

**MINUTES OF THE MEETING OF THE
ECONOMIC FORUM
(NRS 353.226 – NRS 353.229)
November 10, 2016**

The meeting of the Economic Forum (created by Senate Bill 23, 1993) was held at 9:00 a.m. on Thursday, November 10, 2016, in room 4100 of the Legislative Building, 401 South Carson Street, Carson City, Nevada, with videoconference to room 4401 of the Grant Sawyer State Office Building, 555 East Washington Avenue, Las Vegas, Nevada.

ECONOMIC FORUM MEMBERS PRESENT IN LAS VEGAS:

Matt Maddox

ECONOMIC FORUM MEMBERS PRESENT IN CARSON CITY:

Ken Wiles, Chairman

Marvin Leavitt

Jennifer Lewis

Linda Rosenthal

ECONOMIC FORUM MEMBERS ABSENT:

None.

STAFF:

Russell Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division

Michael Nakamoto, Deputy Fiscal Analyst, Fiscal Analysis Division

Joe Reel, Deputy Fiscal Analyst, Fiscal Analysis Division

Judy Lyons, Committee Secretary, Fiscal Analysis Division

Susanna Powers, Executive Branch Economist, Governor's Finance Office,

EXHIBITS:

[\(Exhibit A\)](#) Meeting Packet and Agenda

[\(Exhibit B\)](#) New Labor Market Overview, Department of Employment, Training & Rehabilitation

[\(Exhibit C\)](#) Gaming Revenue Forecasts for FY 2017 – FY 2019, State of Nevada Gaming Control Board

[\(Exhibit D\)](#) Executive Budget Office Forecast

[\(Exhibit E\)](#) Fiscal Analysis Division Forecast Information Packet

I. ROLL CALL.

Chairman Wiles called the meeting of the Economic Forum to order at 9:13 a.m., and the secretary called roll.

II. OPENING REMARKS.

Chairman Wiles announced that various revenue forecasts would be presented to the Economic Forum (Forum) for review for future consideration, and made it very clear that the forecasts are subject to change between this meeting and the Forum's December 6, 2016, meeting, when the Forum will adopt specific revenue forecasts and subsequently provide them to the Governor and the Legislature.

Chairman Wiles implied certain changes will occur over the next one to four years, as a result of the presidential election, and challenges lie ahead with identifying those changes, their effective dates, and their potential impact to the state budget.

III. PUBLIC COMMENT.

Chairman Wiles asked if anyone wanted to make a public comment in Las Vegas or Carson City. There was no public comment.

IV. PRESENTATION ON THE NATIONAL, REGIONAL AND STATE ECONOMIC OUTLOOK.

Daniel White, Senior Economist, Moody's Analytics

Mr. White shared his surprise over the outcome of the presidential election, and stated the results added a tremendous amount of uncertainty to his forecast. He said he cannot make concrete changes to his forecast without knowing what policies President-elect Trump will pursue, whether they will be directly in line with what he proposed during his campaign or otherwise. He said he expected more moderate policy changes over the next few years that are different from the baseline. He pointed out that his forecast was made under the baseline of a continuing status quo in Washington D.C., and that Moody's Analytics' (Moody's) federal fiscal policy baseline looked very much like the Congressional Budget Office (CBO) baseline, which assumed a lot of Congressional gridlock and no major policy changes. He noted his forecast would likely change, considering the Executive Branch and both chambers of Congress are controlled by the same party; however, he could not identify those changes at this time.

Mr. White stated the U.S. was in a good place when it came to the current economic cycle, meaning the U.S. was very close to the top of the business cycle. He said the U.S. has been in the expansion portion of the business cycle for seven years, which was the third or fourth longest expansion in modern American history. Mr. White referred to the chart on page 4 of the meeting packet ([Exhibit A](#)), and acknowledged the labor market as a good indicator of the business cycle. He pointed

out the labor market no longer reflects huge declines seen in previous years, meaning the country is close to full employment, and that unemployment (orange line) has not seen significant increases despite the large increases in the labor force, which signifies there is sufficient slack in the labor market to absorb new workers.

Mr. White said the hiring rate is no longer on the rise nationally, which indicates the U.S. has reached the top of the business cycle. Although that may seem like a negative outlook, it justifies wage growth. He said job openings continue to increase nationwide across all regions of the country, but with lower hiring rates. Increased job openings means employers cannot find the workers they want to fill those jobs. He explained that an increase in demand, but a limited supply, increases the price of an additional unit of that supply, which is why wages have shown strong growth over the last few months. He said this scenario is vital to the economic outlook, because it has not been around for much of the recovery thus far, and is one of the reasons why people have not felt a recovery over the last seven years, especially in certain pockets of the country. Mr. White said the latest jobs data received at the beginning of November 2016, prior to the General Election, did not show huge increases in total employment, but saw healthy increases in the wage rate, which suggest we are nearing the peak of the business cycle.

Mr. White said a side effect of peaking in the business cycle is that wage rates and income levels normalize. He referenced the wage growth chart on page 6 ([Exhibit A](#)), and stated that two or three years ago, the entire central part of the country was shaded in green (greater than 4.8% wage growth), from North Dakota to Texas, due to the commodity bubble at that time that reflected strong increases in agriculture and energy income and nonwage income, which makes up the majority of income in the central part of the country. He said nonwage income makes up a significantly lower portion of overall income in the coastal areas (highlighted in green), with a few possible exceptions being capital gains and other investment-related incomes. He said as nonwage income emanates to the coastal areas, and more red (less than 3.1% growth) appears in the center of the country, two things become symbolic: 1) The downturn of a commodity cycle, and 2) wage rates start to normalize. Mr. White remarked that the increase in wages is good for sales taxes, because nine times out of ten, the American consumer will spend that additional personal income, thus the nation-wide job growth increase in leisure/hospitality and retail industries. He stated the housing market is strong in both Nevada and nationally; however, structural changes in the housing market, coming out of the great recession, have caused struggles with his outlook.

Mr. White provided a summary of trend housing demand, calculated by Moody's, that identifies housing demand in what Moody's determines a normal year.

- Vacation/second homes (175,000) – this is a stable number, which was unbelievably stable during the great recession. Mr. White stated that any person who could afford this type of home before the great recession probably has the same fortune.
- Obsolescence (325,000) - this classification refers to an aging home that is no longer habitable or is being replaced due to damage from a natural disaster.

Mr. White said these homes are more volatile from year-to-year, but should be very strong over the next 6 to 12 months given some of the tragedies that occurred in the southeastern part of the country in 2016. During the depths of the great recession (2009-2010), approximately 500,000 to 550,000 units were being built per year.

- Household Formations (1,200,000) – the demand for household formations disappeared during the great recession, as many college students at that time were jobless and moved home for financial reasons rather than formed their own households, like what typically occurs in a normal business cycle. Mr. White said Moody's saw cases where parents moved in with their children to curtail childcare expenses and because parents' lost their jobs and could not find work due to their age, specifically between 2008 and 2012. He said based off prerecession trend, approximately 3.5 million households failed to form during the great recession.

Mr. White reported the demand in household formations spilled out into the housing market, triggering strong growth in home prices over the last two or three years. He said the spillover included approximately 1.5 million households that should have formed five or six years ago; thus the significant increase in housing demand. In terms of pent-up demand, approximately 2.0 million units did not spill into the housing market. Mr. White noted that Moody's argued over the last several years that home building should have increased 1.7 million to 2.0 million units per year as demand spilled onto the housing market, compared to the 1.2 million units built per year. He said a structural change has been observed in the market that impacts the capability to physically build 1.3 to 1.4 million units per year, whereas prior to the great recession, 1.8 million to 2.0 million units were built per year with regularity. Mr. White reported the Western Region of the United States, including the Rocky Mountains to the West Coast, was considered the golden child in terms of housing growth over the last several years; however, the pace of demand could not be met and caused strong home price growth seven years into the business cycle. He said the structural constraints over the last several years eased in part because home builders and commercial contractors are no longer competing with the energy industry for building materials, which has caused some of the price pressures to ease up, especially in Nevada. However, the existing constraint is the lack of skilled construction workers due to the great recession, thus the inability to meet demand. He noted the pipeline of apprenticeships in the skilled trades was somewhat weak going into the great recession, which has triggered construction wages to rise as a result, specifically in Nevada and Colorado. Breakneck growth in housing demand has contributed to 6 and 12-month waiting periods relative to scheduling workers to the jobsites.

Mr. White said Moody's Analytics revised their housing forecast over the last several years due to uncertainty relating to the 1.7 million unit target and its feasibility. He said housing completions is a variable used by Moody's in their sales tax forecast, because it relates to the amount of taxable durable goods associated with building a house, both in terms of construction and furnishings. Another changing factor to their forecast is the decreasing number of single-family homes being built. He said in a normal year, two-thirds of the houses built nationally are single family and one-third are multifamily; however, that has flipped since the recession. He attributed the flip to the downturn in

homebuyers due to job losses and lower credit profiles, which ultimately compelled people to rent despite the double-digit rent increases. He noted that credit profiles have leveled out, nationally and statewide, and single-family homes are on the rise.

Mr. White reported that, per Quarterly Census Employment and Wages (QCEW) data, construction employment is leveling off due to the lack of qualified construction workers. He said the QCEW is updated quarterly by the Bureau of Labor Statistics (BLS), and includes a full count of employment and wages. He explained that surveys are generated, consisting of a couple thousand people in each state, and based off the results, data is extrapolated to determine the number of people that are employed or losing jobs in each state. Those numbers are then benchmarked back to the QCEW, which is a full count of all the jobs in existence. He said results show a high likelihood that Nevada employment, at least over the first quarter, will revise upwards in construction and other job sectors. Nevada has a long history of being very difficult for the BLS to hit precisely, mostly because there is a lot of retail and hospitality jobs, which experience a lot of turnover. Trying to keep up with the turnover in the number of firms with the state can be difficult for the BLS to do without the full count of the QCEW. He reported that Nevada had one of the largest payroll upward revisions in 2015, and sizeable revisions are expected in 2016 as well. He noted exact numbers would not be available until March of 2017.

Mr. White reported tourism hiring in Nevada is on the rise, and pointed out that leisure/hospitality jobs were missed by the BLS survey data; therefore, the QCEW first-quarter numbers in 2017 are expected to show an increase in that industry (page 11, [Exhibit A](#)). He confirmed that increased growth in leisure/hospitality jobs is a positive sign for both the U.S. and Nevada economy, because it means people are feeling comfortable enough to take vacations again, whereas in prior years they did not. Another positive outlook is that strong hiring is not only occurring in leisure/hospitality low-wage hires, but also in mid to high-wage jobs located mainly in the Reno and Sparks area as a result of Tesla.

Mr. White recognized Northern Nevada for their efforts to redevelop its economy and for taking advantage of some competitive gains relative to Northern California. He said Northern California is immensely popular, but an immensely expensive place to do business. With access from Reno to Northern California via Interstate 80, distribution centers are becoming more attracted to the area, offering mid-wage jobs. Mr. White expressed if Reno can build off that cost competitiveness without making development mistakes over the next several years, it would be a huge benefit to the area.

Mr. White shared some changes that occurred since his first trip to Reno six years ago.

- Nevada Balance sheets are shaping up: 2011 and 2012 showed a large amount of housing inventory on the books, mostly due to foreclosures and short sales, which have since been worked through. Housing shortages are reflected in some areas, and credit profiles of the average Nevadan are looking good again for single-family

homebuilding and continued development without forming a bubble at this stage of the business cycle (page 13, [Exhibit A](#)).

- State Tax Revenue, U.S. versus Nevada: The pace of growth in state tax revenues nationwide saw declines in four consecutive quarters (page 14, [Exhibit A](#)). As of the second quarter of 2016, state tax revenues nationwide declined year-over-year. The U.S. economy portrays roughly 2% gross domestic product (GDP) growth with wages coming back, and unemployment below 5%, yet tax revenue is down. As a result, state and local government contributions to the GDP have declined in two of the last three quarters, because of changes to state spending habits over the last few quarters. Relative to structural changes, Mr. White explained that tax revenues have become more volatile nationally than in the past. From 2001 to 2010, state tax revenues were three times more volatile than the economy upon which they were levied. To put simply, when comparing the standard deviation between year-to-year percent growth in state tax revenues and the standard deviation for the nominal GDP, the deviation relative to tax revenues was three times larger, which has never happened before.

Mr. White summarized the following structural changes:

- 1) States that incorporate a personal income tax have become much more progressive over the past 10 to 15 years, showing productivity in the tax code. The side effect of that productivity is the small number of taxpayers relied upon for an increasing amount of tax revenue. The taxpayers at the very high end of the tax spectrum can fluctuate in revenue from year-to-year, \$12 million one year versus \$5 million the next. Mr. White said in terms of portfolio theory, you are putting a lot more of your portfolio in a very volatile asset, and so your overall tax revenue will be more volatile.
- 2) A tremendous increase has been observed in the number of tax incentives that have been added to state tax structures. Mr. White said he did not demonize or glorify tax incentives, but they have to be done with a tremendous amount of prudence. As a side effect, tax incentives distort the relationship between what is going on in the economy and what is going on in terms of tax revenue. For example, when forecasting sales tax using disposable personal income, the relationship between the two may have been very constant from 1950 to 2012; but may not be constant going forward. Mr. White said a tremendous amount of distortions exist that state revenue forecasters are not identifying, so states that implemented more economically-targeted tax incentives, controlling whether they have more or less economic growth, have struggled with making accurate revenue forecasts, because of the uncertainty related to the amount of incentives being used, and when they will be used. He said a poor job of tracking incentives can throw off an entire revenue forecast, which could lead to a special session in order to figure out what is going on. Mr. White noted that structural issues will continue to exist because economically-targeted incentives are not going away.

Mr. White discussed the following idiosyncrasies, or once-in-a-lifetime events, in terms of how sales taxes have grown over the last two years:

- 1) Consumers have a tremendous amount of savings because of lower gasoline prices, lower heating prices, and lower prices in general, but they are not spending those savings. Going back to large decreases in energy prices in the commodity cycles seen in the past, never has it resulted in a large, short-term bump in consumer spending. Mr. White attributed part of the reason to the tremendous amount of uncertainty in the country's future fiscal and monetary policies. Additionally, the great recession produced a very risk-diverse generation. He said people aged 20 to 34 are not spending money the way their parents or grandparents did at that age, partially because people are getting married later, having kids later, and buying homes later. A bigger reason is tied to the recession, where this age group saw the outcome of underwater mortgages. He said people in the 20 to 34 age group are not willing to purchase a home until they have the 20% down payment and their student loans paid off. He said this behavior will affect the forecast over the near term; however, over the long term, it is probably a plus that they are spending less money than prior generations. Mr. White noted, until a happy medium is reached, more people will continue to hold on to the extra savings received at the gas pump.
- 2) The impact on the sales tax forecast stems from the assumption that a bump would transpire from gasoline taxes over the last one-and-a-half years, but that did not occur, and threw off a lot of forecasts. He said overall consumer prices per the Consumer Price Index (CPI) or the Personal Consumption Expenditures (PCE) Price Index, used by the Federal Reserve to measure inflation, is currently measured at 1.6 to 1.7%, which is much better than it was a few years ago when secular stagnation was a concern. Mr. White stated this is not the type of price growth expected at this point, seven years into the business cycle, but instead, inflation typically rises above the Federal Reserve's target at this stage, which triggers a rate increase to tamp down inflation, subsequently leading to another recession over time. Inflation has not risen above 2% yet, mainly due to the energy markets and the flow-through associated with that market. He reiterated that, even without a car, energy savings will filter its way down to everyone's wallet in some form or another, either through lower heating costs or in the price of goods that are purchased. Mr. White expressed that sales taxes are levied on a nominal basis, so even if consumers have more money in their pockets and are buying more absolute goods, if the taxable value of those goods is not appreciating, then sales taxes are not going anywhere.

Mr. White reinforced that the above reasons are why an overwhelming amount of states missed their sales tax forecasts over the last two years. Discussions with advisors at the National Association of State Budget Officers (NASBO) revealed that 34 or 35 states missed their sales tax forecast over the last two years, and some of them missed it by a good deal, mostly because of price changes in consumer goods and construction materials, which is why more people are building homes. He said those homes are not producing the same sales tax bump, because one unit of housing built today is not worth the same amount of money in sales tax generated a year or two ago. He noted that in the summer of 2016, lumber was down almost 12% year-over-year.

Mr. White indicated that over the last 30 years, consumer prices have never fallen as much at this point in a business cycle. He said most sales tax models in place are not built to capture this event; therefore, models used by Moody's Analytics were refurbished to change how they account for prices. He said price indices are used as an interaction term, and are used in Moody's sales tax forecasts. He said, although Moody's forecast shows a weaker sales tax forecast now than past forecasts, it is still significantly more aggressive than some of the forecasts that will be presented at this meeting. He stated that his forecast reflects great optimism, and urged major caution because of that.

Mr. White added context to his point, and directed the Forum to page 17 of the meeting packet ([Exhibit A](#)). He stated that before any price changes were added to the model used in the Moody's sales and use tax forecast, their forecast for FY 2017 was over 7%. Accounting for those price changes took the forecast down almost 0.75% in terms of year-over-year growth compared to just over 6% for FY 2016 (without the changes in price). He said actual data shows the percent change from a year ago is approximately 4.2%. Using those same variables that were available two years ago, Moody's backtested their model to see how they could hit that 4.2%, and the results of the forecast came in around 4.7% or 4.8%. He said incorporating those price indices will add significantly more accuracy to the sales tax forecast over the next few years, and alerted the Forum to be acutely aware of that going forward. Continuing, Mr. White said the Moody's forecast assumes those price changes are temporary, and in no way assumes low inflation is permanent, thus the forecast reflects stronger growth for FY 2018 and FY 2019 at 9% and 7%, respectively. He said that goes hand-in-hand with increased homebuilding, and expects to see continued increases in the labor force, which should relieve some of the supply constraints, bringing U.S. homebuilding back to approximately 1.5 or 1.6 million units per year. He clarified that number did not reflect Moody's forecast three years ago, but was probably 300,000 units higher than what is being built nationally today. He said there is still a significant amount of risk related to people buying homes, so the supply constraint ceiling might be lower than expected, which provides a significant amount of downside risk to this forecast. Another downside risk is the price of homes, so if secular stagnation occurs, where inflation does not rise much above 2% over the next several years and goods do not appreciate going forward, then the forecast will be much different.

