources have already been spent. During the last three recessions and recoveries, OEA's forecasts have erred on the optimistic side, with the bad news being delivered over an extended period of time as the severity of the downturns became clear. The nightmare scenario happened in 2002, when the Legislature met for five special sessions to balance the budget in light of worsening revenue forecasts. Eventually, time ran out, and policymakers were forced to borrow their way out of the remaining hole. We just finished paying off this debt at the end of 2013.

In one sense, the sudden stop of economic activity due to the outbreak of Covid-19 has made the revenue outlook clearer. Economists have a particularly difficult time forecasting turning points in the business cycle. During recent cycles, the consensus of forecasters has been consistently too optimistic as analysts have worked through stages of grief. First, analysts argue that the economy is in a slowdown--not a recession. Then when that is proven wrong, we have argued that the recession will be relatively mild. Even after the downturns have proven to be deep, analysts have expected that a relatively healthy recovery will follow. By the time the recovery stalls, decision makers have been subjected to months of bad news.

This time around, it became clear overnight that Oregon is in recession and that the downturn will be severe. Although there is still a great deal of uncertainty surrounding the outlook, the forecast represents an attempt to tear the proverbial Band-Aid off all at once by reflecting the full severity of the revenue downturn.

How severe will the revenue slowdown be? During most business cycles, Oregon's state revenues have proven to be more volatile than those in the typical state. Not only is Oregon's underlying economy subject to boom-bust swings, but the state also depends on a very volatile mix of revenue instruments, led by personal and corporate income taxes.

During the current recession, income taxes might not fare so poorly in comparison to other revenue instruments. Given the depth and breadth of the current economic



downturn, no state revenue system will be spared from pain going forward. The need for isolation has led to spending declines that far outstrip what is usually seen during recessions, hitting sales tax states disproportionately hard. States that depend on tourism and energy/mining revenues are also in for a tough year or two.

Oregon will share some of the pain felt by sales tax states since our revenue system has become much more dependent on consumer and business spending over time. Even before the corporate activity tax was enacted in 2019, a wide range of sales-based taxes had been expanded in recent years. Taxes on lodging, gasoline, vehicle purchases, video lottery and marijuana sales are all much more substantial than they were during the last recession.

While some taxes will fare better than others, all major revenue sources will face considerable downward pressure given the severity of the recession. The sudden stop in economic activity has led to the largest downward revision to the quarterly forecast that our office has ever had to make. In the baseline (most likely) scenario, General Fund and other major revenues have been reduced relative to the March forecast by \$2.7 billion in the current biennium and \$4.4 billion in the 2021-23 budget period.

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, and stood at \$1.6 billion in April. In addition to dedicated reserve funds, the General Fund had over one billion dollars in projected balances before the recession hit.

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 \$19,525 million. This represents a decrease of \$1,933 million from the March 2020 forecast, and a decrease of \$1,495 million relative to the Close of Session forecast. Should this outlook come to pass, revenues for the current biennium would be 10.9% smaller than they were during the 2017-19 budget period.

(Millions)	2019 COS Forecast	March 2020 Forecast	June 2020 Forecast	Change from Prior Forecast	Change from COS Forecast
<b>Structural Revenues</b>					
Personal Income Tax	\$18,283.5	\$18,472.6	\$16,879.3	-\$1,593.3	-\$1,404.2
Corporate Income Tax	\$1,190.8	\$1,312.7	\$1,081.8	-\$230.9	-\$109.0
All Other Revenues	\$1,546.1	\$1,672.7	\$1,564.2	-\$108.5	\$18.1
<b>Gross GF Revenues</b>	<b>\$21,020.4</b>	<b>\$21,457.9</b>	<b>\$19,525.3</b>	<b>-\$1,932.7</b>	<b>-\$1,495.1</b>
Offsets and Transfers	-\$203.5	-\$254.3	-\$251.9	\$2.4	-\$48.4
Administrative Actions <sup>1</sup>	-\$21.5	-\$21.5	-\$21.5	\$0.0	\$0.0
Legislative Actions	-\$199.5	-\$199.5	-\$198.3	\$1.1	\$1.1
<b>Net Available Resources</b>	<b>\$22,914.4</b>	<b>\$23,562.1</b>	<b>\$21,763.0</b>	<b>-\$1,799.1</b>	<b>-\$1,151.4</b>
<b>Confidence Intervals</b>					
<b>67% Confidence</b>	+/- 4.9%		\$957.8	<b>\$18.57B to \$20.48B</b>	
<b>95% Confidence</b>	+/- 9.8%		\$1,915.6	<b>\$17.61B to \$21.44B</b>	

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

## Personal Income Tax

In a normal year, changes to the June forecast for personal income taxes largely reflect collections from the April filing season. This year, the economic outlook has changed and the tax filing season is incomplete. With the personal tax filing deadline extended to July 15<sup>th</sup>, many payments have yet to come in.

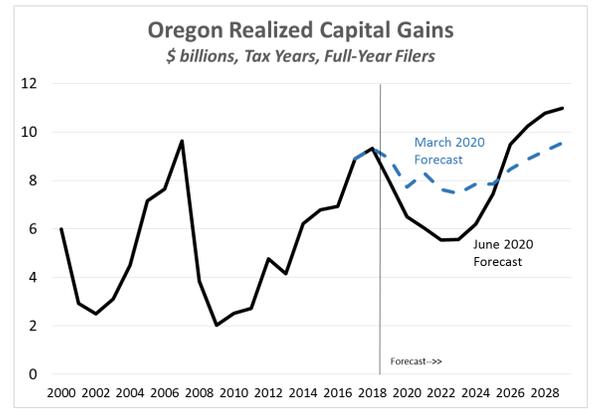
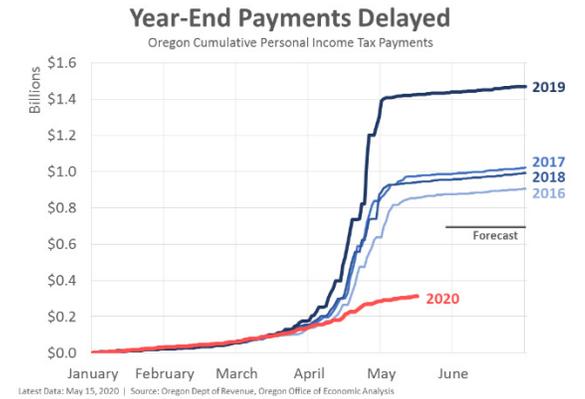
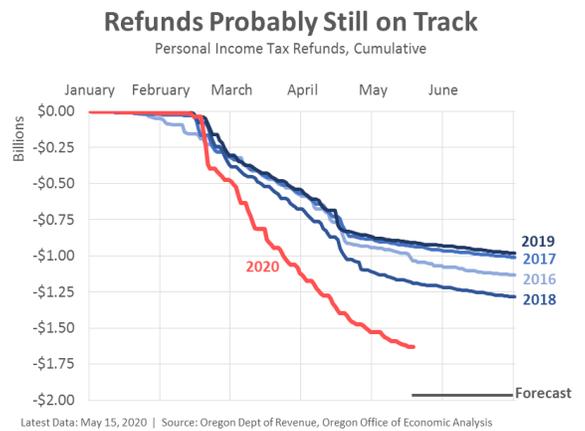
Although incomplete, collections to date suggest that the filing season will bring in somewhat more revenue than was expected once it finally comes to an end. Most filers who are due refunds have already been paid, with somewhat less being issued overall than was expected in the March 2020 forecast.

Unlike filers who are due refunds, many households who owe year-end tax payments have chosen to wait. Normally, most income tax payments are processed during the first three weeks of April. This year, we are still waiting for more than half of the expected payments. During the two months since the filing deadline was extended, the Department of Revenue has processed 350,000 fewer returns than over the same period last year. When payments come in, they will likely be larger than was expected in March. Even so, payments are much smaller, and refunds much larger than they were last year. This is the result of the record \$1.7 billion kicker credit, with \$1 billion having already been issued as of publication.

While the April tax filing season brought in somewhat more revenue than was expected, this good news was more than offset by the worsening economic outlook. Withholdings of personal income taxes (mostly out of paychecks) are already dropping off rapidly, and are sure to weaken further in the months ahead.

It will take longer before we see the full impact of the recession on estimated and final personal income tax payments. These non-withheld payments will reflect the state of business and investment income, which are the source of much of the volatility in overall revenue streams. Currently, the baseline outlook calls for a rapid recovery in profits and stock prices, in keeping with the national forecast provided by our primary vendor (IHS Economics).

As an example, the current forecast for capital gains calls for realizations to decline by more than one third over the next two years. While this is a sharp contraction, it pales in comparison to our experiences during the technology and housing busts. The capital gain forecast is largely driven by the outlook for stock prices, where the market correction is expected to be less than half as deep, and last less than half as long, as what was seen during the 2007 downturn. As



such, further declines in profits and investment income represent a primary downside risk to the revenue outlook.

### *Corporate Excise Tax*

Corporate excise tax collections equaled \$113 million for the third quarter of fiscal year 2020, \$17 million (18%) above the March forecast. Compared to the year-ago level, net corporate excise tax collections rose by 14% while the forecast called for a decline of 4%. While corporate tax collections held up well throughout the third quarter, these gains were more than erased by weak April collections. With quarterly estimated payments due, collections in April are larger than collections over the entire January-to-March quarter.

Corporate tax collections are subject to wild swings with revenues being roughly cut in half during the past two recessions. Corporate excise taxes are expected to lose half their value again this time, but to return to trend relatively quickly.

Even should collections be cut in half, they would still be healthy from an historical perspective. At half their current level, collections would still match the peak levels of the technology and housing booms.

Both state and federal tax law changes have injected a good deal of uncertainty into the outlook for corporate tax payments. Notably, it is likely that the corporate tax base has become larger in Oregon as a result of federal tax reforms contained in the Tax Cuts and Jobs Act.

### *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.

Combined these sources of revenue have been revised downward by \$108 million (-6%) relative to the previous forecast for 2019-21. They are lowered \$151 million (-11%) and \$117 million (-8%) in 2021-23, and 2023-25, respectively.

The majority of these downward revisions are due to the lower outlook for interest earnings. Given interest rate cuts by the Federal Reserve and their signaling that they are willing to leave rates low until the economy is recovered, this is a large departure from pre-virus assumptions. The result is a forecast change relative to last quarter of -\$44 million in 2019-21, -\$88 million in 2021-23, and -\$87 million 2023-25.

All other revenue items are revised downward as well, primarily due to the recession and/or social distancing. For example, judicial revenues are lowered as many court cases have been temporarily delayed if possible to keep with public health guidelines, plus criminal fine and fee collections are impacted due to the fact that individual's ability to pay is lower in a recession.

Estate tax collections are raised in fiscal year 2020 due to ongoing strong collections, however lowered over the forecast horizon due to lower expectations for asset prices. To date there is no indication that COVID-19 has impacted overall mortality, potentially increasing the number of estate tax payments in the year ahead.

Liquor revenues are lowered due to previous legislative actions that were not properly accounted for in previous forecast. Our office regrets this oversight. Regarding the outlook, liquor sales to consumers have been strong in recent months, but sales to bars and restaurants have been minimal. One key indicator to watch will be OLCC license renewals, which will be one measure of closures in the leisure and hospitality sector. Renewals in March 2020 were solid. The next set of renewals are due in June.

Tobacco revenues are largely unchanged, but lowered somewhat due to recent tracking and a lower level of sales than previously assumed. Long-run changes are more pronounced among other tobacco products than cigarettes, as consumption of moist snuff has leveled off considerably the past couple of years.

**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	18,823.3	17.2%	16,879.3	-10.3%	18,508.1	9.6%	21,309.5	15.1%	24,231.7	13.7%	27,479.4	13.4%
Corporate Income Taxes	1,752.7	44.8%	1,081.8	-38.3%	1,157.6	7.0%	1,369.9	18.3%	1,689.7	23.3%	1,876.4	11.1%
All Others	1,339.3	3.9%	1,564.2	16.8%	1,266.8	#####	1,349.0	6.5%	1,449.3	7.4%	1,581.2	9.1%
<b>Gross General Fund</b>	<b>21,915.3</b>	<b>18.1%</b>	<b>19,525.3</b>	<b>-10.9%</b>	<b>20,932.5</b>	<b>7.2%</b>	<b>24,028.5</b>	<b>14.8%</b>	<b>27,370.7</b>	<b>13.9%</b>	<b>30,937.0</b>	<b>13.0%</b>
<i>Offsets and Transfers</i>	<i>(129.5)</i>		<i>(251.9)</i>		<i>(101.2)</i>		<i>(89.7)</i>		<i>(54.8)</i>		<i>(67.6)</i>	
<b>Net Revenue</b>	<b>21,785.8</b>	<b>17.6%</b>	<b>19,273.4</b>	<b>-11.5%</b>	<b>20,831.3</b>	<b>8.1%</b>	<b>23,938.8</b>	<b>14.9%</b>	<b>27,315.9</b>	<b>14.1%</b>	<b>30,869.5</b>	<b>13.0%</b>

**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.

Table R.2b shows the revenue implications of the two alternative economic scenarios described on page 14. If the recovery were to take a step back next year as called for in the pessimistic scenario, revenues in the 2021-23 biennium would be reduced by \$1.4 billion. If the recovery gets up to speed quickly as called for in the optimistic scenario, revenues in the 2021-23 biennium would be increased by \$0.5 billion.

**Corporate Activity Tax**

HB 3427 (2019) created a new state revenue source by implementing a corporate activity tax (CAT) that went into effect January 2020. Projected gross revenues equal \$1.2 billion for 2019-21 and \$2.2 billion in 2021-23, down substantially from the original estimates. 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, or \$2 billion per biennium.

In terms the macroeconomic effects of a major new tax, the Office of Economic Analysis starts with the Legislative Revenue Office’s (LRO) 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.

Given that 2020 is the first year of the tax, the only concurrent data available are the quarterly estimated payments submitted during the tax year. The first substantive information will come in the form of tax returns

**TABLE R2b**

**June 2020**

	Alternative Cyclical Revenue Forecast (\$ millions)									
	2017-19 BN		2019-21 BN		2021-23 BN		2023-25 BN		2025-27 BN	
	FY '18	FY '19	FY '20	FY '21	FY '22	FY '23	FY '24	FY '25	FY '26	FY '27
<b>Baseline Case</b>										
<b>Personal Income</b>										
Level	206.7	218.6	226.0	224.1	231.0	242.7	254.2	269.9	284.2	298.8
% change	6.0%	5.8%	3.4%	-0.8%	3.1%	5.1%	4.7%	6.2%	5.3%	5.1%
<b>Taxes</b>										
Personal Income	8,872	9,909	8,089	8,790	9,032	9,477	10,315	10,995	11,695	12,536
Corporate Excise & Income	739	927	767	314	549	608	654	716	808	882
Other General Fund	633	706	785	779	624	643	665	684	710	739
Total General Fund	10,244	11,542	9,642	9,883	10,205	10,728	11,634	12,395	13,213	14,157
% change	4.3%	12.7%	-16.5%	2.5%	3.3%	5.1%	8.4%	6.5%	6.6%	7.1%
<b>Optimistic Case</b>										
<b>Personal Income</b>										
Level	206.7	219.7	227.3	226.0	233.9	245.5	258.1	275.5	291.7	308.4
% change	6.0%	6.3%	3.5%	-0.6%	3.5%	5.0%	5.1%	6.8%	5.9%	5.7%
<b>Taxes</b>										
Personal Income	8,872	9,956	8,220	9,050	9,290	9,690	10,555	11,275	12,061	12,995
<i>Deviation from baseline</i>	0	47	130	260	259	213	240	280	366	459
Corporate Excise & Income	739	931	780	324	565	622	669	735	833	914
<i>Deviation from baseline</i>	0	4	12	9	16	14	15	18	25	32
Other General Fund	633	710	790	786	632	650	676	698	729	763
Total General Fund	10,244	11,597	9,790	10,159	10,487	10,962	11,900	12,708	13,623	14,673
% change	4.3%	13.2%	-15.6%	3.8%	3.2%	4.5%	8.6%	6.8%	7.2%	7.7%
<i>Deviation from baseline</i>	0	55	148	276	282	234	266	313	410	515
<i>Biennial Deviation</i>		55		423		516		579		925
<b>Pessimistic Case</b>										
<b>Personal Income</b>										
Level	206.7	217.4	223.7	217.2	220.0	228.6	236.7	253.2	267.7	281.2
% change	6.0%	5.2%	2.9%	-2.9%	1.3%	3.9%	3.5%	7.0%	5.7%	5.0%
<b>Taxes</b>										
Personal Income	8,872	9,853	7,929	8,349	8,465	8,828	9,535	10,266	10,969	11,747
<i>Deviation from baseline</i>	0	-56	-161	-441	-566	-648	-780	-729	-727	-790
Corporate Excise & Income	739	921	752	299	515	567	604	669	758	826
<i>Deviation from baseline</i>	0	-5	-15	-16	-34	-42	-49	-47	-50	-56
Other General Fund	633	702	778	755	594	605	620	641	669	696
Total General Fund	10,244	11,476	9,458	9,402	9,574	10,000	10,759	11,576	12,395	13,269
% change	4.3%	12.0%	-17.6%	-0.6%	1.8%	4.4%	7.6%	7.6%	7.1%	7.0%
<i>Deviation from baseline</i>	0	-65	-184	-481	-631	-727	-875	-818	-818	-889
<i>Biennial Deviation</i>		-65		-665		-1,358		-1,694		-1,707

filed in the spring of 2021. Under normal circumstances, OEA would have held to the original LRO revenue estimates until then. However, given the enormity of the shift in economic circumstances associated with the Covid-19 pandemic, adjusted ten-year revenue projections were made. At the same time, revisions to the Bureau of Economic Analysis' Gross State Product series, a fundamental input in the original estimation methodology, were also incorporated. The total impact amounts to decreases of 25.6 percent and 21.3 percent in 2019-21 and 2021-23, respectively.

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 shown in Tables B.1 and B.2.

### **Lottery Earnings**

Overall the lottery outlook is lowered considerably in both the 2019-21 and 2021-23 biennia due to social distancing and the recession. Available resources in 2019-21 are lowered \$364 million (-23%) and by \$260 million (-16%) in 2021-23. The outer biennia are all lowered noticeably as well, but by somewhat smaller percentages and reflect the reduced long-run economic outlook of a smaller population, fewer jobs, and less total personal income in the state than previously forecasted.

When the restrictions on bars and restaurants were enacted in order to slow the spread of COVID-19, the Oregon Lottery followed suit by turning off the video lottery terminals at retailers statewide. This resulted in essentially no sales for a seven or eight week time period. The previous forecast for these weeks totaled more than \$150 million.

