GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

Governor's Budget
Fiscal Years 2016 – 2017

Revenue Estimates
General Fund and Select Funds

Governor's Office of Budget
and Program Planning

Volume 2

TABLE OF CONTENTS

Economic Overview 1-1

General Fund Revenue Summary 2-1

Major Revenue
- Individual Income Tax 3-1
- Property Tax 3-12
- Vehicle Taxes and Fees 3-24
- Corporation License Tax 3-29
- Insurance Premiums Tax 3-34
- Video Gambling Tax 3-38

Natural Resource Revenue
- Oil and Natural Gas Severance Taxes 4-1
- U.S. Mineral Royalties 4-15
- Coal Severance Tax 4-19
- Metalliferous Mines License Tax 4-22
- Electrical Energy Producer's License Tax 4-25
- Wholesale Energy Transaction Tax 4-27

Interest Revenue
- Interest Rates Introduction 5-1
- Coal Trust Interest Earnings 5-4
- Treasury Cash Account (TCA) Interest 5-7

Liquor Revenue
- Liquor Excise and License Tax 6-1
- Liquor Profits 6-3
- Beer Tax 6-5
- Wine Tax 6-7

Tobacco Revenue
- Cigarette Tax 7-1
- Tobacco Products Tax 7-3
- Tobacco Settlement 7-5

Sales Revenue
- Telecommunications Excise Tax 8-1
- Accommodations Tax 8-3
- Institutional Reimbursement 8-5
- Health Care Facility Utilization Fees 8-7
- Rental Car Sales Tax 8-9

Other General Fund Revenue
- Lottery Profits 9-1
- Highway Patrol Fines 9-5
- Investment Licenses and Permits 9-7
- Public Contractors' Gross Receipts Tax 9-9
- Driver's License Fees 9-11

Rail Car Tax 9-15
Other Revenue 9-17

Non- General Fund Revenue
School Trust Land Interest and Income 10-1
Tobacco Settlement Trust Interest 10-4
Introduction to Coal Trust Interests 10-6
Coal Severance Tax Bond Fund 10-7
Coal Severance Tax Permanent Fund 10-7
Treasure State Endowment Fund 10-8
Treasure State Endowment Regional Water System Fund 10-9
Big Sky Economic Development Fund 10-10
Resource Indemnity Tax 10-11
Resource Indemnity Trust Interest 10-14

Summary of Major Assumptions 11-1

Index 12-1

GOVERNOR
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STATE OF MONTANA

ECONOMIC OVERVIEW
SECTION 1

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Economic Overview

Introduction

Revenue estimates are a core piece of the executive budget because they inform both current and future expenditure decisions. The method of estimating state revenue is grounded in economic theory and built on economic assumptions. Appropriately digesting economic data is important to understanding the intricacies of the various sectors of the economy, many of which contribute tax revenue to the state of Montana.

In addition to knowing the details of individual sectors, it is helpful to have a big picture understanding of the economy as a whole. This section provides a succinct overview of economic conditions in the national economy and then moves into a more detailed discussion of the current outlook for the Montana economy. The economic overview is meant to shed light on some of the more broad economic assumptions that are consistent across all of the revenue estimates. Further detail on sector-specific economic assumptions is available in the descriptions of each individual revenue source.

Conditions in the National Economy

Overview

The US economy experienced the most severe downturn since the Great Depression in calendar years (CY) 2008 and 2009. This recession – referred to as the Great Recession – was sparked by the collapse of the housing market and was exacerbated by turmoil in the financial sector. The recovery from the depths of the Great Recession has been long and slow and experienced a hiccup during the winter of CY 2014. The economy is picking up speed, but potential roadblocks loom in the form of weak world oil demand and increases in short-term interest rates. If the dip in oil prices persists, it is unclear what the impact would be on the US economy and Montana. Cheaper energy inputs would be welcome in some parts of the economy, but could put the brakes on the current revival of the US oil industry. The Federal Reserve (Fed) is keeping a close eye on US economic data as it decides if and when it wants to ease back into the realm of tighter monetary policy. Strengthening US gross domestic product (GDP) growth, an improving employment picture, and stability in private financial markets are contributing to a largely positive outlook for economic activity going forward through the 2017 biennium.

Table 1 summarizes three key national economic indicators for fiscal years (FY) 2005 through 2014 and IHS Economics' forecasts for FY 2015 through FY 2017, as of October 2014.

Table 1
Gross Domestic Product, Unemployment, and Inflation

Fiscal	U.S. Gross Domestic Product		Unemployment	Inflation
Year	Billions $	Change	Rate	Rate
2005	$12,679	6.5%	5.3%	1.9%
2006	$13,509	6.5%	4.8%	2.0%
2007	$14,158	4.8%	4.5%	2.0%
2008	$14,684	3.7%	5.0%	2.1%
2009	$14,529	-1.1%	7.6%	2.1%
2010	$14,630	0.7%	9.8%	2.2%
2011	$15,247	4.2%	9.3%	2.2%
2012	$15,856	4.0%	8.5%	2.3%
2013	$16,431	3.6%	7.8%	2.3%
2014	$17,081	4.0%	6.8%	2.3%
2015	**$17,840**	**4.4%**	**5.8%**	**2.4%**
2016	**$18,601**	**4.3%**	**5.6%**	**2.4%**
2017	**$19,535**	**5.0%**	**5.4%**	**2.5%**

US Corporate Sector

Table 2 presents the developments in the United States corporate sector, as represented by corporate profits and the path of the Standard & Poor's 500 stock index (S&P 500), for FY 2005 through FY 2014 and the IHS Economics baseline forecast for FY 2015, FY 2016, and FY 2017. The table shows that as the national economy went through the Great Recession, corporate profits slowed in FY 2007 and then declined rapidly until FY 2010 when they bounced back strongly, recovering most of the decline of the prior two years. The fiscal year averages smoothed out quarterly changes. Before-tax corporate profits declined in late CY 2013 and early CY 2014, but have since recovered.

Table 2
Corporate Profits and
Standard & Poor's 500 Stock Index

Fiscal	Corporate Profits		S&P 500	
Year	Billions $	Change	Index	Change
2005	$1,448	30.1%	1,160	7.6%
2006	$1,775	22.6%	1,255	8.2%
2007	$1,820	2.5%	1,400	11.6%
2008	$1,643	-9.7%	1,427	1.9%
2009	$1,254	-23.6%	966	-32.3%
2010	$1,713	36.6%	1,086	12.4%
2011	$1,833	7.0%	1,231	13.4%
2012	$1,978	7.9%	1,288	4.7%
2013	$2,173	9.9%	1,486	15.4%
2014	$2,325	7.0%	1,795	20.8%
2015	**$2,512**	**8.0%**	**2,008**	**11.8%**
2016	**$2,508**	**-0.1%**	**2,086**	**3.9%**
2017	**$2,473**	**-1.4%**	**2,163**	**3.7%**

The forecast for corporate profits anticipates that they will remain at high levels. The S&P 500 index forecast reflects those trends as well. While the corporate profits forecast in Table 2 are estimates of profits of all firms nationally, Montana participates in this national activity. In fact, the largest 25 Montana corporate income tax filers (of over 16,500 total filers) generally pay over 50% of Montana's annual corporate tax receipts. These firms apportion their national or worldwide profits to state taxing jurisdictions. Thus, the bulk of corporate income tax revenues are better reflected in the national corporation profits and S&P 500 index trends. Income from "main street" Montana businesses is principally reflected in Montana personal income with taxes on those incomes reported on individual income tax returns, as these firms tend to file partnership and "S" corporation returns.

Conditions in the Montana Economy

Montana Production and Income

Montana's economy was not affected by the Great Recession as severely as the national economy. Gross state product (GSP) and personal income in Montana for FY 2005 through FY 2014 are shown in Table 3, along with forecasts for FY 2015 through FY 2017 from IHS Economics. In the years leading up to the recession, Montana GSP growth outpaced national GDP growth. Montana's economy dipped in FY 2009 alongside the national economy, but recovered at a faster rate, nearly reaching 7% growth in FY 2012. Economic growth in Montana reverted back to near the growth rate in national GDP during FY 2013 and FY 2014. The projection for the FY 2015 through FY 2017 period for the Montana economy is slightly slower growth than the national economy, with GSP growth averaging just under 4.4% for the 2017 biennium.

A good summary indicator of how changes in the economic environment may impact state revenue collections is Montana personal income. Personal income is the combination of multiple variables (wages and salaries, capital gains, transfers, proprietors' incomes, inflation, etc.) that can play a big role in influencing the state revenue picture. Montana experienced rapid growth in personal income from FY 2005 to FY 2008. As a result of the Great Recession, personal

income growth in the state approached zero percent in FY 2009 and FY 2010, averaging just under 0.5% for those two years. Significant increase in personal income growth occurred in FY 2011 and FY 2012, but cooled off thereafter. For the 2017 biennium, personal income in Montana is expected to grow by over 4% each year.

Table 3
Gross State Product and Personal Income
($ millions)

Fiscal Year	Gross State Product	Percent Change	Personal Income	Percent Change
2005	$29,240	7.5%	$26,843	5.8%
2006	$31,811	8.8%	$28,871	7.6%
2007	$34,428	8.2%	$31,095	7.7%
2008	$36,487	6.0%	$33,246	6.9%
2009	$36,011	-1.3%	$33,485	0.7%
2010	$36,599	1.6%	$33,545	0.2%
2011	$38,711	5.8%	$35,488	5.8%
2012	$41,361	6.8%	$38,038	7.2%
2013	$43,055	4.1%	$39,838	4.7%
2014	$44,464	3.3%	$40,664	2.1%
2015	**$46,106**	**3.7%**	**$42,382**	**4.2%**
2016	**$48,014**	**4.1%**	**$44,206**	**4.3%**
2017	**$50,239**	**4.6%**	**$46,640**	**5.5%**

Montana Employment and Population

Montana non-farm employment, working age population, and total population for FY 2005 through FY 2014 are presented in Table 4 along with IHS Economics' forecasts for FY 2015 through FY 2017. Total Montana employment grew at an average annual pace of 2.3% from FY 2005 to FY 2007. Employment growth slowed in FY 2008 and then turned negative in FY 2009 and FY 2010 as the impacts of the Great Recession took hold of the economy. With the recovery, Montana employment increased slightly in FY 2011 and then experienced strong growth in FY 2012, FY 2013, and FY 2014. Over the 2017 biennium, employment growth is predicted to average a growth rate of 1.5%, falling short of the rapid growth exhibited in the FY 2005 to FY 2007 period, a rate that proved to be unsustainable. The employment forecast is more indicative of growth during times of economic stability in Montana.

Employment growth differs across regions in the state. Montana is a large state and the many sectors that make up the economy have responded differently in the wake of the Great Recession. The eastern portion of the state has benefited from oil and gas development of the Bakken shale formation. In addition to drilling activity, there has been a host of oilfield service companies that have cropped up to meet the needs of the oil and gas industry. The surge in economic activity in the Bakken oilfield has boosted employment in many of Montana's easternmost counties. Employment in the northwest region of Montana has been the slowest to recover from the recession. Economic activity in this region was concentrated in wood product manufacturing and construction, two industries that were hit hard during the downturn. Southwest Montana suffered from the collapse in the construction industry as well, but employment in this region has fared better during the recovery than employment in northwest Montana. Overall, employment growth in Montana has outpaced the national average.

Table 4
Montana Employment, Working Age, and Total Population

Fiscal Year	Employment	Percent Change	Working (16-65) Age Population	Percent Change	Total Population	Percent Change
2005	458,322	1.9%	628,762	1.4%	936,309	1.1%
2006	469,866	2.5%	637,238	1.3%	947,958	1.2%
2007	482,193	2.6%	645,282	1.3%	960,189	1.3%
2008	487,568	1.1%	651,595	1.0%	972,013	1.2%
2009	476,477	-2.3%	655,140	0.5%	981,140	0.9%
2010	462,733	-2.9%	657,976	0.4%	988,336	0.7%
2011	463,675	0.2%	660,893	0.4%	994,948	0.7%
2012	471,958	1.8%	662,072	0.2%	1,002,529	0.8%
2013	481,712	2.1%	663,378	0.2%	1,011,531	0.9%
2014	488,814	1.5%	664,963	0.2%	1,021,081	0.9%
2015	**499,301**	**2.1%**	**665,524**	**0.1%**	**1,030,238**	**0.9%**
2016	**508,167**	**1.8%**	**665,631**	**0.0%**	**1,039,192**	**0.9%**
2017	**514,217**	**1.2%**	**665,802**	**0.0%**	**1,048,176**	**0.9%**

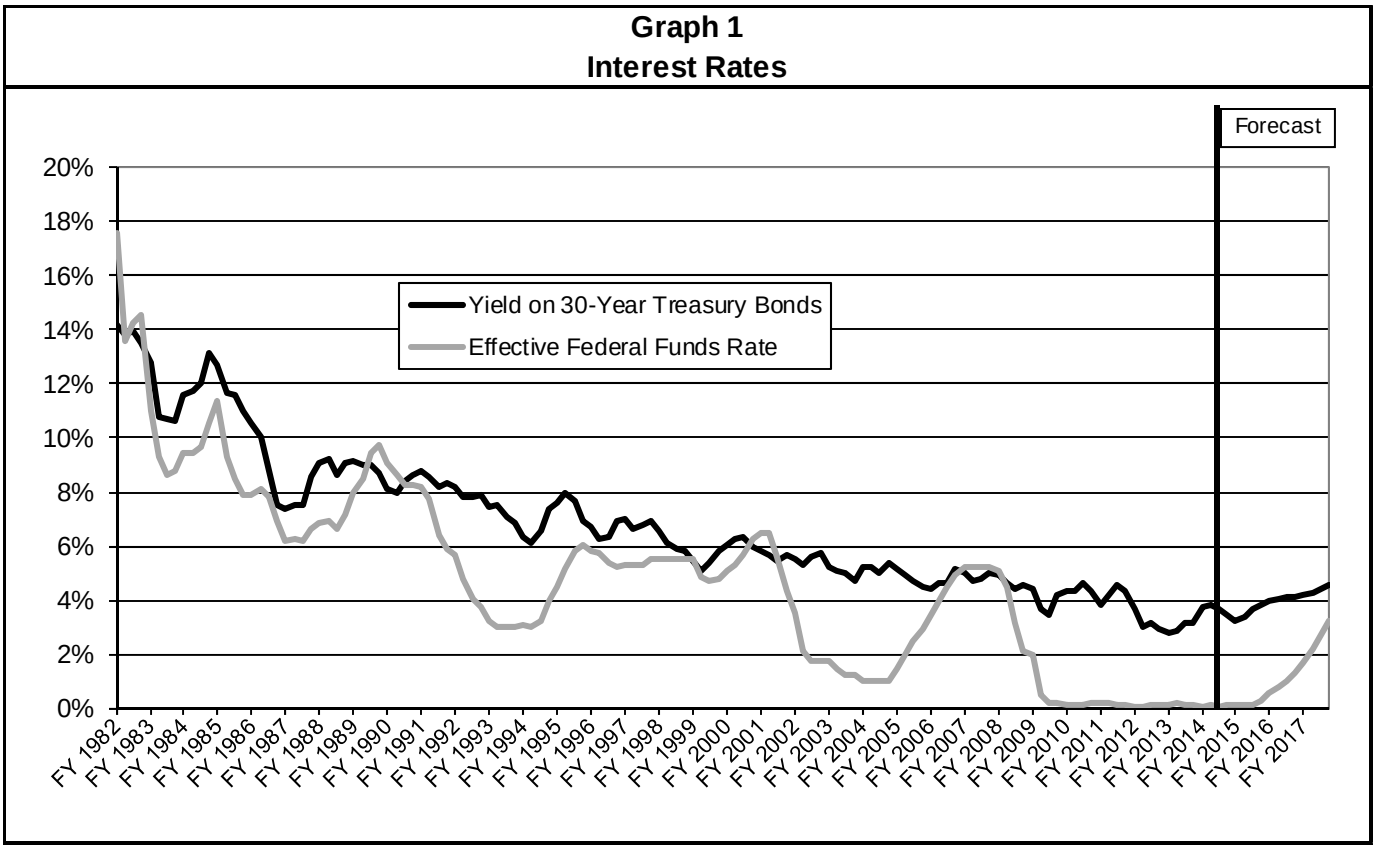
From FY 2005 to FY 2008, the total population in Montana grew at an average pace of 1.2% per year. The population growth rate dipped below 1% in FY 2009, and has remained near 0.8% through FY 2014. Montana's population eclipsed one million individuals in FY 2012. Throughout the 2017 biennium, annual population growth is expected to remain consistent at rates seen in recent years.

The story is different when focusing on the working age population in Montana. Working age population growth is slowing, and is forecast to reach zero percent growth in FY 2016 and FY 2017 as individuals in the "baby boomer" generation are retiring. As these individuals exit the working age population, there are fewer individuals achieving working age to mitigate the declining growth of this large chunk of the population. This leveling-out of the working age population may put upward pressure on wages as the economy continues to improve. Rising demand for labor in the face of constrained supply generally translates into higher wages; however, wage pressures could be mitigated by increases in the labor force participation rate, which has been ticking upward lately. Productivity gains, in-migration, and technology will also help offset the negative impacts of this change in the workforce.