Mr. White communicated that Moody's Analytics provides alternative economic scenarios to their clients, especially their banking clients. Assumptions play a key role in the forecast, and one wrong assumption can throw off the whole forecast. He said Moody's tries to provide as many different views of the world as possible to fit the proper risk profiles for their clients. He said they stress test revenue forecasts in certain states for secular stagnation to help understand revenues going forward. Mr. White explained that when Moody's used the S-5 scenario for their sales tax forecast, which is a secular stagnation similar to what Japan experienced in the 1990's, the 9% sales tax forecast fell to approximately 5% due to assuming minimal increases in the price of goods, the minimal increase in construction and housing, and weak construction growth. Again, he placed caution with Moody's sales tax forecast going forward.

Mr. Maddox referred to page 15 ([Exhibit A](#)), a chart that shows increasing spread in prices comparable to goods and services, which relates to dollars spent by consumers. He said the spread appears to be widening at a very rapid pace with consumers spending more money on services than goods. He asked if he was interpreting the chart correctly.

Mr. White concurred, but stated the chart was also showing the change in prices over time for both goods and services.

Mr. Maddox relayed that even if the amount of purchased goods and services remained the same, the price of services is going up and the price of goods is stagnant, so more money is going to services. He asked how that would factor into Moody's sales and use tax forecast if the gap in pricing continued to widen, with more dollars going to services. He asked if that was already taken into account in Moody's forecast.

Mr. White stated his forecast does take Mr. Maddox's concern into consideration, mostly because consumer preferences are not expected to change much. In terms of the number of services versus the number of goods, the Moody's forecast assumes that goods prices will begin to recover as inflation rises, especially in energy markets. Mr. White said as the price of oil comes back, prices increase, which narrows the gap going forward. He noted that assumption has a lot of risk to it.

Mr. Leavitt conveyed that current articles imply that automobile manufacturers are expecting substantially lower sales than in the past several years, and asked how that relates to Nevada specifically, since auto sales are a significant component of Nevada's sales tax.

Mr. White replied that Moody's expects all sales in general to cool significantly over the next several years, which again, is attributed to the location in the business cycle. He said interest rates are going to increase over the next several years, and in regard to the replacement cycle, a large amount of auto sales is not anticipated over the next several years. However, in terms of how that is captured in the sales tax model, Mr. White explained that Moody's tests for specific explanatory variables that get included in the model, and vehicle registrations are always included because of the absolute number of taxes that come from vehicle sales and because vehicle registrations are a great proxy for large durable goods purchases in general. His justification was, if you can buy a car, you might be in a position to buy a new refrigerator or a boat or something else that is large in durable goods. He said when the model is run against Nevada sales taxes, it consistently shows up as being insignificant. Mr. White clarified that automobile sales do make an impact on the forecast, but not enough in conjunction with the other variables used, such as disposable personal income, U.S. recreation spending or homebuilding, to influence the forecast one way or another.

Mr. Leavitt stated that, measured by the number of people employed in construction, Nevada has seen a fairly good rebound in construction, which is reflected in the construction component of sales tax. However, total sales tax shows less growth than what was estimated two years ago, meaning the components other than construction

are not doing as well as expected. He asked where construction was headed in Nevada over the next two years.

Mr. White proclaimed that the value of construction being put in place has disappointed, because the amounts and costs of durable goods purchases going into the construction activity is not worth what it was three years ago. Looking at overall construction activity, Nevada is building at its late 1990's pace. Mr. White said his forecast assumes an increased pace of building comparable to the early 2000's, and that it never assumes prerecession peaks. Even with high demand, he said there is no indication that homebuilding in Nevada would ever physically meet prerecession peaks, nor would we want it to given what happened during the great recession. The Moody's forecast is much more moderate than if statistical relationships from the past were included. For example, three years ago, Moody's national forecast projected approximately 1.8 million units of housing would be built based off their assumption of demand. Mr. White said the models were right, but the models did not know what the supply constraints were relative to homebuilding, which is not built into the historical relationships. Therefore, manual adjustments were made to those equations to better fit the new reality. He relayed that he believes there will be a significant increase in building over the next two years, with a higher value of construction than seen over the last two years. Mr. White noted there is significant downside risk to what those supply constraints will levy on the housing market going forward.

Ms. Rosenthal referred to the sales and use tax forecast on page 17 ([Exhibit A](#)), and recalled Mr. White's mention of forecasts for FY 2016 and FY 2017 being lower than what the model originally generated, because of factoring in the declining base. She pointed out that he also mentioned he did not expect the declining base to be sustained forever, and that prices were expected to rise. She asked if that assumption was reflected in this forecast for FY 2018 or FY 2019, and if not, at what point did he expect prices to come back.

Mr. White replied that prices are presumed to come back in FY 2018. He said in terms of monetary policy, meaning only looking at inflation, the position in the business cycle is not at a point where the Federal Reserve needs to raise interest rates based solely on inflation alone; however, with peak employment and increased wage growth, adjustments need to be made to the interest rates to control inflation. He said the purpose of increasing interest rates is to try and temper that scenario as much as possible to avoid bubbles from building in the economy. Mr. White reiterated that the U.S. is in year seven of the business cycle, and if we make it to the end of FY 2019 without going into another recession, it will be the longest period of expansion in American economic history. To clarify, Mr. White said business cycles do not have expiration dates, and many recessions over the last twenty years were self-inflicted. He explained that a recession means there are imbalances in the economy that burst, also known as bubbles, and although he did not see a cause for a recession on the immediate horizon, it was quite possible to have one over the next two to three years.

Mr. White elaborated on S-5 (secular stagnation) and S-3 scenarios. He said the S-3 scenario is the most likely recession scenario currently on the horizon. The S-3 scenario assumes that the Federal Reserve is too lax coming out of the

business cycle and that they left things sit too long, because there are no inflationary pressures. For example, futures markets predicted an 80% chance of a federal rate hike in December 2016 on Monday, November 7, 2016, and as of this meeting, they were already down to a 70% chance and falling. Mr. White said if the Federal Reserve does not raise rates in December 2016, to position themselves for when inflation accelerates out of control, they will have to raise interest rates very quickly, which has the potential to invert the yield curve and send us right back into another recession. He speculated the next recession could occur in approximately two years, because inflationary pressures do not seem to be building quick enough to get there in the near term. He added, a bump in interest rates now would help postpone the rate of inflation in the future. Without the bump, the Federal Reserve will lack ammunition to fight our way out of the recession, to ease the next recession. Mr. White said, in terms of fiscal policy, according to the Congressional Budget Office (CBO), by the end of Donald Trump's first term, if nothing changes from current policy, 93 cents out of every federal tax dollar will go toward entitlement or interest, which will leave very little for any type of fiscal stimulus to help us out of the next recession. He said actions taken by the Federal Reserve relates directly to Moody's price forecast over the next several years.

Mr. Leavitt asked how Nevada's sales tax base compared to economic activity over the last ten years. He asked how Moody's captured economic activity through sales tax.

Mr. White asked Mr. Leavitt if he was referring to sales tax as a share of gross state product.

Mr. Leavitt concurred. He clarified that a portion of total economic activity is captured through sales tax, and asked if the portion captured through sales tax was going up or down over the last ten years or remaining constant. He was curious as to how well Nevada's sales tax is doing in relation to the economic activity of the state, or personal income in the state.

Mr. White stated he did not know, that he would have to review the data. He said Moody's has worked with several states in performing studies to see how well their tax structure is doing in general (not just sales taxes) relative to keeping up with the rest of the economy. He said there is a disconnect nationwide between economic growth and tax growth, and that many states are not doing a good job capturing their economic activity.

Mr. Leavitt repeated his concern that employment, wages, and construction numbers are all up, yet sales tax is growing at a slower rate than anticipated and other components are growing faster than anticipated, relative to the Forum's May 2015 forecast.

Mr. White stated there are two ways in which the economy and taxes can fall out of sync with each other: 1) The type of goods being purchased, the split between services versus goods. He relayed one of the reasons more states rely on personal income taxes rather than sales taxes is because personal income taxes capture services better than they capture goods-producing industries, and 2) The source from where services and goods are being purchased, such as out-of-state and online vendors. He said

Moody's looked at taxable sales data by industry code to determine where people are buying from, including non-store retailers, and found that more online sales were being captured and taxed than one would think. He noted the deal made with Amazon to capture online sales tax made a positive impact, but not a game-changing impact. Mr. White said this is an issue that should be studied structurally at the state level, and suggested the Forum advise the Legislature to request a study to make sure things are looking right.

Mr. White moved on to discuss his Gaming Percentage Fee forecast. He said the story has not changed much, that his forecast looked much like the other forecasts. He said given the dynamics and underlying fundamentals, and what is coming out of the models, an approximate 2% increase in percentage fees revenue for FY 2017 looks to be about correct. Mr. White called his forecast conservative based on the structural break in terms of what visitors are spending their money on in Nevada. He said gaming options are offered all over the country as opposed to ten years ago when Las Vegas and Atlantic City were the major gaming destinations. He commended the state, Las Vegas in particular, for diversifying its entertainment options to capture the money they are losing in gaming revenue, which will trigger sales tax and tax on live entertainment to grow at the expense of gaming percentage fees. Mr. White referred to his forecast on page 19 ([Exhibit A](#)), and acknowledged the peak years of the business cycle, which shows a 2.71% increase in gaming percentage fees for FY 2017 and 2.48% increase for FY 2018. He justified that people will have more disposable income to spend in those years, given where we are in the business cycle. Mr. White also shared there are more downside risks than upside risks, especially given the election results. He verbalized that President-elect Trump needs to clarify his stance in terms of international trade as quickly as possible, specifically with Asia-Pacific and China. He reached out to Mr. Maddox for comment, since a tremendous amount of gaming revenue comes from Asia, especially in terms of baccarat.

Mr. Maddox stated he was in no position to forecast President-elect Trump's relationship with the world and how it will impact baccarat in Nevada.

Mr. White envisioned a bright future for Nevada over the next two to three years, and made it known that Moody's baseline forecast did not assume a recession anytime in the next three years; however, he expressed an increasing likelihood that one could happen. He reiterated that all the risks relative to his gaming percentage fee forecast are downside risks, and encouraged the Forum, as revenue forecasters, to be as cautious as possible in terms of the out-year assumptions for FY 2018 and FY 2019 in case of another recession. He said it would be a very difficult time for any state, let alone one with as much revenue volatility as Nevada, to be making a revenue forecast.

Mr. Maddox agreed, and stressed that almost all of the investment going into the Las Vegas Strip is in non-gaming. He said Wynn Resorts continues to diversify, and their customers continue to spend more of their wallet on non-gaming. He agreed the Forum should be very cautious when adopting a forecast for the percentage fees tax revenue source.

Chairman Wiles inquired about forecasting oil prices.

Mr. White reported the energy industry hit bottom based on the total amount of investments in the ground and rig counts. He said Moody's baseline forecast assumes that the West Texas Intermediate (WTI) benchmark will get above \$60 per barrel by the beginning of calendar year 2018, and will proceed to \$65 to \$66 per barrel with a long-term sustainable price somewhere in the \$65 to \$70 range. He recognized the U.S. as a marginal producer that determines the price of oil, and depending on geographical location, some areas of the country have lower break-even points than others. North Dakota and Texas break even at the \$45 to \$50 per barrel range and shale oil in New Mexico, Colorado and Utah breaks even at around \$65 per barrel.

V. PRESENTATION ON THE STATE EMPLOYMENT OUTLOOK.

*Bill Anderson, Chief Economist, Research and Analysis Bureau,
Department of Employment, Training, and Rehabilitation*

Mr. Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division announced that Mr. Anderson's presentation is a separate handout from the meeting packet.

Mr. Anderson said his presentation included an overview of Nevada's labor market and a very broad overview of the economy. He said the two broadest measures of economic activity in the state are GDP and personal income growth. Nevada's level of economic activity has been on the rise consistently over the recovery period and outgained the nation in terms of its overall economic growth in 8 of the past 9 quarters. Personal income growth in Nevada has increased 24 of the past 25 quarters and exceeded the nation in each of the past 10 quarters (page 3, [Exhibit B](#)).

Mr. Anderson reported that Nevada's wages have been at record-high levels for the past several quarters. First-quarter data for 2016 revealed average weekly wages of approximately \$875, close to 1.2% over a year ago, and second-quarter data showed wages up approximately 2.5% over a year ago. Compared to underlying inflation, measured by the CPI, wages grew approximately 1.4%. Mr. Anderson pointed out the fourth-quarter spikes, shown on the wage chart on page 4 ([Exhibit B](#)), stating they were attributed to workers that received year-end bonuses, thus the reason to make comparisons year-over-year versus quarter-to-quarter that are not apples-to-apples comparisons.

Mr. Anderson noted that September unemployment reflected a significant downward spike from 6.3% to 5.8%, which reversed a similar upward spike that occurred a few months prior. He clarified that many of the monthly numbers are estimates that are adjusted year-end and eventually level out. He also noted that Nevada's unemployment measured 4.5 points higher than the national average at the height of the recession and is now 0.8% higher, the smallest gap seen over the course of this recovery.

Mr. Anderson referred to the unemployment rates on page 6 ([Exhibit B](#)), and conveyed the rates are released monthly, as he focused on the comparisons between the U-3 and U-4 rates. He explained that discouraged workers are added into the rate when

jumping from U-3 to U-4, which adds about 0.4% to the overall unemployment rate. More importantly, approximately 6,000 Nevadans who are classified as discouraged workers and have fallen out of the labor force are comprised in the U-4 rate, down from about 18,000 discouraged workers at the height of the recession. Similarly, the U-6 rate that includes part-time workers includes nearly 75,000 Nevadans, down from about 105,000 to 110,000 at the height of the recession. Point being, all measures of unemployment in Nevada have seen improvement over time.

Mr. Anderson acknowledged a concerning trend in the labor force participation rate (LFPR), which has trended down over time, as it has nationwide. He said two things were at play: 1) as baby boomers transition into their retirement years, they drop out of the labor force, known as a structural trend, which cannot be controlled, and 2) a cyclical pattern occurs as the economy heads into a recession, people drop out of the labor force because they become discouraged and give up on their search for work. Mr. Anderson pointed out that, over time, those measures of the labor market activity have declined, and was not specific to Nevada. Evidence suggests the reason for the decline is a 50/50 split between structural and cyclical trends.

Chairman Wiles asked for a definition of structural decline.

Mr. Anderson replied the structural decline relates to those baby boomers aging into retirement; the structure of the labor market playing out.

Mr. Anderson indicated long-term employment at its peak measured approximately 7%, which totaled 90,000 Nevadans who had been out of work for at least six months. Currently, that rate equates to approximately 20,000 people, at 1.5%, measured in a 27-week timeframe. He said the number of claims filed for unemployment is the lowest seen in ten years, which has been trending downward since 2010. The Department of Employment, Training, and Rehabilitation (DETR) reported that recent filed claims totaled 9,500 per month compared to 30,000 claims per month at the height of the recession. Mr. Anderson clarified that 26 weeks is the maximum time period for which unemployment insurance benefits can be collected, and reported that 40% of people exhausted their benefits before finding another job in 2016 compared to 65% of people during the recession (page 10, [Exhibit B](#)).

Mr. Anderson affirmed that close to 190,000 jobs were lost as the recession unfolded, and stated that per an announcement made by the Governor at the Governor's Conference on Business, Nevada has regained all the jobs lost during the recession, which took about six years to reclaim. He said in terms of underlying growth, jobs grew at approximately 35,000 jobs on a year-over-year basis, and in percentage terms, jobs grew at approximately 3% year-over-year. To add historical context, Mr. Anderson communicated that prior to the recession, for a year or two, Nevada jobs grew at approximately 60,000 jobs per year, or 6%. He noted that moderate and broad-based growth would be more sustainable, especially in the event of another economic downturn.

Mr. Anderson mentioned structural trends in the job market. He said monthly and quarterly reports issued by DETR reflect net growth, and take into consideration tens of

thousands of market transactions, including people getting jobs, losing jobs, quitting jobs, etc. He said before DETR can determine the net growth, they compare gross job gains to gross job losses, which shows positive growth in 21 straight quarters (page 13, [Exhibit B](#)). He said DETR has the capability to capture the number of new jobs created from business openings and jobs lost from business closings, and the net difference between the two resulted in positive growth in each of the last 17 quarters. He concluded that the underlying fundamentals in the labor market are encouraging.

Mr. Anderson claimed that Nevada's job growth has outgrown the nation in 50 straight months. Going back to 2010, job growth was observed in every sector; however, mining struggled because of downward pressure on gold prices over the last several years. He said historical drivers such as leisure and hospitality are still contributors to Nevada's economy, along with other broad-based industries, specifically trade, transportation and utilities; professional services; education; and health care services. Those drivers combined with moderate growth will help Nevada weather future downturn.

Mr. Anderson recognized DETR's Research and Analysis Bureau for their research into the quality of new jobs in Nevada as a result of numerous complaints implying that the new jobs created are minimum wage, dead-end jobs. He confirmed that it is not possible for overall average wages to increase as a result of adding all new part-time, minimum wage jobs. Additionally, the Current Population Survey (CPS), combined with labor market status of the state's population, shows that part-time jobs held steady during this recovery and job growth was generated from adding full-time positions. Mr. Anderson told the Forum that DETR partnered with the Nevada System of Higher Education and formed the Silver State Solutions Initiative, a client service portal for job training, to coordinate job-training efforts. As part of that initiative, the partnership has access to information relative to all online job postings for all states, which is viewed from a full time/part-time perspective with access to approximately 110,000 job ads over the past year. He reported nearly 90% of the job postings were for full-time jobs. In regard to earnings for new jobs versus vacated jobs, analysis found there was a minimal difference between the wages. The conclusion relative to replacing high-wage jobs with low-wage jobs could not be supported by DETR. He said another piece of evidence, charted on page 21 ([Exhibit B](#)) of his presentation, showed Nevada's new-hire wages compared to all other states lands in the middle at about \$2,600 per month. Mr. Anderson stated the type of jobs that Nevada is gaining are fairly good in terms of quality, and reflect solid job growth in the mid- to high-paying jobs, especially in the Reno area.