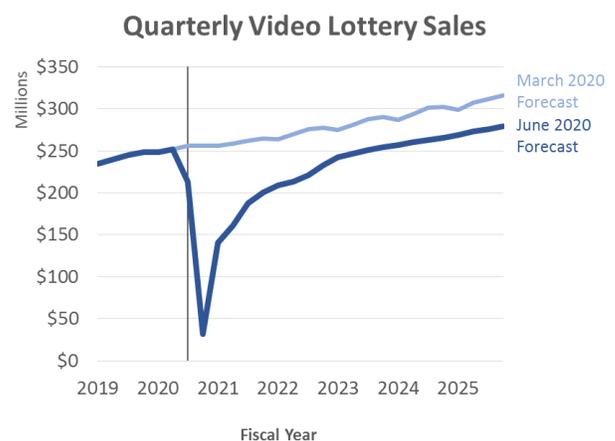
Beginning just a few days ago, 31 of Oregon's 36 counties entered into Phase 1 reopening. While these counties account for 46% of the state's population and 39% of all jobs, they are also home to 42% of statewide video lottery sales.

Initial sales over the past few days were relatively robust. Among the counties in Phase 1 reopening, about half of video lottery retailers were active, and total sales in these counties were running close to 60 percent of their pre-virus levels.

Once all counties reopen in the months ahead, sales are expected to rebound considerably. However, just like the economy at large, this rebound will be an incomplete recovery. As consumers become more confident, they will increase their level of play, however they will remain somewhat cautious when it comes to discretionary spending like gaming.

That said, by late 2022 (fiscal year 2023) video lottery sales are expected to return to their share of total personal income as they were prior to the virus. Even so, sales are reduced over the entire forecast horizon due to expectation of less total personal income.

As always, there are considerable risks to the outlook. On the upside, the level of pent-up demand for gaming may return sales to a higher level, faster than assumed. The state has seen a noticeable increase in scratch ticket sales in recent weeks, as players seek out available gaming opportunities and entertainment. Additionally, even



though most professional sports were put on hiatus, some players continued to wager on table tennis. When combined with the initial video lottery sales in Phase 1 reopening counties, this indicates that pent-up demand for gaming and entertainment more broadly is real.

However, downside risks certainly remain. This initial pent-up demand may reflect the one-time household recovery rebates or the extra \$600 per week in expanded unemployment insurance payments. These are temporary and any impact will fade in the weeks ahead. But the real downside risks pertain to hesitant consumers only going out to their favorite bars and restaurants more gradually than assumed, or pull back further on discretionary spending like they did in the aftermath of the Great Recession.

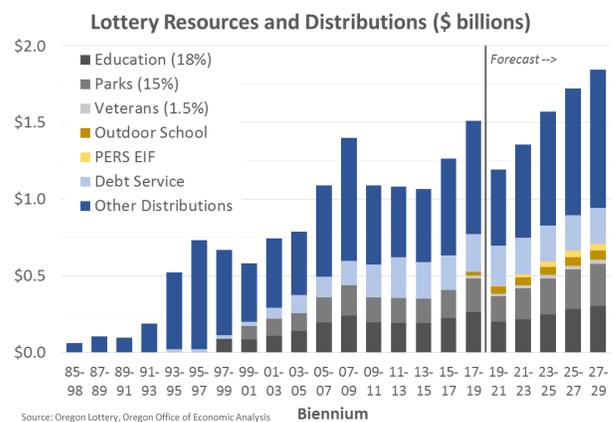
Modeling our office’s pessimistic scenario of a double-dip recession would further reduce the Lottery forecast by \$151 million in 2019-21 and \$203 million in 2021-23 as sales would once again be reduced due to social distancing and a slower reopening of the economy the second time around.

*Lottery Outlook and Distributions*

Big picture issues to watch include broader national trends in gaming markets, demographic preferences for recreational activities, and to what extent consumers decrease the share of their incomes spent on gaming. Up until the past couple of years, consumers had remained cautious with their disposable income. Increases in spending on gaming had largely matched income growth.

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.

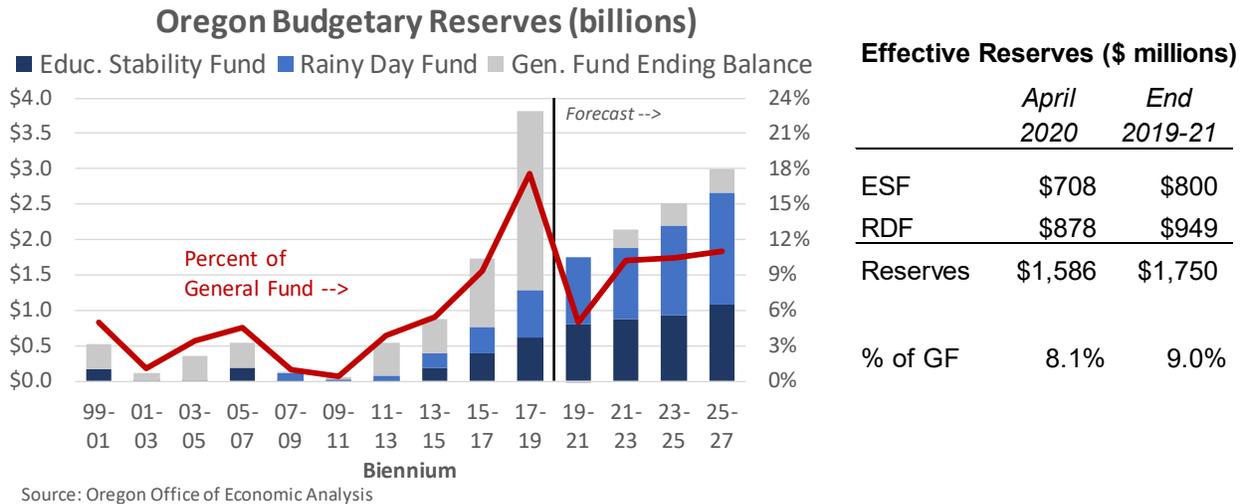
*The full extended outlook for lottery earnings can be found in Table B.9 in Appendix B.*



## Budgetary Reserves

The state currently administers two general reserve accounts, the Oregon Rainy Day Fund<sup>4</sup> (ORDF) and the Education Stability Fund<sup>5</sup> (ESF). This section updates balances and recalculates the outlook for these funds based on the June revenue forecast.

As of this forecast the two reserve funds currently total a combined \$1.59 billion. At the end of the current 2019-21 biennium, they will total \$1.75 billion.



The forecast for the ORDF includes two deposits for this biennium relating to the General Fund ending balance from the previous biennium (2017-19). A deposit of \$198.3 million was made in early 2020 after the accountants closed the books. Additionally a \$66.5 million deposit relating to the increased corporate taxes from Measure 67 is expected at the end of the biennium. This exact transfer amount is subject to some revision as corporate filings are processed, however the transfer itself will occur. At the end of 2019-21 the ORDF will total \$949.4 million. This balance is lower than the previous forecast due to a lower interest rate outlook.

The forecast for the ESF calls for \$180.4 million in deposits during the 2019-21 biennium based on the current Lottery forecast, a substantial reduction relative to the previous forecast. To date \$113 million has been transferring, meaning the remaining \$67 million will be subject to economic and revenue forecast changes over the remainder of the biennium. All told, this would bring the ESF balance to \$800.1 million at the end of the

<sup>4</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>5</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 – 10% 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.

current biennium. The ESF is still forecasted to reach its cap of 5% of the previous biennium’s General Fund revenues at the end of FY2022. Once the cap it reached, transfers accrue to the Capital Matching Account.

Together, the ORDF and ESF are projected to have a combined balance of \$1.75 billion at the close of the 2019-21 biennium, or 9 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. They are needed today given the severe recession and the fact the economic recovery will take years.

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

**Recreational Marijuana Tax Collections**

Marijuana sales during the pandemic have been quite strong. The dollar amount of recreational sales since March 1<sup>st</sup> are up 60 percent relative to a year ago. These increases are not only related to the stockpiling consumers did after the sheltering in place policies were enacted, but have continued through April and early May.

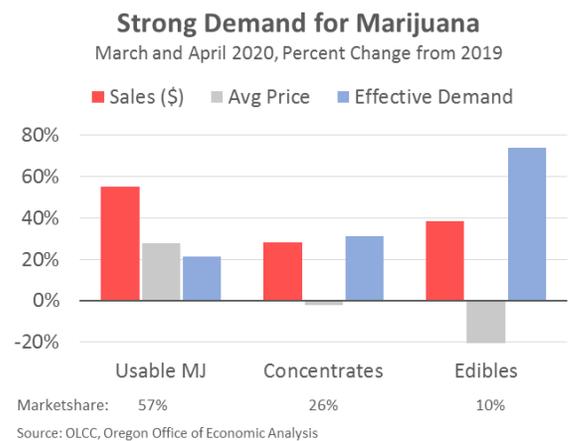
Interestingly, the share of home delivery sales has more than doubled in recent months but remains just 1.4 percent of all sales. Consumers still prefer to shop in store.

Some of the increases in sales of usable marijuana are in part due to rising prices, but underlying demand is up as well. The increase in sales for other marijuana products, like concentrates, edibles and the like, are due to significant gains in consumer demand as prices are flat or down.

All told, marijuana available resources are revised higher by \$9 million in 2019-21 due to recent sales. Expectations are that some of these increases are due to temporary factors like the one-time household recovery rebates, expanded unemployment insurance benefits, and the shelter in place style policies. As the impact of these programs fade in the months ahead, and bars and restaurants reopen to a larger degree, marijuana sales are expected to mellow.

Over the extended forecast horizon, marijuana sales are reduced approximately five percent relative to the previous forecast due to the lower economic outlook. A relatively smaller population indicates fewer potential customers and lower total personal income than previously assumed indicates less consumer demand, all things being equal.

*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 2019 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 strong growth as a consequence of state's strong economic recovery. Population growth between 2018 and 2019 was 13<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 4.236 million in 2019 will reach 4.578 million in the year 2029 with an annual rate of growth of 0.78 percent between 2019 and 2029. The projected population of 2029 is 34,100 less than our March forecast. The decline is due to the COVID-19 effect.

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 and declining natural increase (births minus deaths), the ratio of net migration-to-population change has registered at 87 percent in 2019 and will continue to rise through the forecast horizon after 2021 once we recover from the COVID-19 pandemic. By 2025, all of Oregon's population growth and more 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 2025 due to 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 post-coronavirus pandemic, high level of net migration into Oregon will continue. Not too far into the future, migration 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 2019-2029. 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 continue a

very high level as the baby-boom generation continue to enter this age group combined with the attrition of small depression era cohort due to death. However, this age cohort seems to have hit the highest point and will continue a high but diminishing rate of growth. The average annual growth of the elderly population will be 2.7 percent during the 2019-2029 forecast period. Different age groups among the elderly population show quite varied and fascinating growth trends. The youngest elderly (aged 65-74), which has been growing at an extremely fast pace in the recent past, will exhibit a tendency to slow down in the future. The annual growth rate of this youngest elderly will exceed 3 percent in the near future 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. This high growth transitioning into a net loss of this youngest elderly population result in 1.1 percent growth rate in the next ten years. 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 2019-2029 is expected to be unusually high 5.2 percent. The oldest elderly (aged 85+) will continue to grow at a slow rate but steadily gaining growth momentum 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 3.2 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 structural 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 has recovered 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 1.0 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 nearly unchanged in the near future and will decline through 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 -0.5 percent annually. The growth rate for children under the age of five has remained below or near zero percent in the recent past and will continue to decline 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 tables in Appendix C are developed by OEA based on 2000 and 2010 censuses. Post-censal population totals for the years 2010 through 2019 are from the Population Research Center, Portland State University. The numbers of births and deaths through 2018 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 2019 and this rate is projected to remain well 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. 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. The annual net migration is expected to be far less than the forecast released in March 2020 in the short run due to the COVID-19 effect. However, the migration is expected to recover during the late 2020 and early 2021. Between 2019 and 2029 is expected to be in the range of 20,700 to 39,700, averaging 33,950 persons annually.

APPENDIX A: ECONOMIC FORECAST DETAIL

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Table A.1 – Employment Forecast Tracking

**Total Nonfarm Employment, 1st quarter 2020**

(Employment in thousands, Annualized Percent Change)

	Preliminary Estimate		Forecast		Forecast Error		Y/Y Change
	level	% ch	level	% ch	level	%	% ch
<b>Total Nonfarm</b>	1,960.1	0.6	1,959.7	1.9	0.4	0.0	1.4
<b>Total Private</b>	1,657.6	(0.1)	1,660.3	1.9	(2.7)	(0.2)	1.3
<b>Mining and Logging</b>	6.7	(6.9)	7.0	12.0	(0.3)	(3.8)	(4.4)
<b>Construction</b>	112.5	5.2	110.2	1.6	2.3	2.1	3.8
<b>Manufacturing</b>	196.4	(1.8)	198.7	0.7	(2.3)	(1.2)	(1.2)
<b>Durable Goods</b>	135.7	(1.2)	138.0	2.6	(2.3)	(1.7)	(1.6)
<b>Wood Product</b>	22.7	(4.0)	23.6	5.8	(0.9)	(3.9)	(3.8)
<b>Metals and Machinery</b>	39.9	(2.5)	40.2	0.9	(0.4)	(1.0)	(1.5)
<b>Computer and Electronic Product</b>	38.6	0.7	39.0	4.2	(0.4)	(0.9)	(0.0)
<b>Transportation Equipment</b>	12.2	(2.6)	12.4	(6.2)	(0.2)	(1.7)	(3.2)
<b>Other Durable Goods</b>	22.3	1.4	22.8	4.9	(0.4)	(2.0)	(1.3)
<b>Nondurable Goods</b>	60.7	(3.2)	60.7	(3.5)	(0.0)	(0.0)	(0.2)
<b>Food</b>	28.9	(8.5)	29.1	(7.3)	(0.2)	(0.7)	(4.1)
<b>Other Nondurable Goods</b>	31.8	1.9	31.6	0.2	0.2	0.6	3.6
<b>Trade, Transportation &amp; Utilities</b>	360.3	0.8	359.1	0.4	1.2	0.3	1.3
<b>Retail Trade</b>	208.6	(0.5)	209.7	0.2	(1.1)	(0.5)	(0.9)
<b>Wholesale Trade</b>	77.0	1.5	77.0	1.3	0.0	0.0	0.7
<b>Transportation, Warehousing &amp; Utilities</b>	74.7	3.5	72.4	0.1	2.3	3.2	8.5
<b>Information</b>	35.2	(5.8)	35.5	2.0	(0.3)	(0.8)	1.8
<b>Financial Activities</b>	104.9	2.7	104.1	1.5	0.8	0.7	1.9
<b>Professional &amp; Business Services</b>	257.2	(1.3)	257.2	3.1	(0.1)	(0.0)	1.9
<b>Educational &amp; Health Services</b>	304.3	(1.3)	306.2	2.9	(1.9)	(0.6)	2.1
<b>Educational Services</b>	36.5	(5.3)	36.3	(7.2)	0.3	0.7	(0.1)
<b>Health Services</b>	267.8	(0.8)	269.9	4.3	(2.2)	(0.8)	2.4
<b>Leisure and Hospitality</b>	214.8	(0.1)	217.8	3.4	(3.0)	(1.4)	0.7
<b>Other Services</b>	65.3	2.2	64.4	(0.9)	0.9	1.4	0.9
<b>Government</b>	302.5	4.2	299.4	2.0	3.1	1.0	1.6
<b>Federal</b>	28.5	1.2	27.9	(6.3)	0.6	2.1	0.9
<b>State</b>	42.2	23.6	39.6	(2.4)	2.6	6.6	2.7
<b>State Education</b>	0.9	(12.7)	0.8	(7.3)	0.1	11.9	13.6
<b>Local</b>	231.7	1.4	231.8	3.9	(0.1)	(0.1)	1.5
<b>Local Education</b>	135.8	1.6	132.3	(2.2)	3.5	2.7	2.3