Interest Rates

The state earns interest on trust funds, such as the coal severance tax trust fund, the school trust, and the tobacco settlement trust, and on short-term cash holdings in the general fund and other state funds. The state also pays interest on funds it borrows. Trust fund interest earnings and payments on debt are affected by changes in long-term interest rates. Most bonds held by the state trust funds are kept for several years; consequently, trust fund interest earnings are affected more by long-term trends than year-to-year variations. On the other hand, interest earnings on cash balances and interest payments on short-term debt are affected by short-term interest rates.

Graph 1 shows the effective federal funds rate and the annualized yield on 30-year US Treasury obligations from FY 1982 through the first quarter of FY 2015 and IHS Economics' forecast through FY 2017.

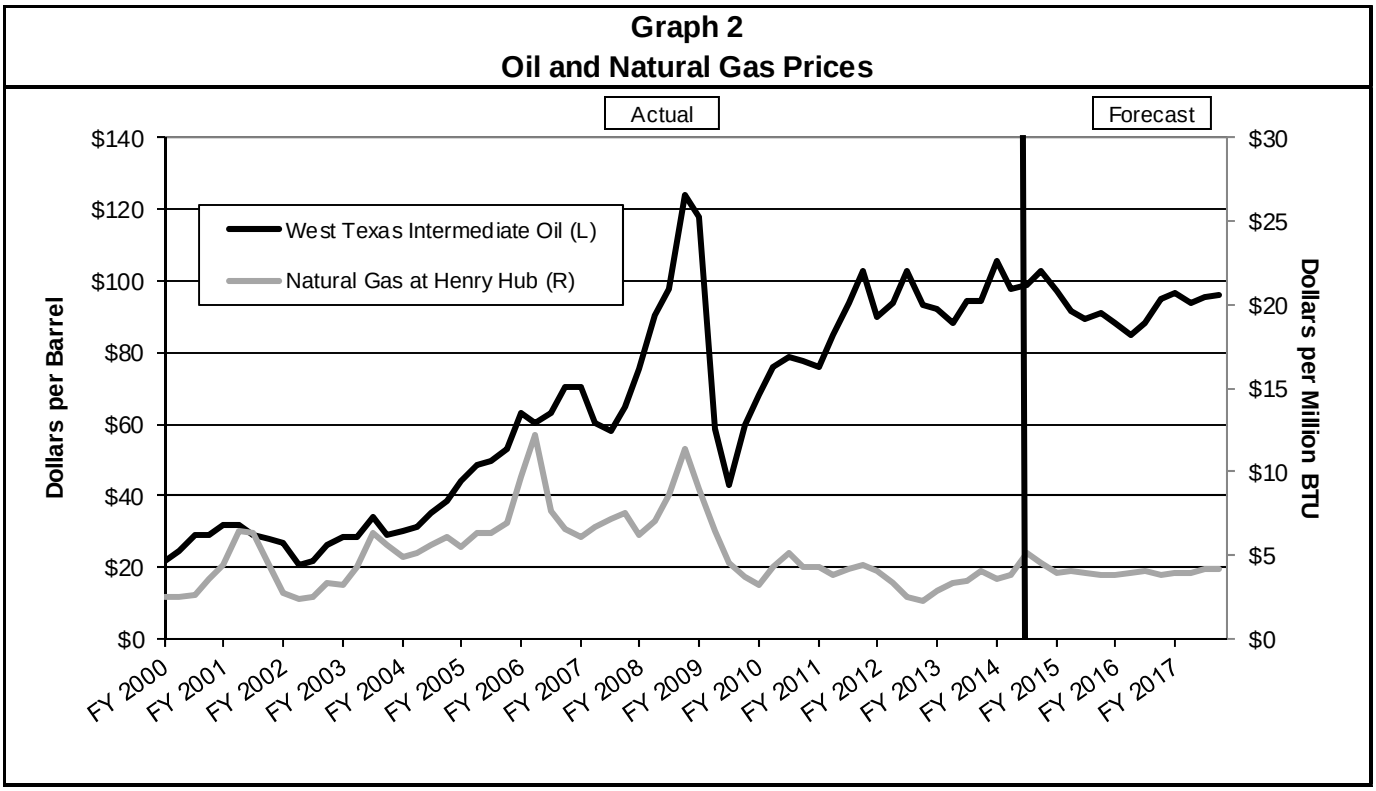


Both long-term and short-term interest rates have been trending downward since they reached historic highs in the 1980s. Over this time period, short-term interest rates have experienced more pronounced spikes and dips than long-term interest rates, a result of their ability to respond quickly to changes in economic conditions. In response to the economic downturn in CYs 2008 and 2009, the Federal Reserve Open Market Committee (FOMC) engaged in expansionary monetary policy that resulted in short-term interest rates falling to unprecedented lows. The federal funds rate (the rate banks charge each other on overnight loans used to meet reserve requirements) dropped to near zero. In a further effort to stimulate the economy, the Fed aimed to increase the money supply by purchasing large amounts of longer-term Treasury securities, along with mortgage-backed securities from the federally-sponsored home mortgage agencies Freddie Mac and Fannie Mae. This policy, referred to as quantitative easing, had the goal of pushing down long-term interest rates in order to boost a weak housing market and incentivize private sector investment. The Fed instituted three rounds of quantitative easing, with the third round wrapping up in October 2014. With the federal funds rate expected to rise sometime in CY 2015, and the end of the Fed's long run of quantitative easing, the era of historically low short-term and long-term interest rates might be slowly drawing to a close.

Oil and Natural Gas Prices

Oil and natural gas prices are linked to state revenues through royalties and taxes levied on oil and gas production in the state. As oil production from the Bakken shale formation in eastern Montana brought a new oil boom to the state, the price of oil became a relatively more important factor for state revenue collections. Montana crude oil prices are linked to the price of West Texas Intermediate (WTI) crude oil, a national benchmark price. Because of transportation costs, Montana oil trades at a price discount to WTI. The discount between Montana and WTI oil is not fixed and varies depending on regional supply and demand dynamics. Montana natural gas prices are determined less by national market activity and more by activity in local/regional markets.

Graph 2 shows quarterly historic and forecast national oil and natural gas benchmark prices. Historic prices are from FY 2000 through the first quarter of FY 2015. The price of WTI in dollars per barrel is shown on the left axis, and the price of Henry Hub natural gas in dollars per million BTU (mmbtu) is shown on the right axis.



The hydraulic fracturing revolution currently taking place in the US has reshaped the country's domestic oil and natural gas picture. Generally rising oil prices since CY 2000 has supported the more costly method of oil extraction associated with horizontal drilling and hydraulic fracturing. The increasing supply of shale oil in the US has resulted in a glut of crude oil in the midcontinent and gulf coast regions. Since the US bans the export of crude oil, midcontinent and gulf coast refiners have been operating at near peak levels in order to keep up with the growing supply of domestic crude oil. Even so, WTI has been trading at a price discount to international benchmark crude oils such a North Sea Brent since CY 2010.

Both oil and natural gas prices in the US rose sharply from CY 2007 - CY 2008, and then came tumbling back down from CY 2008 - CY 2009. Since then, oil prices climbed steadily until leveling out near the $100/barrel mark in CY 2011, remaining there until the most recent dip in CY 2014. Henry Hub natural gas prices dropped to near the $2/mmbtu mark in the first half of CY 2012 in response to increased natural gas production from shale formations. Prices recovered in the second half of CY 2012 and climbed steadily during CY 2013 - CY 2014. The outlook for natural gas prices is relatively flat, with prices at the Henry Hub hovering between $4 and $5/mmbtu.

Recently, growing global oil supplies and a weak demand outlook have contributed to a significant drop in oil prices since the middle of CY 2014. Both Brent and WTI prices fell below $90/barrel in October. If the drop in oil prices continues, there could be ramifications for the shale oil industry as some higher-cost wells may become uneconomical; however, the price dip would have to be deeper and last longer before large numbers of wells begin to be shut off. The volatility of oil prices makes even a month-ahead forecast uncertain, because unexpected events such a political unrest, natural disasters, and economic shocks can cause rapid, large swings in prices.

Age Structure of the Montana Population

Table 5 shows the CYs 1990, 2000, and 2010 census counts for Montana's population, along with the forecast from IHS Economics for CY 2017. The population numbers are broken down into ten-year age groups, showing the number of individuals in each age group as well as the group's percentage of the total population.

Table 5
Age Structure of Montana Population

Age	1990 Persons	1990 %	2000 Persons	2000 %	2010 Persons	2010 %	**2017 Forecast Persons**	**2017 Forecast %**
0-9	125,605	15.7%	116,546	12.9%	122,912	12.4%	**128,607**	**12.2%**
10-19	119,931	15.0%	140,754	15.6%	127,554	12.9%	**126,634**	**12.0%**
20-29	104,180	13.0%	109,379	12.1%	131,731	13.3%	**139,094**	**13.2%**
30-39	135,117	16.9%	118,664	13.1%	114,181	11.5%	**126,125**	**12.0%**
40-49	103,525	12.9%	149,416	16.5%	127,973	12.9%	**120,492**	**11.5%**
50-59	71,115	8.9%	109,901	12.2%	155,245	15.7%	**144,663**	**13.8%**
60-69	66,904	8.4%	70,235	7.8%	110,350	11.1%	**133,732**	**12.7%**
70-79	49,752	6.2%	54,610	6.0%	60,016	6.1%	**83,080**	**7.9%**
80+	24,074	3.0%	34,268	3.8%	40,566	4.1%	**49,188**	**4.7%**
Total	800,203	100.0%	903,773	100.0%	990,528	100.0%	**1,051,615**	**100.0%**

The table shows that the cohort over the age of 60 is growing as a share of the total population. At the 2000 census, individuals over 60 years of age represented 17.6% of the population in Montana. By 2010, this number had grown to 21.3%. The aging population in Montana is a reflection of a national trend and is expected to continue. In 2017, the percentage of individuals 60 years or older is predicted to make up approximately 25% of Montana's total population. Along those same lines, the cohort of individuals over 40 years old is forecast to represent over 50% of the population by 2017.

Economic Structure

Table 6 shows Montana's GSP divided into eleven sectors. Actual GSP by sector is shown for CY 2006 and CY 2010, with forecast values for CY 2014 and CY 2018. In addition to the dollar value of each sector's GSP, the sector's share of total state GSP is shown in Table 6. For sectors that have grown faster than the economy as a whole, their share of total output has increased over time. The opposite is true for sectors that have grown at a slower rate than the overall economy.

Table 6
Montana Gross State Product by Sector
($ millions)

Economic Sector	CY 2006 $	CY 2006 %	CY 2010 $	CY 2010 %	**CY 2014 $**	**CY 2014 %**	**CY 2018 $**	**CY 2018 %**
Other Services	$7,422	22.6%	$8,851	23.6%	**$10,440**	**23.1%**	**$12,603**	**23.7%**
Finance, Insurance, & Real Estate	$5,494	16.7%	$6,665	17.8%	**$8,077**	**17.9%**	**$9,536**	**17.9%**
Transp., Comm., & Util.	$3,165	9.6%	$3,697	9.9%	**$4,083**	**9.0%**	**$4,659**	**8.8%**
State and Local Gov't, Schools	$3,504	10.7%	$4,159	11.1%	**$4,504**	**10.0%**	**$5,046**	**9.5%**
Retail Trade	$2,324	7.1%	$2,475	6.6%	**$2,802**	**6.2%**	**$3,247**	**6.1%**
Manufacturing	$2,193	6.7%	$1,982	5.3%	**$3,068**	**6.8%**	**$3,605**	**6.8%**
Wholesale Trade	$1,852	5.6%	$1,993	5.3%	**$2,526**	**5.6%**	**$3,180**	**6.0%**
Construction	$2,332	7.1%	$1,992	5.3%	**$2,324**	**5.1%**	**$2,786**	**5.2%**
Federal Government	$1,286	3.9%	$1,555	4.1%	**$1,497**	**3.3%**	**$1,575**	**3.0%**
Agriculture, Forestry, & Fishing	$1,003	3.1%	$1,447	3.9%	**$2,538**	**5.6%**	**$2,990**	**5.6%**
Mining	$1,808	5.5%	$2,164	5.8%	**$2,701**	**6.0%**	**$3,208**	**6.0%**
Military	489.00	1.5%	541.99	1.4%	**579.41**	**1.3%**	**$716**	**1.3%**
Total	$32,875	100.0%	$37,520	100.0%	**$45,138**	**100.0%**	**$53,152**	**100.0%**

During the 1990s and early 2000s Montana's service sectors grew from approximately 45% of total state GSP to over 53% of GSP. During this same time period, Montana's goods-producing sectors fell from approximately 23% to near 17% of state GSP. Since then, the service sectors have regressed somewhat as a share of GSP and the goods-producing sectors have rebounded. There are sectors of the economy that produce services almost exclusively, and in Montana these sectors include the following: finance and insurance, real estate, retail trade, wholesale trade, and other services. Similarly, there are sectors of the economy that are mostly goods-oriented. In Montana, these sectors are: agriculture, forestry, fishing, mining, manufacturing, and construction. The other sectors of the economy produce a mixture of goods and services. Together, the service sectors accounted for 53.3% of state GSP in CY 2010, and are forecast to be responsible for 52.8% of GSP in CY 2014 and 53.7% of GSP in CY 2018. The goods-producing sectors accounted for 20.3% of GSP in 2010, and are forecast to make up 23.5% and 23.6% of GSP in 2014 and 2018, respectively. Rounding out the sectors, those that produce a mix of goods and services made up 26.4% of GSP in 2010. In 2014, these mixed-product sectors are expected to account for 23.7% of GSP and in 2018 are expected to account for 22.7% of GSP.

Table 7 shows actual Montana wages and salaries divided into fifteen sectors[1] for CY 2006 and CY 2010 and IHS Economics' forecast for CY 2014 and CY 2018. Wages and salaries for professional and business services have consistently grown faster than wages in the economy as a whole, and are expected to continue along this trend. As the population ages, health services are expected to drive continued growth in the education and health service group. State and local governments as well as local schools are expected to slightly reduce their share of wages and salaries. Construction and mining dropped in 2010 due to the economic downturn, but are expected to rebound in 2014 and 2018.

Table 7
Montana Wage and Salary Income by Economic Sector
($ millions)

	2006		2010		**2014**		**2018**	
Economic Sector	$	%	$	%	$	%	$	%
Educational & Health Svcs	$1,885	13.5%	$2,370	15.3%	**$2,871**	**15.6%**	**$3,626**	**16.1%**
State & Local Government, Schools	$2,166	15.5%	$2,574	16.6%	**$2,767**	**15.0%**	**$3,191**	**14.1%**
Professional & Business Svcs	$1,255	9.0%	$1,530	9.9%	**$1,903**	**10.3%**	**$2,523**	**11.2%**
Construction and Mining	$1,574	11.3%	$1,470	9.5%	**$1,942**	**10.5%**	**$2,662**	**11.8%**
Retail Trade	$1,261	9.0%	$1,335	8.6%	**$1,548**	**8.4%**	**$1,836**	**8.1%**
Financial Activities	$886	6.3%	$933	6.0%	**$1,106**	**6.0%**	**$1,338**	**5.9%**
Leisure & Hospitality	$799	5.7%	$903	5.8%	**$1,143**	**6.2%**	**$1,390**	**6.2%**
Manufacturing	$759	5.4%	$696	4.5%	**$861**	**4.7%**	**$1,014**	**4.5%**
Transportation, Warehousing & Utilities	$746	5.3%	$806	5.2%	**$1,037**	**5.6%**	**$1,184**	**5.2%**
Federal Government	$740	5.3%	$851	5.5%	**$815**	**4.4%**	**$892**	**4.0%**
Wholesale Trade	$673	4.8%	$711	4.6%	**$912**	**5.0%**	**$1,092**	**4.8%**
Other Services	$440	3.2%	$491	3.2%	**$578**	**3.1%**	**$677**	**3.0%**
Agriculture, Forestry & Fishing	$232	1.7%	$250	1.6%	**$346**	**1.9%**	**$421**	**1.9%**
Military	$274	2.0%	$296	1.9%	**$295**	**1.6%**	**$369**	**1.6%**
Information	$290	2.1%	$308	2.0%	**$296**	**1.6%**	**$353**	**1.6%**

Risks and Opportunities

As stated previously, the executive budget is based on assumptions about economic conditions during the 2017 biennium. It is important to understand that these are assumptions about the future and they may or may not hold true as time progresses. There is a certain level of uncertainty associated with making economic assumptions and this introduces risks to the accuracy of revenue forecasts. The current outlook for the US economy is a move away from the

[1] The growth in total wages and salaries for a sector is due to a combination of growth in employment in the sector and growth of wages. These differ between sectors.

many years of slow growth that have occurred since the Great Recession and into a period of normal growth. If past years are any indication, however, this assumption is anything but certain.

The depth of the Great Recession and the speed with which it occurred, is an indication of how fragile the US economy can become when bubbles develop. The bursting of the housing bubble and the resultant financial crash sent the economy reeling in CY 2008 and CY 2009. These types of events are nearly impossible to predict accurately, but there are often warning signs. Looking for these warning signs and correctly interpreting their meaning (not an easy thing to do) can be a way for forecasters to account for potential downside risk in their predictions. Because of the severity of the Great Recession, forecasters are now more wary about unusual or unprecedented economic behavior. There are risks that are unique to certain sectors, but their effects often flow over to multiple sectors in the economy.