Mr. Anderson reiterated that overall fundamentals are very encouraging, the unemployment rate is cut by more than half, jobs lost during the recession have been regained, and Nevada wages are growing. He said another 90,000 jobs are expected to open up over the next 2 ½ to 3 years at an underlying growth rate of approximately 30,000 to 35,000 jobs annually. The construction sector is growing at about 10%, and exhibits the strongest growth of all our sectors. After losing approximately 100,000 construction jobs during the recession, by the end of 2019, approximately half of those jobs are expected to return to that industry. Mr. Anderson stated well-publicized economic development projects, both in Northern and Southern Nevada, have made an

impact on manufacturing employment, and that by 2018, record levels of manufacturing jobs will be attained. Retail trade is expected to continue growing, adding close to 2,000 jobs annually. Health care jobs are projected to add approximately 4,000 jobs on a year-over-year basis, and accommodations and food service jobs should add close to 20,000 jobs over the course of 3 years. Mr. Anderson implied that Nevada's unemployment rate should be registering in the low 6% range by the end of 2016 and possibly the low 5% range by the end of 2018, as a result of job growth expectations.

Mr. Leavitt asked Mr. Anderson to expand on assumptions relative to the national economy that may have impacted DETR's growth projections for additional jobs over the next couple of years in Nevada.

In response, Mr. Anderson said DETR looks at how things unfolded over time on a national level, but more importantly, they take into account known activity in Nevada. He said numbers relative to Tesla and Faraday Future were factored into DETR's projections, but not until the Forum's next meeting in May 2017 would they have a handle on what is taking place in Southern Nevada as it pertains to the convention center expansion and the possible new football stadium, both important drivers of their forecast. To elaborate on his projections, assuming a normal business cycle, he uses historical data, extrapolates that data forward, and adds in known activity for new projects.

Chairman Wiles stated that Nevada's job growth rate experienced dramatic deviation between prerecession times through the post-recession recovery period. He said the volatile pattern indicates that when the economy is good, people have discretionary income and travel to Nevada and spend their money, but when things get tight, the economy dries up very quickly, which is expected in an area that offers a luxury good such as Las Vegas. He stressed the importance of diversifying the economy, not only the internal diversification efforts on the Las Vegas Strip to provide different entertainment outlets, but also across the state in terms of manufacturing, to the extent that the broad-service base helps the state employment remain flat in another economic downturn versus suffer the huge highs and lows experienced during the recession.

Mr. Anderson said it took Nevada three years to go from the top to the bottom in job growth, whereas North Dakota, a booming region concentrated in energy markets, went from the top of the job growth rankings in 2014 to the bottom in 2015; another reason not to have all your eggs in one basket.

Chairman Wiles requested that Mr. Anderson provide a graph showing average family income in the state over the last ten years at his next presentation to the Forum.

Mr. Anderson acknowledged the chair's request.

VI. PRESENTATION ON THE STATE POPULATION OUTLOOK.

Jeff Hardcastle, State Demographer, Department of Taxation

Mr. Hardcastle stated his intent was to discuss the high points of the population projections that were released October 1, 2016, which are done annually and fluctuate from year to year. His presentation would encompass the differences between the 2014 and the 2016 population projections.

Mr. Hardcastle said the release of the 2016 population projections prompted him to look back at the housing bubble for the following reasons:

- 1) To determine the population outcome if the housing bubble never occurred. Mr. Hardcastle recognized the Regional Economic Models, Inc. (REMI) model as his forecasting tool. He explained that he specifically used the REMI 2000 model, which has less history prior to 2000, and ran it forward with the underlying economic activity through the hotel and gaming sector, mining activity in the state, as well as his baseline projections. Subsequently, he moderated any kind of recession activity that happened around 2009 or 2010, because without the housing bubble, there may not have been a financial collapse.
- 2) To determine the outlook of construction activity from 2007 (peak employment), going forward, if the financial mechanisms or other stimulus to demand did not occur, and how that would have impacted construction jobs going forward. Mr. Hardcastle also looked at different ways construction job growth could have been stimulated going forward, using the 2014 model that includes history from 2013 and going forward. He did a set of all things being equal, and ran a different set of iterations to determine that outcome.

Mr. Hardcastle said he will review overall state projections and focus on near-term growth for 2019 and 20-year projections going forward to show how they compared over time. Finally, he would present cautionary information that pertains to the 2016 estimates.

Mr. Hardcastle said demand in the housing market is being distorted by the shift of people transitioning from a single-family detached, owner-occupied unit to a single-family, detached, renter-occupied unit. He relayed there is uncertainty regarding what constitutes the number of occupied units. For example, in 2015, statewide, the Department of Taxation estimated there were 1,092,000 plus occupied units; the Census Bureau estimated 1,072,000 occupied units; and the American Community Survey (ACS) data, released in September of 2016, revealed an estimate of 1,042,000 occupied units. He noted the ACS is a survey done by the Census Bureau that incorporates a much different sample and sampling size than the CPS, and gives a different picture relative to what he will be discussing.

Mr. Hardcastle voiced concern regarding pent-up local demand. He explained that underwater housing units still exist, and although equity is rising in those units to levels that are technically not considered underwater mortgages, those homeowners' price expectations are much higher relative to the value of their home. Compared to the rest

of the country, Nevada has a high percentage of people who purchased during the 2000 to 2009 period that are still occupying those units. He said housing prices peaked in that time period at approximately \$440,000, thus the high price expectations. He said another concern that affects sales tax is strategic defaulting, where the borrower stops making payments on a debt and views the freed-up income as discretionary income as opposed to resolving their housing situation.

Mr. Hardcastle said the housing bubble is about a number of factors, including the jobs lost and the impact on people who were unemployed and dislocated, but also the excess capacity of private and public infrastructure. For example, he brought attention to underutilized commercial real estate in Reno and Carson City and vacant homes that have been empty for years due to overbuilding prior to the recession. He said counteracting the underutilization of infrastructure is the refurbishing of dilapidated properties. He said developers tend to make their money by building new projects; however, incentives exist that gear toward expansions and repurposing old sites.

Mr. Hardcastle moved to the chart on page 26 ([Exhibit A](#)) that illustrates three “what if” scenarios pertaining to the real estate bubble. He explained the 2016 baseline forecast (red line) is made up of historical numbers and current projections. The green line represents what would have happened if construction activity only responded in the model to the underlying increase in gaming employment, gaming investment, and mining activity and employment going forward, and the purple line represents 2007 going forward, if the housing situation simply wound down as other economic activity happened within the state. He said the result showed some loss in construction jobs, but a loss of approximately 10,000 jobs over two or three years followed by a slower decline. He implied that over the long term, the purple and green lines converge and settle at the same level of jobs. Furthermore, the impact rippled out to the rest of the economy and caused a substantial amount of job loss. (Mr. Hardcastle acknowledged the Bureau of Economic Analysis [BEA] as his data source.) Mr. Hardcastle said if you look at the economic activity that he tried to model as an alternative what if scenario, the state probably would have been ahead by 130,000 jobs by 2006 than would have been warranted by underlying activity at that time. He noted there was a very big, booming bubble going on at that time.

Mr. Hardcastle called out the illustration on page 28 ([Exhibit A](#)), a charting of Internal Revenue Service (IRS) state-to-state migration data that captures annual change in employment, relative wage and housing. He said the IRS identifies where the taxpayer filed their tax return and compares it to their current residential zip code. He explained that the chart tracks by the number of filers and does not show exemptions, and is an indicator of migration and the flow of population. He clarified that the solid red line on the chart represents the people moving out of Nevada; the solid green line represents people moving into Nevada; the solid black line shows net job change year-to-year; the tan bars show relative wages compared to the country; and the purple bars show the relative housing price, using the REMI forecasting model. He said the 1990’s demonstrated an increase in out-migration as housing prices started to slightly exceed relative income, and as jobs increased and income picked up above housing prices, out-migration leveled out over the long-term average. From 2004 to 2007, out-migration picked up again with the increase in housing prices. Mr. Hardcastle theorized that

people who worked in lower-wage jobs may have been pushed out of Nevada in response to their search for other job opportunities. He identified a relationship between the increasing housing prices and outflow migration.

Mr. Hardcastle reported that in-flow migration was more responsive to year-to-year job changes. For example, during the recessionary years, job increases in the health care industry were apparent. He said the BLS shows that Nevada's wages relative to healthcare providers is one of the highest in the country, which could be linked to recruitment issues. The people migrating to Nevada seem to comprise the skillsets that are in demand for sectors that are lacking in Nevada's workforce. Mr. Hardcastle noted that his research shows job growth and people moving into the state to fill those jobs, as these offsets occur in the different industries. He noted job losses do not always equate to people moving out of the state, it also equates to people moving in for job demands.

Mr. Hardcastle said the employment scenarios that he ran were merely to increase population, to tell the forecasting model to bump the population in order to drive up housing demand and construction growth. Additionally, scenarios were created to tell the forecasting model there were not enough housing units in the market to allow for people to transition from owner-occupied to renter-occupied or to accommodate people moving into the area. Mr. Hardcastle said he focused on increasing overall capital stock to increase affordability. He also increased wages to national levels to see if that would increase housing demand. However, he found that the sectors in Nevada that are inclined to offer lower wages than the national average tend not to have a lot of jobs in them at this point. The sectors where Nevada wages exceed the national level employ a lot of people, such as gaming, where Nevada wages are much higher than the gaming and hotel jobs nationally.

Mr. Hardcastle said he only looked at just increasing non-construction employment to extremely high levels without increased demand in housing, and the biggest negative outcome was the increase in housing prices. As land and housing prices increase, a ripple effect occurs, causing out-migration, less demand for housing, less spending, etc. He said as housing prices decrease, population increases. He reiterated that even though Nevada's wages are slightly lower than the national relative rate, as our housing prices decrease, it makes the area become more competitive, which triggers in-migration and excess spending on consumer goods and services (page 29, [Exhibit A](#)).

Mr. Hardcastle said his population projections for 2014 and 2016 include the Tesla analysis in the baseline forecast and another forecast that looks at different scenarios that are relevant at this time, along with other factors that are considered prudent data. With the baseline forecast, he updated employment history in the model, because the model is prebuilt with the latest history available from the different federal fiscal agencies and usually lags about one to one-and-a-half years from current time. He also assumes in the baseline forecast and other scenarios that mining employment will not drop below historic average levels. Because mining employment dropped below those historic levels, specifically using Eureka County as an example, Mr. Hardcastle used mining statistics at or above levels measuring from 2000 to 2014 to address the ups and downs experienced in the mining counties. He said his baseline forecast also included hotel growth, because it is known activity reported by the Las Vegas Convention and

Visitor's Authority. Relative to Tesla in 2014, he used information released by the Governor's Office of Economic Development. However, for 2016, Tesla's buildout and employment levels did not match up to their 2014 projections, so he added in manufacturing jobs to Storey County as a straight-line trend through Tesla's contracted level of jobs that they are supposed to have by 2024, including their projected wage levels.

Mr. Hardcastle relayed that a developer is looking at putting in a 3,000-unit housing development in Storey County, because currently there is no housing near the Tesla site, so workers have to commute from areas such as Lyon County or the Reno area. He noted that, at this time, that project has not gone forward, but when it does, it will help lower housing prices within Washoe and Lyon counties.

Mr. Hardcastle explained that for model purposes, he delayed Faraday Future employment projections by one year, because site preparation is only at the grading stage. Additionally, he made adjustments to the relative housing price in his model as a one-time housing shock in 2017 to account for potential housing shock that may come into play.

Mr. Hardcastle provided that population projections for Clark County show a baseline forecast of 1.3% growth through 2019, going forward from 2015. When considering the housing price shock scenario, and depending on how Faraday Future progresses, Clark County population growth is forecasted at just under 1%. Washoe County's baseline population is projected to grow between 0.5% to 1.0% between 2015 and 2019. He said the balance of Northwestern Nevada, including Lyon, Storey, Carson City and Douglas counties is estimated to grow its population less than 0.5% through 2019, and the balance of the state is forecast to lose population at -0.7% each year through 2019 (page 31, [Exhibit A](#)).

Mr. Maddox asked what the estimated statewide population totaled was for 1996, 2006 and 2016. He wanted to compare those estimates to initial job claims at 9,400 in September 2016, the lowest claims since 1996, to the state's population in 2006.

Mr. Hardcastle stated he did not have that information, but would be happy to prepare a submittal through Mr. Guindon to the Forum.

Mr. Maddox asked if more people resided in Nevada prior to the recession than now.

Mr. Hardcastle replied there are more people residing in Nevada now versus 2006. He said statewide growth is currently 1.5% and varies by county. He stated population growth occurred during the recession, driven by migration and natural increase. In comparison, the 2000 to 2005 period experienced 21% growth in population and the 2010 to 2015 period faced 7% growth. Although there was less growth projected in more recent years, the baseline projections in Clark County still average increased population by approximately 15,000 per year, which is roughly the population of Boulder City, Nevada. In comparison, he said Washoe County's projected average population growth is equivalent to the Town of Hawthorne.

Mr. Maddox questioned if it was a fair comparison to look at the labor forecasts before that had initial jobless claims at 9,400 (the lowest since 1996), and not compare it to population in 1996, but to compare it to the actual employment base. He said, as a percentage, initial claims are significantly lower today than they were in the boom times in 2007 and the 1990's.

Mr. Hardcastle understood Mr. Maddox's argument, stating the denominator for 1996 would be lower; therefore, the unemployment claims would be even lower given that denominator. He agreed that was a fair statement. Mr. Hardcastle asked if the Forum wanted actual numbers to support that concept.

Mr. Maddox stated a submittal was not necessary.

Bill Anderson from DETR testified before the committee that DETR looks at claims on a per job basis, and has done that for decades. He reported the level of claims are nearly identical, in structural terms, to its historical average, measured on a per job basis. He acknowledged the spike in claims during the recession, but stated the number of claims are not at historical normalcy. He stated claims are very much in line with where you would think they would be.

Mr. Maddox stated that using jobless claims on a per job basis as the denominator versus population made more sense.

Mr. Hardcastle moved on to elaborate on employment comparisons between the 2014 and 2016 projections. Based on the Tesla announcement in 2014 compared to 2016 projections, including historical data through 2013 and estimates for 2014, 2015 and 2016 using BLS data versus the BEA data, in the near term, Southern Nevada is outperforming 2014 job projections and Northern Nevada is underperforming those projections. He did not doubt that Tesla and some of the other ventures have a lot of promise; however, he stated that projections are always made off of assumptions from information in hand at that time (2014). He said some of that information has changed over time given reality and how the economy has actually moved and changed. Mr. Hardcastle reported that Northern Nevada experienced large gains in the transportation/warehousing industry along with the management, firms and other enterprises sector, which has been consistently increasing in Nevada. He noted that he is trying to get a better understanding of what is driving that sector. He also informed the committee that Tesla announced the hiring of another 200 people above their previous level, so they are starting to increase employment as they go forward.

Mr. Hardcastle explained that the 2011 Legislature implemented a change to perform population projections annually versus every two years. He referred the members to the table on page 33 ([Exhibit A](#)) that shows the history of population projections dating back to 2002. He said projections peaked in 2006, given the economic activity at that time, because Nevada was outperforming the rest of the country in job growth; thus the aggressive population growth projections. He said, over the long-term, Nevada is settling in more toward the 400,000 figure in population growth over the next 20 years. He clarified that some of the population shifts around between the counties, which was seen more in Northern Nevada in 2014, but now it is occurring in Southern Nevada.

The rural counties are seeing near-term loss, but flattening out, specifically in Nye and Elko counties. He said even though these numbers are low by Nevada standards in terms of growth rate for overall population, signs still show growth the equivalent of Boulder City or Hawthorne Nevada. He noted the growth numbers are not small, just smaller numbers given the state's growth history, especially in the 1990's.

Mr. Hardcastle said he does two independent estimates, a housing-based estimate and a regression-based estimate. He said the regression-based estimate looks at three key variables, including employment, labor force and school enrollment (page 34, [Exhibit A](#)). The Job growth variable uses BLS data, ranging from September 2015 to September 2016, and reflects 2.7% job growth. The labor force variable shows almost negligible labor force growth, and the school enrollment growth shows 0.6%. He said he tried to square the labor force and school enrollment variables with the job growth numbers, because if there is growth in jobs, then some other economic activity must be providing growth in the labor force and school enrollment. Mr. Hardcastle explained that the labor force is a combination of employed and unemployed, and that it was possible to have restrained labor force growth but still have job growth, because of the shift from people being unemployed to employed. Referencing the ACS data, which is different from the CPS data used by DETR, the peak employment in 2007 shows some loss in the construction sector; however, it was still the peak of employment nationally and in Nevada. Mr. Hardcastle said if you look at the percentage of people employed, and apply that percentage by age cohort, you will find that through 2015, the latest year data is available, that Nevada still had an underemployment situation at that time (2007). He noted the shift from the number of people being unemployed or underemployed to being employed could be a contributing factor to the restrained growth in the labor force. To further research, Mr. Hardcastle used the ACS data to estimate the employment situation using part-time work variables and number of hours worked variables. Results showed a growth in population aged 16 to 64, that in 2008, of the people working year round, 9.7% were working part-time (15 to 34 hours per week), and by 2015, that percentage increased to 14.5%. He said there was a state of lag through 2015, but if the trends hold, more part-time workers and/or unemployed are expected to shift into more full-time jobs as job growth increases.

Ms. Lewis said she appreciated the commentary regarding the housing shock and indicated Lewis Homes is starting to see substantial increases in land costs and fees as well as the time it takes to get product on the market, which is a substantial carry cost that adds significantly to the price of the home. She assured the housing shock is significant compared to wage growth, and thought fewer people would be purchasing new homes. She admitted there was still some hangover in the real estate market, and although different projections have been communicated based on utility bills, no one really knows how many empty houses are in Northern or Southern Nevada.