Table A.2 – Short-Term Oregon Economic Summary

**Oregon Forecast Summary**

	Quarterly					Annual					
	2020:1	2020:2	2020:3	2020:4	2021:1	2019	2020	2021	2022	2023	2024
<b>Personal Income (\$ billions)</b>											
<b>Nominal Personal Income</b>	229.4	224.4	226.2	222.4	222.9	223.3	225.6	226.0	236.6	249.2	262.8
% change	6.2	(8.5)	3.3	(6.6)	0.9	4.8	1.0	0.2	4.7	5.3	5.4
<b>Real Personal Income (base year=2012)</b>	207.2	203.9	204.6	200.2	199.9	203.6	204.0	201.4	206.8	213.0	219.9
% change	4.6	(6.3)	1.4	(8.3)	(0.7)	3.3	0.2	(1.3)	2.6	3.0	3.2
<b>Nominal Wages and Salaries</b>	115.8	96.6	99.6	102.2	103.3	112.0	103.6	104.6	112.3	122.5	132.5
% change	9.9	(51.6)	12.9	10.9	4.3	4.6	(7.5)	1.1	7.3	9.1	8.2
<b>Other Indicators</b>											
<b>Per Capita Income (\$1,000)</b>	53.9	52.6	53.0	52.0	52.1	52.7	52.9	52.7	54.7	57.2	59.8
% change	5.6	(9.1)	2.7	(7.2)	0.5	3.8	0.4	(0.4)	3.9	4.4	4.6
<b>Average Wage rate (\$1,000)</b>	58.3	61.5	59.7	59.3	59.4	57.1	59.7	59.6	61.4	64.0	66.8
% change	7.4	23.9	(11.2)	(2.9)	0.7	3.0	4.5	(0.1)	3.0	4.2	4.4
<b>Population (Millions)</b>	4.3	4.3	4.3	4.3	4.3	4.24	4.27	4.29	4.32	4.36	4.40
% change	0.6	0.7	0.6	0.6	0.4	1.0	0.7	0.6	0.8	0.8	0.8
<b>Housing Starts (Thousands)</b>	18.9	15.3	14.9	15.7	16.2	20.7	16.2	16.7	18.9	21.4	21.9
% change	(30.2)	(57.1)	(10.3)	21.6	13.3	5.9	(21.7)	3.0	13.3	13.1	2.3
<b>Unemployment Rate</b>	3.9	22.7	18.5	16.0	15.3	4.1	15.3	14.7	11.4	7.6	4.6
Point Change	0.0	18.8	(4.2)	(2.5)	(0.7)	(0.0)	11.2	(0.6)	(3.3)	(3.8)	(3.0)
<b>Employment (Thousands)</b>											
<b>Total Nonfarm</b>	1,960.1	1,553.6	1,650.5	1,707.1	1,722.4	1,942.9	1,717.8	1,736.9	1,810.7	1,898.1	1,969.2
% change	0.6	(60.5)	27.4	14.4	3.6	1.6	(11.6)	1.1	4.2	4.8	3.7
<b>Private Nonfarm</b>	1,657.6	1,250.2	1,350.2	1,410.4	1,427.8	1,644.0	1,417.1	1,444.0	1,514.9	1,600.0	1,666.4
% change	(0.1)	(67.6)	36.0	19.1	5.0	1.6	(13.8)	1.9	4.9	5.6	4.1
<b>Construction</b>	112.5	86.6	85.5	86.1	88.6	109.4	92.7	91.5	96.4	100.9	104.4
% change	5.2	(64.9)	(5.1)	3.1	11.9	3.7	(15.3)	(1.3)	5.4	4.6	3.5
<b>Manufacturing</b>	196.4	161.1	157.4	153.4	153.2	198.0	167.1	157.2	168.9	178.1	183.3
% change	(1.8)	(54.7)	(8.9)	(9.8)	(0.6)	1.4	(15.6)	(5.9)	7.4	5.5	2.9
<b>Durable Manufacturing</b>	135.7	109.2	106.2	103.0	102.5	137.0	113.5	106.0	115.2	121.9	125.9
% change	(1.2)	(58.0)	(10.7)	(11.5)	(1.7)	1.1	(17.1)	(6.6)	8.7	5.8	3.2
Wood Product Manufacturing	22.7	15.3	15.2	14.6	14.7	23.2	17.0	15.0	17.3	20.0	21.8
% change	(4.0)	(79.0)	(4.7)	(12.8)	0.8	(1.2)	(27.0)	(11.2)	15.2	15.3	8.9
High Tech Manufacturing	38.6	37.0	37.0	36.9	36.3	38.6	37.4	36.8	37.4	37.5	37.4
% change	0.7	(15.7)	(0.2)	(1.2)	(6.0)	1.8	(3.2)	(1.5)	1.6	0.2	(0.3)
Transportation Equipment	12.2	9.8	9.5	9.2	9.3	12.6	10.2	9.6	10.3	10.8	11.3
% change	(2.6)	(58.2)	(11.5)	(11.6)	0.8	3.6	(18.9)	(6.0)	7.4	4.5	5.1
<b>Nondurable Manufacturing</b>	60.7	51.9	51.3	50.4	50.6	61.0	53.6	51.2	53.7	56.2	57.4
% change	(3.2)	(46.4)	(5.1)	(6.2)	1.5	2.2	(12.2)	(4.4)	4.7	4.7	2.2
<b>Private nonmanufacturing</b>	1,461.3	1,089.1	1,192.8	1,257.0	1,274.6	1,446.1	1,250.0	1,286.8	1,346.0	1,421.9	1,483.1
% change	0.2	(69.1)	43.9	23.3	5.7	1.6	(13.6)	2.9	4.6	5.6	4.3
Retail Trade	208.6	158.0	174.1	183.9	184.5	209.8	181.2	185.2	188.3	191.5	195.2
% change	(0.5)	(67.1)	47.5	24.7	1.2	(0.8)	(13.6)	2.3	1.6	1.7	2.0
Wholesale Trade	77.0	66.0	63.0	65.5	66.8	76.5	67.9	67.2	69.3	72.7	76.3
% change	1.5	(45.9)	(17.0)	16.7	8.3	1.2	(11.3)	(1.0)	3.1	4.9	5.0
<b>Information</b>	35.2	31.0	30.7	31.2	31.8	35.1	32.0	32.1	32.9	33.2	33.4
% change	(5.8)	(39.8)	(3.8)	7.0	7.8	2.1	(8.6)	0.2	2.3	0.9	0.8
<b>Professional and Business Services</b>	257.2	222.3	216.5	220.3	223.3	254.3	229.1	225.3	240.7	266.2	287.1
% change	(1.3)	(44.2)	(10.1)	7.2	5.6	1.8	(9.9)	(1.6)	6.8	10.6	7.9
<b>Health Services</b>	267.8	201.9	232.5	247.5	250.8	264.9	237.4	253.7	263.4	273.8	285.1
% change	(0.8)	(67.7)	75.8	28.4	5.4	2.3	(10.4)	6.9	3.8	3.9	4.1
<b>Leisure and Hospitality</b>	214.8	86.7	139.0	160.8	164.9	213.8	150.3	166.9	184.9	207.6	222.7
% change	(0.1)	(97.3)	560.4	79.0	10.7	1.1	(29.7)	11.0	10.8	12.3	7.3
<b>Government</b>	302.5	303.4	300.3	296.6	294.6	298.9	300.7	292.9	295.9	298.1	302.8
% change	4.2	1.2	(4.0)	(4.8)	(2.7)	1.4	0.6	(2.6)	1.0	0.8	1.6

Table A.3 – Oregon Economic Forecast Change

	Quarterly					Annual					
	2020:1	2020:2	2020:3	2020:4	2021:1	2019	2020	2021	2022	2023	2024
<b>Personal Income (\$ billions)</b>											
<b>Nominal Personal Income</b>	229.4	224.4	226.2	222.4	222.9	223.3	225.6	226.0	236.6	249.2	262.8
% change	(0.2)	(3.5)	(3.9)	(6.6)	(7.5)	(0.2)	(3.6)	(7.9)	(8.1)	(7.7)	(7.2)
<b>Real Personal Income (base year=2012)</b>	207.2	203.9	204.6	200.2	199.9	203.6	204.0	201.4	206.8	213.0	219.9
% change	(0.1)	(2.4)	(2.9)	(5.7)	(6.7)	(0.2)	(2.8)	(6.9)	(6.9)	(6.4)	(5.9)
<b>Nominal Wages and Salaries</b>	115.8	96.6	99.6	102.2	103.3	112.0	103.6	104.6	112.3	122.5	132.5
% change	(0.4)	(18.1)	(16.7)	(15.6)	(15.8)	(0.4)	(12.8)	(16.4)	(14.8)	(11.4)	(8.7)
<b>Other Indicators</b>											
<b>Per Capita Income (\$1,000)</b>	53.9	52.6	53.0	52.0	52.1	52.7	52.9	52.7	54.7	57.2	59.8
% change	(0.1)	(3.3)	(3.6)	(6.2)	(7.1)	(0.2)	(3.3)	(7.4)	(7.5)	(6.9)	(6.4)
<b>Average Wage rate (\$1,000)</b>	58.3	61.5	59.7	59.3	59.4	57.1	59.7	59.6	61.4	64.0	66.8
% change	(0.8)	3.6	(0.4)	(2.1)	(2.9)	(0.4)	0.0	(3.9)	(5.1)	(5.1)	(5.0)
<b>Population (Millions)</b>	4.26	4.26	4.27	4.3	4.3	4.24	4.27	4.29	4.32	4.36	4.40
% change	(0.2)	(0.2)	(0.3)	(0.4)	(0.5)	0.0	(0.3)	(0.6)	(0.7)	(0.8)	(0.8)
<b>Housing Starts (Thousands)</b>	18.9	15.3	14.9	15.7	16.2	20.7	16.2	16.7	18.9	21.4	21.9
% change	(14.1)	(31.5)	(34.0)	(31.2)	(30.5)	(0.1)	(27.8)	(28.4)	(19.9)	(8.5)	(7.5)
<b>Unemployment Rate</b>	3.9	22.7	18.5	16.0	15.3	4.1	15.3	14.7	11.4	7.6	4.6
Point Change	0.0	18.9	14.7	12.2	11.5	0.0	11.4	10.8	7.4	3.4	0.2
<b>Employment (Thousands)</b>											
<b>Total Nonfarm</b>	1,960.1	1,553.6	1,650.5	1,707.1	1,722.4	1,942.9	1,717.8	1,736.9	1,810.7	1,898.1	1,969.2
% change	0.0	(21.2)	(16.5)	(13.9)	(13.5)	0.1	(12.9)	(13.1)	(10.4)	(6.8)	(3.9)
<b>Private Nonfarm</b>	1,657.6	1,250.2	1,350.2	1,410.4	1,427.8	1,644.0	1,417.1	1,444.0	1,514.9	1,600.0	1,666.4
% change	(0.2)	(25.0)	(19.4)	(16.1)	(15.4)	0.1	(15.2)	(14.8)	(11.5)	(7.3)	(4.0)
<b>Construction</b>	112.5	86.6	85.5	86.1	88.6	109.4	92.7	91.5	96.4	100.9	104.4
% change	2.1	(21.7)	(22.8)	(22.4)	(20.6)	0.3	(16.2)	(18.4)	(14.2)	(10.9)	(8.3)
<b>Manufacturing</b>	196.4	161.1	157.4	153.4	153.2	198.0	167.1	157.2	168.9	178.1	183.3
% change	(1.2)	(18.9)	(20.7)	(22.6)	(22.7)	(0.1)	(15.9)	(20.5)	(14.6)	(9.9)	(7.3)
<b>Durable Manufacturing</b>	135.7	109.2	106.2	103.0	102.5	137.0	113.5	106.0	115.2	121.9	125.9
% change	(1.7)	(20.9)	(23.0)	(25.2)	(25.5)	(0.2)	(17.7)	(22.6)	(15.6)	(10.5)	(7.6)
Wood Product Manufacturing	22.7	15.3	15.2	14.6	14.7	23.2	17.0	15.0	17.3	20.0	21.8
% change	(3.9)	(35.1)	(35.6)	(37.6)	(37.6)	(0.3)	(28.0)	(35.5)	(25.3)	(14.2)	(7.9)
High Tech Manufacturing	38.6	37.0	37.0	36.9	36.3	38.6	37.4	36.8	37.4	37.5	37.4
% change	(0.9)	(5.1)	(4.8)	(5.2)	(6.4)	0.0	(4.0)	(4.9)	(3.8)	(3.4)	(2.9)
Transportation Equipment	12.2	9.8	9.5	9.2	9.3	12.6	10.2	9.6	10.3	10.8	11.3
% change	(1.7)	(21.4)	(24.1)	(26.7)	(26.6)	(0.5)	(18.5)	(23.8)	(18.1)	(14.5)	(10.5)
<b>Nondurable Manufacturing</b>	60.7	51.9	51.3	50.4	50.6	61.0	53.6	51.2	53.7	56.2	57.4
% change	(0.0)	(14.4)	(15.4)	(16.8)	(16.6)	(0.1)	(11.7)	(15.8)	(12.4)	(8.8)	(6.8)
<b>Private nonmanufacturing</b>	1,461.3	1,089.1	1,192.8	1,257.0	1,274.6	1,446.1	1,250.0	1,286.8	1,346.0	1,421.9	1,483.1
% change	(0.0)	(25.8)	(19.2)	(15.2)	(14.4)	0.1	(15.1)	(14.0)	(11.1)	(6.9)	(3.6)
Retail Trade	208.6	158.0	174.1	183.9	184.5	209.8	181.2	185.2	188.3	191.5	195.2
% change	(0.5)	(24.7)	(17.1)	(12.4)	(12.1)	(0.1)	(13.7)	(11.8)	(10.5)	(9.1)	(7.5)
Wholesale Trade	77.0	66.0	63.0	65.5	66.8	76.5	67.9	67.2	69.3	72.7	76.3
% change	0.0	(14.3)	(18.4)	(15.3)	(13.7)	0.2	(12.0)	(13.3)	(10.9)	(6.6)	(2.0)
<b>Information</b>	35.2	31.0	30.7	31.2	31.8	35.1	32.0	32.1	32.9	33.2	33.4
% change	(0.8)	(12.4)	(13.1)	(11.7)	(10.0)	0.4	(9.5)	(9.2)	(7.1)	(6.2)	(5.3)
<b>Professional and Business Services</b>	257.2	222.3	216.5	220.3	223.3	254.3	229.1	225.3	240.7	266.2	287.1
% change	(0.0)	(14.2)	(17.8)	(17.3)	(17.3)	0.2	(12.4)	(17.9)	(15.4)	(7.9)	(2.2)
<b>Health Services</b>	267.8	201.9	232.5	247.5	250.8	264.9	237.4	253.7	263.4	273.8	285.1
% change	(0.8)	(25.9)	(15.1)	(10.0)	(9.2)	0.1	(13.0)	(8.7)	(6.8)	(4.8)	(2.2)
<b>Leisure and Hospitality</b>	214.8	86.7	139.0	160.8	164.9	213.8	150.3	166.9	184.9	207.6	222.7
% change	(1.4)	(60.4)	(37.0)	(27.6)	(25.9)	(0.1)	(31.6)	(25.2)	(17.6)	(8.5)	(2.4)
<b>Government</b>	302.5	303.4	300.3	296.6	294.6	298.9	300.7	292.9	295.9	298.1	302.8
% change	1.0	(0.1)	(0.6)	(1.9)	(2.9)	0.2	(0.4)	(3.9)	(3.9)	(4.0)	(3.3)

Table A.4 – Annual Economic Forecast

**Jun 2020 - Personal Income**

(Billions of Current Dollars)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Total Personal Income*</b>												
Oregon	213.1	223.3	225.6	226.0	236.6	249.2	262.8	277.0	291.4	306.3	322.0	338.5
% Ch	6.2	4.8	1.0	0.2	4.7	5.3	5.4	5.4	5.2	5.1	5.1	5.1
U.S.	17,819.2	18,602.3	18,913.4	19,494.0	20,405.7	21,176.3	21,991.6	22,972.5	24,043.2	25,176.9	26,395.3	27,676.2
% Ch	5.6	4.4	1.7	3.1	4.7	3.8	3.9	4.5	4.7	4.7	4.8	4.9
<b>Wage and Salary</b>												
Oregon	107.0	112.0	103.6	104.6	112.3	122.5	132.5	140.6	148.3	156.2	164.3	172.6
% Ch	5.7	4.6	(7.5)	1.1	7.3	9.1	8.2	6.1	5.5	5.3	5.2	5.1
U.S.	8,888.5	9,297.8	8,996.6	9,321.1	10,188.8	10,718.5	11,121.1	11,576.5	12,097.6	12,654.1	13,245.4	13,869.4
% Ch	5.0	4.6	(3.2)	3.6	9.3	5.2	3.8	4.1	4.5	4.6	4.7	4.7
<b>Other Labor Income</b>												
Oregon	25.6	26.7	24.4	24.8	27.3	29.6	31.7	33.6	35.4	37.3	39.2	41.2
% Ch	4.4	4.2	(8.6)	1.7	10.0	8.3	7.1	6.1	5.5	5.3	5.1	5.0
U.S.	1,417.2	1,473.2	1,426.8	1,478.1	1,615.8	1,699.8	1,763.7	1,835.9	1,918.5	2,006.7	2,100.5	2,199.4
% Ch	5.5	4.0	(3.1)	3.6	9.3	5.2	3.8	4.1	4.5	4.6	4.7	4.7
<b>Nonfarm Proprietor's Income</b>												
Oregon	18.1	18.8	17.4	19.0	19.8	20.4	21.1	21.8	22.5	23.2	23.9	24.7
% Ch	4.4	4.1	(7.7)	9.0	4.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2
U.S.	1,561.6	1,626.3	1,544.9	1,811.2	1,696.2	1,694.4	1,747.5	1,798.8	1,845.0	1,892.1	1,942.8	1,988.8
% Ch	5.5	4.1	(5.0)	17.2	(6.3)	(0.1)	3.1	2.9	2.6	2.6	2.7	2.4
<b>Dividend, Interest and Rent</b>												
Oregon	45.8	47.0	47.3	48.1	49.0	49.4	50.6	52.7	55.3	58.1	61.5	65.3
% Ch	8.3	2.6	0.6	1.7	1.9	0.8	2.5	4.3	4.8	5.2	5.8	6.2
U.S.	3,686.9	3,770.8	3,828.2	3,923.4	4,021.0	4,062.5	4,191.9	4,413.3	4,651.8	4,912.6	5,216.8	5,554.9
% Ch	8.4	2.3	1.5	2.5	2.5	1.0	3.2	5.3	5.4	5.6	6.2	6.5
<b>Transfer Payments</b>												
Oregon	40.0	43.2	55.9	52.3	52.2	53.2	54.9	57.9	60.9	64.0	67.2	70.3
% Ch	5.9	8.0	29.3	(6.4)	(0.1)	2.0	3.1	5.4	5.3	5.1	4.9	4.7
U.S.	2,918.3	3,117.3	3,777.8	3,636.0	3,590.3	3,742.3	3,950.7	4,165.4	4,381.1	4,601.0	4,823.3	5,043.2
% Ch	4.1	6.8	21.2	(3.8)	(1.3)	4.2	5.6	5.4	5.2	5.0	4.8	4.6
<b>Contributions for Social Security</b>												
Oregon	18.5	19.3	18.3	18.2	19.4	21.2	22.8	24.2	25.4	26.8	28.1	29.6
% Ch	3.5	4.2	(5.2)	(0.5)	6.8	8.9	7.9	5.8	5.2	5.3	5.1	5.0
U.S.	733.7	769.6	742.6	765.9	834.7	876.2	907.8	943.8	985.5	1,030.2	1,077.9	1,128.3
% Ch	5.7	4.9	(3.5)	3.1	9.0	5.0	3.6	4.0	4.4	4.5	4.6	4.7
<b>Residence Adjustment</b>												
Oregon	(4.9)	(5.1)	(4.7)	(4.6)	(4.8)	(5.1)	(5.4)	(5.7)	(5.9)	(6.1)	(6.3)	(6.5)
% Ch	4.0	4.0	(8.7)	(1.7)	4.0	6.9	6.5	4.5	3.5	3.9	3.5	3.1
<b>Farm Proprietor's Income</b>												
Oregon	(0.1)	(0.0)	0.0	0.0	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3
% Ch	(429.7)	(31.1)	(181.6)	(53.9)	1,350.3	27.2	(22.1)	(1.5)	13.6	6.0	(1.0)	(0.1)
<b>Per Capita Income (Thousands of \$)</b>												
Oregon	50.8	52.7	52.9	52.7	54.7	57.2	59.8	62.5	65.2	68.0	70.9	73.9
% Ch	4.9	3.8	0.4	(0.4)	3.9	4.4	4.6	4.6	4.3	4.3	4.3	4.3
U.S.	54.4	56.4	56.9	58.2	60.5	62.4	64.4	66.8	69.5	72.3	75.3	78.5
% Ch	4.9	3.7	1.0	2.4	4.0	3.1	3.2	3.8	4.0	4.1	4.2	4.2