Forecasters often try to identify the sector(s) that will be the source of the next economic shock. As a result, optimistic and pessimistic scenarios can be used to inform the sensitivity of predictions. Currently, there are mixed signals in the economy that are impacting economic forecasts. On one hand, there is optimism that increasingly positive economic data may lead the Fed to raise its target federal funds rates sometime in CY 2015. Recently, the Fed announced the termination of its quantitative easing policy – an effort to push down long-term interest rates in hopes of spurring private sector investment. Even with an improving economic picture, remaining labor market slack and low inflationary expectations are still weighing on the Fed's decision to pursue monetary tightening. On the other hand, there are concerns that a decline in world oil demand may reflect economic slowdowns in the rest of the world. For Montana the concern is mixed. Declines in US oil prices could put the squeeze on Montana oil producers. It is unknown if the benefits of lower energy prices in Montana could offset the reduction in economic activity that may result from these lower prices. So, while low energy prices are good for the consumer, a prolonged dip in prices could put strain on the US oil industry, which has been a bright spot in recent years as the rest of the economy has struggled to recover.

A study by Moody's Analytics[2] tries to assess the countervailing effects of falling stocks, the rising dollar, falling oil and gasoline prices, and delays in changing interest rate policy. The study uses Moody's Analytics national econometric model to weight the impact of the confluence of these effects on national economic growth. Relative to their positive baseline (3.5% GDP growth in 2015) the balance of these positive and negative impacts could add an additional 0.3 percentage points to national growth by the end of CY 2015 and if they persist, up to 0.5 percentage points to the growth rate by the end of CY 2016. Lower interest rates and oil prices add to growth and the stronger dollar and a stock correction would subtract from growth. On balance, Mark Zandi of Moody's Analytics says in his presentation of the work, "the economic arithmetic adds up to a plus". It is possible that the positives may be smaller in Montana as the state's economy is more reliant on commodity prices relative to the rest of the United States. The weight on commodity prices would have to be about twice as high in Montana in order to offset the positive impacts of low interest rates and low oil prices.

For the 2017 biennium forecasts, the executive revenue estimates incorporate a modestly positive outlook for the US and Montana economies as they are characterized in the IHS Economics baseline forecast. There are many reasons to believe that significant upside risk exists, which may result in receipts above the current forecast. The Office of Budget and Program Planning (OBPP) is aware of certain sector-specific risks and opportunities, some of which are outlined below.

Corporation License Tax

When making the corporation license tax estimate, OBPP used the baseline outlook for US Corporate before tax profits, but selected the lower 90 percent confidence bound to address the ability of firms to claim carry-forward losses for up to seven years. The forecast model uses reported US corporate profits for each of the prior two years, individually, to try to capture claw-back behavior of corporate tax strategy. The corporation tax model explicitly excludes the above trend portion of FY 2009 corporation income tax collections. Additionally, because of unaccounted (in the model) policy-induced timing shifts of receipts in FY 2013 and FY 2014, the model's lower 90 confidence bound produces estimates that are lower than they might otherwise have been. FY 2013 collections exceeded SJR 2 estimates by a large margin ($28.6 million) and in FY 2014 they were below SJR 2 estimates ($6.5 million). These strategies of accounting for risk were taken despite corporation profits significantly exceeding the levels of previous Montana record collections. A significant portion of the shifts in FY 2013 and FY 2014 appear to be attributable to the 23rd hour extension, expansion and retroactive applicability of business bonus depreciation, and expensing provisions of the *American Taxpayer Relief*

[2] Ryan Sweet, "Market Shocks: Assessing the Economic Cross Currents," Moody's Analytics, Dismal Scientist, October 24, 2014

Act of 2012 (ATRA). Other changes are simply due to long-standing difficulty in explaining the variance of Montana corporation tax collections.

Personal Income Tax

In the income tax model, the principle source of tax revenue is the level of wage and salary receipts of Montanans. The national forecasting companies, in their state models, rely heavily on the employment, wage, and salary information reported through the Current Employment Statistics (CES) payroll survey of establishments. The forecasting firms do so because the reporting establishments are classified by their sector of economic activity. This information permits them to develop economic sector estimates driven by sector labor market activity. The CES employment numbers at the state level are again showing discrepancies (lower employment gains in some sectors) with the Local Area Unemployment Statistics (LAUS) as they did in October of 2012. The LAUS system is designed for calculating broader measures like the unemployment rate, employment, and unemployment levels. Data discrepancies are reconciled with the Quarterly Census of Employment and Wages (QCEW) and annual labor statistics benchmarking (February and March every year); however, the QCEW reconciliation is done with a six- to nine-month lag. These adjustments suggest that the data being used by all forecasters is likely to be revised upward. The estimates presented contain a small upward adjustment conducted outside the model to try to account for this discrepancy. Additionally, the impact of ATRA tax year (TY) 2012 tax shifting coupled with CY 2013 and first half of CY 2014 gains in equity markets imply that while FY 2013 actual collections overstated estimated tax collections, FY 2014, TY 2013, tax form submissions are likely to be leading to understatement of future tax collections. At this time no adjustment has been made regarding potential positive ATRA effects.

Oil and Natural Gas

Since the start of FY 2012, oil production in Montana was trending upward until the second and third quarters of FY 2014 when production growth turned negative. Harsh winter weather provided a hindrance to drilling and well completion activities during this time. The outlook for oil production during the 2017 biennium is relatively flat with the possibility of a slight decline due to the maturation of the Bakken shale formation. The Bakken is the lifeblood of Montana's oil industry and is also becoming increasingly important for natural gas production. Natural gas that occurs as a byproduct of oil production (referred to as associated gas) is making up an increasing share of total natural gas production in the state. Output gains in natural gas from the Bakken region are offsetting production declines from older wells in the north-central portion of the state. The development of the Bakken formation is responsible for the revival of oil production in Montana, and the productivity of this formation going forward will determine the fate of the state's oil industry and, to a lesser extent, natural gas industry. Currently the productive areas of the Bakken formation in Montana have been extensively mapped out by industry participants. There is little exploratory activity taking place outside the Bakken and most of the current activity in the region consists of infill drilling occurring on existing spacing units. North Dakota is experiencing a much larger boom in oil production than Montana due to differences in geology of the Bakken formation between the two states. If the Keystone XL pipeline is approved and constructed, it would relieve some of the transportation bottleneck for Bakken oil, resulting in reduced price margins between Montana oil and other benchmark crude oils. Elimination of the US ban on crude oil exports would also lift Montana oil prices via the state's production becoming more integrated with global markets.

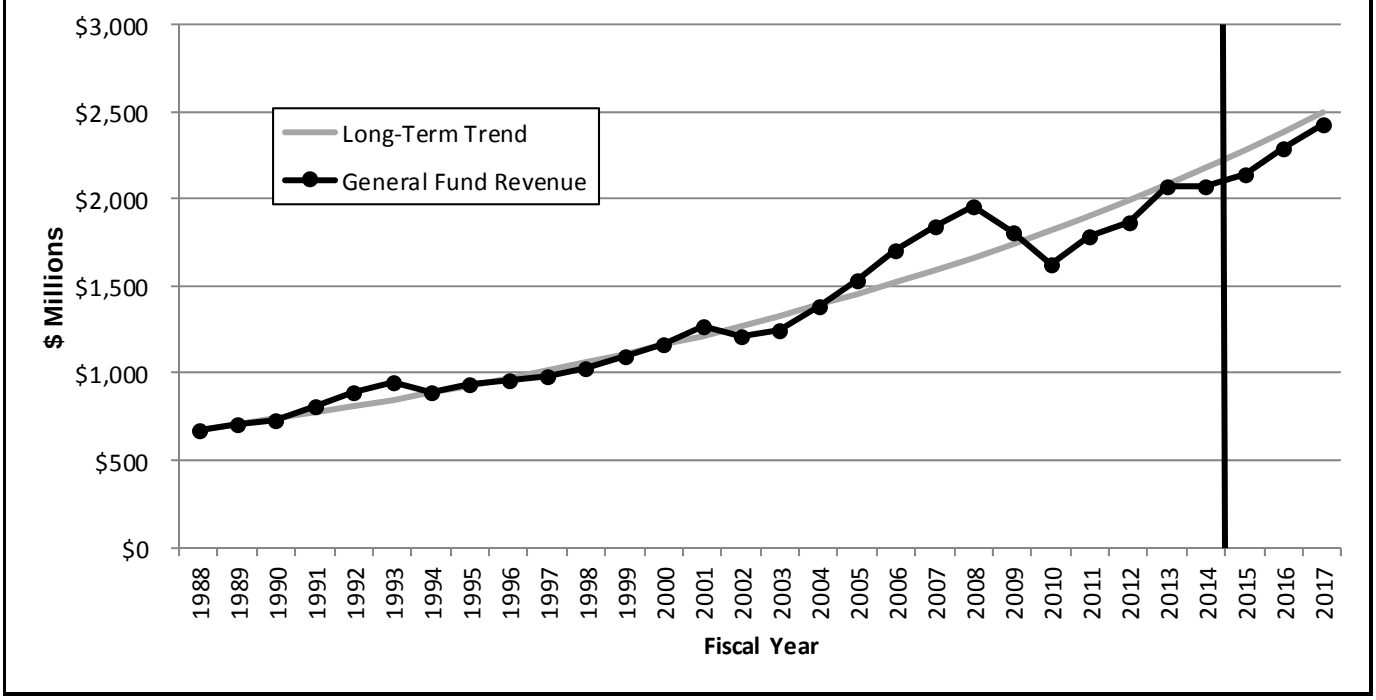
Insurance Premium Tax

In August 2013, Health Care Services Corporation (HCSC) purchased Blue Cross Blue Shield of Montana (BCBS). As a result of the merger, premiums paid to BCBS became taxable. While there was noticeable growth in insurance premium tax revenue in FY 2014, future shifts in BCBS's market share would have considerable impact on collections. Also, beginning January 1, 2014, the individual mandate of the Affordable Care Act (ACA) became effective. Under the ACA, an online insurance marketplace was created in order to assist individuals in purchasing health insurance. Currently, BCBS is the only taxable insurer that offers coverage on the healthcare exchange for Montanans. Changes in the tax liability of the other insurance companies on the exchange may have an impact on tax collections.

Trend in General Fund Revenue

Over the years, general fund revenue has followed an upward trend, averaging 4.6% annual growth from FY 1988 through FY 2014. Graph 3 displays actual general fund revenue from FY 1988 through FY 2014 and OBPP forecast revenue for FY 2015 through FY 2017, along with the long-term trend of historical collections. Revenue growth from year-to-year is often greater or less than the trend growth rate, but these deviations from trend tend to be self-correcting, meaning revenue collections revert back to near their trend level following periods of above average or below average growth. For example, from FY 1991 to FY 1993, general fund revenue grew at an average rate of 9.3%, 4.7 percentage points higher than the trend growth rate of 4.6%. Revenue growth over this period turned out to be unsustainable, and was followed by a 6.4% drop in general fund collections in FY 1994 to $892 million, just $5 million above what would have been collected had the general fund revenue grown at the trend rate of 4.6% per year during FY 1991 to FY 1994. A similar scenario played out in FY 2001 - FY 2002, when relatively high revenue growth in FY 2001 was followed by negative revenue growth in FY 2002. An extended period of higher than average growth from FY 2004 to FY 2008 resulted in a large gap between actual general fund revenue and the long-term trend. This revenue bubble was largely the result of an overheating economy. General fund revenue fell sharply in FY 2009 and FY 2010 in response to a significant nationwide economic slowdown. In two years, revenue collections went from being $290 million above trend in FY 2008, to $194 million below trend in FY 2010. Since FY 2010, actual general fund revenue has remained below the long-term trend, despite an 11% surge in collections in FY 2013. For the 2017 biennium, general fund revenue is projected to remain below trend, but inches closer in FY 2016 and FY 2017 with above average growth expected for those years.

Graph 3
General Fund Revenue Trend Analysis



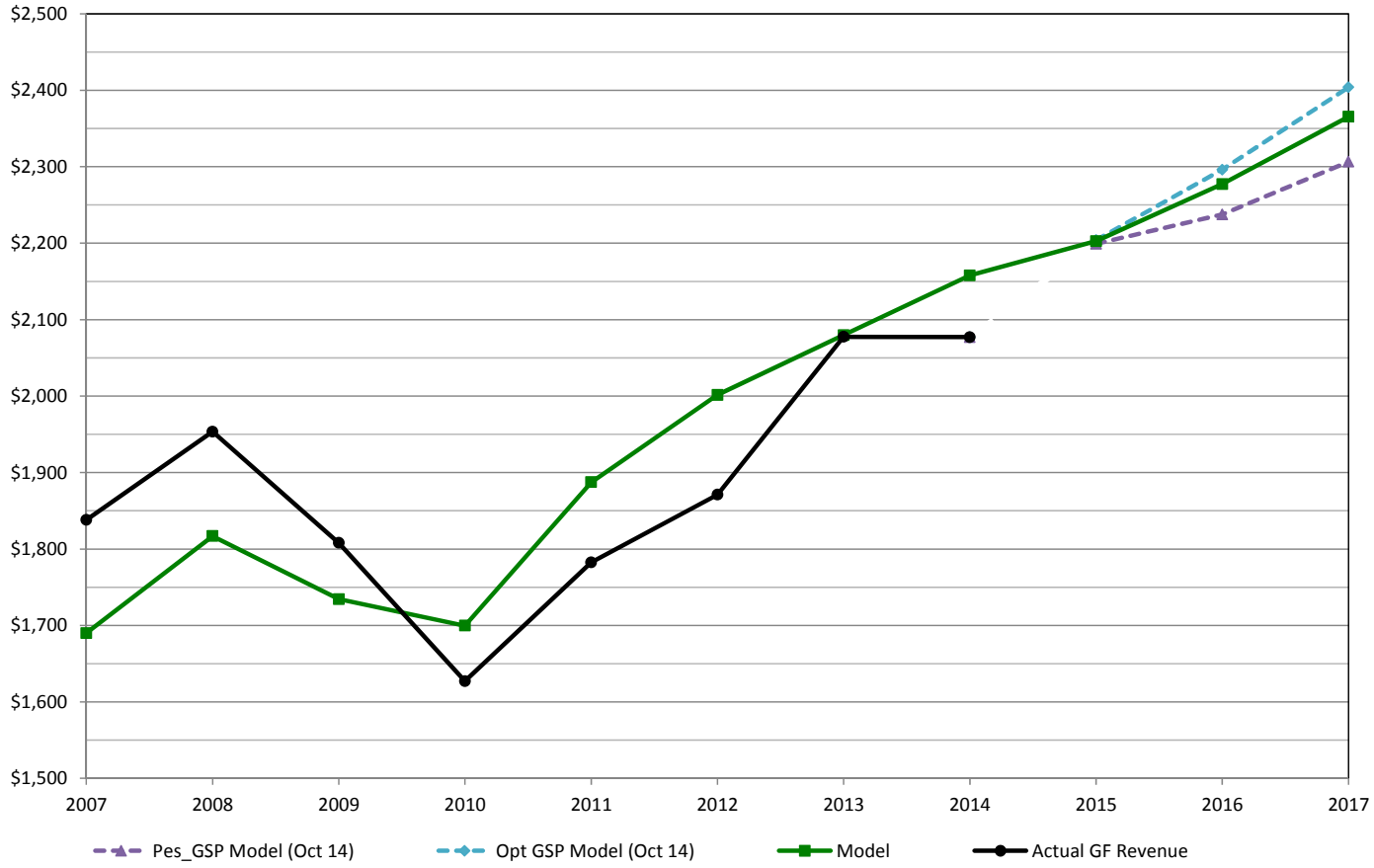
Sensitivity of Revenue Estimates to Economic Scenarios

In order to develop an estimate of the sensitivity of OBPP's estimates to the IHS Economics scenarios and to evaluate the reasonableness of the OBPP estimate derived by aggregating the 33 independent tax type estimates, expected general fund revenue with respect to prior year Montana GSP was examined. This simple model generates an expected revenue path constructed around the baseline, optimistic, and pessimistic GSP estimates using the historical relationship of general fund revenue to GSP for the FY 2000 through FY 2014 period.

The simulated revenue paths are presented in Graph 4. The graph shows the expected level of general fund revenue under each scenario. Because of the one calendar year lag in the model, the estimates for FY 2015 show no significant difference. The optimistic model renders approximately $19 million more in FY 2016 than the baseline estimate and

approximately $38 million more than baseline in FY 2017, for a biennial total of $57 million. The pessimistic model, in turn, shows a reduction from the baseline of $39 million in FY 2016 and $59 million in FY 2017.