Chairman Wiles expressed his gratitude to Mr. Hardcastle for his depth of knowledge and detail regarding the data and thought process relative to the components and timing of the projects coming on board. He regarded Mr. Hardcastle's research as a scientific estimate of this component.

Chairman Wiles called for a recess at 11:28 AM.

The meeting reconvened at 11.40 AM.

VII. PRESENTATION ON HISTORICAL TAXABLE SALES AND GAMING MARKET STATISTICS.

Mr. Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division acknowledged the historical taxable sales and gaming market statistics charts updated by the Fiscal Analysis Division and posted on the Nevada Legislature website prior to each Economic Forum meeting. The charts are not provided in hard copy; however, depending on any comments, questions or discussions during the meeting, staff has the ability to access them if needed.

VIII. REVIEW AND DISCUSSION OF PRELIMINARY FORECASTS OF MAJOR GENERAL FUND REVENUES FOR FY 2017, FY 2018, AND FY 2019.

- A. Gaming Percentage Fee Tax**
- B. Live Entertainment Tax – Gaming**
- C. State 2% Sales Tax**
- D. Insurance Premium Tax**
- E. Modified Business Tax**
 - **Nonfinancial Institutions**
 - **Financial Institutions**
 - **Mining**
- F. Real Property Transfer Tax**
- G. Commerce Tax**
- H. Cigarette Tax**

Mr. Guindon made a request to take Agenda Item G (Commerce Tax) out of order, and proceeded to explain the tables included in the Economic Forum packet that would be referenced throughout this agenda item. He referred to TABLE 1 (page 39, [Exhibit A](#)), actual fiscal year-to-date collections, as well as the last four years of fiscal year history for each of the General Fund revenue sources; TABLE 3 (page 49, [Exhibit A](#)), which lists each of the General Fund revenue sources that include forecasts by the Agency, the Budget Division, the Fiscal Analysis Division, and Moody's Analytics (sales and use tax and percentage fees tax only); and TABLE 4 (page 57, [Exhibit A](#)). He pointed out that TABLE 4 is also printed on green paper and can be found outside the packet for convenience purposes.

Mr. Guindon guided the members to the Commerce Tax forecasts on the second page of TABLE 4, and explained that all of the forecasters (Agency, Fiscal and Budget Divisions) had entries of \$176.5 million for FY 2017 and \$160 million for FY 2018 and FY 2019. He said the forecasts were placeholders for this meeting only, and that preliminary forecasts were not generated due to time restraints. He said the timing of

the tax's due date, combined with the Department of Taxation's ability to record and compile reports to the various forecasters, did not allow time for the forecasters to perform their analysis and generate forecasts. Staff made the time allocation decision to concentrate more on the major revenue sources that totaled hundreds of millions of dollars versus the new Commerce Tax that might net \$80 million to \$100 million. Mr. Guindon reassured the Forum that a consensus forecast by the Budget Division (Budget), Department of Taxation (Taxation) and the Fiscal Analysis Division (Fiscal) will be presented to the Forum for consideration at their December 6, 2016, meeting, along with an explanation of how that forecast was derived. Mr. Guindon stated the \$176.5 forecast for FY 2017 is a placeholder. He explained that staff projects commerce tax revenue for FY 2017 to total approximately \$160 million; however, there is \$15 million sitting in a holding account for FY 2016 that will get deposited in FY 2017, because FY 2016 is closed. He said the difference between \$160 million and the \$143 million that was collected for FY 2016 will show up in FY 2017, which totals \$176.5 when added to the FY 2017 forecast of \$160 million. Staff speculates less spillover in FY 2018 and FY 2019; thus the \$160 million forecast for those years. He said the law, in the first year of the Commerce Tax, provides a six-month grace period for the due date of returns; therefore, actual collections for the Commerce Tax will not be known until February or March of 2017. Mr. Guindon noted it was important to insert a placeholder number in the forecast, rather than zero, so the public would not be misled in believing there would be no revenue or that the Commerce Tax got repealed.

Chairman Wiles asked about the expectation in the numbers being reported in relation to the signal versus the noise.

Mr. Guindon replied that staff and Taxation are at the mercy of the taxpayers, depending on what the taxpayers report and the accuracy of their returns. He said the Department of Taxation will be performing audits.

A. Gaming Percentage Fee Tax

Michael Lawton, Senior Research Analyst, Gaming Control Board

Mr. Lawton referred to the chart on page 2 of his meeting materials ([Exhibit C](#)), which illustrated baccarat performance on the Las Vegas Strip. He said baccarat percentage of total win increased drastically from FY 2007 when it measured approximately 13%, to reaching its peak in FY 2014 at approximately 24% with total win of \$1.6 billion, which accounted for one-quarter of total Las Vegas Strip win. He pointed out that in FY 2014, Las Vegas Strip win was 3% below its record level in FY 2007, but baccarat's win in FY 2014 was close to 80% higher than it was in FY 2007. He reported that after two consecutive years of decline, baccarat's total Las Vegas Strip win in FY 2016 equates to 20%, or \$1.2 billion. He noted that through September 2016, baccarat represents 18.6% of Las Vegas Strip win, and is still in a downward trend.

Mr. Lawton stated the decline in baccarat win is attributed to baccarat volume. Ten-year history provides that statewide baccarat volume reached its peak in FY 2014

at \$11.9 billion, but decreased in volume in consecutive fiscal years, measuring \$9.4 billion in FY 2016 (page 3, [Exhibit C](#)). Fiscal year-to-date, baccarat volumes are down 11.2%. Baccarat volumes increased 4 times in the last 24 months and only increased once in the last 12 months. Mr. Lawton conveyed that this decline happened around August of 2014 as a result of government actions and events that took place in China, primarily due to the anti-graft campaign.

Mr. Lawton elaborated on how the decline in baccarat would affect Nevada's taxable gaming revenue and the associated percentage fee collections. He said in the five-year period from FY 2005 to FY 2009, the ratio of taxable gaming revenue (TGR) to win averaged 96%, whereas the period from FY 2010 to FY 2014 averaged 92.5%, which was during the surge in baccarat win. In FY 2014, when baccarat reached its peak in win, the TGR to win ratio was at 91.8%, the lowest ever. Mr. Lawton theorized that these two trends are related, as baccarat win surged, the TGR and subsequent percentage fee collections dropped. He explained that the large amount of credit play associated with baccarat was a big factor, along with the subsequent discounts and settlements on players' losses that are often offered by the gaming establishment. Furthermore, as baccarat declined, the ratio of win to TGR actually increased the past two fiscal years. Mr. Lawton noted the TGR to win ratio in FY 2016 was 95.9%, the highest ratio recorded since FY 2007, and in FY 2017 year-to-date, the ratio sits at 96.4%, only one-tenth of a percentage point higher than a year ago at this time at 96.3%).

Mr. Lawton reported that baccarat volume over the last 12 months decreased 14.6%, gaming win decreased 4.4%, but statewide taxable gaming revenue increased 2.4% or \$248.3 million over that same period. Fiscal year-to-date, taxable gaming revenue is up 3.9% (page 5, [Exhibit C](#)).

Relative to statewide percentage fee collections, Mr. Lawton stated as baccarat tumbled over the last 12 months, percentage fees escalated 3.5% or \$24.5 million. The decreased amount of baccarat win and the associated decrease in credit play activity over the last 12 months had a positive impact on taxable gaming revenue and percentage fee collections.

Mr. Lawton directed the Forum to page 7 ([Exhibit C](#)) of his presentation, the beginning of his forecast on gaming win for both the state and Clark County. Starting with the base year for FY 2017, he forecast an increase of 2.2% over FY 2016's decrease of 0.5%, with \$11.3 billion in statewide gaming win. He forecast Clark County to increase 2.1% over FY 2016's decrease of 0.8%, and the Las Vegas Strip to increase 1.7% over FY 2016's decrease of 2.7%. Growth is also expected in the submarkets within Clark County, specifically the Las Vegas locals' market, which is forecast to increase 2.4% over FY 2016's increase of 2.8%. He said the Gaming Control Board (GCB) based prior assumptions on a lot of anticipated growth in Clark County and the submarkets that were created by the positive economic data coming out of Southern Nevada and the national economy. Mr. Lawton declared the forecast he was about to present was not based on anticipation, but rather solid ground activity that was actually happening. He cited Clark County, fiscal year-to-date, every market was up except for the Boulder Highway, which was down 2.8% due to the timing of

slot collections, which is expected to work itself out moving into November 2016. He said the long-term trend, calendar year-to-date, shows that the Las Vegas Strip is the only market down (-0.3%) through nine months. He said widespread growth was reported in these markets, specifically Washoe County, with a forecasted growth increase in percentage fees of 3.8% over FY 2016's increase of 2.8%. He noted the economic information data points are coming out strong across the board in both Southern and Northern Nevada.

Mr. Lawton stated statewide gaming is up 3.8%, fiscal year-to-date, with four months reported, and the Las Vegas Strip is up 4.6%. He said the forecast for the remainder of FY 2017 shows growth in statewide gaming at 0.3%. He said In order to reach the forecast, gaming win needs to average an increase of approximately 1.5% over the remaining eight months.

Mr. Lawton admitted that his comparison growth rates for the remainder of FY 2017 were soft, and his forecasting growth was lower than current growth. He explained that in July of 2016, the state recorded a \$1 billion win, which had not been seen since May of 2015. Without that month, gaming win statewide would be up 1.6% and the Las Vegas Strip would be nearly flat, up slightly. He did not feel that pace of growth could be met for the remainder of FY 2017; however, he thought statewide gaming win was slightly inflated because of that one spectacular month in July of 2016.

Moving to FY 2018, Mr. Lawton forecasted statewide gaming win to increase 2.6%, totaling \$11.6 billion; Clark County to increase 2.5%; the Las Vegas Strip to increase 1.9%; locals' markets to increase 3.4%; and Washoe County to increase 4.3%. He noted that Tesla employment is expected to have a larger impact in FY 2018 than in FY 2017. Mr. Lawton forecast statewide gaming win to increase 2.9% for FY 2019, totaling \$11.9 billion.

Mr. Lawton turned his focus to his slot win and table gaming win forecasts beginning on page 9 ([Exhibit C](#)) of his presentation. Slot win is forecast to grow 2.6% for FY 2017, totaling \$7.2 billion; grow 3.1% for FY 2018, totaling \$7.4 billion, and grow 3.4% for FY 2019, totaling \$7.7 billion. He reported, fiscal year-to-date, slot win is up statewide 3.1%, and is up in all markets except the Boulder Strip and Carson Valley. The long-term trend, calendar year-to-date with nine months of data, shows 2.1% growth statewide with only two markets down less than 1.0%, including the Carson Valley and Wendover. The GCB growth rate comparison for the remainder of FY 2017 is 2.3% for the last eight months, and growth of 2.4% is required in order to hit the slot win forecast.

Mr. Lawton stated slot win is driven by two things, one being increases in slot volume statewide. He reported that fiscal year-to-date, slot win is up 1.8%, and is up in every market statewide except the Carson Valley. The state is facing a flat growth rate in slot win of 0.2% for the remainder of the fiscal year. The second factor driving increases in slot win is the slot hold percentage. Mr. Lawton indicated that fiscal year-to-date, the slot hold percentage is sitting at 6.7%, a full percentage point higher than a year ago. Over the last 20 years, this trend has only decreased twice, and the average rate of increase was approximately 1.5%. He said the GCB's forecast

models continue to drive these increases; however, the rate recently decelerated and averages less than 1% for the forecast period.

Ms. Rosenthal asked if slot volume is a factor.

Mr. Lawton said both slot hold percentage and slot volume drive slot win. He reiterated that, fiscal year-to-date, slot volumes are up 1.8% statewide and up 1% on the Las Vegas Strip, and slot hold growth is widespread.

Mr. Lawton forecast game and table win for FY 2017 to increase 1.5%, approximately \$4.1 billion in win, compared to the decrease in FY 2016 of 5.5%. Fiscal year-to-date, game and table win is up 4.9% and volume is down 2.9%. He said growth rate comparisons are soft for the last eight months of 2.9% on win and -7.6% on volume. Mr. Lawton forecast game and table win growth for FY 2018 at 1.7%, totaling \$4.2 billion; and growth of 2.2% for FY 2019, totaling \$4.3 billion in win. He reported the increases in game and table win, fiscal year-to-date, are primarily driven by increases to non-baccarat table game win, which is up 6.7% fiscal year-to-date while baccarat win is up only 1%. Additionally, volumes on non-baccarat table play are up 1% and are down 11.2% on baccarat play.

Mr. Lawton moved to the chart on page 11 ([Exhibit C](#)), Statewide Baccarat Win Forecast, which outlines his forecast relative to games and tables. The chart suggests that baccarat is no longer driving the GCB's game and table win forecast. He pointed out the negative baccarat win for FY 2015 (-11.1%) and FY 2016 (-13.3%), and stated baccarat will continue to decrease throughout the remainder of the forecast period, but at a decelerated pace of -3.0% for FY 2017; -3.7% for FY 2018; and -3.2% for FY 2019. Mr. Lawton stated, based on the GCB's observations and discussions with various operators on the Las Vegas Strip, there is too much uncertainty in the baccarat market to forecast anything other than continued declines for the foreseeable future. Relative to non-baccarat, Mr. Lawton conveyed that game and table win is historically a lot less volatile year-over-year, and presented forecasts of 3.5% growth for FY 2017; 4.0% for FY 2018; and 4.3% for FY 2019.

Finally, Mr. Lawton delivered his percentage fees forecast to include \$717.9 million in collections for FY 2017, up 2.4%. He said, fiscal year-to-date, with four months reported, collections are up 9.4% and facing a growth rate of 1.0% for the same period a year ago; however, he did not think that pace would continue throughout the remaining forecast period. He reminded the members of the spectacular gaming win month in July of 2016. Mr. Lawton finalized his Gaming Percentage Fees forecast estimates, quoting increases of 2.7% for FY 2018, totaling \$737.5 million, and 3.1% for FY 2019, totaling \$760.0 million.

Chairman Wiles asked what made July so spectacular.

Mr. Lawton replied the month of July was influenced by a mix of baccarat, extremely high hold, and slots, and emphasized that it was not volume driven. He said calendar year-to-date, the trend has been consistently strong, and felt confident that the release of October 2016 numbers will show all positive markets.

Chairman Wiles commented on the percentage of win that baccarat drives, and how only a handful of people who play can make a difference between a good month and a bad month relative to win.

Mr. Lawton remarked that baccarat has been running hot, and holding higher than usual.

In closing, relative to percentage fee collections, Mr. Lawton said his forecasted growth is based on projections relating to positive economic indicators, which have already been flowing through to the casino floor. He said with nine months of data, the Las Vegas Strip was the only market down, and statewide growth was basically flat. His forecast assumed continued forward momentum with modest growth for the next three fiscal years. Mr. Lawton said he projects growth will be driven faster from slots more so than game and table win, because of baccarat's uncertainty. He said his forecasting model is built on slot win and non-baccarat table game win, which is more sustainable.

Mr. Maddox agreed with Mr. Lawton's conclusions, and stated domestic business is steady, with earnings showing increases in occupancy rates and flow-through to domestic gaming, which is slots and domestic table games. He affirmed that the baccarat market is very unknown at this time.

Mr. Leavitt questioned the effects to the forecast if a normal cyclical recession would occur in the second year of the forecast period.

Mr. Lawton said that scenario was not built into his forecast model, but instead patterned off current activity in the market and feedback from gaming operators from Southern and Northern Nevada. He said it would be difficult to build off that scenario, and pointed out that his forecasted growth in percentage fees collections was not very robust, maybe 2% to the mid-2% range.

Mr. Maddox suggested going back to 2012 numbers, the start of the recovery from the recession, and before things were feeling good again.

Mr. Leavitt said he anticipates growth, but not at an aggressive rate that one would see during a period of high national economic growth.

Mr. Lawton said the GCB forecasts conservatively. He acknowledged that his percentage fee forecast for outlying years is stronger than those forecasts from Budget, Fiscal and Taxation, but felt it to be more sustainable than some of his previous forecasts. He explained that his forecast revolves more around the taxable gaming revenue ratio to win rather than gaming win.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers briefly defined three categories of gaming that are forecast to aid in her Gaming Percentage Fees revenue forecast, including slot volume and win; baccarat volume and win; and all other gaming volume and win in Clark County, which together drives the state. She said she uses an econometric model that includes variables such as Las Vegas visitation, personal consumption, recreation and employment, and also collaborates with the GCB.

Ms. Powers started with slot volume, stating that after six flat fiscal years, steady gains in visitation and employment and improvement in wage growth will provide support for a modest improvement in slot volume. She said slot win is projected to increase over the forecast horizon, consistent with the past two years, and the slot win to drop ratio is steadily increasing due to a mix of machines and player preferences moving to machines with higher win percentages. She said baccarat volume is largely driven by trend in her forecast and does not reflect improvement until FY 2019. She noted baccarat win was derived by using a 13.3% win to drop ratio. In the “all other gaming” category, gaming volume, excluding slots and baccarat, have seen positive year-over-year readings since 2011 with the exception of 2015. Ms. Powers stated this category will benefit from younger visitors who prefer table games over slot machines, and should see moderate improvement from FY 2017 to FY 2019. She mentioned all other gaming win was derived by using a 13.1% win to drop ratio. Ms. Powers referred to page 9 ([Exhibit D](#)) of her presentation, titled Gaming Percentage Fee Collections. She said statewide gaming volume and win will continue to improve modestly over the forecast horizon. Additionally, less baccarat play translates into less credit being extended, which has a positive effect on taxable gaming revenue. This trend is expected to continue in FY 2017, further increasing the taxable gaming revenue share to win. Ms. Powers’ forecast, after the estimated fee adjustment, reflects increases in Gaming Percentage Fee collections of 3.3% for FY 2017 and FY 2018, and 2.4% for FY 2019.