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

**Jun 2020 - Employment By Industry  
(Oregon - Thousands, U.S. - Millions)**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Total Nonfarm</b>												
Oregon	1,912.8	1,942.9	1,717.8	1,736.9	1,810.7	1,898.1	1,969.2	2,004.1	2,028.3	2,049.8	2,069.5	2,088.1
% Ch	2.0	1.6	(11.6)	1.1	4.2	4.8	3.7	1.8	1.2	1.1	1.0	0.9
U.S.	148.9	150.9	144.1	142.7	150.9	154.1	154.5	154.7	155.3	156.1	157.0	157.9
% Ch	1.6	1.4	(4.5)	(0.9)	5.7	2.1	0.3	0.1	0.4	0.5	0.6	0.6
<b>Private Nonfarm</b>												
Oregon	1,618.0	1,644.0	1,417.1	1,444.0	1,514.9	1,600.0	1,666.4	1,696.2	1,715.9	1,733.2	1,748.5	1,763.7
% Ch	3.3	1.6	(13.8)	1.9	4.9	5.6	4.1	1.8	1.2	1.0	0.9	0.9
U.S.	126.4	128.3	121.2	119.8	127.9	130.9	131.1	131.1	131.6	132.2	133.0	133.8
% Ch	1.8	1.5	(5.6)	(1.1)	6.7	2.4	0.2	(0.0)	0.3	0.5	0.6	0.6
<b>Mining and Logging</b>												
Oregon	7.2	6.9	5.2	4.9	5.7	6.1	6.3	6.5	6.8	7.0	7.1	7.2
% Ch	3.3	(4.0)	(25.0)	(5.1)	14.8	7.3	3.6	3.6	3.7	2.9	1.9	1.1
U.S.	0.7	0.7	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6
% Ch	7.6	1.2	(20.5)	(33.9)	10.0	9.2	3.4	3.7	3.7	3.2	2.0	1.5
<b>Construction</b>												
Oregon	105.4	109.4	92.7	91.5	96.4	100.9	104.4	106.6	108.3	110.0	111.5	113.1
% Ch	7.8	3.7	(15.3)	(1.3)	5.4	4.6	3.5	2.1	1.6	1.5	1.4	1.4
U.S.	7.3	7.5	7.2	6.8	7.1	7.4	7.6	7.8	7.9	8.0	8.1	8.3
% Ch	4.6	2.9	(3.8)	(6.2)	4.9	4.9	2.4	1.9	1.5	1.3	1.7	2.2
<b>Manufacturing</b>												
Oregon	195.2	198.0	167.1	157.2	168.9	178.1	183.3	186.5	188.2	189.6	190.4	190.5
% Ch	2.7	1.4	(15.6)	(5.9)	7.4	5.5	2.9	1.7	0.9	0.7	0.4	0.0
U.S.	12.7	12.8	12.2	11.2	11.5	11.9	12.0	12.0	12.0	12.0	11.8	11.7
% Ch	2.0	1.2	(4.9)	(7.9)	2.3	3.0	1.3	(0.1)	0.2	(0.5)	(1.1)	(1.1)
<b>Durable Manufacturing</b>												
Oregon	135.5	137.0	113.5	106.0	115.2	121.9	125.9	128.2	129.3	130.0	130.2	130.0
% Ch	2.9	1.1	(17.1)	(6.6)	8.7	5.8	3.2	1.8	0.9	0.5	0.2	(0.1)
U.S.	7.9	8.1	7.6	6.8	7.0	7.3	7.4	7.5	7.5	7.5	7.4	7.3
% Ch	2.7	1.4	(6.1)	(10.4)	2.7	4.1	2.3	0.6	0.8	(0.3)	(1.3)	(1.4)
<b>Wood Products</b>												
Oregon	23.5	23.2	17.0	15.0	17.3	20.0	21.8	22.7	22.9	23.0	23.1	23.1
% Ch	2.5	(1.2)	(27.0)	(11.2)	15.2	15.3	8.9	4.3	1.0	0.3	0.3	0.3
U.S.	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
% Ch	2.3	0.7	(6.6)	(25.2)	26.2	9.7	5.8	4.3	4.0	1.1	0.0	0.6
<b>Metal and Machinery</b>												
Oregon	39.3	40.2	31.4	29.1	33.3	35.1	36.1	36.9	37.5	37.9	38.0	37.9
% Ch	5.3	2.3	(22.0)	(7.4)	14.4	5.6	2.6	2.2	1.7	1.0	0.2	(0.1)
U.S.	3.0	3.0	2.8	2.5	2.6	2.8	2.9	2.9	2.9	2.9	2.9	2.8
% Ch	3.2	1.2	(7.1)	(9.0)	2.9	5.7	3.3	1.1	1.0	(0.4)	(1.7)	(1.7)
<b>Computer and Electronic Products</b>												
Oregon	37.9	38.6	37.4	36.8	37.4	37.5	37.4	37.1	36.9	36.7	36.4	36.2
% Ch	2.9	1.8	(3.2)	(1.5)	1.6	0.2	(0.3)	(0.7)	(0.5)	(0.6)	(0.7)	(0.5)
U.S.	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Ch	1.5	2.5	(3.7)	(3.1)	1.2	0.1	0.9	0.5	(0.2)	(0.6)	(1.3)	(1.3)
<b>Transportation Equipment</b>												
Oregon	12.1	12.6	10.2	9.6	10.3	10.8	11.3	11.6	11.8	11.8	11.8	11.7
% Ch	2.2	3.6	(18.9)	(6.0)	7.4	4.5	5.1	2.4	1.7	0.5	0.0	(1.0)
U.S.	1.7	1.7	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
% Ch	3.6	1.9	(8.3)	(14.8)	(0.0)	4.9	1.0	(0.6)	0.3	(0.4)	(1.3)	(2.2)
<b>Other Durables</b>												
Oregon	22.6	22.3	17.6	15.5	16.9	18.5	19.4	19.9	20.2	20.6	20.9	21.0
% Ch	(0.0)	(1.1)	(21.3)	(12.0)	9.2	9.7	4.4	3.0	1.4	1.9	1.5	0.4
U.S.	2.2	2.2	2.1	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
% Ch	1.8	0.8	(4.5)	(12.4)	5.2	3.7	2.5	0.8	1.4	0.1	(0.7)	(0.6)
<b>Nondurable Manufacturing</b>												
Oregon	59.7	61.0	53.6	51.2	53.7	56.2	57.4	58.3	58.9	59.6	60.2	60.4
% Ch	2.2	2.2	(12.2)	(4.4)	4.7	4.7	2.2	1.6	0.9	1.2	1.0	0.4
U.S.	4.7	4.8	4.6	4.5	4.5	4.6	4.6	4.5	4.5	4.4	4.4	4.4
% Ch	0.9	0.8	(2.8)	(3.8)	1.8	1.2	(0.3)	(1.3)	(0.9)	(0.9)	(0.9)	(0.7)
<b>Food Manufacturing</b>												
Oregon	29.9	29.8	28.5	29.2	29.6	29.8	29.8	29.9	30.0	30.2	30.3	30.5
% Ch	0.3	(0.3)	(4.3)	2.2	1.4	0.7	0.3	0.2	0.5	0.6	0.4	0.5
U.S.	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
% Ch	1.4	1.3	1.5	(0.7)	3.6	2.7	1.3	(0.0)	0.4	0.2	0.0	0.2
<b>Other Nondurable</b>												
Oregon	29.8	31.2	25.1	22.1	24.1	26.4	27.6	28.4	28.8	29.4	29.8	29.9
% Ch	4.1	4.8	(19.7)	(12.0)	9.2	9.7	4.4	3.0	1.4	1.9	1.5	0.4
U.S.	3.1	3.1	3.0	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6
% Ch	0.7	0.5	(5.1)	(5.5)	0.7	0.3	(1.3)	(2.1)	(1.8)	(1.6)	(1.5)	(1.3)
<b>Trade, Transportation, and Utilities</b>												
Oregon	352.8	357.0	315.8	319.5	325.6	334.0	342.5	344.4	345.2	346.0	346.8	347.5
% Ch	1.1	1.2	(11.5)	1.2	1.9	2.6	2.5	0.6	0.2	0.2	0.2	0.2
U.S.	27.6	27.7	25.4	25.0	27.0	26.7	27.0	26.8	26.7	26.6	26.5	26.4
% Ch	0.8	0.4	(8.5)	(1.6)	8.1	(1.2)	1.3	(0.6)	(0.7)	(0.3)	(0.4)	(0.4)

**Jun 2020 - Employment By Industry  
(Oregon - Thousands, U.S. - Millions)**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Retail Trade</b>												
Oregon	211.5	209.8	181.2	185.2	188.3	191.5	195.2	195.8	196.2	196.9	197.3	197.8
% Ch	0.3	(0.8)	(13.6)	2.3	1.6	1.7	2.0	0.3	0.2	0.3	0.2	0.2
U.S.	15.8	15.6	14.1	14.5	15.9	15.3	15.8	15.6	15.5	15.4	15.3	15.3
% Ch	(0.4)	(0.9)	(9.9)	2.7	9.9	(3.8)	3.2	(0.9)	(1.2)	(0.5)	(0.3)	(0.3)
<b>Wholesale Trade</b>												
Oregon	75.6	76.5	67.9	67.2	69.3	72.7	76.3	77.5	77.7	77.8	78.0	78.1
% Ch	0.9	1.2	(11.3)	(1.0)	3.1	4.9	5.0	1.6	0.2	0.1	0.2	0.1
U.S.	5.8	5.9	5.4	4.9	5.2	5.4	5.3	5.3	5.3	5.3	5.3	5.3
% Ch	0.5	1.1	(9.3)	(8.3)	5.6	3.6	(0.7)	(0.1)	(0.1)	0.1	(0.6)	(0.8)
<b>Transportation and Warehousing, and Utilities</b>												
Oregon	65.7	70.7	66.7	67.1	68.0	69.8	70.9	71.1	71.3	71.3	71.5	71.6
% Ch	4.0	7.6	(5.6)	0.5	1.4	2.6	1.6	0.3	0.2	0.1	0.2	0.1
U.S.	6.0	6.2	5.9	5.6	5.9	6.0	5.9	5.9	5.9	5.9	5.8	5.8
% Ch	4.3	3.1	(4.2)	(5.6)	5.7	1.7	(2.0)	(0.3)	0.1	(0.3)	(0.5)	(0.5)
<b>Information</b>												
Oregon	34.3	35.1	32.0	32.1	32.9	33.2	33.4	33.7	33.9	34.2	34.4	34.7
% Ch	0.3	2.1	(8.6)	0.2	2.3	0.9	0.8	0.7	0.8	0.8	0.8	0.7
U.S.	2.8	2.9	2.8	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7
% Ch	0.9	0.8	(1.4)	(4.6)	1.5	(0.1)	1.3	(1.3)	(0.6)	(1.5)	(0.1)	0.4
<b>Financial Activities</b>												
Oregon	102.2	103.4	99.0	99.3	100.4	101.5	101.9	102.3	102.5	102.7	102.8	102.9
% Ch	2.2	1.1	(4.2)	0.3	1.0	1.1	0.4	0.4	0.2	0.1	0.1	0.1
U.S.	8.6	8.7	8.3	7.6	8.2	8.2	8.0	8.0	8.0	7.9	7.9	7.9
% Ch	1.7	1.8	(4.8)	(9.0)	7.8	0.5	(2.0)	(0.4)	(0.6)	(0.5)	0.1	0.2
<b>Professional and Business Services</b>												
Oregon	249.7	254.3	229.1	225.3	240.7	266.2	287.1	298.8	307.0	313.6	319.3	325.2
% Ch	2.1	1.8	(9.9)	(1.6)	6.8	10.6	7.9	4.1	2.8	2.1	1.8	1.9
U.S.	21.0	21.3	19.8	19.1	23.0	24.0	23.7	24.0	24.5	24.9	25.3	25.7
% Ch	2.2	1.7	(7.1)	(3.3)	20.3	4.1	(1.1)	1.1	2.1	1.8	1.7	1.4
<b>Education and Health Services</b>												
Oregon	295.4	301.5	269.6	289.0	298.7	309.2	320.6	327.2	331.0	334.3	337.4	340.9
% Ch	8.2	2.1	(10.6)	7.2	3.4	3.5	3.7	2.1	1.2	1.0	1.0	1.0
U.S.	23.6	24.2	24.0	24.0	25.6	25.9	25.5	25.5	25.4	25.5	25.7	25.9
% Ch	1.9	2.3	(0.5)	(0.3)	7.0	0.8	(1.4)	(0.2)	(0.1)	0.4	0.8	0.9
<b>Educational Services</b>												
Oregon	36.5	36.6	32.2	35.2	35.3	35.4	35.5	35.6	35.7	35.7	35.8	35.8
% Ch	1.3	0.3	(12.2)	9.5	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1
U.S.	3.7	3.8	3.6	3.9	4.1	4.0	3.8	3.6	3.5	3.5	3.5	3.4
% Ch	1.2	1.3	(5.0)	8.3	6.1	(3.1)	(5.5)	(3.5)	(2.3)	(1.5)	(1.1)	(1.0)
<b>Health Care and Social Assistance</b>												
Oregon	258.9	264.9	237.4	253.7	263.4	273.8	285.1	291.6	295.4	298.5	301.7	305.0
% Ch	9.3	2.3	(10.4)	6.9	3.8	3.9	4.1	2.3	1.3	1.1	1.0	1.1
U.S.	19.9	20.4	20.5	20.1	21.5	21.9	21.7	21.8	21.9	22.0	22.3	22.5
% Ch	2.1	2.5	0.3	(1.9)	7.2	1.6	(0.6)	0.4	0.2	0.7	1.1	1.2
<b>Leisure and Hospitality</b>												
Oregon	211.4	213.8	150.3	166.9	184.9	207.6	222.7	225.8	228.3	230.8	233.1	235.7
% Ch	2.4	1.1	(29.7)	11.0	10.8	12.3	7.3	1.4	1.1	1.1	1.0	1.1
U.S.	16.3	16.6	15.2	17.5	16.3	17.8	18.3	18.2	18.3	18.5	18.7	18.9
% Ch	1.5	1.7	(8.5)	15.4	(6.6)	8.9	2.7	(0.4)	0.5	1.3	1.1	1.0
<b>Other Services</b>												
Oregon	64.4	64.7	56.4	58.1	60.7	63.3	64.1	64.3	64.6	65.1	65.6	66.2
% Ch	1.4	0.5	(12.9)	3.1	4.4	4.3	1.3	0.3	0.4	0.8	0.7	0.9
U.S.	5.8	5.9	5.7	5.6	6.0	5.9	5.8	5.7	5.7	5.7	5.7	5.7
% Ch	1.1	1.1	(3.2)	(1.5)	6.4	(0.8)	(3.1)	(1.1)	(0.4)	0.1	0.4	0.4
<b>Government</b>												
Oregon	294.8	298.9	300.7	292.9	295.9	298.1	302.8	308.0	312.4	316.6	321.0	324.4
% Ch	(4.8)	1.4	0.6	(2.6)	1.0	0.8	1.6	1.7	1.4	1.3	1.4	1.0
U.S.	22.4	22.6	22.9	22.9	23.1	23.2	23.4	23.5	23.7	23.8	24.0	24.1
% Ch	0.4	0.6	1.2	0.1	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6
<b>Federal Government</b>												
Oregon	28.1	28.5	28.9	27.7	27.7	27.8	27.8	27.8	27.9	27.9	27.9	28.0
% Ch	(0.3)	1.6	1.2	(4.2)	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
U.S.	2.8	2.8	3.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
% Ch	(0.2)	1.2	4.6	(4.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>State Government, Oregon</b>												
State Total	39.5	40.7	41.1	40.9	41.7	41.9	42.2	42.5	42.9	43.5	44.1	44.5
% Ch	(29.8)	3.0	1.2	(0.5)	1.8	0.6	0.6	0.8	1.1	1.3	1.4	0.8
State Education	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
% Ch	1.9	5.2	5.0	0.2	0.8	0.5	0.8	0.5	0.2	0.4	0.5	0.5
<b>Local Government, Oregon</b>												
Local Total	227.2	229.7	230.7	224.3	226.5	228.5	232.8	237.7	241.6	245.2	249.0	252.0
% Ch	0.8	1.1	0.4	(2.8)	1.0	0.9	1.9	2.1	1.7	1.5	1.5	1.2
Local Education	132.7	134.0	135.0	130.2	131.6	132.5	134.7	137.2	139.2	141.0	142.4	143.4
% Ch	(0.0)	0.9	0.8	(3.6)	1.1	0.6	1.7	1.8	1.4	1.3	1.0	0.7

**Jun 2020 - Other Economic Indicators**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
GDP (Bil of 2012 \$), Chain Weight (in billions of \$)	18,638.2	19,073.1	18,047.2	19,189.0	19,955.6	20,279.7	20,549.2	20,935.3	21,359.4	21,800.6	22,272.8	22,749.9
% Ch	2.9	2.3	(5.4)	6.3	4.0	1.6	1.3	1.9	2.0	2.1	2.2	2.1
<b>Price and Wage Indicators</b>												
GDP Implicit Price Deflator, Chain Weight U.S., 2012=100	110.4	112.3	114.0	115.6	117.3	119.6	122.3	125.0	127.8	130.7	133.6	136.7
% Ch	2.4	1.8	1.5	1.4	1.5	2.0	2.2	2.2	2.2	2.3	2.3	2.3
Personal Consumption Deflator, Chain Weight U.S., 2012=100	108.1	109.7	110.6	112.2	114.4	117.0	119.5	122.1	124.5	127.0	129.4	131.8
% Ch	2.1	1.4	0.9	1.5	2.0	2.2	2.2	2.1	2.0	1.9	1.9	1.9
CPI, Urban Consumers, 1982-84=100												
West Region	263.3	270.3	272.3	278.1	285.7	293.5	300.9	308.3	315.8	323.2	330.6	338.2
% Ch	3.3	2.7	0.7	2.1	2.7	2.7	2.5	2.5	2.4	2.3	2.3	2.3
U.S.	251.1	255.7	257.4	262.7	269.8	277.1	283.8	290.6	297.2	303.7	310.2	316.8
% Ch	2.4	1.8	0.7	2.1	2.7	2.7	2.4	2.4	2.3	2.2	2.1	2.1
Oregon Average Wage Rate (Thous \$)	55.4	57.1	59.7	59.6	61.4	64.0	66.8	69.7	72.6	75.7	78.9	82.2
% Ch	3.7	3.0	4.5	(0.1)	3.0	4.2	4.4	4.3	4.3	4.3	4.2	4.2
U.S. Average Wage Rate (Thous \$)	59.7	61.6	62.4	65.3	67.5	69.5	72.0	74.8	77.9	81.1	84.4	87.8
% Ch	3.4	3.2	1.4	4.6	3.4	3.0	3.5	4.0	4.1	4.1	4.1	4.1
<b>Housing Indicators</b>												
FHFA Oregon Housing Price Index 1991 Q1=100	423.1	443.2	457.5	462.2	473.2	488.0	503.6	519.2	535.4	553.0	572.5	592.4
% Ch	7.8	4.8	3.2	1.0	2.4	3.1	3.2	3.1	3.1	3.3	3.5	3.5
FHFA National Housing Price Index 1991 Q1=100	260.5	274.1	283.9	289.1	296.0	304.0	312.3	320.7	329.1	337.9	347.3	357.6
% Ch	6.5	5.2	3.6	1.8	2.4	2.7	2.7	2.7	2.6	2.7	2.8	3.0
Housing Starts Oregon (Thous)	19.6	20.7	16.2	16.7	18.9	21.4	21.9	22.2	21.9	21.9	21.8	21.9
% Ch	1.4	5.9	(21.7)	3.0	13.3	13.1	2.3	1.4	(1.2)	(0.0)	(0.4)	0.2
U.S. (Millions)	1.2	1.3	1.1	1.1	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1
% Ch	3.4	3.9	(17.0)	4.0	12.3	(1.2)	(2.8)	0.0	(2.7)	(2.4)	(0.3)	0.3
<b>Other Indicators</b>												
Unemployment Rate (%) Oregon	4.1	4.1	15.3	14.7	11.4	7.6	4.6	4.2	4.3	4.4	4.3	4.3
Point Change	0.0	(0.0)	11.2	(0.6)	(3.3)	(3.8)	(3.0)	(0.4)	0.2	0.0	(0.0)	(0.0)
U.S.	3.9	3.7	8.0	7.9	4.3	3.6	4.0	4.3	4.3	4.3	4.3	4.2
Point Change	(0.5)	(0.2)	4.4	(0.2)	(3.6)	(0.7)	0.4	0.3	0.0	(0.0)	(0.0)	(0.0)
Industrial Production Index U.S, 2012 = 100	108.6	109.5	96.1	96.4	101.1	103.0	104.0	105.7	107.9	109.9	111.8	113.8
% Ch	3.9	0.9	(12.2)	0.3	4.8	2.0	1.0	1.6	2.0	1.8	1.7	1.8
Prime Rate (Percent)	4.9	5.3	3.5	3.3	3.3	3.3	3.3	3.3	3.6	4.2	4.7	5.2
% Ch	19.7	7.7	(33.0)	(8.2)	0.0	0.0	0.0	0.3	11.9	13.7	12.1	10.8
Population (Millions)												
Oregon	4.20	4.24	4.27	4.29	4.32	4.36	4.40	4.43	4.47	4.51	4.54	4.58
% Ch	1.3	1.0	0.7	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
U.S.	327.7	330.1	332.4	334.7	337.1	339.4	341.6	343.9	346.1	348.3	350.5	352.6
% Ch	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Timber Harvest (Mil Bd Ft)												
Oregon	4,064.0	3,860.0	3,156.5	3,387.9	3,553.5	3,635.9	3,692.8	3,787.6	3,821.6	3,847.3	3,871.3	3,895.5
% Ch	5.5	(5.0)	(18.2)	7.3	4.9	2.3	1.6	2.6	0.9	0.7	0.6	0.6