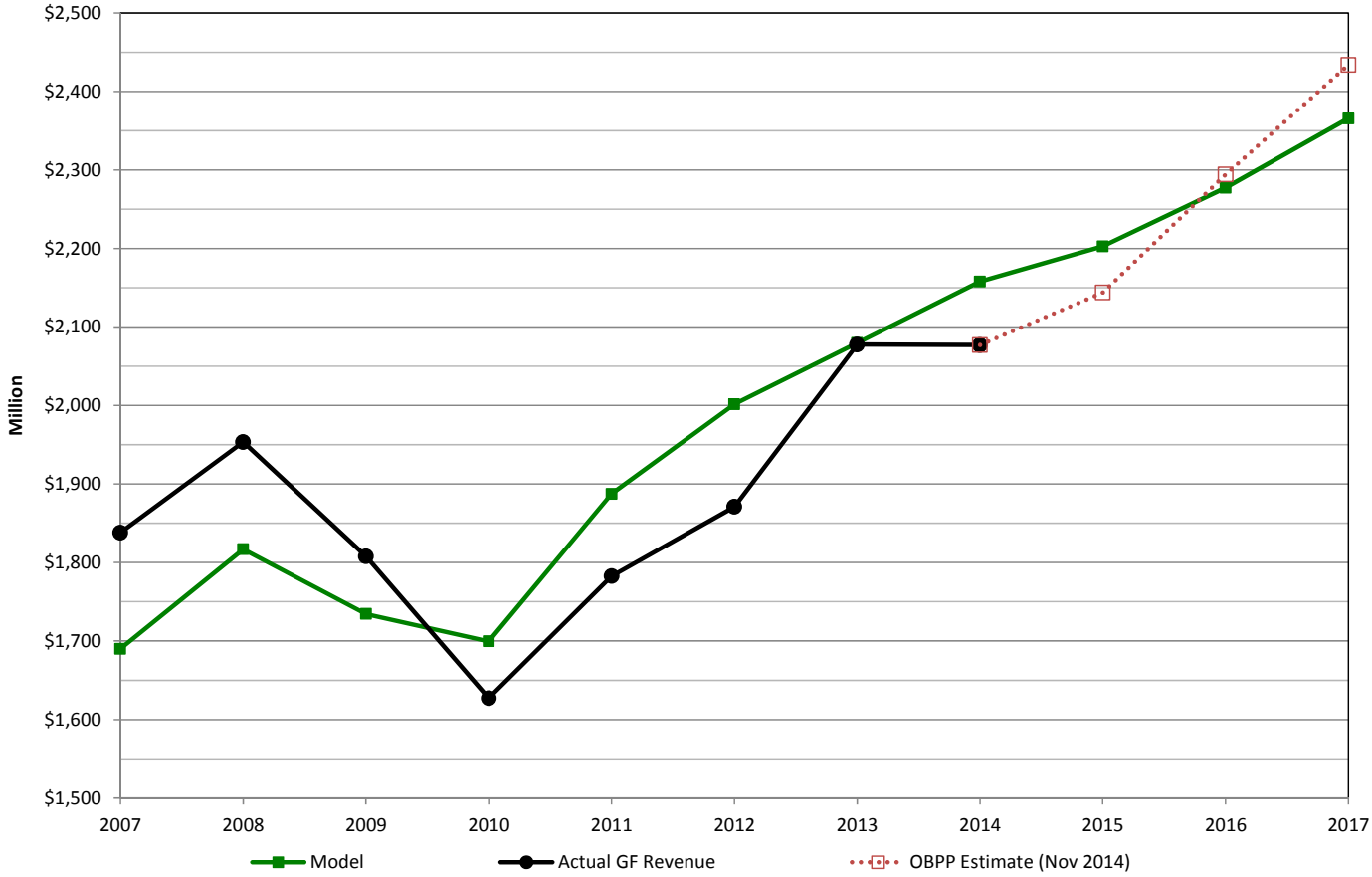
Graph 4
Predicted General Fund Revenue based on IHS Global Insight
Montana Gross State Product Scenarios



To evaluate the reasonableness of OBPP's revenue estimates, the model output was then compared to the output of the summed individual tax type estimates. These are presented in Graph 5. The comparison shows that OBPP's estimate for FY 2015 is approximately $60 million below the baseline model. In FY 2016, the estimate is $17 million above the baseline and in FY 2017 it is $69 million above. These estimates result in a net three-year total difference of $26 million with respect to the IHS simple baseline estimate. This is consistent with the IHS Economics scenario for Montana and adjustments for likely Montana employment conditions not yet captured in the Current Employment Statistics data. While this is a very simple model and basis for comparison, it reflects the behavior of tax collections over a long and varied economic trajectory. It is also apparent that the model tends to somewhat undershoot periods of rapid growth and underestimate declines to some degree. Nonetheless, these estimates suggest that OBPP has a reasonable revenue estimate in light of probable economic updrafts.

OBPP monitors economic reports, changes in IHS Economics forecasts, and state revenue collections closely on an ongoing basis. As a general rule, monthly changes to the IHS Economics forecasts tend to have minor impact on the revenue estimates (roughly +/- $5 to $10 million per fiscal year). These shifts tend to have less impact in the near-term (six months) and greater impact in the long-term. Major quarterly updates that use US Bureau of Economic Analysis national income and product accounts data can have a relatively larger impact. Again, the impact is more noticeable two or more years into the future (a general fund effect of roughly +/- $25 million per year).

Graph 5
FY 2007 - FY 2014 General Fund Collectons, FY 2015 - FY 2017 Forecast, and IHS Economics Montana Gross State Product Baseline Scenario based Predicted Revenue



GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

GENERAL FUND REVENUE SUMMARY SECTION 2

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

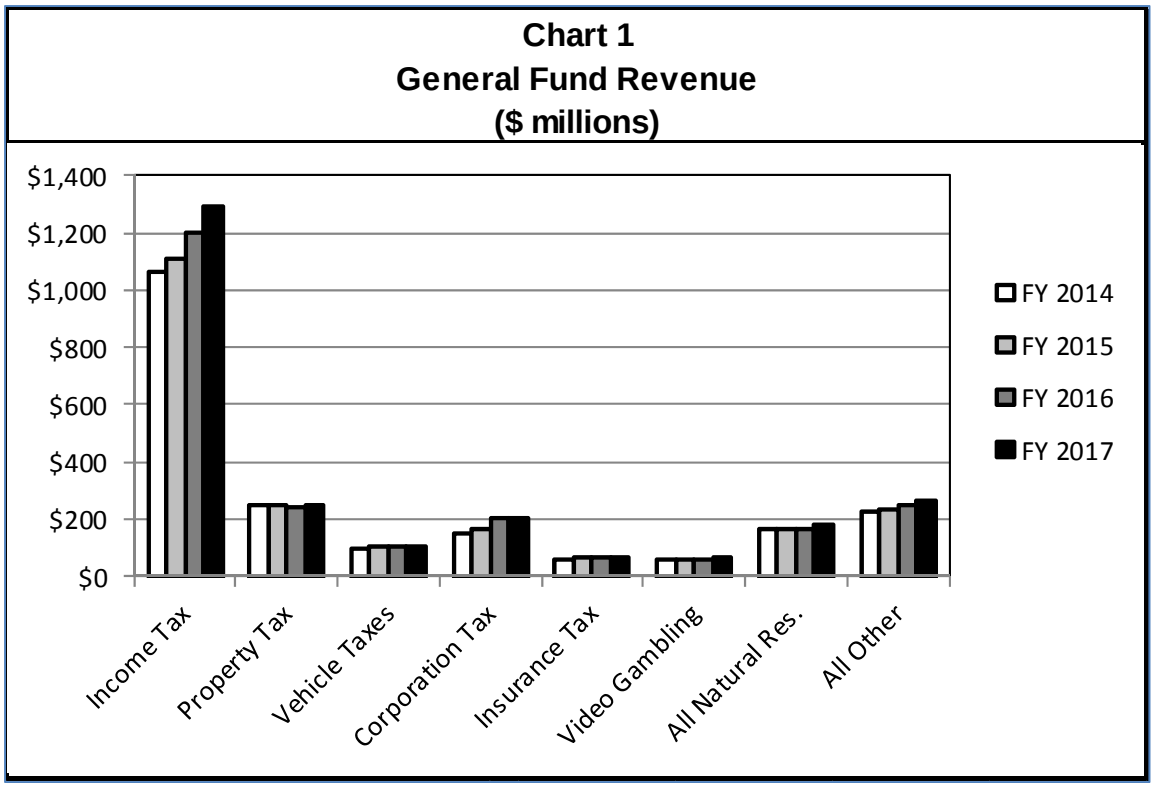
General Fund Revenue Summary

2017 Biennium

Table 1
General Fund Revenue

Revenue Category	Actual FY 2014	Forecast FY 2015	Forecast FY 2016	Forecast FY 2017	Biennial Share
MAJOR TAXES					
Individual Income Tax	1,063.28	1,107.85	1,199.20	1,295.70	52.8%
Property Tax	250.34	247.86	244.38	253.17	10.5%
Vehicle Taxes and Fees	100.97	102.20	104.60	107.20	4.5%
Corporation License Tax	147.55	167.40	204.00	201.30	8.6%
Insurance Premiums Tax	60.87	62.99	64.88	67.50	2.8%
Video Gambling Tax	57.15	59.75	61.95	64.36	2.7%
Total Major Taxes	**1,680.16**	**1,748.05**	**1,879.01**	**1,989.23**	**81.8%**
NATURAL RESOURCE TAXES					
Oil and Gas Production Taxes	109.61	101.00	102.99	115.86	4.6%
U.S. Mineral Royalties	27.74	30.77	31.71	32.86	1.4%
Coal Severance Tax	14.74	15.61	15.83	15.60	0.7%
Metalliferous Mines Tax	7.95	8.13	8.55	8.57	0.4%
Electrical Energy Tax	4.28	4.42	4.43	4.46	0.2%
Wholesale Energy Transactions Tax	3.11	3.17	3.31	3.48	0.1%
Total Natural Resource Taxes	**167.43**	**163.10**	**166.82**	**180.84**	**7.4%**
INTEREST EARNINGS					
Coal Trust Interest Earnings	22.00	20.55	19.87	20.05	0.8%
Treasury Cash Account Interest	1.76	1.70	9.88	25.79	0.8%
Total Interest Earnings	**23.75**	**22.25**	**29.74**	**45.84**	**1.6%**
LIQUOR TAXES					
Liquor Excise and License Taxes	18.42	19.34	20.16	20.52	0.9%
Liquor Profits	10.50	10.79	11.01	11.18	0.5%
Beer Tax	3.02	3.03	3.04	3.05	0.1%
Wine Tax	2.25	2.30	2.38	2.46	0.1%
Total Liquor Taxes	**34.19**	**35.46**	**36.59**	**37.21**	**1.6%**
TOBACCO TAXES					
Cigarette Tax	30.62	30.18	30.63	30.25	1.3%
Tobacco Products Tax	5.93	6.16	6.38	6.60	0.3%
Tobacco Settlement	3.65	3.28	3.20	3.11	0.1%
Total Tobacco Taxes	**40.20**	**39.61**	**40.20**	**39.96**	**1.7%**
SALES TAXES					
Telecommunications Excise Tax	19.66	19.52	19.38	19.32	0.8%
Institutional Reimbursements	17.30	16.95	17.32	17.80	0.7%
Health Care Facility Utilization Fees	4.96	4.75	4.65	4.56	0.2%
Accommodations Tax	17.73	19.44	21.05	22.89	0.9%
Rental Car Sales Tax	3.52	3.70	3.88	4.08	0.2%
Total Sales Taxes	**63.16**	**64.36**	**66.30**	**68.64**	**2.9%**
OTHER TAXES AND REVENUES					
Lottery Profits	12.09	12.54	11.59	10.69	0.5%
Highway Patrol Fines	4.14	4.37	4.51	4.71	0.2%
Investment Licenses and Permits	7.11	7.49	7.73	7.95	0.3%
Contractors' Gross Receipts Tax	0.89	2.93	3.25	3.55	0.1%
Driver's License Fee	4.05	3.77	3.94	4.04	0.2%
Rail Car Tax	2.42	3.61	3.79	3.97	0.2%
Other Revenue	37.44	36.29	40.53	37.15	1.6%
Total Other Taxes	**68.14**	**71.01**	**75.34**	**72.06**	**3.1%**
TOTAL GENERAL FUND REVENUE	**$2,077.04**	**$2,143.84**	**$2,294.00**	**$2,433.78**	**100.0%**

The state general fund accounts for all the state's financial resources, except for those legally mandated to be accounted for in another fund. Chart 1 divides general fund revenue into eight groups. The six largest taxes and the group of natural resources taxes accounted for 89.2% of general fund revenue in FY 2014, with each source contributing in excess of $50 million.



Individual income tax is the largest revenue source, followed by property tax, and corporate license tax. Revenue from individual income tax is forecast to be $2,494.9 for the 2017 biennium, accounting for 52.8% of general fund revenue. Property tax revenue is forecast to be $497.6 million, representing 10.5% of general fund biennial revenue. Corporate license tax revenue is forecast to be $405.3 million for the biennium, making up 8.6% of general fund revenue. Vehicle revenue includes vehicle taxes and registration fees, and is estimated to bring in $211.8 million in general fund revenue over the biennium, or 4.5% of total general fund collections. Video gambling tax revenue is projected to make up 2.7% of general fund biennial revenue, bringing in $126.3 over the biennium. Insurance premiums tax is forecast to be the source of $132.4 million in general fund revenue for the biennium, which represents 2.8% of total general fund collections for the period.

Table 1 on the previous page shows the 33 general fund revenue categories. The six major taxes, which each bring in more than $50 million per year, are estimated to be the source of 81.8% of general fund revenue for the 2017 biennium. The natural resource category is comprised of oil and natural gas severance taxes, US mineral royalties, coal severance tax, metalliferous mines license tax, electrical energy producer's license tax, and wholesale energy transaction tax. As a whole, the natural resource tax group is expected to generate $347.7 million in general fund revenue, accounting for 7.4% of total general fund collections over the biennium. General fund revenue from alcohol and tobacco taxes is projected to be $154.0 million for the biennium, which is 3.3% of total revenue. The sales tax group is forecast to generate $134.9 million in general fund revenue, representing 2.9% of total collections over the biennium. Interest earnings revenue is expected to total $75.6 million for the general fund, and revenue from all other sources is expected to total $147.4 million in general fund collections, 1.6% and 3.1% of biennial revenue, respectively.

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MAJOR REVENUE
SECTION 3

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Individual Income Tax

2017 Biennium

Revenue Description

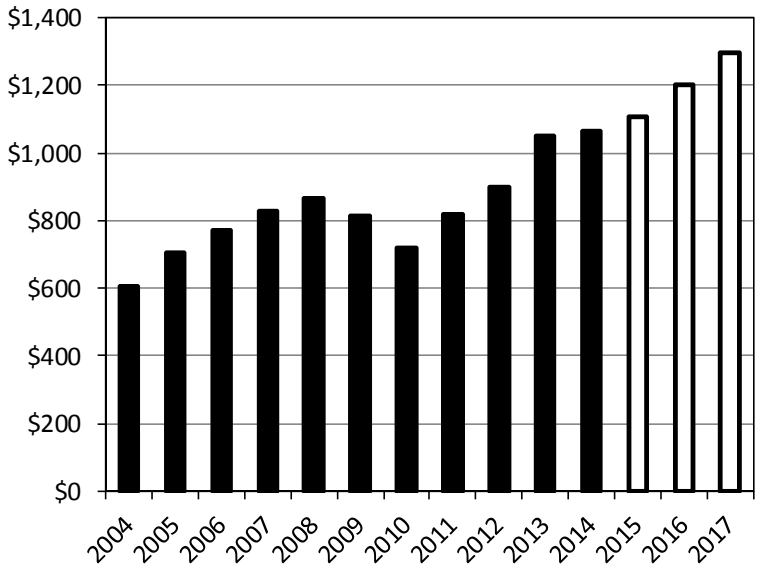
Title 15, Chapter 30, MCA, sets a graduated individual income tax ranging from 1% to 6.9% on gross income, less exemptions and deductions. A taxpayers' Montana adjusted gross income is based on their federal adjusted gross income, but may be higher or lower as some types of income are taxed differently by the state. Itemized deductions for federal and state income tax are similar; however, while all state income tax may be deducted in calculating federal taxable income, the amount of federal income tax that may be deducted in calculating state taxable income is limited. Montana also allows a number of credits that may reduce taxpayers' liabilities.

Individual income tax is the largest source of revenue to the general fund, accounting for 51.2% of total general fund revenue in FY 2014. With the exception of FY 2005, all individual income tax revenue is allocated to the general fund. In FY 2005, about $1.1 million was allocated for the Department of Revenue's data processing system.

Table 1 shows actual individual income tax revenue for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017. The large variations in FY 2013 and FY 2014 demonstrate the revenue shifting induced by *The American Taxpayer Relief Act of 2012* (ATRA). Income tax collections were accelerated in FY 2013 as many taxpayers appear to have realized capital gains and other income in calendar year (CY) 2012 instead of CY 2013. These tax shifts reduced revenue in tax year (TY) 2013 and have had effects that have persisted through October 2014 (FY 2015).

Table 1
Individual Income Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$605.348	12.97%
A	2005	$706.218	16.66%
A	2006	$768.912	8.88%
A	2007	$827.095	7.57%
A	2008	$866.638	4.78%
A	2009	$815.138	-5.94%
A	2010	$717.834	-11.94%
A	2011	$816.090	13.69%
A	2012	$898.851	10.14%
A	2013	$1,047.790	16.57%
A	2014	$1,063.284	1.48%
F	**2015**	**$1,107.848**	**4.19%**
F	**2016**	**$1,199.198**	**8.25%**
F	**2017**	**$1,295.704**	**8.05%**



In October 2014, greater than normal levels of refunds were issued with final TY 2013 extension filings (up to $20 million). This reduction represents a floor for ATRA tax shifting effects. In FY 2015, revenues are expected to raise toward normal positive business cycle growth rates. In FY 2015, the extension returns effects are offset by the significant employment growth seen during the first three quarters of CY 2014. In FY 2016, the negative effects of the *ATRA 2012* revenue shifting diminish and CY 2014 employment gains increase revenue growth to above long-term trend. This growth is characteristic of the mid-stages of positive business cycles. FY 2017 growth is expected to begin to slow modestly as employment growth moderates and the economy adjusts to more normal monetary policy. Ultimately, this growth reflects a continuation of the healing from "the Great Recession," unimpeded by federal budgetary breakdowns.