Mr. Russell Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Guindon referred the members to page 35 ([Exhibit E](#)), TABLE 1B, of Fiscal’s forecast information packet to address their Gaming Percentage Fees forecast. He explained the top of the page itemizes a two-year history for various components of the forecast, including growth rates for those components and the fiscal year-to-date dollar amounts and fiscal year-to-date growth rates. The bottom of the page shows the averages, per component, that need to be met over the last eight months of the fiscal year to hit the forecast. He said Fiscal’s forecast compared to the GCB forecast has more win growth on the game side rather than the slot side, but slot win is forecast to increase approximately 2.3% for FY 2017, 1.7% for FY 2018 and 1.6% for FY 2019. The average hold percent is expected to increase by only 0.04% in FY 2018 and FY 2019. He stated they can continue to push on that hold percentage, but the rate of increase will have to slow down a little because the price point on playing slot machines is that hold percentage. As an economist, he said he is perplexed by the price increases on the machines; however, the quantity demand keeps going up from time to

time. He said holding back on the average hold in terms of rates is what is driving the forecast, and is driving less slot win in Fiscal's forecast over the forecast horizon. The rate is increasing, just not at the rates seen over the last few years. Mr. Guindon said the number of slot machine boxes has been declining since FY 2003 (page 37, [Exhibit E](#)). He explained that the decline has to bottom out at some point; therefore, he forecast the rate of decline in the average number of slot machines to slow down, thus the coin-in per slot decreases in growth as well. He said with the lower average hold, in terms of the rate of increase, less growth will occur.

On the games side, Mr. Guindon stated the hold percentage increases, but at a decreasing rate, and produces more growth than slots. Total win, including four months of data and a spectacular win in July, shows increased growth of 3.8% for FY 2017, compared to being down 2.3% in FY 2016 during the same reporting period, and requires 2.5% average growth against 0.3% over the remaining eight months of FY 2017 to hit the forecast for total win. Relative to taxable gaming revenue (TGR), 1.6% average growth is required against 1.6% over the remainder of the fiscal year in order to hit the forecast.

Mr. Guindon communicated that he will have another month's numbers to base his December 2016 forecast on, and that he may reconsider the TGR to win ratio in his forecast to determine whether it is increasing enough. He stated Mr. Lawton has the TGR to win ratio coming back, whereas Fiscal's forecast has it increasing by 0.1% in FY 2018 and FY 2019 versus climbing to levels prior to the baccarat run. Another downside risk in Fiscal's forecast pertains to the average tax rate, which increases slightly. If the TGR to win ratio increases, then so should the average tax rate, because more money is being pushed into the top tax bracket. Mr. Guindon said the final element in Fiscal's forecast relates to the estimated fee adjustment (EFA). Fiscal year to date for FY 2015 and FY 2016, the EFA is approximately -\$9.4 million and -\$11.5 million, respectively, through the first four months; however, in FY 2017, fiscal year-to-date, the EFA is only about \$228,000, which is a big change in the pattern of that element. The percentage fee EFA totals approximately \$2.7 million in FY 2017; \$4.1 million in FY 2018; and \$3.9 million in FY 2019, so as it is stabilizing, there is little net positive effect on the gaming percentage forecast from the EFA in the out years of Fiscal's forecast. He questioned whether he was being too pessimistic on the average hold on slots.

Mr. Maddox observed that all of the forecasters presented different methods of arriving to their gaming percentage fee forecasts, yet there is less than 1% difference between them for the FY 2017-19 biennium.

Mr. Guindon concurred, and elaborated on the question Mr. Leavitt posed earlier about the effects to the gaming percentage fee forecast if another recession occurred. He said Nevada was used to seeing gaming grow and being a large contributor to the growth of the state's General Fund revenues during the period when Las Vegas was seeing incredible expansion. He emphasized that additional casinos brought more rooms, which brought more devices (both slot and table games), which brought more visitors. That expansion period was followed by a period of very little new capacity, followed by the great recession. He said we are working our way back from that, and

most of the forecasters feel gaming percentage fees is probably around 2% to 3% growth, resulting in approximately \$700 million to \$760 million of the state's General Fund revenue.

Mr. Maddox replied growth is stable, estimating not more than 3% growth. He said the Las Vegas Strip is focused on convention customers, because that is where a lot of the new buildout is. He did not expect to see an increase in gaming revenues due to China's economy. He said the forecasts are within 0.5% of each other, and was hopeful that another month of data would bring more clarity to December's forecasts.

B. Live Entertainment Tax – Gaming

Michael Lawton, Senior Research Analyst, Gaming Control Board

Mr. Lawton commented that his forecast of taxable casino entertainment activity is based on an examination of historical growth patterns and interviews with gaming properties throughout the state. His forecast incorporates increases in taxable activity due to the opening of new properties or changes in entertainment venues at existing properties. He mentioned the difficulty in forecasting this revenue source, that statistical data is very limited compared to other tax revenue sources. Mr. Lawton identified a change in law, effective October 1, 2015, which based the Live Entertainment Tax (LET) on admissions only, and changed the tax rate to a single rate of 9%. With this change, historical data could no longer compare apples to apples, and could no longer be relied upon for forecasting the LET revenue.

Mr. Lawton said the LET declined 4.4% in FY 2016 and is projected to decrease 9% in FY 2017 with \$102.1 million in collections. Collections are down 36.9% through the first three months (July through September) of FY 2017; however, the comparison is new law against old law, because of the October 1, 2015, effective date. Mr. Lawton said the next release of numbers will compare new law to new law. As a result of the new law, September LET collections for FY 2017 are down 50%, or \$9.3 million, because all licensees in FY 2016 were required to report advanced admission sales that were made on or before September 30, 2015, on their September 2015 tax return, so it completely inflated the numbers in September of 2015. He said October 2016 year-over-year collections will finally reflect an apples-to-apples comparison; however, that number is expected to be deflated. He reported the comparison for the remainder of FY 2017 is -27.9%, and requires a 8.5% average growth rate in order to meet the forecast.

Mr. Maddox remarked that the net was cast much broader over other venues that were not paying LET before, and asked if that was being picked up in LET-Nongaming.

Mr. Guindon stated that was correct. He said outdoor concerts held on gaming properties were included in the LET, but not live entertainment at nongaming venues, which is administered by the Department of Taxation and incorporated into the LET-Nongaming revenue source based on the law change.

Mr. Lawton said the Agency's forecast model includes the following assumptions that are based on information received from the industry: 1) Trend indicates that attendance at the later production shows or second shows is negatively impacted by other more compelling entertainment offerings that might not be taxable; 2) Recent programming is geared toward music festivals and offsite concert venues of which LET-Gaming does not apply, such as the Route 91 Harvest Festival, Life is Beautiful, Rock 'N' Rio, Electric Daisy Carnival, the Downtown Las Vegas Event Center, and T-Mobile Arena. Based on information received from Nevada gaming licensees during the 2015 Legislative Session, the GCB felt collections would decrease by approximately 24% due to the loss of taxable sales on food, beverage, merchandise, and the net effect of the change in the tax rate; and 3) A new venue is scheduled to open in December 2016 on the Las Vegas Strip, which is included in the GCB's forecast. Mr. Lawton said the Agency is forecasting the LET-Gaming collections to increase 3.2% for FY 2018, totaling \$105.3 million in collections, and increase 2.6% for FY 2019, totaling \$108 million in collections.

Ms. Rosenthal asked what primary drivers justified the increases for FY 2018 and FY 2019, and if they were related to higher ticket prices or additional venues coming online.

Mr. Lawton stated the new venue would boost revenue for FY 2017 and FY 2018, and better yield management of production shows would help collections for FY 2019. He said increases in visitation, wages and jobs are all driving factors.

Ms. Rosenthal asked, because of the changes and inability to compare against historical data, if the theory was to basically get the detailed inputs as accurate as possible and then do the math.

Mr. Maddox suggested looking at only the collections under the new law for forecasting purposes in December 2016. He said historical data did not matter or mean anything. He asked how many monthly collection periods would be available for review in December.

Mr. Lawton confirmed there would be four months of collections available.

Mr. Maddox said the last three collection periods would suffice, that year-over-year data is not necessary.

Mr. Guindon interjected, stating he already has that information compiled in a table and will make it presentation worthy for the December meeting. He clarified there are more than three collection periods, but only three that are year-over-year.

Mr. Maddox affirmed his request to see actual collections by month, specifically, January 2016 through the most recent. He inquired about the LET-Nongaming revenue source.

MR. Guindon stated LET-Nongaming would be discussed under Agenda Item IX because it is classified as a minor revenue source.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers asserted that she struggled with many of the same challenges addressed by Mr. Lawton. She said she uses an econometric model for most revenue forecasts; however, due to changes in the tax rate and structure of the LET-Gaming revenue source, there are not enough data points to employ; therefore, she made an educated guess in terms of her forecast. She derived her forecast by starting with actual collections (approximately \$98 million) and factoring in growth based on assumptions, including increased visitation, increased ticket prices, and a few new shows on the Las Vegas Strip. Ms. Powers stated her forecast is very preliminary and that most likely she will present a revised forecast in December (page 11, [Exhibit D](#)).

Mr. Maddox reverted back to his earlier request for a report on monthly collections for LET-Gaming. He instructed staff to include collections from January through the most current month available, but to also include LET-Nongaming collections. Again, he was not interested in year-over-year data. His thought was, the new law expanded the base and lowered the tax rate on LET-Gaming, so he did not think this was a story of decreasing tax revenues.

Chairman Wiles agreed, and gave further direction to include value labels at the top of the bar charts to make it easier to reference total collections, like the chart presented by Ms. Powers from the Executive Budget Office.

Mr. Russell Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Guindon said the Fiscal Analysis Division's forecast begins on page 51 ([Exhibit E](#)) of the Fiscal Division's forecast packet; however, he directed the members to the table on page 53 that illustrates historical LET collections from gaming establishments. He said another month of data will be received prior to the Forum's December 2016 meeting, which will produce the first year-over-year comparison. He reported collections were down -46.5% in October 2016, because entities made prepayments to beat the new tax. To better explain the differentials between LET-Gaming and LET-Nongaming, Mr. Guindon explained there are less tax-based changes for taxable entities on the gaming side versus the nongaming side. On the gaming side, two substantive elements are definitive, one to change the tax rate from 5% and 10% to 9%, and the other element was to eliminate the tax from food, beverage and merchandise sold. Based on information from the GCB during the 2015 Session when S.B. 266 was being analyzed to determine its effects on the LET, the 10% tax rate that applied to food, beverage and merchandise equated about 20% of the LET-Gaming tax base, which was lost right off the top. Taxable events applicable to LET-Gaming were not affected as much. He said those changes caused distortions in the first few months, year-over-year, but around the January 2016 timeframe, the 20% to 25% decline started to stabilize. Mr. Guindon forecasted LET-Gaming to decline 11.7% in FY 2017. He said actual collections are down 36.1% through the first three months of FY 2017, and that collections had to average 3.2% growth over the last nine months in order to hit that forecast, compared to an average decrease of 27.6% over the last nine months of FY 2016. The decline in revenue is attributed to the loss of food, beverage and merchandise from the LET-Gaming tax base, including the loss of potential gains from

those services due to inflation. The LET-Gaming revenue will mainly be generated from ticket sales, thus driving ticket prices for live entertainment in order to meet the forecast. Mr. Guindon alluded to the GCB forecast, which has the Consumer Price Index (CPI) increasing about 2.7% in FY 2018 and FY 2019. He thought that was a little too high, but decided to go with it for this forecast and revisit it again for the December forecast. He said, with inflated ticket prices, maybe the 3.2% growth over the last nine months of FY 2017 was not unreasonable versus the 8% on average growth that the GCB needed to hit their forecast. Mr. Guindon stated he was not aware of the new venue coming to Las Vegas, so it was not included in Fiscal's forecast, and is considered a potential risk in Fiscal's forecast. In conclusion, he thought more decent information relative to the LET-Gaming revenue source would be available for the Economic Forum's May 1, 2017, meeting.

C. State 2% Sales Tax

Mr. Jeremy Hays, Economist, Department of Taxation

Mr. Hays referred to TABLE 4 (page 57, [Exhibit A](#)) to present his forecast of state 2% sales and use tax revenue. He said he builds econometric models that take into account Nevada employment, unemployment, personal income, visitor volume and gross domestic product. Mr. Hays forecast reflects increased growth throughout the forecast period, including 4.9% in FY 2017; 3.8% in FY 2018; and 3.4% in FY 2019.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers communicated that many areas of Nevada's economy are on the mend, showing demonstrated improvement in employment, wages, consumer spending and construction activity, and a steady upward trend in visitation to Las Vegas since the end of the recession. While the state's economic reports are positive, sales and use tax collections have continued to come in below previous expectations. Ms. Powers stated that sales tax percentage growth projections in her forecast do not reflect a lack of economic growth in the state's economy, rather it echoes Nevada's eroding sales tax base due to reduced spending on taxable goods. She said Nevada's economy is more service based than goods based; therefore, traditional economic drivers such as personal income and employment are not as tightly related to taxable sales as they were in the past. She said it is likely that consumers are seeking online purchases that do not collect sales tax, but the impact is marginal. Impacts from construction jobs are less noticeable now than in boom years, and rising living costs, healthcare expenses, and student debt are leaving many with less disposable income to spend. Additionally, household formation is slower than what it was before the recession, requiring less purchases for appliances, furniture, and other goods. She said her state 2% sales and use tax revenue forecast shows increased growth, but at a decreasing rate.

Ms. Rosenthal asked if the effects coming from economic growth related to Tesla and Faraday Future were factored into her model through wages, population, etc.

Ms. Powers concurred, stating wages and employment are included, but then technical adjustments are made to account for abatements related to construction activity.

Ms. Rosenthal asked if it was general practice in the state to not charge a tax on services. She expressed concern over Nevada's economy shifting from taxable goods to services, yet there is nothing to make up that hole in revenue.

Mr. Guindon confirmed that Nevada's sales tax does not extend to services, but there are cases where labor services are subject to the sales tax. For example, if a business does not itemize parts and labor separately on an invoice, then the labor could be subject to the sales tax. If the invoice is itemized, then the labor is not taxed. Finally, revenue generated from services is picked up through the Commerce Tax, because that tax is based on gross revenue.

Mr. Maddox pointed out that a limited liability company (LLC) that files the Commerce Tax application has to make at least \$4 million in revenue; therefore, excludes many companies.

Mr. Guindon agreed. He said the State of Nevada attempted to expand a tax into the services sector, but possibly left a lot of the tax base out with the \$4 million exemption.

Mr. Russell Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Guindon referred to pages 66 and 67 ([Exhibit E](#)) of the Fiscal Division's packet to discuss Fiscal's state 2% sales tax revenue forecast. He said Fiscal uses an econometric equation to forecast taxable sales, which is used to drive the state 2% sales tax forecast revenue dedicated to the General Fund. Taxable sales are forecast to grow 5.4% for FY 2017; 4.8% for FY 2018; and 4.5% for FY 2019, but the 2% sales tax collections are forecast to increase by 5.3% in FY 2017; 5.2% in FY 2018; and 4.6% in FY 2019.

Mr. Guindon reported that state 2% sales tax collections are up 5.4% fiscal year-to-date through the first two months of FY 2017. In order to hit the forecast, collections need to average an increase of 5.3% growth over the remaining ten months of FY 2017 compared to increased collections of 4.4% over the last ten months of FY 2016. Relative to Mr. White's comments about economic development, and to address Ms. Rosenthal's question in regard to the direct effects of Tesla and Faraday Future projects, Mr. Guindon explained that as Tesla purchases construction materials or other tangible personal property that is subject to sales tax, taxable sales are generated and appears in the taxable sales numbers reported by Taxation. However, those purchases do not generate state 2% sales tax collections. The indirect effects, such as the purchases made by the construction workers, are occurring, but are hard to detect in the data reported by the Department of Taxation, because the department does not break down direct and indirect sales, only taxable sales.

Mr. Guindon directed the members to page 66 ([Exhibit E](#)), TABLE 2, that shows the gap between the implied state 2% sales tax generated from the taxable sales versus what

was actually collected. He pointed out the negative difference in the second quarter of 2016 due to the economic activity that occurred in August for the Tesla project. The gap for that quarter amounted to 5.7% growth in taxable sales and 4.2% in collections, which equated to a 1.5% gap in growth between the implied collections from taxable sales versus actual reported collections.

Mr. Guindon reported that for FY 2016, taxable sales increased 4.8%, but tax collections only increased by 4.2% or a 0.6% difference. This results in a negative \$16.6 million difference between the actual 2% sales tax collection and the collections implied from the taxable sales or about a 1.6% difference. In FY 2017, taxable sales are forecast to increase by 5.4% with collections increasing by 5.3% or a 0.1% difference. However, sales tax collections for FY 2017 are still forecast to be \$18.4 million or 1.7% less than the amount implied by the amount of projected taxable sales. In FY 2018, taxable sales are forecast to increase by 4.8% with tax collections projected to increase by 5.2% or 0.4% higher than the growth in taxable sales. For FY 2019, taxable sales are forecast to increase by 4.5% with collections projected to increase by 4.6%, only 0.1% stronger than taxable sales. In both FY 2018 and FY 2019, there is projected to be a \$15 million gap between the actual projected collections and the implied 2% collections based on the taxable sales forecast.

Mr. Guindon turned to page 67 ([Exhibit E](#)), TABLE 3, to discuss some of the variables that go into the Fiscal Division's taxable sales forecast, such as non-farm employment, construction employment, personal income and visitor volume. Compared to the state 2% sales tax forecast presented to the Forum on May 1, 2015, Mr. Guindon felt the Fiscal Division back then was too optimistic in regard to Tesla and the pace at which they would build the Gigafactory and bring jobs to the area; therefore, adjustments were made and the forecast was revised. He said, relative to the nominal side of taxable sales, Fiscal staff thought inflation would be in the 2.5% range, but it is only at 1%, which accounts for almost a 1.5% difference in missing the forecast.