## APPENDIX B: REVENUE FORECAST DETAIL

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Table B.1a General Fund Revenue Statement

Table B.1a

General Fund Revenue Statement -- 2019-21

	Estimate at COS 2019	Forecasts Dated: 3/1/2020			Forecasts Dated: 6/1/2020			Difference	
		2019-20	2020-21	Total 2019-21	2019-20	2020-21	Total 2019-21	06/1/2020 Less 3/1/2020	06/1/2020 Less COS
<b>Taxes</b>									
Personal Income Taxes	18,283,508,000	8,739,929,000	9,732,663,000	18,472,592,000	8,089,229,000	8,790,058,000	16,879,287,000	(1,593,305,000)	(1,404,221,000)
Film and Video and Transfer to Counties	(45,262,000)	(22,230,000)	(23,032,000)	(45,262,000)	(20,122,000)	(20,209,000)	(40,331,000)	4,931,000	4,931,000
Corporate Income Taxes	1,190,805,000	730,835,000	581,826,000	1,312,661,000	767,287,000	314,499,000	1,081,786,000	(230,875,000)	(109,019,000)
Transfer to Rainy Day Fund & PERS UAL	(158,254,000)	(145,000,000)	(64,046,000)	(209,046,000)	0	(211,540,000)	(211,540,000)	(2,494,000)	(53,286,000)
Insurance Taxes	132,563,000	69,897,000	71,685,000	141,582,000	58,086,000	56,347,000	114,433,000	(27,149,000)	(18,130,000)
Estate Taxes	361,189,000	263,654,000	188,985,000	452,639,000	276,856,000	173,985,000	450,841,000	(1,798,000)	89,652,000
Transfer to PERS UAL	0	0	0	0	0	0	0	0	0
Cigarette Taxes	64,998,000	32,439,000	31,888,000	64,327,000	31,248,000	31,556,000	62,804,000	(1,523,000)	(2,194,000)
Other Tobacco Products Taxes	66,534,000	32,078,000	32,811,000	64,889,000	31,235,000	32,050,000	63,285,000	(1,604,000)	(3,249,000)
Other Taxes	1,636,000	878,000	878,000	1,756,000	878,000	878,000	1,756,000	0	120,000
<b>Fines and Fees</b>									
State Court Fees	138,730,000	70,962,000	69,732,000	140,694,000	65,986,000	66,807,000	132,793,000	(7,901,000)	(5,937,000)
Secretary of State Fees	70,837,000	37,592,000	37,645,000	75,237,000	37,592,000	37,645,000	75,237,000	0	4,400,000
Criminal Fines & Assessments	51,748,000	22,964,000	22,964,000	45,928,000	15,340,000	15,340,000	30,680,000	(15,248,000)	(21,068,000)
Securities Fees	27,269,000	11,690,000	12,830,000	24,520,000	12,934,000	12,467,000	25,401,000	881,000	(1,868,000)
<b>Central Service Charges</b>	10,376,000	5,188,000	5,188,000	10,376,000	5,188,000	5,188,000	10,376,000	0	0
<b>Liquor Apportionment</b>	348,537,000	167,298,000	181,239,000	348,537,000	165,629,000	175,874,000	341,503,000	(7,034,000)	(7,034,000)
<b>Interest Earnings</b>	102,965,000	65,301,000	53,488,000	118,789,000	65,301,000	9,388,000	74,689,000	(44,100,000)	(28,276,000)
<b>Miscellaneous Revenues</b>	13,500,000	8,300,000	7,000,000	15,300,000	6,300,000	6,000,000	12,300,000	(3,000,000)	(1,200,000)
<b>One-time Transfers</b>	155,200,000	12,900,000	155,200,000	168,100,000	12,900,000	155,200,000	168,100,000	0	12,900,000
<b>Gross General Fund Revenues</b>	21,020,395,000	10,271,905,000	11,186,022,000	21,457,927,000	9,641,989,000	9,883,282,000	19,525,271,000	(1,932,656,000)	(1,495,124,000)
Total Transfers	(203,516,000)	(167,230,000)	(87,078,000)	(254,308,000)	(20,122,000)	(231,749,000)	(251,871,000)	2,437,000	(48,355,000)
<b>Net General Fund Revenues</b>	20,816,879,000	10,104,675,000	11,098,944,000	21,203,619,000	9,621,867,000	9,651,533,000	19,273,400,000	(1,930,219,000)	(1,543,479,000)
Plus Beginning Balance	2,318,444,712			2,579,398,712			2,709,364,984	129,966,271	390,920,271
Less Anticipated Administrative Actions*	(21,472,000)			(21,472,000)			(21,472,000)	0	0
Less Legislatively Adopted Actions**	(199,459,036)			(199,459,036)			(198,338,493)	1,120,543	1,120,543
<b>Available Resources</b>	22,914,392,677			23,562,086,677			21,762,954,491	(1,799,132,186)	(1,151,438,186)
Appropriations	22,409,455,625			22,409,455,625			22,427,367,611	17,911,986	17,911,986
<b>Estimated Ending Balance</b>	504,937,052			1,152,631,052			(664,413,120)	(1,817,044,172)	(1,169,350,172)

Table B.1b General Fund Revenue Statement

Table B.1b

General Fund Revenue Statement -- 2021-23

	Forecasts Dated: 3/1/2020			Forecasts Dated: 6/1/2020			Difference
	2021-22	2022-23	Total 2021-23	2021-22	2022-23	Total 2021-23	06/1/2020 Less 3/1/2020
<b>Taxes</b>							
Personal Income Taxes	10,698,986,000	11,047,497,000	21,746,483,000	9,031,587,000	9,476,503,000	18,508,090,000	(3,238,393,000)
Film and Video and Transfer to Counties	(23,297,000)	(26,733,000)	(50,030,000)	(20,672,000)	(21,474,000)	(42,146,000)	7,884,000
Corporate Income Taxes	630,393,000	685,893,000	1,316,286,000	549,321,000	608,295,000	1,157,616,000	(158,670,000)
Transfer to Rainy Day Fund & PERS UAL	0	(65,045,000)	(65,045,000)	0	(43,271,000)	(43,271,000)	21,774,000
Insurance Taxes	64,770,000	66,567,000	131,337,000	57,036,000	61,397,000	118,433,000	(12,904,000)
Estate Taxes	195,464,000	200,607,000	396,071,000	180,464,000	187,607,000	368,071,000	(28,000,000)
Transfer to PERS UAL	0	(17,576,000)	(17,576,000)	0	(15,778,000)	(15,778,000)	1,798,000
Cigarette Taxes	31,325,000	30,764,000	62,089,000	30,873,000	30,197,000	61,070,000	(1,019,000)
Other Tobacco Products Taxes	33,236,000	33,795,000	67,031,000	32,136,000	32,333,000	64,469,000	(2,562,000)
Other Taxes	878,000	878,000	1,756,000	878,000	878,000	1,756,000	0
<b>Fines and Fees</b>							
State Court Fees	70,174,000	70,400,000	140,574,000	69,338,000	69,466,000	138,804,000	(1,770,000)
Secretary of State Fees	37,699,000	37,752,000	75,451,000	37,699,000	37,752,000	75,451,000	0
Criminal Fines & Assessments	23,418,000	23,418,000	46,836,000	22,457,000	22,457,000	44,914,000	(1,922,000)
Securities Fees	12,861,000	13,191,000	26,052,000	12,152,000	12,522,000	24,674,000	(1,378,000)
<b>Central Service Charges</b>	5,438,000	5,438,000	10,876,000	5,438,000	5,438,000	10,876,000	0
<b>Liquor Apportionment</b>	166,083,000	173,776,000	339,859,000	160,048,000	167,251,000	327,299,000	(12,560,000)
<b>Interest Earnings</b>	53,413,000	53,338,000	106,751,000	9,500,000	9,500,000	19,000,000	(87,751,000)
<b>Miscellaneous Revenues</b>	7,500,000	8,000,000	15,500,000	6,000,000	6,000,000	12,000,000	(3,500,000)
<b>One-time Transfers</b>	0	0	0	0	0	0	0
<b>Gross General Fund Revenues</b>	12,031,638,000	12,451,314,000	24,482,952,000	10,204,927,000	10,727,596,000	20,932,523,000	(3,550,429,000)
Total Transfers	(23,297,000)	(109,354,000)	(132,651,000)	(20,672,000)	(80,523,000)	(101,195,000)	31,456,000
<b>Net General Fund Revenues</b>	12,008,341,000	12,341,960,000	24,350,301,000	10,184,255,000	10,647,073,000	20,831,328,000	(3,518,973,000)

Table B.2 General Fund Revenue Forecast by Fiscal Year

**TABLE B.2**

<b>General Fund Revenue Forecast</b>												<b>June 2020</b>
(\$Millions)												
<b>Fiscal Years</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
	<b>Fiscal Year</b>											
<b>Taxes</b>												
Personal Income	8,893.1	9,930.3	8,089.2	8,790.1	9,031.6	9,476.5	10,314.9	10,994.6	11,695.5	12,536.2	13,392.5	14,087.0
Film and Video & Transfer to Counties	(20.6)	(21.7)	(20.1)	(20.2)	(20.7)	(21.5)	(21.7)	(21.7)	0.0	0.0	0.0	0.0
Corporate Excise & Income	755.0	997.8	767.3	314.5	549.3	608.3	653.5	716.4	807.7	882.0	908.5	967.9
Transfer to RDF & PERS UAL	(16.2)	(71.1)	0.0	(211.5)	0.0	(43.3)	0.0	(46.3)	0.0	(54.8)	0.0	(67.6)
Insurance	76.7	83.5	58.1	56.3	57.0	61.4	62.6	64.1	66.6	68.5	76.7	79.1
Estate	176.5	204.7	276.9	174.0	180.5	187.6	201.0	209.7	214.8	223.5	234.4	239.2
Transfer to PERS UAL	0.0	0.0	0.0	0.0	0.0	(15.8)	0.0	0.0	0.0	0.0	0.0	0.0
Cigarette	33.7	31.9	31.2	31.6	30.9	30.2	29.7	29.0	28.4	27.9	27.4	27.0
Other Tobacco Products	32.4	31.2	31.2	32.0	32.1	32.3	32.4	32.6	32.6	32.7	32.7	32.6
Other Taxes	0.9	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
<b>Other Revenues</b>												
Licenses and Fees	126.3	132.7	131.9	132.3	141.6	142.2	143.2	143.7	144.4	144.9	145.4	145.9
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	165.6	175.9	160.0	167.3	174.8	182.6	190.9	199.4	208.4	217.8
Interest Earnings	30.2	57.0	65.3	9.4	9.5	9.5	9.5	9.5	20.0	30.0	40.0	50.0
Others	8.2	7.0	19.2	161.2	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
<b>Gross General Fund</b>	<b>10,281.0</b>	<b>11,634.3</b>	<b>9,642.0</b>	<b>9,883.3</b>	<b>10,204.9</b>	<b>10,727.6</b>	<b>11,633.9</b>	<b>12,394.6</b>	<b>13,213.2</b>	<b>14,157.5</b>	<b>15,078.4</b>	<b>15,858.7</b>
<b>Net General Fund</b>	<b>10,244.3</b>	<b>11,541.5</b>	<b>9,621.9</b>	<b>9,651.5</b>	<b>10,184.3</b>	<b>10,647.1</b>	<b>11,612.2</b>	<b>12,326.6</b>	<b>13,213.2</b>	<b>14,102.7</b>	<b>15,078.4</b>	<b>15,791.1</b>
<b>Biennial Totals</b>												
	<b>2017-19 BN</b>	<b>Change (%)</b>	<b>2019-21 BN</b>	<b>Change (%)</b>	<b>2021-23 BN</b>	<b>Change (%)</b>	<b>2023-25 BN</b>	<b>Change (%)</b>	<b>2025-27 BN</b>	<b>Change (%)</b>	<b>2027-29 BN</b>	<b>Change (%)</b>
<b>Taxes</b>												
Personal Income	18,823.3	17.2%	16,879.3	-10.3%	18,508.1	9.6%	21,309.5	15.1%	24,231.7	13.7%	27,479.4	13.4%
Corporate Excise & Income	1,752.7	44.8%	1,081.8	-38.3%	1,157.6	7.0%	1,369.9	18.3%	1,689.7	23.3%	1,876.4	11.1%
Insurance	160.3	15.1%	114.4	-28.6%	118.4	3.5%	126.6	6.9%	135.1	6.7%	155.7	15.3%
Estate Taxes	381.2	18.1%	450.8	18.3%	368.1	-18.4%	410.7	11.6%	438.4	6.7%	473.6	8.0%
Cigarette	65.6	-6.9%	62.8	-4.3%	61.1	-2.8%	58.7	-3.8%	56.2	-4.2%	54.3	-3.4%
Other Tobacco Products	63.6	2.0%	63.3	-0.5%	64.5	1.9%	64.9	0.7%	65.3	0.6%	65.3	0.0%
Other Taxes	2.0	9.6%	1.8	-11.1%	1.8	0.0%	1.8	0.0%	1.8	0.0%	1.8	0.0%
<b>Other Revenues</b>												
Licenses and Fees	259.0	5.2%	264.1	2.0%	283.8	7.5%	287.0	1.1%	289.3	0.8%	291.4	0.7%
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%	341.5	16.0%	327.3	-4.2%	357.4	9.2%	390.3	9.2%	426.2	9.2%
Interest Earnings	87.2	250.5%	74.7	-14.3%	19.0	-74.6%	19.0	0.0%	50.0	163.2%	90.0	80.0%
Others	15.2	-89.8%	180.4	1086.2%	12.0	-93.3%	12.0	0.0%	12.0	0.0%	12.0	0.0%
<b>Gross General Fund</b>	<b>21,915.3</b>	<b>18.1%</b>	<b>19,525.3</b>	<b>-10.9%</b>	<b>20,932.5</b>	<b>7.2%</b>	<b>24,028.5</b>	<b>14.8%</b>	<b>27,370.7</b>	<b>13.9%</b>	<b>30,937.0</b>	<b>13.0%</b>
<b>Net General Fund</b>	<b>21,785.8</b>	<b>17.6%</b>	<b>19,273.4</b>	<b>-11.5%</b>	<b>20,831.3</b>	<b>8.1%</b>	<b>23,938.8</b>	<b>14.9%</b>	<b>27,315.9</b>	<b>14.1%</b>	<b>30,869.5</b>	<b>13.0%</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> <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										
										June 2020
	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