Risks and Significant Factors

- This estimate relies on the IHS Economics baseline forecasts for much of the data used in the model. The base assumptions in the IHS Economics forecast are that federal policy will not generate headwinds and there is modest improvement in factors like consumer demand, employment, and wages. Federal monetary policy is expected to begin to move to a more normal stance and away from extraordinary measures that have characterized the last seven years. This does not imply a boom, but simply that Montana generally will see better total economic conditions than we have seen over the last seven years, despite declines from very healthy prices for agricultural and mining sector products.
- A positive adjustment is made outside the model to account for timing of state employment and wages due to differences in labor market signals arising from the Current Employment Statistics system (CES) and the Local Area Unemployment Statistics system (LAUS). The adjustment adds $37 million to the three-year forecast. This adjustment is explained in the wage forecast section.
- IHS Economics relies heavily on Bureau of Economic Analysis (BEA) and Bureau of Labor Statistics (BLS) data for the recent past. These agencies have several standard scheduled revision points when preliminary data is updated and often revised. Significant revisions to measured changes in economic conditions, and/or major economic policy changes can, and will, change IHS Economics forecast. This data essentially has a three- to six-month lag and again appears to be modestly underestimating real conditions in Montana. This is best represented by the discrepancy between the CES and the LAUS measures of labor force activity. Income tax wage withholding collections, which do not suffer such a significant lag, are more in line with the LAUS measures of employment.
- Due to the interdependence of Montana adjusted gross income with federal adjusted gross income, changes in the federal tax code could have a significant effect on Montana income tax receipts. Holding all other factors constant, lower federal tax rates (and higher deductions) result in higher state tax collections, while higher federal tax rates (and lower deductions) reduce state tax collections. The state's negative exposure to these fluctuations is dampened due to the cap on federal income tax deductions.
- The Office of Budget and Program Planning (OBPP) monitors economic reports, changes in IHS Economics forecasts, and state revenue collections closely on an ongoing basis. As a general rule, monthly changes to the IHS Economics forecasts tend to have minor impact on the revenue estimates (roughly +/- $5 to $10 million a fiscal year). These shifts tend to have less impact in the near-term (six months) and greater impact in the long term. Major quarterly updates that use BEA national income and product accounts updates can have a larger impact. Again the impact is more noticeable two or more years into the future (a general fund effect of roughly +/- $25 million per year).
- Major economic events can change the forecast to a greater degree and on a faster time scale.
- The general trend of the IHS Economics forecasts over the last 12 to 18 months has been stable.

Income by Category

Taxpayers report income on eleven lines on the tax return and these eleven income types are forecast separately. They can be organized into five general categories: wage, salary, and tip (labor) income; ownership income; taxable retirement income; net capital gains; and interest income. Graph 1 shows these categories and their relative proportion of total taxable income.

Graph 1
Personal Income Reported By Full Year Residents for Tax Year 2013

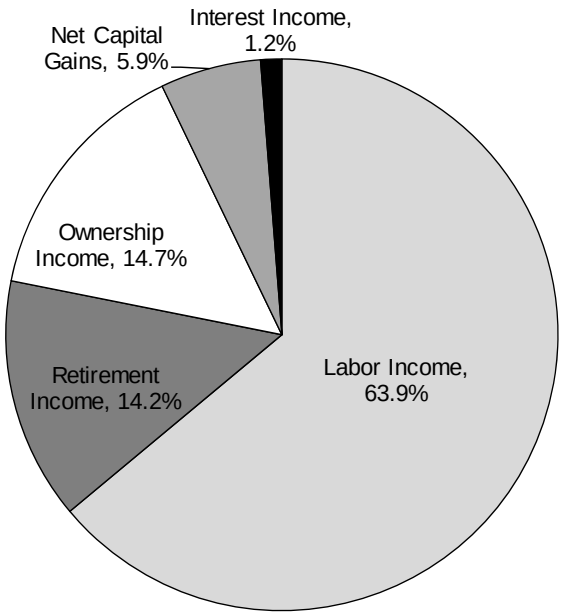


Table 2 provides more detail by showing the amount of income reported for TY 2013 by full-year residents and the percent of total reported income that category represents. The last column gives the ten-year (TY 2004 through TY 2013) average percent of total reported income for each category.

Table 2
Tax Year Income
($ millions)

Source of Income	TY 2013 Income	Distribution of TY 2013 Income	Ten Year Average Share of Income
Labor Income			
Wages, salaries, tips, etc.	**$15,189.766**	**63.94%**	**63.65%**
Ownewship Income			
Rents, royalties, partnerships, etc.	$2,554.830	10.75%	9.33%
Net business income	$820.125	3.45%	3.59%
Dividend income	$550.135	2.32%	2.55%
Net farm income	-$138.640	-0.58%	-0.76%
Other income	-$289.325	-1.22%	-0.42%
Sub-Total	**$3,497.126**	**14.72%**	**14.30%**
Retirement Income			
Taxable portion of Soc. Sec.	$803.831	3.38%	2.69%
Taxable Pensions, IRAs	$2,569.394	10.82%	9.81%
Sub-Total	**$3,373.224**	**14.20%**	**12.50%**
Gains and Losses			
Capital gain or (loss)	$1,314.178	5.53%	6.85%
Supplemental gains or (losses)	$87.795	0.37%	0.29%
Sub-Total	**$1,401.973**	**5.90%**	**7.13%**
Interest Income	**$294.150**	**1.24%**	**2.42%**
Total	**$23,756.239**	**100.00%**	**100.00%**

Tables 3 through 11 present the historical and forecast income for above categories. Following each table, the risks and significant factors for the forecast are listed. Forecast growth rates for the income sources, and deductions, reductions, and credits are summarized in Table 12. All charts depict income reported by full-year residents. **With the exception of wages and salaries, the vertical scale is held constant at a range of $0 to $4 billion in taxpayer income.** This representation better reflects the relative importance of each revenue stream. **The vertical scale for wages and salary income is five times the range of the other sources of income.**

The reader is cautioned that Table 2 through Table 12 present total income before taxes.

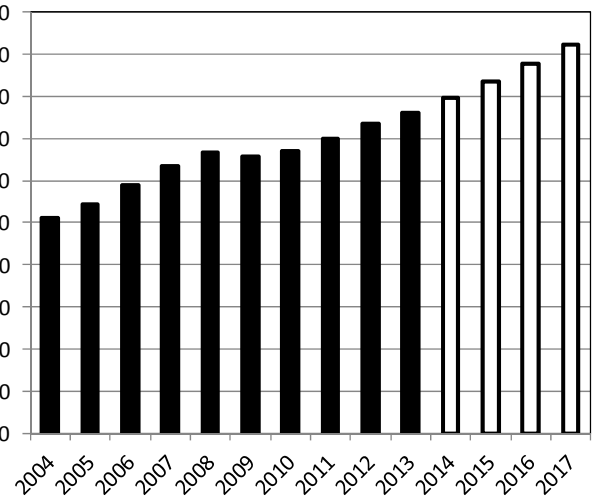
In TY 2013, on average, every $10,000 of this income attributable to full-year resident individual income taxpayers' generated roughly $380 in state individual income tax receipts.

Labor Income

Individual income taxes on wage and salary earnings are the principal source of state government tax revenue.

Table 3
Wages, Tips, and Salary Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$10,210	27.2%
A 2005	$10,841	6.2%
A 2006	$11,780	8.7%
A 2007	$12,670	7.6%
A 2008	$13,352	5.4%
A 2009	$13,137	-1.6%
A 2010	$13,390	1.9%
A 2011	$13,996	4.5%
A 2012	$14,686	4.9%
A 2013	$15,190	3.4%
F 2014	$15,891	**4.6%**
F 2015	$16,705	**5.1%**
F 2016	$17,543	**5.0%**
F 2017	$18,471	**5.3%**



Risks and Significant Factors

- The level of total Montana employment has a large effect on labor income. If the level of employment does not increase at the rate anticipated, then labor income will be lower than forecast.
- The level of average annual wages received by Montanans has a direct effect on the total level of taxable labor income. Increases in average wages has a positive effect on tax collections.
- The combined effects of employment growth and increasing wages and salary income are expected to raise total income and wages at a moderate rate over the forecast period.
- The chief source of Montana labor sector data used by all forecasting services is based on CES survey data. The CES survey of establishments classifies firms by economic sector. LAUS administrative record and model based data focuses on total labor force and the employment characteristics of small areas. The CES is benchmarked annually based in large part on the Quarterly Census of Employment and Wages (QCEW) and Census population controls. QCEW data are released with a six-month lag (the first quarter data for 2014 was released in September 2014). Throughout CY 2013 and CY 2014, the LAUS system appears to have been producing employment data that better matches withholding collections. For instance, CES reported the change in private sector employment in the first quarter of 2014 was 2,600 jobs; LAUS shows total employment increases of 5,170 jobs. LAUS data show a subsequent six-month increase of 5,960 jobs. These discrepancies for CY 2014 are likely to disappear after the annual employment statistics are benchmarked in February and March 2015. Until these new data are available, the tax effects of the wage difference between the IHS Economics optimistic and baseline projections for Montana residents are added to the income tax estimate. The differences are applied at full weight for FY 2014 and FY 2015, and are tapered down over the next three fiscal

years. The effect of the adjustment does not grow the model tax base but does add $37 million dollars to the total three-year estimate.

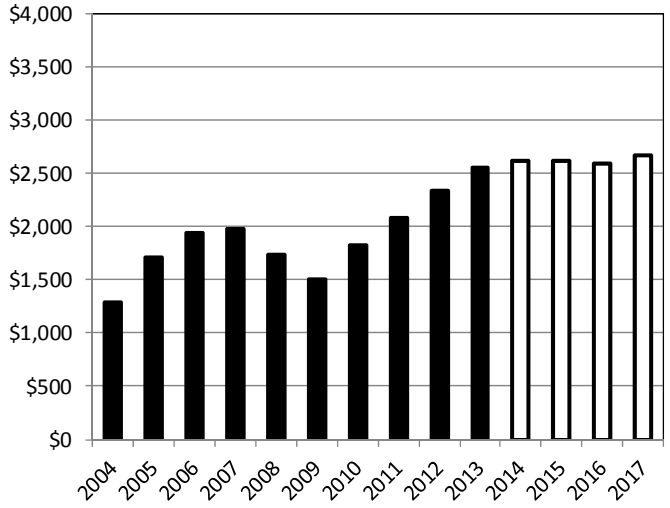
- OBPP has been tracking the reliability of using calendar year wage withholding collections to forecast wages reported on Montana resident tax forms for several years. In January 2014, the method produced estimates that underestimated actual reported wages by only -0.71% ($108 million of $15.190 billion reported). This forecast was improved later in CY 2014 when CY 2013 QCEW data was released. Using QCEW data, the estimate improved to within -0.20% of actual reported wages (the error in for TY 2013 was approximately $31 million). These 2013 numbers represent better than average results as the absolute error for January estimates for TY 2005 through TY 2013 was 1.87% (a rough tax effect of plus or minus $10.8 million). The estimates naturally miss by a greater margin at significant turns in the economy and with major tax policy shifts. The QCEW method is significantly better with an average absolute error of 0.49%. As always, there will be new data available with which to make significant updates in the next several months.

Ownership Income

Returns from owning property, businesses, farms, ranches, royalty rights or working interests in natural resources, processes, techniques, other intellectual property, or stock in companies and other non-financial instrument property generates the second largest source of taxable income. Principal among these are rents, royalties and partnership income. This followed by net business income, dividend income, net farm income, and other miscellaneous sources of income.

Table 4
Rents, Royalties, and Partnership Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$1,283.27	57.8%
A 2005	$1,704.63	32.8%
A 2006	$1,945.00	14.1%
A 2007	$1,976.85	1.6%
A 2008	$1,735.15	-12.2%
A 2009	$1,508.40	-13.1%
A 2010	$1,823.26	20.9%
A 2011	$2,075.87	13.9%
A 2012	$2,340.91	12.8%
A 2013	$2,554.83	9.1%
F 2014	$2,612.24	**2.2%**
F 2015	$2,623.56	**0.4%**
F 2016	$2,596.87	**-1.0%**
F 2017	$2,663.66	**2.6%**

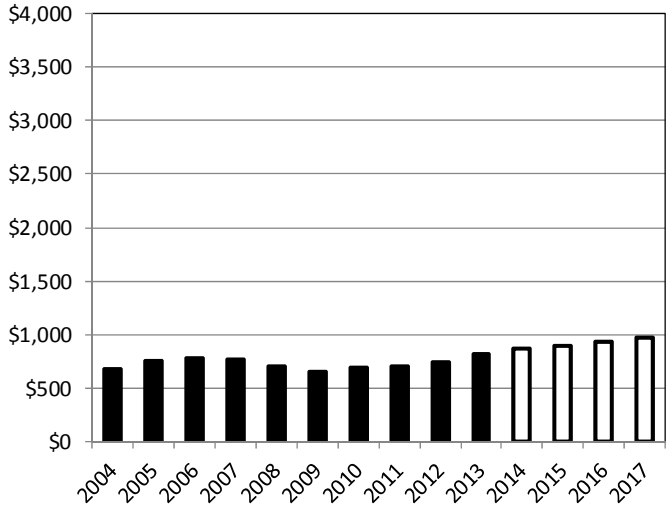


Risks and Significant Factors

- The relative decline in natural resource prices are thought to be driving the flattening in this income source.
- Prices of natural resources are expected to stabilize or recover, but recent declines are expected to suppress near-term growth of this source while other underlying sources continue to grow. Property values are anticipated to continue recovering.
- The growth rate of rents and royalties income shows a strong relationship with national proprietors' income. If the economic recovery accelerates more (less) than expected, this income source would increase (decrease).
- Mineral royalties are reported in this income category. Increases in mineral, oil, and natural gas prices, as well as production would increase growth of this income source.

Table 5
Net Business Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$680.79	13.6%
A 2005	$749.59	10.1%
A 2006	$785.30	4.8%
A 2007	$762.06	-3.0%
A 2008	$701.31	-8.0%
A 2009	$648.19	-7.6%
A 2010	$690.83	6.6%
A 2011	$702.19	1.6%
A 2012	$740.89	5.5%
A 2013	$820.12	10.7%
F 2014	$867.96	**5.8%**
F 2015	$897.71	**3.4%**
F 2016	$934.57	**4.1%**
F 2017	$966.88	**3.5%**

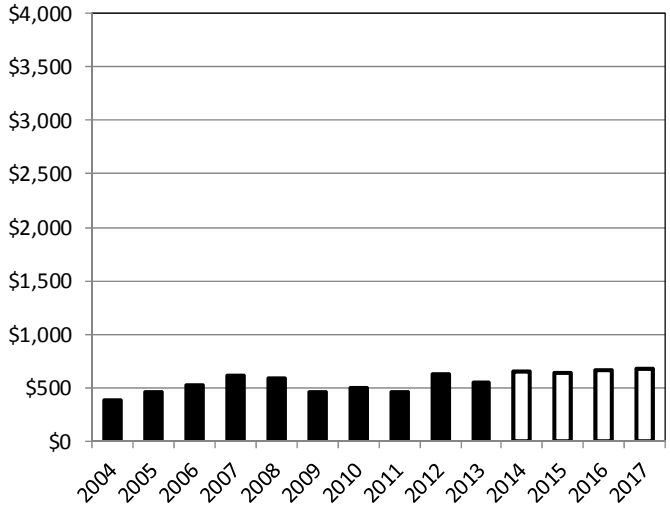


Risks and Significant Factors

- The growth in national proprietors' income is highly correlated with Montana net business income. Changes in national business income will have an impact on this source of income.
- Growth of these income streams are expected to moderate after recent surges.

Table 6
Dividend Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$379.39	11.6%
A 2005	$463.03	22.0%
A 2006	$521.73	12.7%
A 2007	$619.82	18.8%
A 2008	$592.11	-4.5%
A 2009	$462.42	-21.9%
A 2010	$504.42	9.1%
A 2011	$465.23	-7.8%
A 2012	$627.61	34.9%
A 2013	$550.14	-12.3%
F 2014	$646.26	**17.5%**
F 2015	$645.06	**-0.2%**
F 2016	$671.09	**4.0%**
F 2017	$684.28	**2.0%**



Risks and Significant Factors

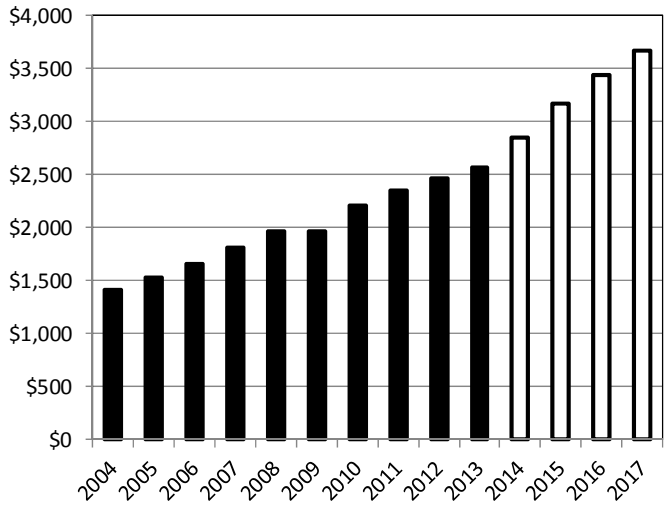
- Montana dividend income is highly correlated with the national level of dividend income. If national corporate profits are significantly different than forecast, dividend income will change accordingly.
- Corporations have experienced large increases in profits over recent years and have returned some of their cash reserves as special dividends in 2012. Firms experienced large increases in CY 2013 and the first half of CY 2014 stock prices that are anticipated to lead to increased dividends.