Relative to non-farm employment, Mr. Guindon quoted growth rates of 2.4% for FY 2017; 2.0% for FY 2018; and 2.0% for FY 2019. He noted those rates are probably lower than the DETR forecast, because the Fiscal Division lowered the manufacturing employment outlook. He said the Fiscal Division is not implying that Tesla will not accomplish what they previously stated, it is a matter of forecasting manufacturing growth rates at the current pace versus a sliding scale. He recalled media articles and reports that were printed during the 28th Special Session (2014), relating to the Tesla Gigafactory and projected employment. He said there is activity; however, not at the pace reported in the white paper. Because Fiscal was not comfortable with that white paper, negative adjustments were made on personal income and wage and salary disbursements. Mr. Guindon clarified that Fiscal still forecasts growth in personal income at 4.7% each year of the biennium, which stems from projections made by the employment sectors. He explained that the Fiscal Division forecasts employment and wages per employee in inflation-adjusted terms, and out of that comes total wage and salaries. Next, the division forecasts nonwage personal income, and together they make personal income.

Mr. Guindon explained another observation that could affect the Fiscal forecast is the inflation rate. Looking at his taxable sales forecast, on a fiscal year basis and in inflation-adjusted terms, the forecast shows 3.6% growth for FY 2017; 2.0% growth for FY 2018; and 1.7% growth for FY 2019. The concern is that, in inflation-adjusted terms, growth has only been below 2% 5 times in the last 20 years, and each time it was during a recession with negative growth. He agreed with Ms. Powers and Mr. White that consumers in the state are purchasing more services versus taxable goods. He questioned whether his forecast in real terms was too low or if his inflation assumption was too high.

He referred to CHART 1, State 2% Sales/Use Tax Collections, and CHART 2, Statewide Taxable Sales, on pages 69 and 70 ([Exhibit E](#)). He said CHART 4 (page 72, [Exhibit E](#)) caused some concern due to risks in his forecast relative to statewide taxable sales per non-farm establishment employee. He pointed out an inflection point in his forecast that shows stronger growth on the forecast horizon in business activity than what has been seen in recent history, whereas in comparison to CHART 5, Statewide Taxable Sales per \$1,000 of Statewide Personal Income, the activity shows consistent increases and decreases. He questioned whether he was forecasting too much growth in taxable sales given the point Ms. Powers made about the purchasing power of disposable income, that rising living costs are leaving less to spend on tangible personal property.

Mr. Guindon reported that taxable sales per Las Vegas visitor has flattened in recent history, but his forecast shows it coming back, which makes him wonder if his visitor forecast is too soft in relation to taxable sales, explaining the increase in the chart (page 74, [Exhibit E](#)).

Mr. Leavitt asked if there was detail relating to construction, specifically individual projects on the horizon that affect sales in Northern and/or Southern Nevada, other than Tesla and Faraday Future.

Mr. Guindon stated he did not. He said he was not sure of the status pertaining to Faraday Future with regards to activity at the APEX site. He said the Governor's Office of Economic Development (GOED) provided some information relative to Tesla and their capital investment, and new projects locating to the Tahoe Regional Industrial Center (TRIC) and Washoe County, as well as Clark County. He said he has no assumptions about new gaming properties or anything relating to the 30th Special Session (2016) Legislation addressing the Las Vegas Convention Center or the proposed football stadium, whether it be a NFL-quality stadium (Raiders) or a collegiate-quality stadium (UNLV).

Mr. Guindon reminded the members that on Tuesday, November 8, 2016, recreational marijuana was voted on and approved in Nevada via a ballot initiative. He emphasized that nothing explicit was included in Fiscal's state 2% sales tax revenue forecast that related to this new law, but committed to providing information to the members at the Forum's December meeting, along with the Budget Division and the Department of Taxation. He made it clear that the Economic Forum is not responsible for providing a tax revenue forecast directly related to recreational marijuana; however, he reminded

the members that recreational marijuana is considered tangible personal property and will be subject to sales tax. He asked the members to consider the net effect of recreational marijuana, whether visitors and residents will expand their budgets to purchase recreational marijuana or spend less on other taxable activities, such as live entertainment, gaming, eating, shopping, so they can have both.

Mr. Maddox inquired about the Forum's December meeting, and asked if the Agency, Fiscal Division, Budget Division and the Department of Taxation will present their forecasts again, or if the members are to direct those forecasters to focus on specific details or revenue sources and report back on those areas only.

Mr. Guindon replied the Economic Forum is allowed to make that decision, with no motion required, and provide direction to the staff. Historically, the forecasters gave a brief description of the difference between the November and December forecasts. He advised the members that one more quarter and another month of collections will be reported prior to the December meeting; therefore, forecasts could change.

Mr. Maddox stated the main function of the December meeting will be to discuss any changes in collections that occur between now and the December meeting, and how those changes impact the forecast.

Mr. Guindon concurred. He reminded the members that an additional table will be presented at the December meeting that will show the difference between the November and December forecasts, by forecaster, so the members can see who is moving the needle and by how much. He said the presentations should be brief, with concentration on the changes only.

Chairman Wiles commented on the small variances between the estimates. He did not recall such minimal differences before; therefore, changes in the level of the estimate, including confidence levels, should be the focus at the December meeting.

Mr. Guindon said the forecasters will receive the first quarter of year-over-year data that includes the tax change for the Modified Business Tax, and one more quarter of actual collections relative to the Insurance Premium Tax to base their December forecasts from. He said staff will present and discuss the LET table requested by Mr. Maddox at the December meeting, as well as discuss the Commerce Tax and the credit back against the MBT. He recapped, under the Commerce Tax, whatever a taxpayer pays, they are eligible under the law to take up to 50% of their FY 2016 liability against their FY 2017 Modified Business Tax; therefore, not only are the forecasters trying to forecast the gross, but they are also looking at the data to see what the credit back against the MBT would be to determine the net effect.

Mr. Maddox suggested that the members not spend a lot of time on the MBT given the credit has not been forecasted yet. He noted that December forecasts could be wildly different than the forecasts made today.

Mr. Guindon clarified that the Economic Forum will always forecast gross revenue for the MBT and the Commerce Tax, and then the total aggregate amount of the

Commerce Tax will be credited back against the MBT total, because there is no way to apply credit against the various pieces of the MBT.

Before moving to the next major General Fund revenue source, Insurance Premium Tax, Mr. Guindon suggested that the Forum take Agenda Items X and XI out of order, because he had to excuse himself from the meeting to fulfill another commitment.

The following agenda item was taken out of order.

X. INSTRUCTIONS TO TECHNICAL ADVISORY COMMITTEE ON FUTURE STATE REVENUES (NRS 353.229) CONCERNING THE GENERAL FUND REVENUE AND TAX CREDIT FORECASTS AT ITS NEXT MEETING.

Mr. Russell Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division said he assumed the instructions to the Technical Advisory Committee is to prepare a final forecast based on the latest information and bring it forward to the December 6, 2016, meeting of the Forum. He said any instruction given to the staff in regard to the minor revenue sources will be considered instructions to the Technical Advisory Committee (TAC), because staff to the Economic Forum are staff to the TAC.

XI. SCHEDULING OF FUTURE ECONOMIC FORUM MEETINGS.

Mr. Russell Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division announced that the Economic Forum will hold their next meeting on December 6, 2016.

Chairman Wiles called for a recess at 1:12 PM.

The meeting reconvened at 1:39 PM.

Chairman Wiles announced that the following Agenda Item will be taken out of order, and the committee will return to Agenda Item VIII, Item D, the Insurance Premium Tax.

D. Insurance Premium Tax

Before continuing with the Insurance Premium Tax (IPT) forecasts, Mr. Michael Nakamoto, Deputy Fiscal Analyst, Fiscal Analysis Division reminded the members of the Forum that the IPT and all the other revenue forecasts presented at this meeting do not take into account the tax credits, neither actual collections or forecasts, and that tax credits will be dealt with separately. Additionally, for the IPT, the Agency forecasts that are referenced on TABLE 4 are a combination of the Department of Taxation and approximately \$10 million per year that is forecasted by the Insurance Division of the Department of Business and Industry.

Mr. Jeremy Hays, Economist, Department of Taxation

Mr. Hays said in order to forecast the IPT, he had to take into account fluctuations in Nevada's employment, population and movements in the North American Industry Classification System (NAICS) Sector 62, Health Care and Social Assistance. The results showed movements in the tax, which prompted him to increase collections in his forecast to 3.2% for FY 2017; 3.6% for FY 2018; and 4.1% for FY 2019.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers referred to page 15 of her presentation ([Exhibit D](#)), which summarizes how she estimates the IPT. She said she does not use an econometric model, but rather computes the tax through the following steps: 1) Separates health care premiums and non-health premiums, and prepares those forecasts. She recognized the Division of Insurance as her source for health care insurance premium information and covered lives information for individual, small and large group markets, and the Department of Health and Human Services for Medicaid data, both premium data and enrollment data; 2) Estimates Medicare Supplement enrollment based on census reports on health insurance coverage; 3) Calculates non-health premiums by extracting the health care premiums from total premiums. She estimates the health care premium share is approximately 40% of total premiums, making it a significant contributor to insurance premium tax collections; and 4) Adjusts for home office credits, which are limited by law to \$5 million per year starting January 1, 2016.

Ms. Powers said her IPT forecast shows collections increasing by 11.5% for FY 2017, benefitting from a reduction in home office credits, and increasing modestly in FY 2018 and FY 2019 (page 16, [Exhibit D](#)). Ms. Powers admitted that her computation process is complicated and offered to answer any questions regarding her forecast methodology or the process.

Mr. Michael Nakamoto, Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Nakamoto stated the Fiscal Analysis Division's IPT forecast begins on page 77 ([Exhibit E](#)), but directed the members to the table on page 79 that categorizes specific detail. He noted quarterly collections make up between 95% and 96% of the collections. He said that Fiscal uses a regression equation, and key variables are primarily the wage and non-wage components of personal income with respect to collections per Nevada employee. He said changes in the wage and non-wage components, as well as changes in employees, will affect the forecast.

Mr. Nakamoto explained that the reduction in the amount of the Home Office Tax Credit (28th Special Session [2014]), to \$5 million per year, beginning on January 1, 2016, is accounted for in his forecast. He said FY 2016 actual collections show growth in the first and second quarters of 3.2% and 8.3%, respectively, followed by a jump to 14.9% and 30.1% for the third and fourth quarters, respectively, which was caused by the change in the Home Office Tax Credit program that was not picked up in the regression equation. He said that amount was added in, per a manual adjustment, which will be looked at again between November and December to make sure it is

correct. The adjustment amounted to approximately \$6 million per quarter in the first two quarters of FY 2017, and is the reason why the growth rates jump to 14.3% and 13.6%, and drop back down to 5.8% and 4.7% in the last two quarters of FY 2017 due to annualizing the home office credit change. Mr. Nakamoto noted that as of January 1, 2021, the Home Office Tax Credit of \$5 million will go away entirely.

Mr. Nakamoto explained that the Fiscal forecast no longer makes an adjustment for the Affordable Care Act (ACA), because it has been several years since the ACA was implemented; therefore, has been built into the series and accounted for in the model.

Mr. Nakamoto recalled Mr. Leavitt's earlier question in regard to the effects to the forecast in the event of a normal cyclical recession, and stated, although Mr. Leavitt was referring to a different tax, he decided to research the historical performance of the IPT. He reported, with the exception of the great recession, IPT collections have gone up. Going back to the recession of the late 90's and early 2000's, tax collections measured anywhere between 5% and double digits (page 83, [Exhibit E](#)). He said, regardless of the economic activity that is going on, people still have things they need to insure, such as their health, homeowner's insurance, and their vehicles, of which two of those three are mandatory. Another risk that stems from the presidential election is the uncertainty relating to the ACA. Mr. Nakamoto said the Fiscal Division's December forecast will not include any assumptions regarding the ACA, and that he still feels comfortable forecasting growth in the mid to high 5% range. He said after reviewing historical patterns, even without the ACA, that range is not an unrealistic growth assumption going forward.

Mr. Maddox sought justification in regard to the difference between Fiscal's IPT forecast of 8.6% growth and Budget's forecast of 11.5% for FY 2017.

Ms. Powers replied she could not provide a reason why her forecast was higher, but offered to give an explanation as to how she achieved her numbers.

Mr. Maddox asked if there is current data that justifies why growth forecasted by Fiscal (8.6%) and Budget (11.5%) in 2017 ratchets down to 5.5% (Fiscal) and 3.7% (Budget) for FY 2018.

Ms. Powers said she receives actual data from different departments that collect premiums and track enrollment data. She echoed everything in FY 2016 is actual, which is her baseline, and that she performs a calculation based on health care, a premium per enrollee, and factors inflation into that premium. She said she uses a Medicaid forecast from the Department of Health and Human Services and factors in a premium increase for the commercial market. Ms. Powers corresponds with the agency in terms of estimated premium prices for FY 2017.

Mr. Maddox asked if there was actual data that supported the high growth rates of 8.6% and 11.5% for FY 2017. He thought those rates were quite large. Ms. Powers stated she had no data for FY 2017. Mr. Maddox asked when the reporting periods occurred.

Ms. Powers said the first quarter report for IPT collections will be received in a couple of weeks, toward the end of November 2016. She explained that she uses the same methodology used in previous forecast meetings and that her forecast came in lower than actual collections; therefore, she recalibrated the data using the actual collections and plugged in the data obtained from the agencies. She emphasized her forecast is the result of that process and that she is comfortable with her IPT forecast for FY 2017. However, she was skeptical of her IPT forecasts for FY 2018 and FY 2019 due to all the uncertainties that exist nationally.

Mr. Nakamoto expanded on the Fiscal Division's forecast, stating the large growth rates in the first two quarters of FY 2017 has to do with the home office credit, because the tax is based on calendar year, but is collected and aggregated by fiscal year. For example, the change to the Home Office Tax Credit law took effect January 1, 2016, which is the third quarter of FY 2016. Large growth rates occur in the first two quarters of FY 2017, which are the last two quarters of calendar year 2016, and eventually get annualized against. He conveyed the other difference between forecasts is that the Fiscal manually added approximately \$6 million per quarter to the first two quarters due to the change in the Home Office Tax Credit that did not get picked up in the regression equation. He said if the home office credit was not a factor, and the \$6 million was backed out, the first quarter growth rate would be 5.8% and the second quarter growth rate would be 5.2%, which is in line with the long-term moderate growth. Mr. Nakamoto claimed any additions with respect to the ACA would be marginal. He explained the major adds for covered lives and premiums would have occurred as the law was first implemented back in 2014, going forward into 2015, and topping out in 2016. He said premium prices are being reviewed, as they have increased along the Exchange and elsewhere based on the information that the Exchange and the Insurance Division presented at the October meeting. He expressed concern with rising premium costs and whether people will pay the penalty from the IRS versus continuing their insurance coverage. Mr. Nakamoto said it was the delicate balance between the two that influenced Fiscal's decision not to react aggressively in respect to premium increases, resulting in premium tax collection.

E. Modified Business Tax (Nonfinancial Institutions)

Mr. Jeremy Hays, Economist, Department of Taxation

Mr. Hays announced that he made an error in his Modified Business Tax (MBT)-Nonfinancial forecast, and that he was going to defer to Fiscal and Budget; however, he will come back in December with an updated forecast. He explained that he built an econometric model that was influenced by the 36% increase due to legislative action that went into effect in FY 2016, which produced a substantial bump for FY 2017 and threw off his forecast for the rest of the forecasting period.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers defined the following drivers of her MBT-Nonfinancial forecast:

- General Business Employment: Over the next three fiscal years, 38,000 plus jobs are estimated to be added in each of the fiscal years.
- General Business Wages: Wages will continue to improve as the labor market tightens. FY 2016 is still an estimate, because the Department of Employment, Training and Rehabilitation quarterly data on wages has not released second-quarter numbers. Ms. Powers indicated that data is used to predict changes in payroll that are subject to the MBT.
- Gains in the MBT-Financial for general business is forecasted to increase in the 5% range.

Ms. Rosenthal asked what drove the big increase in the MBT-Nonfinancial from FY 2015 to FY 2016, per the chart on page 20 ([Exhibit D](#)).

Ms. Powers alluded to a change in the tax rate and structure (threshold). She explained the tax applies to wages that are greater than \$50,000 per quarter.

Mr. Joe Reel, Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Reel referred the members to page 93 ([Exhibit E](#)), TABLE 2B, of the Fiscal Division's forecast packet and identified the wage disbursements column. In his forecast methodology, Mr. Reel forecast real wage per employee by using DETR's employment forecast, which is broken out by six broad sectors and rolled into the nonfinancial portion of the MBT. He reported wage growth of 5.3% for FY 2014; 5.6% for FY 2015; and 6.0% for FY 2016 compared to growth rates in his November 2016 forecast, based on employment and wage assumptions of 5.5% for FY 2017; 5.1% for FY 2018; and 5.0% for FY 2019. Using DETR's employment numbers, with the exception of the manufacturing sector, Mr. Reel stated that on a fiscal year basis, employment driving Fiscal's forecast is at 2.6% for FY 2017; 2.1% for FY 2018; and 2.0% for FY 2019. He noted that in FY 2015, employment maxed out at 4.3% and then dialed back to 3.3% in FY 2016. Moving to the Annual Wage column, wage growth per employee is expected to grow at 2.8% for FY 2017 and 2.9% for FY 2018 and FY 2019, which is the best growth seen in a long time. In real terms, or inflation-adjusted terms, Mr. Reel acknowledged the 1.9% wage growth that occurred in FY 2016 and projected those percentages to drop to 1.0% for FY 2017 and 0.2% for FY 2018 and FY 2019, with the assumption that inflation will rise to approximately 2.7% based on Moody's forecast for inflation.