June 2020

	2019:3	2019:4	2020:1	2020:2	FY 2020	2020:3	2020:4	2021:1	2021:2	FY 2021
WITHHOLDING	2,059,715	2,223,410	2,183,444	1,727,762	8,194,331	1,874,424	1,973,407	1,952,476	1,831,987	7,632,295
%CHYA	6.9%	9.0%	5.0%	-13.6%	1.9%	-9.0%	-11.2%	-10.6%	6.0%	-6.9%
EST. PAYMENTS	413,316	296,072	376,127	395,981	1,481,496	298,418	273,194	333,524	416,516	1,321,652
%CHYA	12.4%	4.3%	16.9%	-25.6%	-1.6%	-27.8%	-7.7%	-11.3%	5.2%	-10.8%
FINAL PAYMENTS <sup>1</sup>	131,560	195,074	159,708	305,268	791,611	449,633	154,589	127,969	982,663	1,714,854
%CHYA	25.7%	24.6%	-29.2%	-78.0%	-57.7%	241.8%	-20.8%	-19.9%	221.9%	116.6%
REFUNDS	144,251	289,464	1,120,326	788,712	2,342,752	209,723	385,897	734,556	548,929	1,879,105
%CHYA	2.5%	-13.8%	105.1%	77.0%	59.6%	45.4%	33.3%	-34.4%	-30.4%	-19.8%
OTHER	(222,477)	-	-	187,019	(35,457)	(187,019)	-	-	187,382	362
TOTAL	2,237,864	2,425,092	1,598,954	1,827,319	8,089,229	2,225,733	2,015,293	1,679,413	2,869,619	8,790,058
%CHYA	10.8%	13.1%	-23.2%	-50.5%	-18.6%	-0.5%	-16.9%	5.0%	57.0%	8.7%
	2021:3	2021:4	2022:1	2022:2	FY 2022	2022:3	2022:4	2023:1	2023:2	FY 2023
WITHHOLDING	1,877,075	1,976,011	2,055,874	1,943,886	7,852,846	1,979,147	2,083,355	2,220,657	2,107,649	8,390,807
%CHYA	0.1%	0.1%	5.3%	6.1%	2.9%	5.4%	5.4%	8.0%	8.4%	6.9%
EST. PAYMENTS	296,986	271,883	332,945	430,084	1,331,898	306,427	280,526	344,858	463,981	1,395,791
%CHYA	-0.5%	-0.5%	-0.2%	3.3%	0.8%	3.2%	3.2%	3.6%	7.9%	4.8%
FINAL PAYMENTS <sup>1</sup>	113,372	165,031	134,929	982,962	1,396,295	115,355	164,480	124,215	988,349	1,392,399
%CHYA	-74.8%	6.8%	5.4%	0.0%	-18.6%	1.7%	-0.3%	-7.9%	0.5%	-0.3%
REFUNDS	122,039	268,576	679,561	532,917	1,603,094	117,994	257,790	747,902	589,345	1,713,031
%CHYA	-41.8%	-30.4%	-7.5%	-2.9%	-14.7%	-3.3%	-4.0%	10.1%	10.6%	6.9%
OTHER	(187,382)	-	-	241,025	53,643	(241,025)	-	-	251,563	10,538
TOTAL	1,978,012	2,144,349	1,844,187	3,065,040	9,031,587	2,041,909	2,270,571	1,941,827	3,222,196	9,476,503
%CHYA	-11.1%	6.4%	9.8%	6.8%	2.7%	3.2%	5.9%	5.3%	5.1%	4.9%
	2023:3	2023:4	2024:1	2024:2	FY 2024	2024:3	2024:4	2025:1	2025:2	FY 2025
WITHHOLDING	2,143,961	2,256,788	2,417,067	2,295,737	9,113,553	2,334,255	2,457,083	2,611,806	2,477,799	9,880,944
%CHYA	8.3%	8.3%	8.8%	8.9%	8.6%	8.9%	8.9%	8.1%	7.9%	8.4%
EST. PAYMENTS	330,304	302,385	371,722	500,012	1,504,423	355,802	325,727	400,623	541,762	1,623,915
%CHYA	7.8%	7.8%	7.8%	7.8%	7.8%	7.7%	7.7%	7.8%	7.8%	7.9%
FINAL PAYMENTS <sup>1</sup>	109,331	159,486	130,664	1,056,483	1,455,964	115,293	169,292	137,959	1,141,379	1,563,923
%CHYA	-5.2%	-3.0%	5.2%	6.9%	4.6%	5.5%	6.1%	5.6%	8.0%	7.4%
REFUNDS	129,532	284,860	779,501	607,399	1,801,292	140,030	307,886	908,414	715,850	2,072,180
%CHYA	9.8%	10.5%	4.2%	3.1%	5.2%	8.1%	8.1%	16.5%	17.9%	15.0%
OTHER	(251,563)	-	-	293,863	42,300	(293,863)	-	-	291,863	(2,000)
TOTAL	2,202,501	2,433,798	2,139,952	3,538,696	10,314,948	2,371,457	2,644,217	2,241,974	3,736,954	10,994,602
%CHYA	7.9%	7.2%	10.2%	9.8%	8.8%	7.7%	8.6%	4.8%	5.6%	6.6%
	2025:3	2025:4	2026:1	2026:2	FY 2026	2026:3	2026:4	2027:1	2027:2	FY 2027
WITHHOLDING	2,508,294	2,640,302	2,777,494	2,630,707	10,556,798	2,660,691	2,800,751	2,928,230	2,770,799	11,160,470
%CHYA	7.5%	7.5%	6.3%	6.2%	6.8%	6.1%	6.1%	5.4%	5.3%	5.7%
EST. PAYMENTS	383,807	351,366	432,247	585,772	1,753,192	414,601	379,556	466,302	623,262	1,883,721
%CHYA	7.9%	7.9%	7.9%	8.1%	8.0%	8.0%	8.0%	7.9%	6.4%	7.4%
FINAL PAYMENTS <sup>1</sup>	121,951	180,078	147,963	1,249,360	1,699,351	131,499	195,072	161,775	1,383,481	1,871,828
%CHYA	5.8%	6.4%	7.3%	9.5%	8.7%	8.3%	8.3%	9.3%	10.7%	10.1%
REFUNDS	157,042	346,853	988,863	778,307	2,271,065	171,306	377,651	1,033,606	812,570	2,395,133
%CHYA	12.1%	12.7%	8.9%	8.7%	9.6%	9.1%	8.9%	4.5%	4.4%	5.5%
OTHER	(291,863)	-	-	249,059	(42,804)	(249,059)	-	-	264,403	15,344
TOTAL	2,565,147	2,824,892	2,368,840	3,936,590	11,695,470	2,786,426	2,997,728	2,522,701	4,229,375	12,536,229
%CHYA	8.2%	6.8%	5.7%	5.3%	6.4%	8.6%	6.1%	6.5%	7.4%	7.2%
	2027:3	2027:4	2028:1	2028:2	FY 2028	2028:3	2028:4	2029:1	2029:2	FY 2029
WITHHOLDING	2,815,729	2,963,971	3,090,779	2,923,403	11,793,882	2,973,200	3,129,741	3,259,108	3,081,937	12,443,986
%CHYA	5.9%	5.9%	5.6%	5.6%	5.8%	5.6%	5.6%	5.4%	5.4%	5.5%
EST. PAYMENTS	443,229	405,765	498,046	659,375	2,006,415	469,285	429,618	527,125	695,119	2,121,146
%CHYA	7.0%	7.0%	6.9%	5.9%	6.6%	5.9%	5.9%	5.8%	5.4%	5.7%
FINAL PAYMENTS <sup>1</sup>	144,671	215,763	175,948	1,481,052	2,017,433	156,227	232,427	189,032	1,569,659	2,147,345
%CHYA	10.1%	10.7%	8.8%	7.1%	7.9%	8.0%	7.7%	7.4%	6.0%	6.4%
REFUNDS	178,875	393,003	1,082,789	851,669	2,506,336	187,784	411,978	1,136,464	894,016	2,630,241
%CHYA	4.3%	4.0%	4.7%	4.7%	4.6%	5.0%	4.8%	5.0%	5.0%	4.9%
OTHER	(264,403)	-	-	345,478	81,075	(345,478)	-	-	350,200	4,722
TOTAL	2,960,352	3,192,495	2,681,985	4,557,638	13,392,469	3,065,450	3,379,807	2,838,802	4,802,899	14,086,958
%CHYA	6.3%	6.6%	6.5%	7.9%	6.9%	3.6%	5.9%	5.8%	5.4%	5.2%

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

Table B.5 Oregon Corporate Income Tax Revenue Forecast

TABLE B.5 OREGON CORPORATE INCOME TAX REVENUE FORECAST - QUARTERLY COLLECTIONS										
Thousands of Dollars - Not Seasonally Adjusted										
										June 2020
										FY
	2009:3	2009:4	2010:1	2010:2	FY 2010	2010:3	2010:4	2011:1	2011:2	FY 2011
ADVANCE PAYMENTS	79,579	163,877	66,451	147,313	457,220	115,286	175,561	76,405	165,354	532,606
%CHYA	-20.9%	12.8%	4.2%	51.3%	12.3%	44.9%	7.1%	15.0%	12.2%	16.5%
FINAL PAYMENTS	20,404	24,009	38,412	45,714	128,539	21,781	21,206	35,770	40,805	119,562
%CHYA	-13.2%	-10.2%	72.1%	109.5%	36.2%	6.8%	-11.7%	-6.9%	-10.7%	-7.0%
REFUNDS	29,072	137,244	40,080	25,774	232,170	23,130	89,877	39,065	31,489	183,562
%CHYA	3.3%	9.9%	-40.6%	-30.7%	-9.9%	-20.4%	-34.5%	-2.5%	22.2%	-20.9%
TOTAL	70,910	50,642	64,784	167,254	353,589	113,936	106,890	73,111	174,670	468,606
%CHYA	-26.1%	7.3%	247.5%	104.0%	45.1%	60.7%	111.1%	12.9%	4.4%	32.5%
										FY
	2011:3	2011:4	2012:1	2012:2	FY 2012	2012:3	2012:4	2013:1	2013:2	FY 2013
ADVANCE PAYMENTS	120,766	154,290	86,873	156,652	518,581	130,348	110,207	80,942	282,526	604,023
%CHYA	4.8%	-12.1%	13.7%	-5.3%	-2.6%	7.9%	-28.6%	-6.8%	80.4%	16.5%
FINAL PAYMENTS	19,117	26,841	32,512	33,322	111,792	16,387	21,377	36,660	34,009	108,433
%CHYA	-12.2%	26.6%	-9.1%	-18.3%	-6.5%	-14.3%	-20.4%	12.8%	2.1%	-3.0%
REFUNDS	34,927	91,252	55,051	18,153	199,384	33,212	17,832	25,595	182,929	259,568
%CHYA	51.0%	1.5%	40.9%	-42.4%	8.6%	-4.9%	-80.5%	-53.5%	907.7%	30.2%
TOTAL	104,955	89,878	64,335	171,820	430,989	113,524	113,751	92,007	133,606	452,888
%CHYA	-7.9%	-15.9%	-12.0%	-1.6%	-8.0%	8.2%	26.6%	43.0%	-22.2%	5.1%
										FY
	2013:3	2013:4	2014:1	2014:2	FY 2014	2014:3	2014:4	2015:1	2015:2	FY 2015
ADVANCE PAYMENTS	123,591	187,195	150,401	183,348	644,535	193,248	206,088	106,689	183,611	689,637
%CHYA	-5.2%	69.9%	85.8%	-35.1%	6.7%	56.4%	10.1%	-29.1%	0.1%	7.0%
FINAL PAYMENTS	27,794	18,162	32,218	52,283	130,456	28,815	73,552	57,268	71,415	231,051
%CHYA	69.6%	-15.0%	-12.1%	53.7%	20.3%	3.7%	305.0%	77.8%	36.6%	77.1%
REFUNDS	20,123	118,303	109,296	32,511	280,232	49,952	155,439	58,361	35,167	298,918
%CHYA	-39.4%	563.4%	327.0%	-82.2%	8.0%	148.2%	31.4%	-46.6%	8.2%	6.7%
TOTAL	131,262	87,054	73,323	203,120	494,759	172,111	124,202	105,597	219,860	621,770
%CHYA	15.6%	-23.5%	-20.3%	52.0%	9.2%	31.1%	42.7%	44.0%	8.2%	25.7%
										FY
	2015:3	2015:4	2016:1	2016:2	FY 2016	2016:3	2016:4	2017:1	2017:2	FY 2017
ADVANCE PAYMENTS	173,329	220,326	118,673	202,813	715,141	136,698	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%
										FY
	2017:3	2017:4	2018:1	2018:2	FY 2018	2018:3	2018:4	2019:1	2019:2	FY 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

March 2020

	2019:3	2019:4	2020:1	2020:2	FY 2020	2020:3	2020:4	2021:1	2021:2	FY 2021
ADVANCE PAYMENTS	236,341	346,651	137,782	229,484	950,258	159,916	211,391	104,362	171,556	647,224
%CHYA	6.0%	38.8%	-13.2%	-13.2%	6.1%	-32.3%	-39.0%	-24.3%	-25.2%	-31.9%
FINAL PAYMENTS	67,657	105,446	66,346	88,259	327,708	56,006	84,425	56,448	46,638	243,516
%CHYA	-9.5%	2.4%	-3.6%	-49.5%	-22.2%	-17.2%	-19.9%	-14.9%	-47.2%	-25.7%
REFUNDS	73,866	247,403	91,312	98,098	510,679	90,168	257,668	124,340	104,066	576,242
%CHYA	70.1%	47.4%	-29.0%	93.8%	30.8%	22.1%	4.1%	36.2%	6.1%	12.8%
TOTAL	230,132	204,694	112,816	219,645	767,287	125,754	38,147	36,471	114,128	314,499
%CHYA	-9.5%	10.7%	14.0%	-43.5%	-17.2%	-45.4%	-81.4%	-67.7%	-48.0%	-59.0%

	2021:3	2021:4	2022:1	2022:2	FY 2022	2022:3	2022:4	2023:1	2023:2	FY 2023
ADVANCE PAYMENTS	146,417	198,176	105,609	187,100	637,302	153,405	206,083	110,427	195,305	665,221
%CHYA	-8.4%	-6.3%	1.2%	9.1%	-1.5%	4.8%	4.0%	4.6%	4.4%	4.4%
FINAL PAYMENTS	58,140	225,737	141,680	119,209	544,766	68,771	248,343	154,139	132,519	603,771
%CHYA	3.8%	167.4%	151.0%	155.6%	123.7%	18.3%	10.0%	8.8%	11.2%	10.8%
REFUNDS	69,104	303,862	171,696	88,085	632,747	70,491	318,833	179,603	91,770	660,697
%CHYA	-23.4%	17.9%	38.1%	-15.4%	9.8%	2.0%	4.9%	4.6%	4.2%	4.4%
TOTAL	135,453	120,051	75,593	218,224	549,321	151,685	135,593	84,963	236,054	608,295
%CHYA	7.7%	214.7%	107.3%	91.2%	74.7%	12.0%	12.9%	12.4%	8.2%	10.7%

	2023:3	2023:4	2024:1	2024:2	FY 2024	2024:3	2024:4	2025:1	2025:2	FY 2025
ADVANCE PAYMENTS	158,233	214,256	115,951	205,373	693,813	166,275	225,761	122,195	216,505	730,735
%CHYA	3.1%	4.0%	5.0%	5.2%	4.3%	5.1%	5.4%	5.4%	5.4%	5.3%
FINAL PAYMENTS	76,329	270,181	189,145	162,001	697,657	94,166	344,881	219,045	194,148	852,240
%CHYA	11.0%	8.8%	22.7%	22.2%	15.5%	23.4%	27.6%	15.8%	19.8%	22.2%
REFUNDS	74,243	343,090	213,378	107,225	737,936	84,121	418,879	242,879	120,710	866,589
%CHYA	5.3%	7.6%	18.8%	16.8%	11.7%	13.3%	22.1%	13.8%	12.6%	17.4%
TOTAL	160,319	141,348	91,718	260,149	653,534	176,320	151,762	98,361	289,943	716,386
%CHYA	5.7%	4.2%	8.0%	10.2%	7.4%	10.0%	7.4%	7.2%	11.5%	9.6%

	2025:3	2025:4	2026:1	2026:2	FY 2026	2026:3	2026:4	2027:1	2027:2	FY 2027
ADVANCE PAYMENTS	176,947	239,926	129,542	229,180	775,594	186,013	251,976	135,765	239,824	813,578
%CHYA	6.4%	6.3%	6.0%	5.9%	6.1%	5.1%	5.0%	4.8%	4.6%	4.9%
FINAL PAYMENTS	114,802	410,795	227,735	218,736	972,068	129,578	420,695	235,266	242,543	1,028,082
%CHYA	21.9%	19.1%	4.0%	12.7%	14.1%	12.9%	2.4%	3.3%	10.9%	5.8%
REFUNDS	91,791	478,254	246,979	122,933	939,958	94,332	487,397	252,250	125,721	959,701
%CHYA	9.1%	14.2%	1.7%	1.8%	8.5%	2.8%	1.9%	2.1%	2.3%	2.1%
TOTAL	199,957	172,467	110,297	324,983	807,705	221,259	185,273	118,780	356,647	881,959
%CHYA	13.4%	13.6%	12.1%	12.1%	12.7%	10.7%	7.4%	7.7%	9.7%	9.2%

	2027:3	2027:4	2028:1	2028:2	FY 2028	2028:3	2028:4	2029:1	2029:2	FY 2029
ADVANCE PAYMENTS	191,764	259,378	138,450	244,291	833,883	198,539	268,285	142,299	250,929	860,052
%CHYA	3.1%	2.9%	2.0%	1.9%	2.5%	3.5%	3.4%	2.8%	2.7%	3.1%
FINAL PAYMENTS	142,490	424,683	237,847	259,218	1,064,239	155,506	433,679	243,183	275,079	1,107,446
%CHYA	10.0%	0.9%	1.1%	6.9%	3.5%	9.1%	2.1%	2.2%	6.1%	4.1%
REFUNDS	98,042	502,632	259,483	129,428	989,585	99,379	507,175	262,187	130,891	999,634
%CHYA	3.9%	3.1%	2.9%	2.9%	3.1%	1.4%	0.9%	1.0%	1.1%	1.0%
TOTAL	236,212	181,428	116,814	374,082	908,536	254,665	194,789	123,294	395,117	967,865
%CHYA	6.8%	-2.1%	-1.7%	4.9%	3.0%	7.8%	7.4%	5.5%	5.6%	6.5%

Table B.6 Cigarette and Tobacco Tax Distribution

June 2020

TABLE B.6

## Cigarette &amp; 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>											
2019-20	31.248	121.783	4.858	21.306	179.195	9.715	188.911	31.235	24.099	2.680	58.014
2020-21	31.556	122.981	4.905	21.515	180.957	9.811	190.768	32.050	24.728	2.750	59.528
2019-21 Biennium	62.804	244.764	9.763	42.821	360.153	19.526	379.679	63.285	48.827	5.430	117.542
2021-22	30.873	120.322	4.799	21.050	177.044	9.599	186.643	32.136	24.794	2.758	59.688
2022-23	30.197	117.687	4.694	20.589	173.168	9.389	182.557	32.333	24.946	2.774	60.054
2021-23 Biennium	61.071	238.009	9.494	41.639	350.212	18.987	369.200	64.469	49.741	5.532	119.742
2023-24	29.713	115.800	4.619	20.259	170.392	9.238	179.630	32.373	24.977	2.778	60.128
2024-25	29.012	113.066	4.510	19.781	166.369	9.020	175.389	32.573	25.132	2.795	60.500
2023-25 Biennium	58.725	228.867	9.129	40.040	336.760	18.258	355.018	64.946	50.109	5.573	120.627
2025-26	28.396	110.666	4.414	19.361	162.837	8.828	171.665	32.590	25.145	2.797	60.532
2026-27	27.854	108.553	4.330	18.991	159.728	8.660	168.388	32.742	25.262	2.810	60.814
2025-27 Biennium	56.249	219.219	8.744	38.352	322.564	17.488	340.053	65.333	50.407	5.606	121.346
2027-28	27.375	106.689	4.256	18.665	156.985	8.511	165.496	32.704	25.232	2.806	60.742
2028-29	26.952	105.041	4.190	18.377	154.560	8.380	162.940	32.643	25.186	2.801	60.630
2027-29 Biennium	54.328	211.730	8.445	37.042	311.545	16.891	328.436	65.347	50.418	5.607	121.372