Retirement Income

The main components of retirement income are pension and IRA income, and the taxable portion of social security income. Pension and IRA income exceeds social security income, but are more volatile. As the share of the population eligible for social security income grows, workers retire and claim retirement savings, thereby leading to acceleration in this income type.

Table 7
Pensions and IRA Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$1,417.52	28.0%
A 2005	$1,524.80	7.6%
A 2006	$1,657.86	8.7%
A 2007	$1,812.79	9.3%
A 2008	$1,960.74	8.2%
A 2009	$1,963.91	0.2%
A 2010	$2,206.83	12.4%
A 2011	$2,345.00	6.3%
A 2012	$2,459.92	4.9%
A 2013	$2,569.39	4.5%
F 2014	$2,848.78	**10.9%**
F 2015	$3,162.04	**11.0%**
F 2016	$3,432.45	**8.6%**
F 2017	$3,673.43	**7.0%**

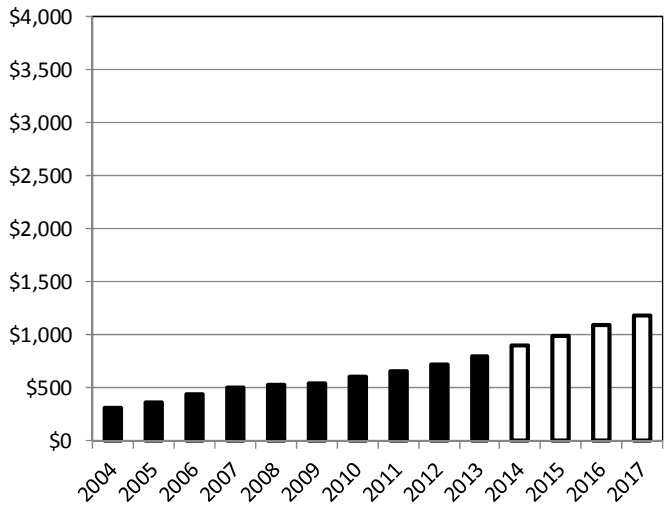


Risks and Significant Factors

- Prior years' S&P 500 stock price index and accelerating growth in the population over age 65 is expected to raise the taxable pension and IRA income stream.

Table 8
Social Security Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$305.54	39.0%
A 2005	$359.18	17.6%
A 2006	$434.52	21.0%
A 2007	$508.64	17.1%
A 2008	$527.63	3.7%
A 2009	$540.62	2.5%
A 2010	$603.83	11.7%
A 2011	$651.77	7.9%
A 2012	$721.66	10.7%
A 2013	$803.83	11.4%
F 2014	$896.01	**11.5%**
F 2015	$992.96	**10.8%**
F 2016	$1,088.42	**9.6%**
F 2017	$1,177.69	**8.2%**



Risks and Significant Factors

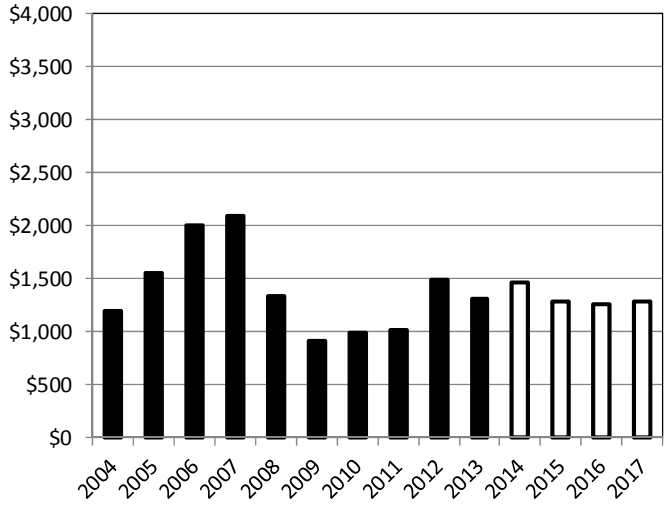
- Social security is indexed for inflation. If inflation remains lower than expected, this will have a negative effect on the growth of taxable social security income.
- Montana population age 65 and older is increasing. This increases the total amount of social security income.

Gains and Losses

Capital gains and supplemental gains are gains or losses from the sale of assets.

Table 9
Capital Gains and Losses Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$1,193.18	6.9%
A 2005	$1,554.05	30.2%
A 2006	$2,006.02	29.1%
A 2007	$2,088.58	4.1%
A 2008	$1,337.81	-35.9%
A 2009	$912.04	-31.8%
A 2010	$992.63	8.8%
A 2011	$1,015.75	2.3%
A 2012	$1,491.20	46.8%
A 2013	$1,314.18	-11.9%
F 2014	$1,464.79	**11.5%**
F 2015	$1,282.90	**-12.4%**
F 2016	$1,255.27	**-2.2%**
F 2017	$1,290.26	**2.8%**

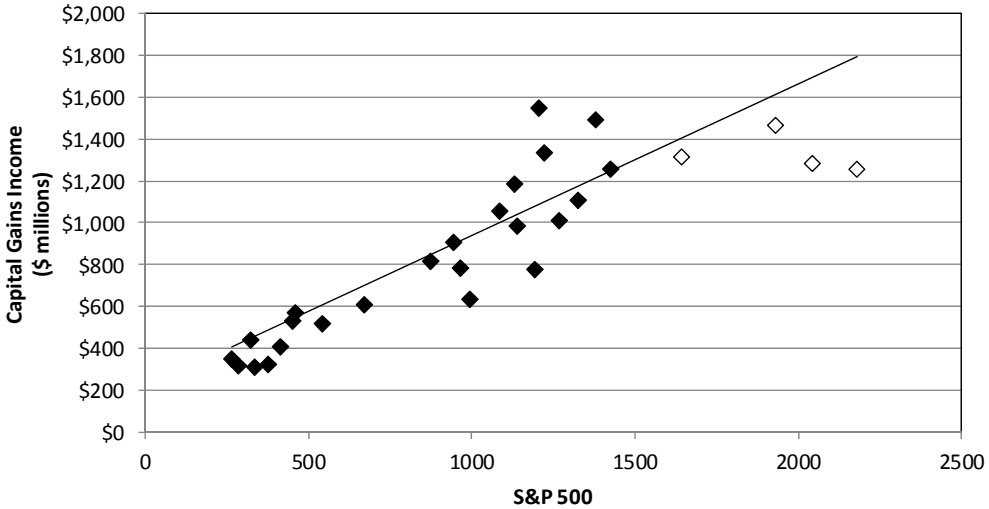


Risks and Significant Factors

- Stock prices serve as a general indicator of the value of assets; only a portion of capital gains are from sales of stocks, but stocks are assets for which reliable price data is available.

In Table 9, note the decline in capital gains income following the stock declines of CY 2000, CY 2008, and CY 2009. The relationship between stock prices and capital gains is depicted in Graph 2 (below). The relationship relative to the forecast is presented with the white diamonds:

Graph 2
Capital Gains Income and the S&P 500

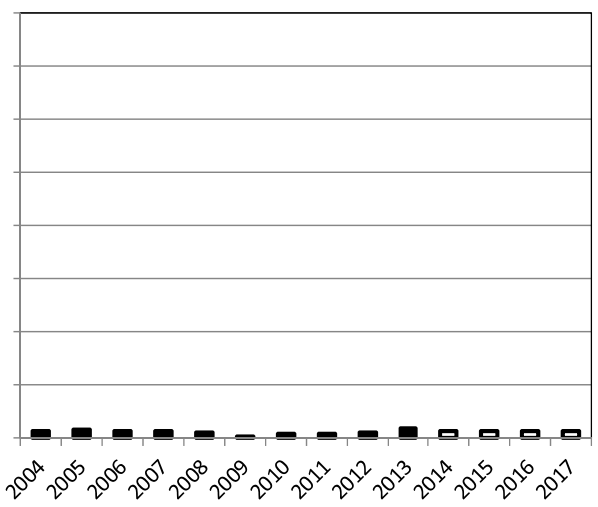


In the past, people with assets that have appreciated have responded to changes in capital gains rates by selling assets to realize gains during periods when tax rates are lower. The latest round of these shifts occurred in 2012. These changes led to a TY 2012 surge and a TY 2013 drop. This forecast assumes there is some catch-up growth in TY 2014

due to gains in asset values in CY 2013 and CY 2014 and a return to stable capital gains realizations.

Table 10
Supplemental Gains Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$69.72	57.1%
A 2005	$77.63	11.3%
A 2006	$67.79	-12.7%
A 2007	$66.37	-2.1%
A 2008	$56.74	-14.5%
A 2009	$19.04	-66.4%
A 2010	$42.06	121.0%
A 2011	$41.88	-0.4%
A 2012	$53.11	26.8%
A 2013	$87.79	65.3%
F 2014	$70.03	**-20.2%**
F 2015	$69.94	**-0.1%**
F 2016	$72.00	**2.9%**
F 2017	$73.04	**1.4%**



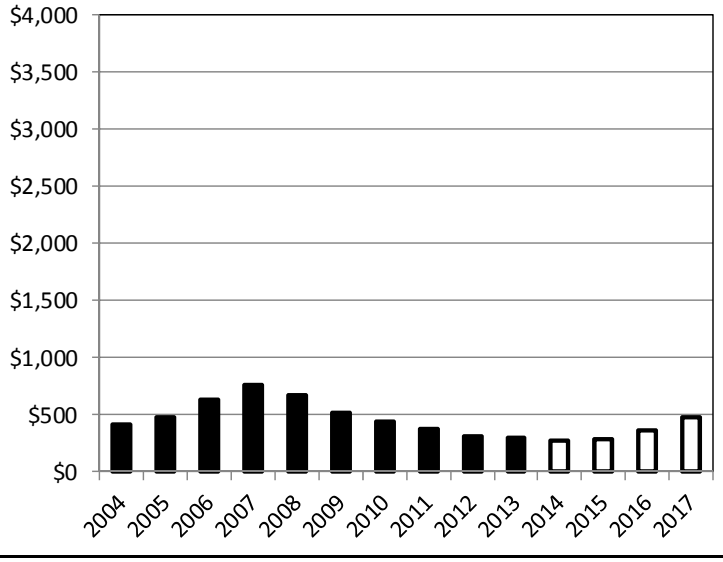
Risks and Significant Factors

- The swings in growth of supplemental gains income are tempered by the fact that it is small, contributing approximately one tenth of a percent of the taxable income stream.

Interest Income

Table 11
Interest Income
($ millions)

Tax Year	Income	Percent Change
A 2004	$411.89	-31.6%
A 2005	$480.09	16.6%
A 2006	$636.78	32.6%
A 2007	$756.83	18.9%
A 2008	$674.05	-10.9%
A 2009	$519.76	-22.9%
A 2010	$442.98	-14.8%
A 2011	$376.78	-14.9%
A 2012	$313.12	-16.9%
A 2013	$294.15	-6.1%
F 2014	$274.98	**-6.5%**
F 2015	$290.90	**5.8%**
F 2016	$362.01	**24.4%**
F 2017	$476.68	**31.7%**



Risks and Significant Factors

- While there have been increases in taxpayers' savings, this has been offset by the persistence of low interest rates. Interest rates are expected to begin rising late in the forecast period.

Other Sources of Income

Net taxable farm income has been on a long term negative trend and is expected to hold that pattern.

The other income line is a catch-all for income that does not fit in the other categories. It is usually small and is forecast to grow at a rate based on historic trends.

Forecast Methodology

Income tax revenue estimates are based on a computer program that calculates tax liability for individual income tax returns. Baseline assumptions are listed in Table 12 at the end of this section.

Before program implementation:

- Growth rates for income and deductions must be estimated; and
- Future tax parameters, such as rate brackets and caps on deductions, must be calculated based on forecasts of inflation and any changes in state or federal law.

The tax simulation program is run to project tax liability. It does so by:

- Reading each full-year resident return in the latest year's income tax returns database;
- Calculates current year's tax liability for each return;
- Applies an annual growth rate to each of the income and deduction line items and calculates the next year's tax liability; and
- Repeats the process, growing income and deductions and calculating tax liability for each year of the forecast period.

Once the simulation program has estimated future years' tax liability for full-year resident taxpayers who filed in the past year, adjustments are made outside the model to produce projected fiscal year collections for all filers.

Adjustments are made for:

- Projected growth in the number of taxpayers;
- Changes to state and federal tax law;
- Fiscal year timing of calendar year tax liability;
- An estimate of revenue from less than full-time residents;
- Reductions in tax liability due to the use of tax credits;
- Accounting for revenue from audits, penalties and interest not already included in the base calculations; and
- Other adjustments for shifts due to legislation.

Distribution

All individual income tax revenue is distributed to the general fund.

Data Sources

Revenue data is from SABHRS and the Department of Revenue. Past employment and wage data are from the Bureau of Labor Statistics. Employment, wage, interest rate, inflation, and other economic forecasts are from IHS Economics National and Montana releases as of October 2014.

Table 12
Historic and Projected Growth Rates for Line Items

	Actual				Forecast			
INCOME ITEMS	TY 2010	TY 2011	TY 2012	TY 2013	**TY 2014**	**TY 2014**	**TY 2015**	**TY 2016**
Federal Adjusted Gross Income Items								
Wages, salaries, tips, etc.	1.9%	4.5%	4.9%	3.4%	**4.6%**	**5.1%**	**5.0%**	**5.3%**
Interest income	-14.8%	-14.9%	-16.9%	-6.1%	**-6.5%**	**5.8%**	**24.4%**	**31.7%**
Dividend income	9.1%	-7.8%	34.9%	-12.3%	**17.5%**	**-0.2%**	**4.0%**	**2.0%**
Net business income	6.6%	1.6%	5.5%	10.7%	**5.8%**	**3.4%**	**4.1%**	**3.5%**
Capital gain or (loss)	8.8%	2.3%	46.8%	-11.9%	**11.5%**	**-12.4%**	**-2.2%**	**2.8%**
Supplemental gains or (losses)	121.0%	-0.4%	26.8%	65.3%	**-20.2%**	**-0.1%**	**2.9%**	**1.4%**
Rents, royalties, partnerships, etc.	20.9%	13.9%	12.8%	9.1%	**2.2%**	**0.4%**	**-1.0%**	**2.6%**
Taxable IRAs and pensions	12.4%	6.3%	4.9%	4.5%	**10.9%**	**11.0%**	**8.6%**	**7.0%**
Taxable portion of Soc. Sec.	11.7%	7.9%	10.7%	11.4%	**11.5%**	**10.8%**	**9.6%**	**8.2%**
Net farm income	-21.0%	-12.3%	6.8%	2.0%	**-32.4%**	**-1.4%**	**-1.5%**	**-1.4%**
Other income	-6.7%	806.2%	38.0%	-0.6%	**-29.6%**	**22.1%**	**3.8%**	**-3.2%**
Adjustments to Income	10.8%	3.7%	2.3%	9.6%	**17.5%**	**7.1%**	**7.1%**	**7.1%**
ADDITIONS:	TY 2010	TY 2011	TY 2012	TY 2013	**TY 2014**	**TY 2014**	**TY 2015**	**TY 2016**
Interest on state, county, bonds	24.7%	-10.5%	-21.3%	12.3%	**13.8%**	**1.2%**	**3.0%**	**4.1%**
Federal income tax refunds	3.0%	-12.0%	12.9%	-4.8%	**3.6%**	**0.7%**	**2.0%**	**1.7%**
Other additions	25.0%	5.5%	20.3%	-5.6%	**-5.7%**	**2.9%**	**2.3%**	**-1.7%**
REDUCTIONS:	TY 2010	TY 2011	TY 2012	TY 2013	**TY 2014**	**TY 2014**	**TY 2015**	**TY 2016**
Farm risk management account	0.0%	0.0%	0.0%	0.0%	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Exclusion for savings bonds	-17.1%	-16.9%	-13.5%	-13.2%	**1.7%**	**11.8%**	**47.0%**	**51.6%**
Exempt pension income	NA	NA	NA	NA	**NA**	**NA**	**NA**	**NA**
Unemployment income	58.2%	-28.1%	-17.9%	-18.0%	**-12.5%**	**-3.9%**	**2.3%**	**2.4%**
Medical savings account excl.	7.1%	3.5%	-3.1%	5.4%	**5.3%**	**5.0%**	**4.8%**	**4.6%**
Family education account excl.	-0.7%	-0.3%	4.7%	37.2%	**3.8%**	**3.6%**	**3.5%**	**3.4%**
First-time homebuyers acct. excl.	-49.6%	10.4%	26.9%	0.1%	**1.5%**	**1.5%**	**1.5%**	**1.5%**
Taxed health prof. repayment	28.5%	39.8%	18.4%	11.6%	**10.4%**	**9.4%**	**8.6%**	**7.9%**
All Other reductions	11.8%	14.6%	-1.6%	-6.6%	**6.1%**	**6.1%**	**6.1%**	**6.1%**
ITEMIZED DEDUCTIONS:	TY 2010	TY 2011	TY 2012	TY 2013	**TY 2014**	**TY 2014**	**TY 2015**	**TY 2016**
Medical insurance premiums	2.6%	3.0%	1.1%	5.4%	**5.6%**	**5.6%**	**5.6%**	**5.6%**
Medical deduction	-1.1%	-1.0%	-1.5%	-2.4%	**1.5%**	**1.5%**	**1.5%**	**1.5%**
Long-term care insurance	4.2%	24.5%	-18.9%	6.8%	**6.3%**	**6.0%**	**5.6%**	**5.3%**
Balance of federal tax	-17.5%	20.7%	10.7%	43.9%	**7.0%**	**7.0%**	**7.0%**	**7.0%**
Additional federal tax	-48.3%	18.8%	-17.7%	61.4%	**-33.1%**	**0.0%**	**0.0%**	**0.0%**
Property taxes	2.0%	2.4%	-1.0%	4.8%	**2.3%**	**2.1%**	**2.1%**	**2.0%**
Vehicle & other deductible taxes	17.8%	-9.6%	-9.6%	3.2%	**0.9%**	**0.9%**	**0.9%**	**0.9%**
Home mortgage interest	-3.5%	-6.2%	-7.3%	-3.0%	**1.7%**	**1.7%**	**1.7%**	**1.7%**
Deductible investment interest	18.2%	-10.0%	-22.9%	19.3%	**5.1%**	**7.0%**	**3.0%**	**1.7%**
Contributions	5.3%	3.4%	2.0%	5.6%	**5.7%**	**5.7%**	**5.7%**	**5.7%**
Child/dependent care expenses	-8.3%	9.5%	-9.6%	-0.4%	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Casualty and theft losses	-28.7%	97.9%	-26.8%	0.0%	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Tier I - Miscellaneous	3.9%	10.5%	1.7%	7.1%	**2.5%**	**2.5%**	**2.5%**	**2.5%**
Tier II - Miscellaneous	-55.5%	-26.3%	4.7%	-13.4%	**8.6%**	**0.0%**	**0.0%**	**0.0%**
Gambling Losses	-1.3%	14.2%	-1.9%	45.2%	**-26.8%**	**6.2%**	**6.2%**	**6.2%**
CREDITS	TY 2010	TY 2011	TY 2012	TY 2013	**TY 2014**	**TY 2014**	**TY 2015**	**TY 2016**
Total Credits	23.9%	-24.9%	5.6%	7.6%	**4.3%**	**4.3%**	**4.3%**	**4.3%**