Mr. Reel turned to page 95 ([Exhibit E](#)) of the Fiscal packet to illustrate how his assumptions for wage growth converts into taxable wages. He explained the taxable wage base is calculated by starting with total gross wages and backing out the health care deduction. At the bottom of the page, he pointed out FY 2016 had

2.6% growth in gross wages in nonfinancial institutions. Projecting forward, he quoted growth rates of 5.4% for FY 2017; 5.1% for FY 2018; and 5.0% for FY 2019. In the Nonfinancial Collections Actual and Forecast column, he brought attention to the \$517.1 million collected in FY 2016 and the high growth rate due to the tax change. He explained that in FY 2015, collections were lower, but the tax rate under the tax structure then was 1.17% with an exemption of \$85,000, which produced an average effective tax rate of 0.958%. The tax structure for FY 2016, based on the changes, had a tax rate of 1.475% with an exemption of \$50,000, which is reflected in TABLE 2D (page 95, [Exhibit E](#)), showing an average effective tax rate jumping to 1.246%. Mr. Reel said, although the growth in taxable wages for FY 2017 are estimated at 5.4%, the collections is increasing by 6.8%. The new tax became effective in the first quarter of FY 2016, and generated an average effective tax rate of only 1.215%. In the second and third quarters of FY 2016, the average effective tax rate increased to 1.263% and 1.266%, respectively. Mr. Reel explained that due to changes in the tax structure, collections come primarily from the quarter you are in; however, there is a percentage that comes from the prior quarters. He said the change in the tax structure possibly led to a lower effective tax rate in the first quarter, and the actual effective tax rate could end up being similar to the second and third quarters of FY 2016; thus the higher effective tax rate of 1.263% in the 2017-19 biennium. Collections from the MBT revenue sources is reported quarterly and is due out the end of November 2016, which will present the year-over-year comparison in terms of what the average effective tax rate needs to be to hit the forecast. Mr. Reel reported that, through the tax structure change, 3.0% was added to the wage base by changing the deduction from the \$85,000 threshold down to the \$50,000 threshold.

Mr. Maddox referred to the Nonfinancial Taxable Wages column on page 95 ([Exhibit E](#)), actual and forecast for FY 2017, FY 2018 and FY 2019, growth rates of 5.4%, 5.1% and 5.0%, respectively. He asked for justification as to why the forecast shows three consecutive years of compounded wage growth over 5.0%, stating it did not seem feasible. He noted FY 2016 only had a growth rate of 2.6%, defining it as a good year.

Mr. Reel said in FY 2015, wage growth was over 5.0%. He clarified that these reporting's are in terms of taxable wages. In terms of gross wages for the overall nonfinancial sector (page 93, [Exhibit E](#)), total wages coming out of data from the Bureau of Economic Analysis show growth of 5.3% for FY 2014; 5.6% for FY 2015; and 6.0% for FY 2016. When rolled over into actual taxable wages reported by the Department of Taxation, taxable wages is a little less than those percentages. Mr. Reel voiced concern that taxable wages only went up 2.6%, compared to 5.8% in FY 2015, when in the overall economy, 6% growth in wages was reported. He agreed that nominal wage growth at 2.8% and 2.9% per employee was possibly a little strong, and that it has not been seen since prior to the recession, but he also expects a slightly higher wage growth with inflation picking up, which will eventually drive increasing wages on a per employee basis. He noted the employment function was driving growth in wages.

Mr. Maddox indicated the MBT is the second largest tax revenue source over the biennium by a long shot, with collections forecast between \$115 million and \$130 million

of incremental money going into the state's budget, or a 10% increase over this period. He questioned why FY 2017 and FY 2018 would be so much better than FY 2016.

Chairman Wiles asked if there were two parts to the equation, the number of people working and the average wages received.

Mr. Reel said it was a product of taking the level of employment and adding the 30,000 to 35,000 new jobs that are projected each year, and then multiplying by the average wage per employee. Mr. Reel referred to the graph on page 98 ([Exhibit E](#)) to point out the trend in wage per employee.

Chairman Wiles asked Mr. Reel if his data matched up with Mr. Anderson's (DETR) data relative to the increase in total number of employees.

Mr. Reel stated total employment is driven primarily by DETR's forecast, which reflects employment growth rates of 2.5% for FY 2017; 2.0% for FY 2018; and 2.0% for FY 2019. He said, based on his assumptions for wage per employee on page 98 ([Exhibit E](#)), the product of the total number of employees and total employment makes up the 5.0% wage growth that Fiscal is forecasting throughout the forecast horizon.

Chairman Wiles elaborated, there is 2.0% or so wage growth per employee, but more employees. Mr. Reel agreed.

Mr. Maddox asked where the 2.0% wage growth was referenced.

Mr. Reel directed the members to page 93 ([Exhibit E](#)) of the Fiscal packet. He said the employment outlook of 2.6% in FY 2017 combined with the average annual wage per employee growth of 2.8% results in total wage disbursement growth. He noted wage per employee is at a much higher level than what has been observed in more recent years.

Chairman Wiles asked if the wage per employee was driving wage growth.

Mr. Reel confirmed that wage per employee is a main driver in addition to the level of employment. He repeated the 2.6% growth in nominal wage per employee, 1.9% in real terms, has not been seen for quite some time in Nevada.

Mr. Maddox referred to page 93 ([Exhibit E](#)) and pointed out the wage average disbursement of 6.0%, split 3.3% employment and 2.6% in wage growth in FY 2016. He asked how that translates to actual 2.6% growth in nonfinancial taxable wages for FY 2016, reported by the Department of Taxation (page 94, [Exhibit E](#)).

Mr. Reel replied the Fiscal Division is trying to understand where the leakage occurs. He said FY 2016 is the only year in historical records where that appears. He highlighted fiscal years FY 2014 and FY 2015, stating they are a little more in line, specifically in FY 2015 at 5.6% growth in the wage average disbursements and 5.8% growth in actual collections reported by Taxation.

Mr. Maddox said taxable wages was way off in FY 2014 as well. In response, Mr. Reel said taxable wages does not always track.

Mr. Maddox asked Mr. Reel at what point in his forecast did taxable collections exceed wage average disbursements for the MBT-Nonfinancial institutions, because they are forecasted to be in line, but is not reflected in Fiscal's tables that way.

Mr. Reel echoed his earlier statement, stating in FY 2015, wage average disbursements measured 5.6% (page 93, [Exhibit E](#)), and the actual collections reported was 5.8% (page 95).

Mr. Maddox brought attention to FY 2012, where taxable wages had no growth at 0.0% (page 95) and wage average disbursements grew 3.0% (page 93).

Mr. Reel replied, in terms of forecasting an outlook for wages for the nonfinancial institutions, this is the only data available.

Mr. Maddox asked if it would make sense to show taxes collected relative to the wage average disbursements, like with the Gaming Percentage Fees Tax. He asked if a discount should apply.

Mr. Reel said the MBT-Nonfinancial revenue source is already viewed that way. He emphasized that the large gap between taxable wages and wage average disbursements is not typical, and that the Fiscal Division will look at it further. He said many changes have been made to the tax structure over time; however, because gross wages are being forecast, a difference of that size was not expected.

Chairman Wiles called attention to page 93 ([Exhibit E](#)) and directed the members to the column titled Annual Wage, Nonfinancial. He recited the growth rates of 2.8% for FY 2017; 2.9% for FY 2018; and 2.9% for FY 2019, stating they were all higher than anything seen going back to FY 2008. He inferred that employment growth was slowing, but the wage rate was increasing.

Mr. Reel concurred.

Chairman Wiles asked if that was something staff and the members felt comfortable with.

Ms. Rosenthal reasoned that the employment growth percentage was slowing; however, the number of employees are growing along with an increase of wage on top of that, which correlates to an increasing wage on an increasing base, but at a slower rate.

Mr. Maddox stated the forecast seemed quite optimistic, and requested further review of the MBT-Nonfinancial revenue source at the December 2016 meeting of the Forum.

E. Modified Business Tax (Financial Institutions)

Susanna Powers, Economist, Executive Budget Office

Ms. Powers reported stability in her employment outlook in the financial services industry with moderate improvement over the next three fiscal years (page 22, [Exhibit D](#)). She said technology is enabling automation and cost-cutting benefits that supports her modest outlook. She said her wage outlook for financial institutions is driven by her employment forecast, which signifies an increasing demand for financial skills, especially in mid-level and high-level employees, and continues to drive salary growth in this industry through FY 2019. Ms. Powers stated MBT-Financial collections are predicted to increase, driven by the wage forecast.

Mr. Joe Reel, Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Reel stated the drivers behind his MBT-Financial forecast include wages and employment in the financial and real estate sectors. He directed the members to page 104 ([Exhibit E](#)) of Fiscal's forecast packet that shows the history in terms of average wage disbursements. He highlighted the extreme growth rates in wages of 8.1% for FY 2013; 5.2% for FY 2014; 7.8% for FY 2015; and 9.3% for FY 2016, and stated those rates would not continue. Mr. Reel forecasted wages to grow 4.8% for FY 2017; 6.0% for FY 2018; and 5.8% for FY 2019. Relative to employment in the financial sector, Mr. Reel recognized DETR's employment forecast as his data source, which shows strong growth of 4.7% for FY 2016, but less growth of 2.3% for FY 2017; 2.4% for FY 2018; and 2.2% for FY 2019. Moving to the Annual Wage column, the wage per employee showed strong growth of 4.8% for FY 2015 and 4.5% for FY 2016, whereas less growth is forecasted of 2.4% for FY 2017 and 3.5% for FY 2018 and FY 2019. In real terms (inflation-adjusted), this growth is equal to 0.6% for FY 2017; 0.7% for FY 2018; and 0.8% for FY 2019. Mr. Reel said the taxable wage growth rate and disbursements reported by the BEA in the financial sector can be better explained in relation to actual taxable wages that are reported by the Department of Taxation, versus in the nonfinancial sector. He reported taxable wage growth of 8.5% for FY 2016 (page 105) compared to 9.3% growth in wage disbursements reported by the BEA for FY 2016 (page 104).

Mr. Reel brought attention to the Financial Collections column on page 105 ([Exhibit E](#)) of the Fiscal forecast packet and identified collections of \$27.2 million in FY 2016 and 12.6% growth over FY 2015. He said an abnormal amount of collections was reported for the fourth quarter of FY 2016, totaling \$8 million, therefore, the Fiscal Division will be communicating with the Department of Taxation to seek explanation for the strong quarter. Mr. Reel noted historical data shows the third quarter of the fiscal year typically shows higher collections. He said the average effective tax rate is 2.0%; however, his forecast for FY 2017, FY 2018, and FY 2019 assumes a higher tax rate of 2.1% due to additional revenue sources, such as penalties and interest. Mr. Reel noted the Fiscal Division will check to make sure it is appropriate to grow off the additional revenue seen in FY 2016.

E. Modified Business Tax (Mining)

Susanna Powers, Economist, Executive Budget Office

Ms. Powers stated the MBT-Mining category was created by the 2015 Legislature for mining businesses that are subject to the Net Proceeds of Minerals Tax (MPMT), a 2.0% tax on taxable wages. She said employment in the mining sector has been declining; therefore, she based her employment on metal ore mining employment because of falling gold prices and gold production (page 26, [Exhibit D](#)).

Ms. Powers moved on to mining wages, represented by the chart on page 27 ([Exhibit D](#)). The chart shows mining wages for sectors subject to the NPMT, and excludes the support sector for mining. She said, despite the decline in metal ore mining employment, wages have remained somewhat steady.

Ms. Powers reported that health care expense deductions as a share of total payroll is twice as large for mining companies as it is for general business or financial institutions. Participation in company benefits in this industry seems to be much higher than in other categories. Ms. Powers said her forecast reflects increasing health care costs and rising deductions; therefore, resulting in slightly less revenue in each of the fiscal years over the forecast period (page 28, [Exhibit D](#)).

Ms. Rosenthal observed that the chart on page 28 showed linear, downward trend in mining jobs. She asked if there was additional data that supported her forecast besides just following the trend. Ms. Powers implied she was following the trend.

Mr. Leavitt implied the trend in employment relative to mining follows the price of gold, which cannot be accurately predicted throughout the forecast period. He said the price of gold is dependent on the general economy, and that it oftentimes flows opposite of what the economy is.

Mr. Joe Reel, Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Reel stated the Fiscal Division's forecast for MBT-Mining starts with DETR's employment forecast; however, DETR is forecasting continued decline in employment for FY 2018 and FY 2019, whereas the Fiscal Division is forecasting mining employment to stay flat, with the assumption that it will bottom out at some point to reflect historical average employment. Referring to the table on page 114 ([Exhibit E](#)) of Fiscal's forecast packet, he communicated that employment in mining will continue to decline, but at a decreasing rate compared to FY 2016 of -5.5%. His employment forecast shows declines of -4.6% for FY 2017; -2.6% for FY 2018; and -0.4% for FY 2019.

In terms of average wage, Mr. Reel acknowledged fairly strong wage growth in the mining sector. On a per employee basis, average wages grew between FY 2014 and FY 2015 while employment percentages fell. He forecasted per employee wage to grow 4.3% for FY 2017 and 3.7% for FY 2018 and FY 2019, but the net effect of that growth forces total wage disbursements to fall slightly for FY 2017 at -0.5%, and then

grow 1.1% for FY 2018 and 3.3% for FY 2019. Mr. Reel informed the members that FY 2016 is the first year where MBT-Mining was separated from the MBT-Nonfinancial sector in terms of taxable wages reported by the Department of Taxation, which allows for only one fiscal year observation and one quarterly year-over-year comparison. He said growth rates follow through to taxable wages and collections, and reflect an end result of growth rates mirroring the outlook of -0.5% for FY 2017; 1.0% for FY 2018; and 3.4% for FY 2019.

Chairman Wiles stated, unless there was a structural shift in the types of employees being employed, he found it odd that employment declines are significant in mining, yet wages are increasing.

Mr. Reel relayed this trend has been the case for years, considering the elevated number of high-skill occupations in the mining sector. He speculated that the employees who avoided previous layoffs are making good wages and still seeing wage increases, whereas many of the front-line miners are the employees being laid off.

F. Real Property Transfer Tax

Mr. Jeremy Hays, Economist, Department of Taxation

Mr. Hays said he took into account Nevada employment, especially jobs coming from Tesla and other companies moving to the area, and looked at personal income, population growth, and a forecast of the Nevada Case-Shiller Home Price Index. The combined data brought Mr. Hays to a Real Property Transfer Tax (RPTT) forecast of 11.8% growth for FY 2017; 3.3% growth for FY 2018; and 2.5% growth for FY 2019.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers derived her Real Property Transfer Tax forecast using econometric methodology that includes existing home sales, permits, and the Case-Shiller Home Price Index in the equation (page 30, [Exhibit D](#)). She said there is not a lot of information outside the residential sector; therefore, her forecast is mostly driven by that sector. She highlighted the following observations:

- Existing home sales have been trending down since FY 2012. Mortgage interest rates are increasing, reducing affordability. Renting is a more viable option for many; therefore, further decline is expected in existing home sales.
- Steady improvement has been seen in single-family permits.
- The Case-Shiller Home Price Index measures strong movement in home prices, but housing increases are expected to align more with income growth.
- Collections for the RPTT are based on the expectation that the Federal Reserve will start to normalize the monetary policy over the forecast horizon. Ms. Powers explained that if mortgage rates start to normalize toward the 6.0% range over the forecast horizon, it will have an impact on the financial ability to buy a home. However, the impact of monetary policy on mortgage interest rates largely depends

on expectations and how decisions are already priced into the market. Added to the uncertainty of the presidential election, Ms. Powers felt the RPPT revenue source needed more review; therefore, she will present more information to the Forum at the December 6, 2016, meeting.

Chairman Wiles said an announcement was made this morning, relative to interest rates, reporting that the probability of a rate increase by the Federal Reserve in December 2016 declined from 90% to 70%. He said he anticipated an increase rather than a decrease.

Ms. Powers voiced the market is not expecting the Federal Reserve to increase the interest rates in December due to its uncertainty in the marketplace, which may be playing a factor in the Federal Reserve's interest rate decision.

Chairman Wiles recalled various timeframes when the Federal Reserve decided against raising interest rates. With a different administration coming in, and lack of pressure, he thought now would be the easiest time to normalize.

Mr. Maddox asserted that the Budget Division's forecast shows existing home sales decreasing and the number of permits increasing. He questioned why the RPTT collections in 2017 (\$81 million) are forecast to increase significantly from FY 2015 (\$64.2 million) if existing home sales are falling. He asked if there was a change in law.

Mr. Nakamoto said no law changes were made to the RPTT, and that the tax rate is still \$1.30 per \$500 of value for the transfer, and has been that way since the 2003 Session. He said the tax applies to the transfer of all real property, including residential, commercial, vacant, built, industrial, etc., and is always the function of price times quantity, so a decrease in sales can be offset by an increase in price.

Ms. Lewis clarified that typically, existing homes run about \$100,000 cheaper than new homes. She expressed concern over the forecast of 14,000 plus permits in FY 2019, charted on page 31 ([Exhibit D](#)) of Ms. Powers' presentation. She felt that number was a little aggressive, but admitted there could be more going on in Northern Nevada than what she was aware of.

Ms. Powers asked Ms. Lewis to clarify if she was referring to the forecast in single-family home permits, and in what year.

Ms. Lewis reported that single-family home permits totaled approximately 8,000 in Clark County and approximately 2,000 to 2,500 in Northern Nevada. She did not have information in regard to the rural counties. She saw Clark County normalizing at about 10,000, but was not sure if Washoe County would absorb 4,000 permits in FY 2019. She echoed her earlier statement about the 14,000 permits being too aggressive in FY 2019.

Ms. Powers explained that her FY 2017 forecast is based on the most recent data, fiscal year-to-date. Permits are up 15.9%; therefore, she felt comfortable with the

FY 2017 number, which is actually lower than what is reported year-to-date. Ms. Powers said she would take another look at the single-family housing permit numbers for FY 2018 and FY 2019.

Mr. Michael Nakamoto, Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Nakamoto briefly outlined the Fiscal Division's forecast process for the Real Property Transfer Tax. He said data pertaining to residential property is the basis of his forecast, because there is not a lot of data on the nonresidential side in terms of actual and forecast data. The only data available to the Fiscal Analysis Division in terms of collections is the dollar amount and the county in which the revenue was collected. There is no indication on the type of property being transferred; however, sometimes sizeable property transfers can be identified through spikes due to a single transaction. For example, a geothermal plant was sold in Churchill County about three or four years ago that resulted in a transfer tax spike. Mr. Nakamoto said normally Churchill County collects RPTT in the tens of thousands of dollars per quarter, and suddenly they had one quarter where RPTT collections amounted to hundreds of thousands. He noted those types of transactions cannot be identified in Clark County where collections are in the neighborhood of \$13 million to \$14 million per quarter.