Table B.7 Revenue Distribution to Local Governments

<b>TABLE B.7</b>									<b>June 2020</b>
<b>Liquor Apportionment and Revenue Distribution to Local Governments (Millions of \$)</b>									
	<b>Liquor Apportionment Distribution</b>				<b>City Revenue</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>Counties</b>
<b>2019-20</b>	290.649	165.629	9.534	0.338	52.340	36.638	88.979	26.170	9.715
<b>2020-21</b>	308.627	175.874	10.123	0.359	55.578	38.905	94.482	27.789	9.811
<b>2019-21 Biennium</b>	599.277	341.503	19.657	0.697	107.918	75.543	183.461	53.959	19.526
<b>2021-22</b>	295.777	160.048	10.265	0.366	56.863	39.804	96.667	28.431	9.599
<b>2022-23</b>	306.023	167.251	10.409	0.373	58.178	40.724	98.902	29.089	9.389
<b>2021-23 Biennium</b>	601.800	327.299	20.674	0.739	115.040	80.528	195.569	57.520	18.987
<b>2023-24</b>	316.661	174.777	10.555	0.380	59.523	41.666	101.188	29.761	9.238
<b>2024-25</b>	327.708	182.642	10.702	0.387	60.899	42.629	103.528	30.449	9.020
<b>2023-25 Biennium</b>	644.369	357.419	21.257	0.767	120.421	84.295	204.716	60.211	18.258
<b>2025-26</b>	339.182	190.861	10.852	0.394	43.615	62.307	105.921	31.153	8.828
<b>2026-27</b>	351.099	199.449	11.004	0.402	44.623	63.747	108.370	31.874	8.660
<b>2025-27 Biennium</b>	690.281	390.310	21.856	0.796	88.238	126.054	214.292	63.027	17.488
<b>2027-28</b>	363.479	208.425	11.158	0.410	45.655	65.221	110.876	32.611	8.511
<b>2028-29</b>	376.339	217.804	11.314	0.417	46.710	66.729	113.439	33.364	8.380
<b>2027-29 Biennium</b>	739.818	426.228	22.472	0.827	92.365	131.950	224.315	65.975	16.891

<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 September 2019 Forecast

**Table B.8 Track Record for the March 2020 Forecast**

(Quarter ending March 31, 2020)

<b>Personal Income Tax</b>	<b>Forecast Comparison</b>			<b>Year/Year Change</b>	
	Actual Revenues	Latest Forecast	Percent Difference	Prior Year	Percent Change
(Millions of dollars)					
Withholding	\$2,183.4	\$2,261.6	-3.5%	\$2,079.9	5.0%
Dollar difference		-\$78.1		\$131.0	
Estimated Payments*	\$376.1	\$374.8	0.3%	\$321.9	16.9%
Dollar difference		\$1.3		\$131.8	
Final Payments*	\$159.7	\$157.3	1.5%	\$225.5	-29.2%
Dollar difference		\$2.4		\$25.5	
Refunds	-\$1,120.3	-\$1,119.4	0.1%	-\$546.2	105.1%
Dollar difference		-\$0.9		-\$574.1	
<b>Total Personal Income Tax</b>	<b>\$1,599.0</b>	<b>\$1,674.3</b>	<b>-4.5%</b>	<b>\$2,081.0</b>	<b>-23.2%</b>
Dollar difference		-\$75.3		-\$482.1	
<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	\$137.8	\$128.5	7.2%	\$158.7	-13.2%
Dollar difference		\$9.3		-\$21.0	
Final Payments	\$66.3	\$123.9	-46.5%	\$68.8	-3.6%
Dollar difference		-\$57.6		-\$2.5	
Refunds	-\$91.3	-\$157.0	-41.8%	-\$128.6	-29.0%
Dollar difference		\$65.6		\$37.3	
<b>Total Corporate Income Tax</b>	<b>\$112.8</b>	<b>\$95.4</b>	<b>18.2%</b>	<b>\$99.0</b>	<b>14.0%</b>
Dollar difference		\$17.4		\$13.8	
<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>\$1,711.8</b>	<b>\$1,769.7</b>	<b>-3.3%</b>	<b>\$2,180.0</b>	<b>-21.5%</b>
Dollar difference		-\$58.0		-\$468.3	

\* Data separating estimated and other personal income tax payments is no longer available. Tracking represents estimates based on banking data.

Table B.9 Summary of Lottery Resources

	<b>Jun 2020 Forecast</b>										
	<b>2019-21</b>			<b>2021-23</b>		<b>2023-25</b>		<b>2025-2027</b>		<b>2027-29</b>	
	<b>Current Forecast</b>	<b>Change from Mar-20</b>	<b>Change from COS 2019</b>	<b>Current Forecast</b>	<b>Change from Mar-20</b>						
<b>LOTTERY EARNINGS</b>											
(in millions of dollars)											
Traditional Lottery	142.030	(5.293)	(12.871)	148.119	(1.858)	149.916	(0.552)	148.733	(0.627)	148.811	(0.618)
Video Lottery	968.546	(361.171)	(336.397)	1,185.775	(247.587)	1,382.049	(180.152)	1,530.428	(161.512)	1,647.560	(149.441)
Scoreboard (Sports Betting) <sup>1</sup>	3.301	(4.951)	3.301	19.337	(10.088)	35.952	(6.246)	41.763	(4.640)	44.911	(4.990)
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>1,113.877</b>	<b>(371.416)</b>	<b>(345.967)</b>	<b>1,353.231</b>	<b>(259.533)</b>	<b>1,567.916</b>	<b>(186.951)</b>	<b>1,720.924</b>	<b>(166.779)</b>	<b>1,841.282</b>	<b>(155.049)</b>
<b>ECONOMIC DEVELOPMENT FUND</b>											
Beginning Balance	70.924	5.585	5.585	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Transfers from Lottery	1,113.877	(371.416)	(345.967)	1,353.231	(259.533)	1,567.916	(186.951)	1,720.924	(166.779)	1,841.282	(155.049)
Other Resources <sup>2</sup>	7.471	1.740	1.740	2.000	0.000	2.000	0.000	2.000	0.000	2.000	0.000
<b>Total Available Resources</b>	<b>1,192.272</b>	<b>(364.091)</b>	<b>(338.643)</b>	<b>1,355.231</b>	<b>(259.533)</b>	<b>1,569.916</b>	<b>(186.951)</b>	<b>1,722.924</b>	<b>(166.779)</b>	<b>1,843.282</b>	<b>(155.049)</b>
<b>ALLOCATION OF RESOURCES</b>											
<b>Constitutional Distributions</b>											
Education Stability Fund <sup>3</sup>	200.498	(66.855)	(62.274)	83.672	(21.353)	67.877	(87.094)	151.542	27.045	163.490	32.329
Oregon Capital Matching Fund <sup>3</sup>	0.000	0.000	0.000	133.258	(21.136)	178.623	44.536	131.854	(47.554)	139.983	(50.201)
Parks and Natural Resources Fund <sup>4</sup>	167.082	(55.712)	(51.895)	202.985	(38.930)	235.187	(28.043)	258.139	(25.017)	276.192	(23.257)
Veterans' Services Fund <sup>5</sup>	16.708	(5.571)	(5.190)	20.298	(3.893)	23.519	(2.804)	25.814	(2.502)	27.619	(2.326)
<b>Other Distributions</b>											
Outdoor School Education Fund <sup>6</sup>	45.306	0.000	0.000	48.793	(0.863)	51.444	(0.725)	54.109	(0.841)	56.733	(0.882)
County Economic Development	50.231	0.000	0.000	45.463	(9.492)	52.988	(6.907)	58.677	(6.192)	63.167	(5.730)
HECC Collegiate Athletic & Scholarships <sup>7</sup>	14.100	0.000	0.000	13.532	(2.595)	15.679	(1.870)	17.209	(1.668)	18.413	(1.550)
Gambling Addiction <sup>7</sup>	14.593	0.000	0.000	13.532	(2.595)	15.679	(1.870)	17.209	(1.668)	18.413	(1.550)
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	0.000	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>	3.301	(4.951)	3.301	19.337	(10.088)	35.952	(6.246)	41.763	(4.640)	44.911	(4.990)
<b>Total Distributions</b>	<b>1,394.857</b>	<b>(133.090)</b>	<b>(116.058)</b>	<b>823.598</b>	<b>(110.945)</b>	<b>915.076</b>	<b>(91.023)</b>	<b>994.443</b>	<b>(63.037)</b>	<b>1,047.050</b>	<b>(58.158)</b>
<b>Ending Balance/Discretionary Resources</b>	<b>(202.585)</b>	<b>(231.001)</b>	<b>(222.585)</b>	<b>531.633</b>	<b>(148.587)</b>	<b>654.840</b>	<b>(95.928)</b>	<b>728.480</b>	<b>(103.742)</b>	<b>796.232</b>	<b>(96.892)</b>

Note: Some totals may not foot due to rounding.

1. 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
2. Includes reversions (unspent allocations from previous biennium) and interest earnings on Economic Development Fund.
3. 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.
4. The Parks and Natural Resources Fund Constitutional amendment requires 15% of net proceeds be transferred to this fund.
5. Per Ballot Measure 96 (2016), 1.5% of net lottery proceeds are dedicated to the Veterans' Services Fund
6. 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.
7. Approximately one percent of net lottery proceeds are dedicated to each program. Certain limits are imposed by the Legislature.
8. 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

Jun 2020

**Rainy Day Fund**

(Millions)	2017-19	2019-21	2021-23	2023-25	2025-27	2027-29
Beginning Balance	\$376.4	\$666.6	\$949.4	\$1,003.2	\$1,267.6	\$1,585.5
Interest Earnings	\$23.5	\$17.9	\$10.5	\$12.4	\$26.1	\$63.8
Deposits <sup>1</sup>	\$266.7	\$264.9	\$43.3	\$252.0	\$291.7	\$338.0
Triggered Withdrawals	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Ending Balance<sup>2</sup></b>	<b>\$666.6</b>	<b>\$949.4</b>	<b>\$1,003.2</b>	<b>\$1,267.6</b>	<b>\$1,585.5</b>	<b>\$1,987.2</b>

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

(Millions)	2017-19	2019-21	2021-23	2023-25	2025-27	2027-29
Beginning Balance	\$384.2	\$621.1	\$800.1	\$875.4	\$936.5	\$1,072.9
Interest Earnings <sup>4</sup>	\$22.4	\$17.4	\$9.5	\$10.4	\$19.3	\$43.3
Deposits <sup>5</sup>	\$235.9	\$180.4	\$75.3	\$61.1	\$136.4	\$147.1
Distributions	\$22.4	\$17.4	\$9.5	\$10.4	\$19.3	\$43.3
Oregon Education Fund	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Oregon Opportunity Grant	\$22.4	\$17.4	\$9.5	\$10.4	\$19.3	\$43.3
Withdrawals	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Ending Balance</b>	<b>\$621.1</b>	<b>\$800.1</b>	<b>\$875.4</b>	<b>\$936.5</b>	<b>\$1,072.9</b>	<b>\$1,220.0</b>

**Total Reserves**

(Millions)	2017-19	2019-21	2021-23	2023-25	2025-27	2027-29
<b>Ending Balances</b>	<b>\$1,287.7</b>	<b>\$1,749.5</b>	<b>\$1,878.6</b>	<b>\$2,204.2</b>	<b>\$2,658.4</b>	<b>\$3,207.2</b>
Percent of General Fund Revenues	5.9%	9.1%	9.0%	9.2%	9.7%	10.4%

## 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

<b>TABLE B.11</b>											<b>Jun 2020</b>
<b>Summary of Marijuana 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 Mar-20</i>	<i>Change from COS 2019</i>	<b>Current Forecast</b>	<i>Change from Mar-20</i>						
<b>MARIJUANA EARNINGS</b>											
+ Tax Revenue <sup>1</sup>	260.498	9.013	22.529	286.632	(12.209)	308.149	(18.286)	335.640	(17.233)	361.703	(17.608)
- Administrative Costs <sup>2</sup>	14.246	0.000	0.052	14.193	0.000	14.193	0.000	14.193	0.000	14.193	0.000
<b>Net Available to Transfer</b>	<b>246.252</b>	<b>9.013</b>	<b>22.476</b>	<b>272.439</b>	<b>(12.209)</b>	<b>293.956</b>	<b>(18.286)</b>	<b>321.447</b>	<b>(17.233)</b>	<b>347.510</b>	<b>(17.608)</b>
<b>OREGON MARIJUANA ACCOUNT</b>											
Beginning Balance	28.765	0.000	0.000	18.237	7.210	0.000	0.000	0.000	0.000	0.000	0.000
Revenue Transfers	246.252	9.013	22.476	272.439	(12.209)	293.956	(18.286)	321.447	(17.233)	347.510	(17.608)
Other Resources	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 Resources</b>	<b>275.017</b>	<b>9.013</b>	<b>22.476</b>	<b>290.676</b>	<b>(4.999)</b>	<b>293.956</b>	<b>(18.286)</b>	<b>321.447</b>	<b>(17.233)</b>	<b>347.510</b>	<b>(17.608)</b>
<b>ALLOCATION OF RESOURCES</b>											
State School Fund (40%)	103.765	0.000	0.000	118.094	(1.278)	117.582	(7.314)	128.579	(6.893)	139.004	(7.043)
Mental Health, Alcoholism, & Drug Services (20%)	51.882	0.000	0.000	59.047	(0.639)	58.791	(3.657)	64.289	(3.447)	69.502	(3.522)
State Police (15%)	38.912	0.000	0.000	44.285	(0.479)	44.093	(2.743)	48.217	(2.585)	52.127	(2.641)
Cities (10%)	24.625	0.901	2.248	27.244	(1.221)	29.396	(1.829)	32.145	(1.723)	34.751	(1.761)
Counties (10%)	24.625	0.901	2.248	27.244	(1.221)	29.396	(1.829)	32.145	(1.723)	34.751	(1.761)
Alcohol & Drug Abuse Prevention, Intervention & Treatment (5%)	12.971	0.000	0.000	14.762	(0.160)	14.698	(0.914)	16.072	(0.862)	17.376	(0.880)
<b>Total Distributions</b>	<b>256.780</b>	<b>1.803</b>	<b>4.495</b>	<b>290.676</b>	<b>(4.999)</b>	<b>293.956</b>	<b>(18.286)</b>	<b>321.447</b>	<b>(17.233)</b>	<b>347.510</b>	<b>(17.608)</b>
<b>Ending Balance</b>	<b>18.237</b>	<b>7.210</b>	<b>18.101</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 become 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)

TABLE B.12											Jun 2020
Summary of Corporate Activity Tax Resources											
	2019-21			2021-23		2023-25		2025-27		2027-29	
(in millions of dollars)	Current Forecast	Change from Mar-20	Change from COS 2019	Current Forecast	Change from Mar-20						
<b>Corporate Activity Tax</b>											
+ Tax Revenue	1,186.601	(409.666)	(409.666)	2,207.170	(598.986)	2,574.216	(489.074)	2,861.294	(483.280)	3,182.579	(474.593)
- Administrative Costs	14.002	4.482	4.482	19.200	0.000	21.312	0.000	23.656	0.000	26.259	0.000
<b>Net Available to Transfer</b>	<b>1,172.599</b>	<b>(414.148)</b>	<b>(414.148)</b>	<b>2,187.970</b>	<b>(598.986)</b>	<b>2,552.904</b>	<b>(489.074)</b>	<b>2,837.638</b>	<b>(483.280)</b>	<b>3,156.320</b>	<b>(474.593)</b>
<b>Fund for Student Success</b>											
Beginning Balance	0.000	0.000	0.000	0.000	(34.760)	0.000	0.000	0.000	0.000	0.000	0.000
Revenue Transfers	1,172.599	(414.148)	(414.148)	2,187.970	(598.986)	2,552.904	(489.074)	2,837.638	(483.280)	3,156.320	(474.593)
Other Resources	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 Resources</b>	<b>1,172.599</b>	<b>(414.148)</b>	<b>(414.148)</b>	<b>2,187.970</b>	<b>(633.746)</b>	<b>2,552.904</b>	<b>(489.074)</b>	<b>2,837.638</b>	<b>(483.280)</b>	<b>3,156.320</b>	<b>(474.593)</b>
<b>ALLOCATION OF RESOURCES</b>											
State School Fund	580.130	(62.870)	(62.870)	627.665	(111.335)	708.603	(88.083)	788.011	(81.729)	864.477	(86.450)
Student Investment Account	472.740	0.000	0.000	780.153	(261.205)	922.151	(200.495)	1,024.813	(200.776)	1,145.922	(194.072)
Statewide Education Initiative Account	265.122	0.000	0.000	468.092	(156.723)	553.290	(120.297)	614.888	(120.466)	687.553	(116.443)
Early Learning Account	171.125	0.000	0.000	312.061	(104.482)	368.860	(80.198)	409.925	(80.310)	458.369	(77.629)
<b>Total Distributions</b>	<b>1,489.117</b>	<b>(62.870)</b>	<b>(62.870)</b>	<b>2,187.970</b>	<b>(633.746)</b>	<b>2,552.904</b>	<b>(489.074)</b>	<b>2,837.638</b>	<b>(483.280)</b>	<b>3,156.320</b>	<b>(474.593)</b>
<b>Ending Balance</b>	<b>(316.518)</b>	<b>(351.278)</b>	<b>(351.278)</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.