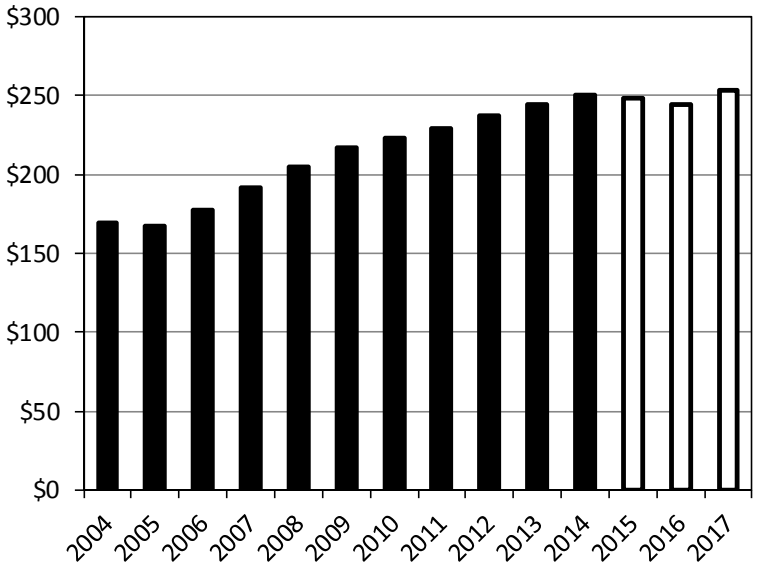
Revenue Description

Title 15, Chapter 6, Part 1, MCA, identifies the classes of property subject to taxation and the applicable tax rate. Property tax revenue is collected directly from mills levied on property and indirectly from non-levy revenue sources. Non-levy revenues are shared with local taxing jurisdictions based on the proportion of state to local mills levied in the respective taxing jurisdictions (coal gross proceeds and federal forest receipts). The state general fund receives property tax revenue from statewide levies for: elementary school BASE funding of 33 mills (20-9-331, MCA), high school BASE funding of 22 mills (20-9-333, MCA), and the 40 mill state equalization aid levy (20-9-360, MCA), commonly referred to collectively as the 95 mill levy. In addition, there is a 1.5 mill levy on property in counties with colleges of technology (20-25-439, MCA).

Table 1 shows general fund property tax collections for FY 2004 through FY 2014 and forecast revenue for FY 2015, FY 2016, and FY 2017.

Table 1
Property Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$169.531	-1.24%
A	2005	$167.270	-1.33%
A	2006	$177.639	6.20%
A	2007	$190.982	7.51%
A	2008	$205.036	7.36%
A	2009	$217.042	5.86%
A	2010	$222.510	2.52%
A	2011	$229.352	3.08%
A	2012	$236.662	3.19%
A	2013	$244.607	3.36%
A	2014	$250.344	2.35%
F	**2015**	**$247.857**	**-0.99%**
F	**2016**	**$244.377**	**-1.40%**
F	**2017**	**$253.170**	**3.60%**



Risks and Significant Factors

- Property taxes constitute the largest statewide tax source – the state, local governments, schools, and special districts collected over $1.537 billion in property taxes and fees in tax year (TY) 2013 (FY 2014).
- SB 96 of the 2013 session reduced class 8 (business equipment) property taxes by exempting the first $100,000 in market value owned by all taxpayers (before SB 96 there had been a $20,000 market value threshold). The bill raised the 1.5% tax rate bracket to $6 million of taxable market value (from $3 million) starting in TY 2014 (FY 2015). All class 8 property above the bracket continues to pay a 3.0% tax rate.
- Other 2013 session property tax legislation had negligible revenue effects. The law changes were: permitting county commissions to cancel delinquent taxes on certain mobile home property (HB 192); extension of forest land (class 10) classification to small parcels under certain conditions (HB 195); the clarification of assessment procedures for agricultural lands (HB 593); and the codification of the availability of mediation in property tax disputes (SB 280).
- The most significant 2011 session property tax law changes were the class 8 property tax reductions in SB 372, and the SB 266 reduction in the coal gross proceeds tax rate from 5% to 2.5%. The bill allowed temporary (ten

years) tax rate reductions for existing and new underground coal mines as of calendar year (CY) 2011 production (FY 2013 tax receipts).

- TY 2014 (FY 2015) marks the end of the current six-year periodic revaluation cycle for agricultural land (class 3 property), commercial and residential real property (class 4 property), and forest land (class 10 property). HB 658 (2009 session) accommodated increases due to reappraisal by raising exemptions and lowering tax rates progressively throughout the six-year reappraisal cycle, which started in TY 2009 (FY 2010).
- The next six-year cycle starts in TY 2015 (FY 2016). Current law phases-in the increment in market value due solely to reappraisal in one-sixth increments each year of the cycle (15-7-11, MCA). All other value changes (up or down) are applied in the first year of the new appraisal cycle under current law. All other property is assessed annually. These estimates are based on present law reappraisal statutes.
- The federal Secure Rural Schools and Communities Act expired in FY 2015. The expiration will lower the state share of non-levy revenue by $3.3 million as payments revert to federal forest receipts rules for FY 2015.
- Misclassification of non-levy revenue on county collection reports leads to inconsistencies in the allocation of this revenue between mill levy and non-levy revenue accounts in the state accounting (SABHRS) system.
- Major protested property tax settlements and court decisions (*Gold Creek and AT&T v. DOR* 2013 MT 273) have established precedent that has reduced centrally assessed (class 13) valuation base. These settlements also released protested tax reserves temporarily increasing general fund property tax revenue in FY 2014 and FY 2015.
- Unanticipated growth in tax increment financing districts (TIFs) could lower state, schools, and local jurisdiction property tax collections.
- The expiration of federal accelerated bonus depreciation and expensing rules enacted under economic recovery measures may reduce the pace of investment in business and other industrial plant and equipment.

Estimate Summary

The presentation of this forecast starts with a summary of the full general fund property tax estimate (Table 2). The summary is followed by a step-by-step presentation of the methodology used to estimate each component of the estimate.

Table 2
Summary of General Fund Property Tax Revenue
($ millions)

	--- Actual ---	---------- Forecast ----------		
	FY 2014	**FY 2015**	**FY 2016**	**FY 2017**
Property Tax - 95 Mill Levy	$233.797	**$238.302**	**$235.208**	**$244.085**
Property Tax - 1.5 Mill Levy	$1.207	**$1.225**	**$1.207**	**$1.193**
Net Protested Property Taxes	$3.425	**$0.168**	**-$0.360**	**-$0.490**
Net Property Mill Levy Revenue	$238.429	**$239.696**	**$236.056**	**$244.788**
Non-Levy Revenue:				
Coal Gross Proceeds	$6.822	**$7.139**	**$7.319**	**$7.392**
Federal Forest Reserves	$3.727	**$0.465**	**$0.444**	**$0.432**
All Other (last known year)	$0.558	**$0.558**	**$0.558**	**$0.558**
Subtotal Non-Levy Revenue	$11.107	**$8.162**	**$8.321**	**$8.382**
Total Property Tax Revenue	$249.536	**$247.857**	**$244.377**	**$253.170**

Forecast Methodology

The property tax forecast is built by estimating growth rates for tax year assessed market value, for each property class and converting the assessed market value into taxable value by applying statutory tax rates and exemptions. This method minimizes the need for adjustments for local property tax abatements. Adjustments are made for tax increment financing districts, which do not pay school equalization, elementary, and high school mill levies to the state. Revenue

accruing to the state is then allocated to the fiscal year of receipt. A separate forecast is made for each non-levy revenue source. These estimates are summed to form the general fund property tax revenue estimate.

There are six main steps followed to calculate the property tax revenue generated from the 95 mill levy and the 1.5 mill levy:

Step 1. Estimate the growth rate for the assessed value of each class of property.

Historical trends in valuation serve as the foundation for estimating future property value; adjustments are made for major new investments and the effects of known changes in tax rates or valuation. Growth rates are determined independently for each class of property.

Table 3 is a summary of assessed market value and market value growth for all property except class 3 (agricultural land), class 4 (residential and commercial real property), class 10 (forest property), class 15 (qualifying CO_2 sequestration and liquids pipelines), and class 16 (qualifying high-voltage direct current converter property). Classes 3, 4 and 10 will be presented in the section on cyclically reappraised property to address the 2015 reappraisal cycle phase-in of market value and underlying real growth in detail following the summary of all other classes of property. Classes 15 and 16 have been assigned no growth or no value during the forecast period as the creation of any new property in these classes is currently unknown.

Of note in Table 3:

- **Class 1,** net proceeds of all mines assessed value (except metal mines and bentonite) is highly dependent on construction; the valuation is expected to oscillate around the long-run growth rate. The series presented is adjusted for the removal of bentonite from the class in TY 2005.
- The forecast for **Class 2**, net proceeds of metal mines, is based on the IHS Economics projection for the producer price for metals and current production adjusted for known mine closing and openings. Metal mines property taxes are based on the prior calendar year's production value.
- There is offsetting growth and decline factored in to this estimate with new small gas power plants expected to be added to the tax rolls in the forecast period, but there is a mark down in valuation of some property in **Class 5** (rural co-op and pollution control property)**.**
- **Class 8** business equipment property underlying growth is estimated based on trend with adjustments for large one-time investments. SB 96 eliminated the taxation on the first $100,000 in assessed market value, widened the 1.5% tax bracket for the next $6 million in assessed market value, and set the tax rate for the amount over $6 million at 3% tax rate. These changes have continued to lower the class 8 tax base. The class continues to grow with new investments in plant and equipment at large firms.
- Centrally assessed **class 13** property valuation reductions due to court rulings and protested tax settlements are assumed to have been fully incorporated in the TY 2014 tax base. The class is forecast to return to its long-term growth rate.
- **Class 14,** (formerly wind generation property) expanded rapidly with a particularly large increase with the completion of the Montana-Alberta Tie Line. Expiration of new and expanding tax incentives and a few small projects are expected to offset declines in value due to depreciation.
- **Class 15,** includes the pipeline supplying CO_2 for injection into the Bell Creek oil formation. If the technology produces sufficient tertiary oil production, the pipeline expansion to the Elm Coulee formation is likely. This estimate does not include such expansion.

Table 3
Summary of Assessed Market Value
($ millions)

	Class 1 Net Proceeds		Class 2 Gross Proceeds		Class 5 Rural Co-Op & Pollution Control		Class 7 Locally Assessed Utilities		Class 8 Business Equipment (FY adjusted)	
Tax Year	Adjusted Assessed Value	Percent Change	Assessed Value	Percent Change	Assessed Value	Percent Change	Assessed Value	Percent Change	Net Assessed Value	Percent Change
A 2002	$3.903	83.3%	$10.669	-3.1%	$1,180.182		$2.705	14.5%	$4,012.213	1.7%
A 2003	$3.071	-21.3%	$8.800	-17.5%	$1,090.984	-7.6%	$12.439	359.8%	$3,995.585	-0.4%
A 2004	$2.974	-3.2%	$10.428	18.5%	$1,134.277	4.0%	$12.179	-2.1%	$3,989.982	-0.1%
A 2005	$2.694	-9.4%	$13.045	25.1%	$1,154.284	1.8%	$11.918	-2.1%	$4,359.340	9.3%
A 2006	$3.252	20.7%	$21.106	61.8%	$1,170.571	1.4%	$13.354	12.1%	$4,772.181	9.5%
A 2007	$3.840	18.1%	$28.347	34.3%	$1,181.927	1.0%	$13.698	2.6%	$5,248.938	10.0%
A 2008	$4.013	4.5%	$34.858	23.0%	$1,170.260	-1.0%	$15.179	10.8%	$5,737.691	9.3%
A 2009	$4.002	-0.3%	$31.035	-11.0%	$1,251.525	6.9%	$15.822	4.2%	$6,022.510	5.0%
A 2010	$3.181	-20.5%	$20.887	-32.7%	$1,299.811	3.9%	$16.229	2.6%	$6,238.758	3.6%
A 2011	$3.931	23.6%	$25.340	21.3%	$1,354.726	4.2%	$14.930	-8.0%	$6,464.672	3.6%
A 2012	$4.189	6.6%	$33.992	34.1%	$1,522.562	12.4%	$14.631	-2.0%	$7,024.756	8.7%
A 2013	$3.272	-21.9%	$29.723	-12.6%	$1,501.919	-1.4%	$15.023	2.7%	$7,200.080	2.5%
A 2014	$3.791	15.9%	$25.578	-13.9%	$1,485.501	-1.1%	$14.773	-1.7%	$7,158.729	-0.6%
F 2015	$3.668	**-3.2%**	**$30.372**	**18.7%**	**$1,513.725**	**1.9%**	**$15.006**	**1.6%**	**$7,535.514**	**5.3%**
F 2016	$3.844	**4.8%**	**$31.439**	**3.5%**	**$1,542.486**	**1.9%**	**$15.242**	**1.6%**	**$7,867.747**	**4.4%**

	Class 9 Pipelines & Electricity Transmission		Class 12 Airlines & Railroads		Class 13 Telecommunication & Electrical Generation		Class 14 Renewable Energy Production & Transmission		Class 15 CO2/Qualifying Liquid Pipeline Property	
Tax Year	Assessed Value	Percent Change	Assessed Value	Percent Change	Assessed Value	Percent Change	Assessed Value	Percent Change	Assessed Value	Percent Change
A 2002	$1,767.717	2.8%	$1,161.405		$2,286.414					
A 2003	$1,833.334	3.7%	$1,176.038	1.3%	$2,041.207	-10.7%				
A 2004	$1,990.999	8.6%	$1,183.046	0.6%	$2,008.084	-1.6%				
A 2005	$2,070.805	4.0%	$1,183.616	0.0%	$2,048.766	2.0%				
A 2006	$2,204.148	6.4%	$1,171.178	-1.1%	$2,354.749	14.9%	$170.379			
A 2007	$2,204.148	0.0%	$1,221.693	4.3%	$2,550.499	8.3%	$172.664	1.3%		
A 2008	$2,193.812	-0.5%	$1,246.504	2.0%	$2,583.395	1.3%	$196.252	13.7%		
A 2009	$2,120.180	-3.4%	$1,359.438	9.1%	$2,578.848	-0.2%	$434.939	121.6%		
A 2010	$2,338.609	10.3%	$1,524.594	12.1%	$2,904.257	12.6%	$596.308	37.1%		
A 2011	$2,535.219	8.4%	$2,067.948	35.6%	$3,427.557	18.0%	$571.444	-4.2%		
A 2012	$2,687.917	6.0%	$2,097.157	1.4%	$3,435.972	0.2%	$550.740	-3.6%		
A 2013	$2,947.230	9.6%	$2,197.681	4.8%	$2,876.381	-16.3%	$1,025.784	86.3%	$63.931	
A 2014	$3,122.440	5.9%	$2,221.753	1.1%	$2,831.344	-1.6%	$980.529	-4.4%	$117.162	83.3%
F 2015	**$3,277.306**	**5.0%**	**$2,275.523**	**2.4%**	**$2,882.308**	**1.8%**	**$980.529**	**0.0%**	**$117.162**	**0.0%**
F 2016	**$3,439.854**	**5.0%**	**$2,330.594**	**2.4%**	**$2,934.190**	**1.8%**	**$980.529**	**0.0%**	**$117.162**	**0.0%**

Class 16 - High Voltage DC Converter Property - None identified in the TY 2015 through TY 2016 time horizon

Step 2. Estimate the growth of property subject to cyclical reappraisal (classes 3, 4, and 10).