Mr. Nakamoto directed the members to Chart 10A of the Fiscal Division's forecast packet on page 20 ([Exhibit E](#)). Relative to single-family homes, the chart shows an uptick in completions for calendar years 2016, 2017, 2018 and 2019. In comparison to construction employment forecasts, Fiscal staff could not justify the number of employees it would take to build these houses. He recalled the concerns expressed by Ms. Lewis regarding homebuilding resources, including increased land prices and the complicated permit process. Mr. Nakamoto said the Fiscal's RPTT forecast shows growth amounting to approximately 13,000 statewide completions by FY 2019, while Southern and Northern Nevada combined consume approximately 10,000 of those 13,000 completions. He noted his forecast is based on single-family existing sales and single-family new home completions, as well as the Case-Shiller Home Price Index (pages 22 and 23, [Exhibit E](#)).

Mr. Nakamoto stated the Fiscal Division's RPTT forecast for the first quarter of FY 2017 is based on pretty good data, because the RPTT is collected by the counties and remitted to the State Controller either on a monthly or quarterly basis, depending on the county. Most of the counties submit on a quarterly basis with the smaller counties remitting on a monthly basis. He explained that after running a regression equation and comparing it to the actual collections at the time of this forecast, the results were within approximately \$100,000 on just over \$20 million of revenue. He clarified that the 2016, third-quarter statewide collections totaling \$20,627,000 is based on data submitted by 16 of the 17 counties, with the exception of Pershing County. Pershing County has since submitted their collections, which were slightly missed, and also required a correction relative to additional revenue from Lincoln County. Mr. Nakamoto explained that Fiscal staff will make a positive adjustment to their forecast of approximately \$5,000 to account for that error, and will revisit housing prices, interest rates and other things that drive demand before the Forum's December meeting. Lastly, he explained that the Fiscal forecast reflects more growth for FY 2018

than for FY 2017, mostly as a function of price and slightly more single-family existing sales that are expected to shake out because of low supply. He rationalized that as home prices increase, people will be willing to sell, and as sales increase, home prices are expected to level off, thus the lower amount of growth in FY 2019.

H. Cigarette Tax

Mr. Jeremy Hays, Economist, Department of Taxation

Mr. Hays said his Cigarette Tax forecast is influenced by movements in population, personal income and visitor volume, along with manual adjustments made for changes induced by the 2015 Legislature. He forecast growth rates of 7.0% for FY 2017; 2.6% for FY 2018; and 2.2% for FY 2019.

Chairman Wiles asked if vapor cigarettes are taxed.

Mr. Nakamoto stated, during the 2015 Session, the Legislature decided against taxing e-cigarettes.

Susanna Powers, Economist, Executive Budget Office

Ms. Powers stated cigarette consumption is determined by the number of packs purchased, which is used to derive the Cigarette Tax. She guided the members to the chart on page 35 ([Exhibit D](#)) that illustrates the number of cigarette packs consumed, measured by the number of stamps recorded by the Department of Taxation. She said consumption declined heavily during the recession due to consumer spending cuts, but once the economy stabilized, a fairly steady pattern of consumption was recorded from FY 2012 to FY 2014. In FY 2015, the spike in consumption occurred as a result of consumers stocking up to beat the \$1.00 per pack tax increase, effective FY 2016. She said the initial price hike dampened consumption, driving some Nevadans to purchase cheaper packs from across the border or places not subject to the tax, or to switch to e-cigarettes. The chart shows a dramatic increase in cigarette consumption in FY 2017, which Ms. Powers attributed to consumers adapting to the higher cost of cigarettes, and switching back to regular cigarettes from e-cigarettes. She noted e-cigarette sales nationally have been losing steam, reporting that smokers are speaking out against e-cigarettes, stating they are not delivering the same experience as regular cigarettes. She noted that the stamp count relative to cigarette sales has stabilized over the past ten months. Ms. Powers relayed that the Department of Taxation posted the November Cigarette Tax collections on November 8, 2016, bringing in higher than expected revenue. After factoring in the November 2016 collections, fiscal-year-to-date, Cigarette Tax revenue is above the May 2015 legislatively-adjusted forecast by about \$5 million.

Mr. Michael Nakamoto, Deputy Fiscal Analyst, Fiscal Analysis Division

Mr. Nakamoto explained that in the 2015 Legislative Session, the Cigarette Tax rate increased from 80 cents per pack to \$1.80 per pack, beginning July 1, 2015. Of that, \$1.70 is the General Fund portion of which 10 cents goes to the Local Government Tax Distribution Account and is given to the local governments (page 129, [Exhibit E](#)).

Mr. Nakamoto referenced CHART 1 on page 132 ([Exhibit E](#)) of Fiscal's forecast packet that shows actual collections and the forecast based on Fiscal's forecast for cigarette stamps sold per month by the Department of Taxation. In summary, just under 12 million cigarettes were sold per month at the beginning of FY 2010 (Jul-09), which fell to approximately 11 million per month by the end of the recession, and fell even further after that. In May 2015, wholesalers preloaded and purchased as many stamps as possible to affix to packs of cigarettes to take advantage of the tax increase, which boost sales to approximately 25 million packs for that one month, only to fall again thereafter. Cigarette sales have returned to a more normal pattern; however, the 12-month moving average is still resting around 9 million to 10 million packs per month. Mr. Nakamoto said it was a concern for Fiscal staff as to how to work around the idea of the tax increase functioning as a distortion to the series, so for FY 2017, staff forecast cigarette packs per Las Vegas visitor as their population driver, because visitors are a significant consumer of cigarettes in Nevada. He said Fiscal staff assumed that cigarette stamp sales in September of 2016 would be 70% above sales in September of 2015, accounting for the distortion, and actual collections came in at approximately 71% above September 2015; therefore, there Fiscal's Cigarette Tax forecast in December 2016 may not differ.

Mr. Nakamoto focused on the Fiscal Division's forecast for Cigarette Tax for FY 2017, FY 2018 and FY 2019 (page 131, [Exhibit E](#)). Because of the distortions, cigarette packs per Las Vegas visitor are averaging 2.37 packs per visitor, which totals 13.2% growth. He said, this is actually a 16% decrease compared to the level in FY 2014, if distortions from the tax increase are ignored (FY 2015 and FY 2016). In FY 2018 and FY 2019, cigarette packs per Las Vegas visitor declines 3.0%. He communicated that, although some people have returned to traditional cigarettes versus vaping, one must keep in mind the elasticity that was caused by increasing the tax, thus increasing the price. Fiscal staff assumes that a 10% increase in the price of cigarettes will result in a 4% decrease in demand; therefore, an average pack of cigarettes in the \$5 to \$6 price per pack range would result in a 15% to 20% decline in demand, approximately. In closing, Mr. Nakamoto referred to page 132, CHART 1, and pointed out on the forecast where cigarette packs sold per month settles back out, in terms of the average, around July 2017, when it finally annualized against all of these changes. He said the average shows significantly below the previous average, before the tax change, but also accounts for natural degradation, because people are smoking less. He noted that people are also smoking less because it costs more to smoke.

Ms. Rosenthal asked if staff had trend analysis relating to Nevada residents and their smoking patterns.

Mr. Nakamoto replied, per the articles he has read, there is a decreasing number of smokers in Nevada. He said there are some people who quit and start again, but those people are outweighed by the number of smokers who quit. He noted there is a natural population decline as well.

Mr. Maddox asked if cigarette consumption analysis was available, broken out by tourists versus residents.

Mr. Nakamoto said those statistics were not available. He said the Department of Taxation can account for the cigarette stamps that are sold to wholesalers, but do not track where they are sold, nor to whom.

Chairman Wiles commented that the Cigarette Tax is a significant number with some volatility. He cautioned the concept of tying the Cigarette Tax to visitors, and pointed out in the early part of the series, cigarettes amounted to six packs per visitor, and as visitation increased, the packs per visitor declined almost linearly. He said to keep an eye on that going forward to make sure we are not doing something that is giving us a decent estimate short term, but providing negative long-term effects.

IX. REVIEW AND DISCUSSION OF FORECASTS OF MINOR GENERAL FUND REVENUES AND TAX CREDITS FOR FY 2017, FY 2018, AND FY 2019 APPROVED BY THE TECHNICAL ADVISORY COMMITTEE ON FUTURE STATE REVENUES (NRS 353.229) AT ITS NOVEMBER 1, 2016, MEETING.

Mr. Guindon, Principal Deputy Fiscal Analyst, Fiscal Analysis Division, announced that the Technical Advisory Committee Forecasts (TABLE 5) could be found on page 61 ([Exhibit A](#)) of the meeting packet. He explained that TABLE 5 includes the General Fund revenue sources that the Economic Forum directed the TAC (the statutory body that supports the Economic Forum) to produce a consensus forecast for the Forum's consideration. He made it clear that all forecasts are preliminary, because an additional month of data will be taken into consideration that could affect the forecast that will be presented to the TAC at their next meeting on November 29, 2016. At that meeting, the TAC will finalize those forecasts, which will then be brought forward to the Economic Forum at their December 6, 2016, meeting.

Mr. Guindon explained that the Fiscal Analysis Division and the Budget Division receive data relating to the minor General Fund revenue sources from the Executive Branch agencies that have the statutory responsibility for administering and collecting the various taxes and fees. Independent forecasts are provided by the Agency, the Fiscal Division and the Budget Division. Staff from Budget and Fiscal come together to review it and generate a consensus forecast to then take forward and present to the TAC for their consideration. The TAC is allowed to make adjustments to the consensus forecast; however, the TAC did not make any adjustments to the consensus forecast at their November 1, 2016, meeting.

Mr. Guindon summarized the following list of minor General Fund revenue sources from the Fiscal and Budget Divisions' point of view, as well as discussions by the members of the TAC, that will be worked on before the November 29, 2016, meeting of the TAC.

- Net Proceeds of Minerals: This tax was subject to sunset provisions that were pushed forward every two years, but the Governor recommended and the Legislator approved that the sunset be pushed forward one year. To provide some history, Mr. Guindon explained that the tax used to be based on the actual preceding calendar year's business activity, but was changed to be based on an estimate for the current calendar year with a true-up against the estimate when the actual calendar year is known. For example, an estimate would be made in the early part of the current calendar year, paid in that fiscal year, and then true-up a year later and submitted along with another estimated payment for the current calendar year. Mr. Guindon explained that the estimate for FY 2017 was zero back in May 2015, because the expected value of the true-up of the estimate for calendar year 2016, paid in FY 2016, was zero. If it were non-zero, then it implied the estimate for calendar year 2016, paid in FY 2016, was not the correct estimate if it was anticipated there would be non-zero true-up in FY 2017. However, the estimate for FY 2017 true-up is now non-zero, because the information available to the forecasters is much different in November 2016 than in May 2015. The information on what the mining industry estimated for calendar year 2016, and paid in FY 2016, is known, and has been provided to the Budget Office and Fiscal Division by the Department of Taxation. Based on the current information available on gold prices compared to projections used by the mining industry to prepare their estimate back in March 2016, it is now projected that the actual net proceeds for calendar year 2016 will be higher than projected by the industry. The actual gold prices in calendar year 2016 year-to-date have been running higher than those used by the industry to prepare their estimates for calendar year 2016. This is the reason why a positive amount of revenue is projected in FY 2017 for Net Proceeds of Minerals tax due to the true-up provisions for calendar year 2016 in FY 2017 compared to the estimate used for tax payments in FY 2016. Mr. Guindon clarified that Fiscal's forecast reflects what the true up will be, and deposited in the State General Fund for FY 2017. He said beginning in FY 2018, FY 2018 will be based on actual calendar year 2017 business activity and FY 2019 business activity will be based on estimates for actual calendar year 2018 business activity. He explained that is why the forecast for the NPMT revenue source shows abnormal behavior of approximately \$35 million in actual collections in FY 2016 and approximately \$9.5 million for FY 2017.
- Transportation Connection Tax: This tax is also known as the Passenger Carrier Tax, or the Uber Tax, that also applies to taxicabs, limousines, busses, etc.

Chairman Wiles observed the volatility of the Transportation Connection Tax, where it averaged increased growth of 80% for FY 2017; dropped to approximately -20% for FY 2018; and increased approximately 30% for FY 2019.

Mr. Guindon clarified that, under the law that was passed, in every even-numbered year the first \$5 million goes to the Highway Fund and the rest goes to the General Fund.

- Governmental Services Tax (GST): Subject to a law change in 2016, effective for FY 2017, the revenue forecast drops for FY 2017 due to the 50/50 split in distribution between the Highway Fund and the General Fund, whereas beginning in FY 2018, 100% of collections from the GST will be distributed to the Highway Fund.
- Live Entertainment Tax-Nongaming: Under direction from the Forum, staff to the Economic Forum and the TAC will still produce a LET-Nongaming forecast and bring it forward in a table for consideration by the Forum at the December 6, 2016, meeting, along with the data requested by Mr. Maddox.

Mr. Guindon moved to page 63 ([Exhibit A](#)), TABLE 6, a tabulation of the General Fund revenue sources for FY 2017, FY 2018 and FY 2019. He pointed out on page 67 ([Exhibit A](#)) that the Commerce Tax credit totals zero, because the Economic Forum will make a gross forecast for the Commerce Tax, and that a forecast of the credit against the MBT will be prepared. The Commerce Tax credits against the MBT will be tied to the estimate that the Economic Forum approves at their December meeting.

Mr. Guindon identified the following tax credit programs shown on page 67, shaded in grey, and explained that they are current consensus estimates that Budget and Fiscal staff put together based on the most current information, which were prepared and presented to the TAC, and approved.

- Nevada New Market Jobs Act Tax Credit: This tax credit program has a phase-out in terms of when the credits may be taken. He said Fiscal staff will re-evaluate the forecast for FY 2019 to make sure their logic is correct.
- Economic Development Transferrable Tax Credits: These tax credits relate to Tesla and Faraday Future. The Tesla tax credits are a maximum of \$45 million per year, and can be carried forward to another fiscal year. Mr. Guindon added that in FY 2016, \$45 million in tax credits was on the sheets, but only \$20.46 million was taken. He said staff is working with the Governor's Office of Economic Development (GOED) to obtain the information they offered at the Economic Forum's October 7, 2016, meeting, so it can be taken into account for the Forum's December meeting (there was no information provided by GOED for this November forecast) He said there may be adjustments to those tax credits regarding the carry forward, but staff is also waiting to hear what Tesla's plans are for the next 2.5 years with regard to capital investment, building schedule and job hiring. Tesla is contracted to receive 5% of the first billion dollars in new capital investment in the state and 2.8% of the next \$2.5 billion of new capital investment made in the state. Mr. Guindon indicated Tesla is probably within \$350 million of exhausting that first billion dollars of capital investment. He told the members that Tesla has to spend \$2.5 billion under that 2.8% rate versus the 5% to get the maximum tax credits of the first \$1 billion. Tesla can also receive \$12,500 for each qualified

employee, and Faraday Future provisions allow them a maximum of \$7.6 million per year in tax credits, which is the reason these tax credits jump from \$45 million in FY 2017 to \$52.6 million in FY 2018 and FY 2019. Mr. Guindon conveyed that the Budget and Fiscal Division feel it is fiscally prudent to forecast the maximum credits unless they receive information specifying otherwise.

Mr. Guindon stated the minor General Fund revenue sources listed above were worth mentioning; however, they can be covered in more detail at the December 6, 2016, meeting. He suggested the members contact Chairman Wiles or himself directly with any questions or requests for additional analysis between now and the next meeting. He reconfirmed the Forums request for the LET information requested earlier in the meeting by Mr. Maddox.

In closing, Mr. Guindon shared an observation with the members. He said relative to total revenue sources forecast by the TAC, without the tax credits, the forecast for the FY 2017-19 biennium is about \$52.9 million less than the forecast for the FY 2015-17 biennium, which is actual FY 2016 plus the revised forecast for FY 2017 (page 73, [Exhibit E](#)). He said the vast majority of that negative result is because approximately \$105 million is lost from the GST. He reminded the committee that 100% of the GST was allocated to the General Fund for FY 2016, 50% is allocated to the General Fund for FY 2017 and 0.0% is allocated for FY 2018 and FY 2019, thus the major reason for the downward result of the FY 2018 and FY 2019 forecasts for all the minor General Fund revenue sources compared to the prior FY 2015-17 biennium, due to statutory provisions under law.

Chairman Wiles reiterated that the next Economic Forum meeting will be held December 6, 2016, which will be a forecasting meeting. He expressed concern that the Forum would not be able to start that meeting in Carson City until 10:00 a.m. due to Southwest Airlines' available flight schedule to Reno. Mr. Guindon advised under the open meeting law to post the agenda for 9:30 a.m. in lieu of 10:00 a.m. to accommodate the late start; however, if members arrived before 10:00 a.m., they could start the meeting. Chairman Wiles requested that staff confirm the flights again with Southwest Airlines before posting the agenda.

Chairman Wiles expressed concern that a late start at the December meeting could create an issue with preparing the final forecasts for the Governor and the Legislators. Mr. Guindon reminded the Forum that the December meeting would only include forecasting only, no other presentations. He reconfirmed the direction provided earlier to staff, by the members, to only report on the differences with brief explanations between the November and December forecasts.

XII. PUBLIC COMMENT.

(Because of time considerations, speakers are urged to avoid repetition of comments made by previous speakers. A person may also have comments added to the minutes of the meeting by submitting them in writing either in addition to testifying or in lieu of testifying. Written comments may be submitted in person or by email, facsimile, or mail before, during, or after the meeting.)

There was no public comment at the Las Vegas or Carson City meeting locations.

Chairman Wiles extended his appreciation to the presenters and staff for keeping up with all the changes that are occurring at the state level, given the uncertainty revolved around differing federal policies.

XIX. ADJOURNMENT.

The meeting adjourned at 3:21 PM

Respectfully submitted,

Judy Lyons, Committee Secretary

APPROVED:

Ken Wiles, Chairman

Date: _____

Copies of exhibits mentioned in these minutes are on file in the Fiscal Analysis Division at the Legislative Counsel Bureau, Carson City, Nevada. The division may be contacted at (775) 684-6821.