## APPENDIX C: POPULATION FORECASTS BY AGE AND SEX

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

Year (July 1)	Population	Population Change		Births		Deaths		Natural	Net Migration	
		Number	Percent	Number	Rate/1000	Number	Rate/1000	Increase	Number	Rate/1000
1990	2,860,400	69,800	2.50	42,008	14.87	24,763	8.76	17,245	52,555	18.60
1991	2,928,500	68,100	2.38	42,682	14.75	24,944	8.62	17,738	50,362	17.40
1992	2,991,800	63,300	2.16	42,427	14.33	25,166	8.50	17,261	46,039	15.55
1993	3,060,400	68,600	2.29	41,442	13.69	26,543	8.77	14,899	53,701	17.75
1994	3,121,300	60,900	1.99	41,487	13.42	27,564	8.92	13,923	46,977	15.20
1995	3,184,400	63,100	2.02	42,426	13.46	27,552	8.74	14,874	48,226	15.30
<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	36,268	8.70	6,638	47,562	11.41
2019	4,236,400	41,099	0.98	42,200	10.01	36,750	8.72	5,450	35,649	8.46
2020	4,265,200	28,800	0.68	42,578	10.02	38,068	8.96	4,510	24,290	5.71
<b>2015-2020</b>		<b>251,355</b>		<b>217,933</b>		<b>183,198</b>		<b>34,735</b>	<b>216,619</b>	
2021	4,290,100	24,900	0.58	42,942	10.04	38,753	9.06	4,189	20,711	4.84
2022	4,323,900	33,800	0.79	41,984	9.75	39,486	9.17	2,498	31,302	7.27
2023	4,359,900	36,000	0.83	41,886	9.65	40,312	9.28	1,574	34,426	7.93
2024	4,396,700	36,800	0.84	41,858	9.56	41,232	9.42	625	36,175	8.26
2025	4,433,500	36,800	0.84	41,838	9.48	42,191	9.56	-353	37,153	8.42
<b>2020-2025</b>		<b>168,300</b>		<b>210,508</b>		<b>201,975</b>		<b>8,533</b>	<b>159,767</b>	
2026	4,470,200	36,700	0.83	41,918	9.42	43,169	9.70	-1,251	37,951	8.52
2027	4,506,600	36,400	0.81	41,998	9.36	44,214	9.85	-2,216	38,616	8.60
2028	4,542,500	35,900	0.80	42,097	9.30	45,366	10.03	-3,270	39,170	8.66
2029	4,577,900	35,400	0.78	42,190	9.25	46,489	10.19	-4,299	39,699	8.71
<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>427,900</b>		<b>444,287</b>		<b>350,656</b>		<b>93,631</b>	<b>334,268</b>	8.28
<b>2019-2029</b>		<b>341,500</b>		<b>421,289</b>		<b>419,281</b>		<b>2,009</b>	<b>339,492</b>	7.72

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 1990-2018: 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												
0-4	122,327	116,130	238,457	121,092	115,088	236,180	119,516	113,359	232,875	118,293	111,850	230,143	117,872	111,493	229,365
5-9	121,539	116,369	237,908	121,767	115,893	237,660	122,733	116,900	239,634	124,024	117,953	241,977	124,734	118,038	242,772
10-14	124,508	118,732	243,241	124,074	119,044	243,118	123,603	118,287	241,890	123,386	118,206	241,593	123,403	118,463	241,865
15-19	131,126	124,540	255,667	129,068	121,927	250,996	127,517	120,587	248,104	126,643	119,875	246,518	126,847	119,972	246,819
20-24	128,787	124,903	253,690	130,576	126,691	257,267	132,853	128,787	261,640	135,293	130,705	265,998	136,741	132,080	268,821
25-29	134,019	131,816	265,835	133,302	130,829	264,132	132,463	129,927	262,390	132,508	130,403	262,911	134,578	132,874	267,452
30-34	131,489	128,325	259,814	133,512	130,743	264,255	135,689	133,329	269,018	137,321	135,074	272,395	139,932	137,412	277,344
35-39	128,070	123,596	251,666	125,924	121,787	247,710	126,018	122,275	248,293	128,683	124,338	253,022	130,858	126,562	257,420
40-44	125,969	122,843	248,811	128,974	125,358	254,332	130,795	126,620	257,415	131,483	127,467	258,950	131,047	126,698	257,745
45-49	130,825	132,538	263,363	127,795	128,542	256,337	125,434	124,976	250,410	123,864	122,179	246,043	124,309	121,474	245,783
50-54	135,129	141,565	276,693	134,682	140,654	275,335	133,445	139,197	272,643	132,080	137,545	269,625	131,568	136,140	267,708
55-59	133,011	140,802	273,812	134,009	142,349	276,358	134,403	143,058	277,461	134,376	142,746	277,122	133,344	142,041	275,385
60-64	115,236	121,045	236,281	121,440	127,818	249,258	122,921	129,548	252,470	124,925	132,821	257,745	127,753	136,837	264,590
65-69	81,854	87,917	169,771	84,425	90,852	175,277	92,096	98,785	190,881	97,983	105,059	203,042	103,544	110,487	214,031
70-74	56,925	62,949	119,874	59,485	65,640	125,125	62,496	69,113	131,609	67,184	73,899	141,083	71,303	78,473	149,776
75-79	40,932	50,101	91,034	41,549	50,075	91,624	42,654	50,692	93,346	44,224	52,064	96,287	46,443	54,145	100,588
80-84	30,391	42,734	73,126	30,500	42,287	72,787	30,560	41,822	72,381	30,774	41,257	72,031	31,046	40,788	71,834
85+	26,800	51,458	78,258	27,598	52,275	79,874	28,360	52,915	81,276	28,995	53,538	82,533	29,522	53,890	83,411
Total	1,898,938	1,938,362	3,837,300	1,909,773	1,947,852	3,857,625	1,923,557	1,960,178	3,883,735	1,942,040	1,976,980	3,919,020	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												
0-4	118,065	111,542	229,607	119,058	112,182	231,240	119,559	112,674	232,233	118,627	111,690	230,317	116,542	109,803	226,345
5-9	125,502	118,321	243,824	125,540	118,120	243,660	125,252	117,280	242,531	124,739	116,196	240,935	124,538	115,923	240,461
10-14	122,975	118,328	241,303	123,807	118,633	242,441	125,567	120,565	246,131	127,250	122,070	249,320	128,076	122,246	250,322
15-19	127,735	120,633	248,368	128,448	121,638	250,085	129,147	121,888	251,034	129,234	121,975	251,209	128,956	122,036	250,992
20-24	137,304	132,672	269,977	137,526	132,652	270,178	138,147	133,318	271,465	138,209	133,517	271,726	138,190	133,091	271,281
25-29	137,959	137,056	275,015	143,647	143,914	287,560	149,359	150,280	299,638	154,060	155,138	309,198	155,764	156,968	312,732
30-34	141,525	138,707	280,232	144,070	140,722	284,792	146,202	142,878	289,080	148,128	145,381	293,509	150,901	148,924	299,825
35-39	134,484	129,808	264,292	138,181	133,110	271,291	142,318	136,982	279,300	145,109	139,398	284,507	148,225	142,072	290,297
40-44	130,040	125,302	255,342	129,051	124,315	253,366	130,214	125,671	255,885	133,579	128,172	261,750	135,893	130,445	266,338
45-49	127,060	123,545	250,606	131,246	126,804	258,051	134,156	128,832	262,987	135,464	130,093	265,557	135,096	129,365	264,461
50-54	129,981	133,569	263,550	127,847	130,622	258,469	126,390	127,827	254,217	125,327	125,447	250,774	125,957	124,706	250,662
55-59	133,245	142,271	275,516	133,803	142,713	276,516	133,263	142,247	275,510	132,344	141,185	273,530	131,803	139,755	271,558
60-64	130,407	139,689	270,096	132,872	142,414	275,286	134,429	144,218	278,648	135,169	144,564	279,732	134,220	143,968	278,188
65-69	109,922	117,550	227,472	116,860	124,952	241,812	119,220	127,459	246,679	121,855	131,174	253,029	124,814	135,211	260,025
70-74	74,860	82,510	157,370	77,688	85,607	163,296	85,391	93,610	179,000	91,362	99,866	191,228	96,776	105,112	201,888
75-79	48,615	56,084	104,698	51,000	58,692	109,692	53,744	62,024	115,768	57,996	66,478	124,474	61,662	70,637	132,299
80-84	31,707	40,809	72,517	32,509	40,934	73,443	33,586	41,565	75,152	35,052	42,789	77,840	36,912	44,542	81,454
85+	30,095	53,967	84,062	30,836	54,337	85,173	31,428	54,414	85,842	32,159	54,506	86,665	32,810	54,462	87,272
Total	1,991,483	2,022,363	4,013,845	2,023,989	2,052,361	4,076,350	2,057,371	2,083,730	4,141,100	2,085,663	2,109,637	4,195,300	2,107,135	2,129,265	4,236,400
Mdn. Age	38.1	40.2	39.1	38.2	40.2	39.2	38.3	40.2	39.2	38.5	40.4	39.4	38.7	40.5	39.6
Age	2020			2021			2022			2023			2024		
	Male	Female	Total												
0-4	114,179	107,781	221,960	112,604	105,972	218,576	110,564	104,578	215,142	110,163	104,148	214,310	110,207	104,110	214,317
5-9	124,391	115,694	240,085	124,490	115,766	240,256	124,100	115,504	239,604	122,542	114,209	236,751	122,272	114,246	236,518
10-14	128,686	122,270	250,956	128,269	121,493	249,762	127,431	119,985	247,416	126,634	118,576	245,210	126,349	118,273	244,622
15-19	127,757	121,428	249,185	127,752	121,179	248,930	128,977	122,717	251,694	130,624	124,150	254,774	131,627	124,343	255,969
20-24	137,833	132,082	269,915	136,762	131,127	267,889	136,189	130,039	266,228	135,886	130,009	265,895	135,742	130,460	266,202
25-29	154,635	155,468	310,103	151,983	151,660	303,643	150,422	149,797	300,219	149,493	148,564	298,057	149,625	148,220	297,845
30-34	153,598	152,934	306,532	152,799	158,081	310,880	161,423	162,887	324,309	164,955	166,140	331,095	166,543	167,516	334,059
35-39	149,532	143,294	292,827	150,902	144,695	295,597	151,827	145,959	297,787	152,900	147,954	300,854	155,509	151,337	306,846
40-44	139,169	133,376	272,545	142,099	136,142	278,241	145,408	139,318	284,726	147,915	141,599	289,513	151,129	144,400	295,528
45-49	133,645	127,684	261,329	131,811	126,170	257,981	132,357	127,030	259,387	135,395	129,319	264,715	137,710	131,577	269,287
50-54	128,548	126,362	254,910	132,143	128,964	261,107	134,444	130,468	264,913	135,323	131,516	266,839	134,866	130,850	265,716
55-59	129,781	136,568	266,350	127,009	132,662	259,671	125,145	129,314	254,459	123,975	126,614	250,588	124,672	125,917	250,595
60-64	133,575	143,785	277,361	133,082	143,356	276,438	131,952	142,328	274,279	130,639	140,838	271,477	130,131	139,373	269,504
65-69	127,103	137,880	264,984	128,645	139,678	268,323	129,628	140,910	270,538	129,924	140,987	270,911	128,954	140,454	269,408
70-74	102,642	111,680	214,322	108,503	118,290	226,792	110,336	120,397	230,732	112,460	123,762	236,222	115,123	127,568	242,692
75-79	64,749	74,168	138,917	67,012	76,788	143,799	73,677	83,917	157,595	78,856	89,597	168,453	83,506	94,886	178,392
80-84	38,638	46,134	84,773	40,341	48,281	88,622	42,435	51,039	93,474	45,779	54,793	100,572	48,720	58,315	107,035
85+	33,732	54,616	88,347	34,531	55,102	89,633	35,528	55,869	91,398	36,696	56,967	93,662	38,200	58,471	96,670
Total	2,122,195	2,143,005	4,265,200	2,134,694	2,155,406	4,290,100	2,151,844	2,172,055	4,323,900	2,170,158	2,189,742	4,359,900	2,188,885	2,207,815	4,396,700
Mdn. Age	39.0	40.7	39.8	39.3	41.0	40.1	39.5	41.2	40.3	39.7	41.4	40.6	40.0	41.6	40.8
Age	2025			2026			2027			2028			2029		
	Male	Female	Total												
0-4	110,030	103,869	213,899	109,615											

Table C.3 Population of Oregon: 1990-2029

Year (July 1)	Total Population	Change from previous year	
		Number	Percent
1990	2,860,400	-	-
1991	2,928,500	68,100	2.38%
1992	2,991,800	63,300	2.16%
1993	3,060,400	68,600	2.29%
1994	3,121,300	60,900	1.99%
1995	3,184,400	63,100	2.02%
1996	3,247,100	62,700	1.97%
1997	3,304,300	57,200	1.76%
1998	3,352,400	48,100	1.46%
1999	3,393,900	41,500	1.24%
2000	3,431,100	37,200	1.10%
2001	3,470,400	39,300	1.15%
2002	3,502,600	32,200	0.93%
2003	3,538,600	36,000	1.03%
2004	3,578,900	40,300	1.14%
2005	3,626,900	48,000	1.34%
2006	3,685,200	58,300	1.61%
2007	3,739,400	54,200	1.47%
2008	3,784,200	44,800	1.20%
2009	3,815,800	31,600	0.84%
2010	3,837,300	21,500	0.56%
2011	3,857,625	20,325	0.53%
2012	3,883,735	26,110	0.68%
2013	3,919,020	35,285	0.91%
2014	3,962,710	43,690	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	4,236,400	41,099	0.98%
2020	4,265,200	28,800	0.68%
2021	4,290,100	24,900	0.58%
2022	4,323,900	33,799	0.79%
2023	4,359,900	36,000	0.83%
2024	4,396,700	36,801	0.84%
2025	4,433,500	36,799	0.84%
2026	4,470,200	36,700	0.83%
2027	4,506,600	36,400	0.81%
2028	4,542,500	35,899	0.80%
2029	4,577,900	35,401	0.78%

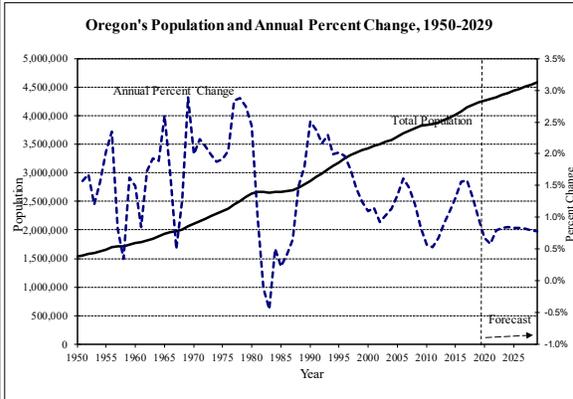


Table C.4 Children: Ages 0-4

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	232,233	993	0.43%	638,087	2,602	0.41%	373,075	2,196	0.59%
2018	230,317	-1,915	-0.82%	638,311	224	0.04%	374,877	1,802	0.48%
2019	226,345	-3,972	-1.72%	638,760	449	0.07%	374,295	-582	-0.16%
2020	221,960	-4,385	-1.94%	639,419	659	0.10%	370,722	-3,574	-0.95%
2021	218,036	-3,924	-1.77%	639,524	104	0.02%	367,313	-3,408	-0.92%
2022	215,142	-2,894	-1.33%	638,306	-1,218	-0.19%	366,636	-678	-0.18%
2023	214,310	-832	-0.39%	635,584	-2,722	-0.43%	367,047	411	0.11%
2024	214,317	7	0.00%	631,281	-4,303	-0.68%	368,030	983	0.27%
2025	213,899	-418	-0.20%	626,215	-5,066	-0.80%	369,617	1,588	0.43%
2026	213,045	-854	-0.40%	621,460	-4,754	-0.76%	372,273	2,655	0.72%
2027	213,164	119	0.06%	616,816	-4,645	-0.75%	375,072	2,800	0.75%
2028	213,448	284	0.13%	612,472	-4,344	-0.70%	377,376	2,304	0.61%
2029	213,837	389	0.18%	609,070	-3,402	-0.56%	377,626	250	0.07%

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

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

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

Year (July 1)	% Change from previous decade/yr.			% Change from previous decade/yr.			% Change from previous decade/yr.		
	Population	Number	Percent	Population	Number	Percent	Population	Number	Percent
1980	561,931	---	---	790,750	---	---	491,249	---	---
1990	544,738	-17,193	-3.06%	926,326	135,576	17.15%	531,181	39,932	8.13%
2000	616,988	72,250	13.26%	996,500	70,174	7.58%	817,510	286,329	53.90%
2001	618,906	1,918	0.31%	994,587	-1,913	-0.19%	847,276	29,766	3.64%
2002	620,252	1,347	0.22%	989,996	-4,591	-0.46%	876,242	28,966	3.42%
2003	622,211	1,959	0.32%	987,755	-2,241	-0.23%	903,499	27,257	3.11%
2004	626,423	4,212	0.68%	988,932	1,177	0.12%	930,032	26,533	2.94%
2005	633,901	7,478	1.19%	994,575	5,644	0.57%	957,826	27,793	2.99%
2006	644,210	10,309	1.63%	1,004,110	9,535	0.96%	985,638	27,813	2.90%
2007	652,287	8,077	1.25%	1,014,565	10,455	1.04%	1,008,986	23,348	2.37%
2008	657,248	4,961	0.76%	1,022,060	7,495	0.74%	1,025,501	16,515	1.64%
2009	657,327	79	0.01%	1,024,971	2,911	0.28%	1,039,689	14,188	1.38%
2010	653,491	-3,836	-0.58%	1,026,126	1,155	0.11%	1,050,150	10,461	1.01%
2011	652,382	-1,109	-0.17%	1,030,430	4,304	0.42%	1,057,288	7,138	0.68%
2012	654,540	2,158	0.33%	1,037,116	6,686	0.65%	1,052,983	-4,305	-0.41%
2013	660,449	5,909	0.90%	1,047,277	10,162	0.98%	1,050,536	-2,447	-0.23%
2014	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	705,172	13,301	1.92%	1,123,902	26,894	2.45%	1,071,362	3,041	0.28%
2018	714,740	9,568	1.36%	1,148,964	25,062	2.23%	1,069,594	-1,769	-0.17%
2019	722,037	7,297	1.02%	1,169,193	20,229	1.76%	1,064,869	-4,724	-0.44%
2020	723,355	1,318	0.18%	1,182,007	12,814	1.10%	1,059,949	-4,920	-0.46%
2021	724,697	1,342	0.19%	1,192,860	10,853	0.92%	1,055,197	-4,752	-0.45%
2022	728,838	4,142	0.57%	1,207,041	14,181	1.19%	1,053,037	-2,160	-0.20%
2023	733,859	5,020	0.69%	1,219,520	12,479	1.03%	1,053,619	582	0.06%
2024	739,046	5,187	0.71%	1,234,278	14,759	1.21%	1,055,096	1,477	0.14%
2025	743,190	4,144	0.56%	1,245,414	11,136	0.90%	1,059,842	4,746	0.45%
2026	747,391	4,201	0.57%	1,256,752	11,338	0.91%	1,065,155	5,313	0.50%
2027	751,708	4,317	0.58%	1,266,037	9,285	0.74%	1,073,251	8,096	0.76%
2028	756,067	4,360	0.58%	1,275,415	9,378	0.74%	1,082,555	9,305	0.87%
2029	759,256	3,189	0.42%	1,286,143	10,729	0.84%	1,092,958	10,403	0.96%

Table C.10 Elderly Population by Age Group

Year (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	702,441	4.31%	425,679	5.08%	190,920	4.25%	85,842	0.79%
2018	733,237	4.38%	444,257	4.36%	202,314	5.97%	86,665	0.96%
2019	762,937	4.05%	461,913	3.97%	213,752	5.65%	87,272	0.70%
2020	791,143	3.70%	479,106	3.72%	223,689	4.65%	88,347	1.23%
2021	817,170	3.29%	495,116	3.34%	232,421	3.90%	89,633	1.46%
2022	843,737	3.25%	501,271	1.24%	251,069	8.02%	91,398	1.97%
2023	869,820	3.09%	507,133	1.17%	269,024	7.15%	93,662	2.48%
2024	893,698	2.75%	512,100	0.98%	284,927	5.91%	96,670	3.21%
2025	918,512	2.78%	516,975	0.95%	301,731	5.90%	99,806	3.24%
2026	941,516	2.50%	520,994	0.78%	317,105	5.10%	103,416	3.62%
2027	962,260	2.20%	521,738	0.14%	332,624	4.89%	107,898	4.33%
2028	981,233	1.97%	519,927	-0.35%	347,107	4.35%	114,199	5.84%
2029	998,265	1.74%	517,015	-0.56%	361,035	4.01%	120,216	5.27%