For classes 3, 4, and 10, growth is derived by calculating the interaction of long-run trends, new property growth, future (annual) reappraisal increments (phase-in) and any first year of the reappraisal cycle reduction in valuation. In the previous reappraisal cycle, reappraisal change was addressed through a gradual reduction in tax rates, and progressively increasing “homestead” and “comstead” exemption rates. This held the taxable value of existing property essentially flat on a statewide basis. Per present law, these estimates hold exemptions and tax rates constant, phase-in

any growth in value over six years, and apply any reduction in value in the first year of the cycle. These preliminary estimates of statewide reappraisal change are based on Department of Revenue public presentations in September and October 2014. These reappraisal estimates are approximations and not the final estimates produced by the department's statistical modeling and appraisal activities. Table 4 summarizes the currently anticipated change by major sub-class.

Table 4 Change in Market Value of Reappraised Property ($ millions)

Type of Property	TY 2014 at Full Reappraisal Value	2015 Reappraisal	Difference in Value	Percent Change
	---------- Full Market Value ----------			
Class 3 - Ag Land	**$5,467.357**	**$6,380.406**	**$913.049**	**16.7%**
Class 4 - Residential Property	$86,304.620	$82,334.607	-$3,970.013	-4.6%
Class 4 - Residential Multifamily Property	$3,473.715	$3,313.924	-$159.791	-4.6%
Class 4 - Commercial Property	$18,296.774	$21,773.161	$3,476.387	19.0%
Class 4 Total	**$108,075.109**	**$107,421.693**	**-$653.416**	**-0.6%**
Class 10 - Forest Land	**$2,155.929**	**$1,073.653**	**-$1,082.276**	**-50.2%**
All Cyclically Reappraised Property	**$115,698.395**	**$114,875.751**	**-$822.644**	**-0.7%**

Table 4 presents the full reappraisal (July 1, 2008) value at the end of the 2008 reappraisal cycle (TY 2014), and the estimated value of the same property at the full value on the January 1, 2014, assessment date. County class 4 average changes and agricultural subclass data are used to approximate the first year reduction in assessed value and to calculate the six-year phase-in increments. Assumptions for underlying growth (generally new property) are then incorporated into each estimate. Tax rates and exemptions are held constant, per present law. These factors are used to calculate the taxable value for each subclass and class of property.

Class 3 – Agricultural Land

Agricultural land is assessed based on the estimated production value of reference agricultural products on the property instead of market value. Table 5 presents the estimate of class 3 value and taxable value growth. The base growth rate of agricultural land is -0.15% during the forecast period. The negative growth rate is due to the gradual conversion of class 3 land to commercial and residential parcels. Reappraisal leads to two countervailing adjustments: for property that has an increased assessed value, the increase is spread evenly over six years by a phase-in increment; and property that decreases in value will have the new lower values assessed (TY 2015). After applying a one-time $463.7 million reduction, the sub-classes that increase in value add $229.5 million each year of the reappraisal cycle (referred to as "phase-in"). The other feature of class 3 is that the average "applicable" tax rate for agricultural property is higher than the statutory rate because small agricultural parcels that do not meet an income threshold (non-qualified agricultural land), have a higher tax rate (seven times the grazing land tax rate).

Table 5
Class 3 Agricultural Land
($ millions)

	TY 2013	TY 2014	**TY 2015**	**TY 2016**
Productivity Value	$5,216.352	$5,467.357	**$5,225.89**	**$5,447.54**
Statutory Tax Rate	2.54%	2.47%	**2.47%**	**2.47%**
(Applicable tax rate)	*2.78%*	*2.78%*	*2.60%*	*2.59%*
Total Taxable Value	$145.199	$152.186	**$135.747**	**$140.944**
Base Growth			-0.15%	-0.15%
Taxable Value Percent Change	-1.8%	4.8%	-10.8%	3.8%

Class 4 – Residential and Commercial Real Property

Because exemptions for commercial and residential property are different for each subclass, estimates of taxable value growth are presented separately for residential, multi-family property, and commercial property, (multi-family property receives the residential "homestead" exemption).

Class 4 Residential Real Property

Table 6 presents the forecast of taxable value for residential class 4 property. The forecast is based on underlying residential property growth of 2.5% in TY 2015 and TY 2016 (TY 2014 is known). Due to reappraisal, the full reduction in market value of this property is applied in TY 2015. The first year reduction in assessed market value before exemption is $ 6.487 billion. The phase-in increment adds $424.5 million each year in addition to underlying growth. The homestead exemption and the tax rate are held constant.

Table 6
Class 4 Residential Real Property
($ millions)

	TY 2013	TY 2014	**TY 2015**	**TY 2016**
Market Value	$80,251.335	$87,222.753	**$82,399.29**	**$84,883.73**
Homestead Rate	45.5%	47.0%	**47.0%**	**47.0%**
Taxable Market Value	$43,736.978	$46,228.059	**$43,671.621**	**$44,988.376**
Tax Rate	2.54%	2.47%	**2.47%**	**2.47%**
Taxable Value	$1,110.919	$1,141.833	**$1,078.689**	**$1,111.213**
Est. PTAP/EPTAP/DAV Reductions	($14.850)	($15.263)	($15.263)	($15.263)
Total Taxable Value	$1,096.069	1,122.8730	**$1,063.426**	**$1,095.950**
Base Growth			-5.53%	3.02%
Taxable Value Percent Change	2.41%	2.45%	**-5.29%**	**3.06%**

There is a reduction in taxable value for homeowners that qualify for the property tax assistance program (PTAP), the disabled American veterans (DAV) property tax assistance program, and the extended property tax assistance program (EPTAP) for properties with extraordinary increases in reappraisal value. These programs reduce taxable value by reducing the standard tax rate for qualifying residential properties. The revenue effects of these programs, unlike local property tax abatements, reduce state mill collections. The taxable value for these tax reduction programs are assumed to be fixed at the TY 2014 level during the forecast period.

Class 4 Multi-family Commercial Real Property

Table 7 displays the calculation of taxable value and the growth rate for multi-family property. The base growth rate of this property is assumed to be 0.75% per year during the forecast period. Due to reappraisal, the market value of property is assumed to drop by $261.1 million in the first year and the annual phase-in increment is assumed to be $17.1 million. The increases in value and the decreases in value are estimated using the county reappraisal change estimates and distributed based on the statewide share of residential and multi-family property. The "homestead" exemption rate and the tax rate are constant.

Table 7
Class 4 Multifamily
($ millions)

	TY 2013	TY 2014	**TY 2015**	**TY 2016**
Market Value	$3,241.372	$3,475.208	**$3,255.738**	**$3,297.240**
Homestead Rate	45.5%	47.0%	**47.0%**	**47.0%**
Taxable Market Value	$1,766.548	$1,841.860	**$1,725.541**	**$1,747.537**
Tax Rate	2.54%	2.47%	**2.47%**	**2.47%**
Taxable Value	$44.870	$45.494	**$42.621**	**$43.164**
Base Growth			-6.32%	1.27%
Taxable Value Percent Change	1.40%	1.39%	-6.32%	1.27%

Class 4 Commercial Real Property

Commercial real property estimates are presented in Table 7. The underlying growth rate for this property is assumed to be 3.25% in TY 2015 and TY 2016. Due to reappraisal, the market value of property grows by a phase-in increment of $650.1 million per year. However, there is a first year impact for some property that declined in value by a total of $432.8 million. The "comstead" exemption does not change each year. The reappraisal increment coupled with flat tax rates leads to taxable value growth that is greater than base growth.

Table 8
Class 4 Commercial Real Property
($ millions)

	TY 2013	TY 2014	**TY 2015**	**TY 2016**
Market Value	$16,975.419	$18,297.069	**$19,109.549**	**$20,381.588**
Comstead Rate	20.3%	21.5%	**21.5%**	**21.5%**
Taxable Market Value	$13,529.409	$14,363.199	**$15,000.996**	**$15,999.547**
Tax Rate	2.54%	2.47%	**2.47%**	**2.47%**
Calculated Taxable Value	$343.647	$354.771	**$370.525**	**$395.189**
Reductions	($4.061)	($4.106)	($4.106)	($4.106)
Total Taxable Value	$339.586	$350.665	**$366.419**	**$391.083**
Base Growth			3.25%	3.25%
Taxable Value Percent Change	2.81%	3.24%	4.44%	6.66%

Certain properties classified under 15-6-134(2)(c), MCA, are taxed at one-half of the standard class 4 tax rate. This taxable value reduction is assumed to be constant during the forecast period.

Class 10 Forest Land

Forest land, like agricultural land, is assessed based on its productivity value. Table 9 presents the estimate of class 10 taxable value. The base growth rate of forest land is assumed to be negative 0.5% in TY 2015 and TY 2016 as the value of class 10 property is reduced when land is converted to commercial and residential parcels or reclassified as exempt property. Due to reappraisal value reduction, the new assessed value reduction 50.2% (see table 4) is applied in TY 2015. The reduction in assessed value and negative growth trend reduce taxable value by more than 50% in TY 2015 and then gradually each subsequent year of the forecast period.

Table 9
Class 10 Forest Land
($ millions)

	TY 2013	TY 2014	**TY 2015**	**TY 2016**
Productivity Value	$2,092.350	$2,143.103	**$1,050.112**	**$1,044.861**
Tax Rate	0.30%	0.29%	**0.29%**	**0.29%**
Taxable Value	$6.277	$6.215	**$3.045**	**$3.030**
Base Growth			**-0.50%**	**-0.50%**
Taxable Value Growth	-1.73%	-0.99%	-51.00%	-0.50%

Step 3. Determine the tax rate for each class of property.

As stated previously, tax rates for each class of property are set in statute. However, classes 3 and 4 have special rates which apply to sub-categories of property. In class 3, parcels of agricultural land that are less than 160 acres in size that do not generate at least $1,500 in agricultural production per year are considered "non-qualified agricultural land" and have a tax rate seven times the standard class 3 rate. Because of this, the applicable rate is higher than the standard tax rate. This increment was calculated for the forecast period taking into account the distribution of sub-classes of that increase in value and those that had an immediate reduction in TY 2015 (as can be seen in Table 5).

In class 4, residential properties of individuals who meet statutory residence, income, and qualifying conditions receive reduced tax rates (PTAP, DAV, and EPTAP). Additionally, residential property valued at over $1.5 million has the homestead exemption capped at that level, increasing the effective taxable value for these properties. Some commercial properties are taxed at a lower than standard rate – examples are properties that receive new and expanding industry property (local) abatements, and commercial golf courses (lower statutory class 4 rate). Under SB 372 and SB 96, class 8 property has a tiered tax rate. The class 8 effective statutory weighted average rate before local abatements is presented in Table 10. The table summarizes standard statutory property tax rates for TY 2013 through TY 2016 for all classes of property. The table illustrates that classes 3, 4, 8, 10, and 12 properties have changing tax rates. The tax rates for cyclically reappraised property are highlighted.

Table 10
Statutory Tax Rates by Class of Property

Tax Year	**Class 1** Mine Net Proceeds	**Class 2** Mine Gross Proceeds	**Class 3** Ag Land[1]	**Class 4** Residential & Commercial	**Class 5** Co-op & Pollution Control	**Class 7** Locally Assessed Utilities	**Class 8** Business Equipment[3]	**Class 9** Pipelines, Utility Non-Generating	**Class 10** Forestland	**Class 12** Airlines & Railroads[2]	**Class 13** Telecomm & Electrical Generation	**Class 14** Renewable Energy & Transmission	**Class 15** CO_2/ Cert.Liquid Pipeline	**Class 16** High Voltage DC
2013	3.0%	3.0%	2.54%	2.54%	3.0%	8.0%	2.44%	12.0%	0.30%	3.36%	6.0%	3.0%	3.0%	2.25%
2014	3.0%	3.0%	2.47%	2.47%	3.0%	8.0%	2.13%	12.0%	0.29%	3.28%	6.0%	3.0%	3.0%	2.25%
2015	**3.0%**	**3.0%**	**2.47%**	**2.47%**	**3.0%**	**8.0%**	**2.13%**	**12.0%**	**0.29%**	**3.25%**	**6.0%**	**3.0%**	3.0%	**2.25%**
2016	**3.0%**	**3.0%**	**2.47%**	**2.47%**	**3.0%**	**8.0%**	**2.13%**	**12.0%**	**0.29%**	**3.23%**	**6.0%**	**3.0%**	3.0%	**2.25%**

[1] Actual rate is higher due non-qualified Ag land rate.
[2] Class 12 rates is calculated on the weighed average of all commercial and industrial property in the prior year.
[3] Blended rate -- Tax in TY 2014 is: the first $100,000 in market value of business equipment property is excempt for all taxpayers, 1.5% on nextt $6 million, and 3.0% on all property above that level (SB 96)

The reappraised classes (classes 3, 4, and 10) had their rates set as part of HB 658 reappraisal mitigation through TY 2014. The class 12 tax rate is calculated under the provisions of the federal 4-R Act. The specific provisions of the act prohibits state, county, and local taxing jurisdictions from assessing rail transportation property at a higher ratio of assessed value to true market value than other commercial and industrial property within the jurisdiction. Class 12 property is assessed annually and the weighted average tax rate for all commercial and industrial property in the state applies to the class. Class 4 commercial property represents over half of statewide commercial and industrial property and is assessed on a six-year cycle. In order to comply with the 4-R Act, the Department of Revenue uses commercial property sales to calculate the required adjustment to the class 4 commercial tax rate used in the class 12 weighted average. This revenue estimate uses a three-year moving average of the forecast of market and taxable values for all commercial and industrial property to calculate the likely class 12 rate for TY 2015 and TY 2016 (the tax rate for TY 2014 was published by Department of Revenue on June 1, 2014). These rates are presented in Table 10.

Step 4. Calculate the statewide fiscal year taxable value for each class of property.

For all classes of property except class 8, the tax collected on the calendar year taxable value is the next fiscal year's revenue.

Class 8 property consists of two types of property each with a different billing cycle. Class 8 taxable value needs to be adjusted for the timing of payments. Personal property not liened-to-real property (or strict-personal property) represents about 30% of the value in the class. This property is assessed in the spring of the calendar year and bills are expected be paid in May of the respective ongoing current fiscal year. Class 8 real property, and class 8 personal property liened-to-real property (secured permanently or legally to real property) represents 70% of the value of the class and have tax payments due in November and May. Therefore, FY 2015 taxable value is 70% of TY 2014 taxable value and 30% of TY 2015 taxable value. The class 8 taxable value presented in the summary of taxable value (Table 11) includes this adjustment.

Note: The discussion from this point forward will focus on fiscal year outcomes.

Table 11 presents the result of applying statutory tax rates (Table 10) to tax year assessed values adjusted for the expected timing of the state's property tax receipts.

Table 11
Calculated Statewide Fiscal Year Taxable Value Summary
($ millions)

Class & Property Description	FY 2014	FY 2015	FY 2016	FY 2017
1. Net Proceeds	$3.272	**$3.791**	**$3.668**	**$3.844**
2. Mine Gross Proceeds (w/o Abatements)	$29.723	**$25.578**	**$30.372**	**$31.439**
3. Agricultural Land	$145.199	**$152.186**	**$135.747**	**$140.944**
4. Residential & Commercial Real Property	$1,480.525	**$1,519.032**	**$1,472.465**	**$1,530.197**
5. Rural Co-Op Utilities and Pollution Control	$45.058	**$44.565**	**$45.412**	**$46.275**
7. Non-centrally Assessed Util.	$1.202	**$1.182**	**$1.200**	**$1.219**
8. Business Equipment (FY adjusted)	$175.610	**$152.214**	**$160.225**	**$167.289**
9. Pipelines, Electrical Transmission Lines	$353.668	**$374.693**	**$393.277**	**$412.782**
10. Forest Land	$6.277	**$6.215**	**$3.045**	**$3.030**
12. Airlines/Railroads	$73.874	**$72.838**	**$73.850**	**$75.242**
13. Telecommunication & Electrical Generation	$160.660	**$169.881**	**$172.939**	**$176.051**
14. Renewable Energy Production & Transmission	$30.774	**$29.416**	**$29.416**	**$29.416**
15. CO2/Qualifying Liquid Pipelines	$1.918	**$3.515**	**$3.515**	**$3.515**
16. High Voltage DC Converter Property	$0.000	**$0.000**	**$0.000**	**$0.000**
Statewide Taxable Value	$2,507.758	**$2,555.105**	**$2,525.131**	**$2,621.243**

Table 12 presents the annual change in the forecast taxable values (in Table 11), by class, to facilitate comparability to the estimates presented by the Legislative Fiscal Division. These growth rates are important in projecting taxable value for property tax fiscal impact estimates.

Table 12
Forecast Annual Percent Change in Taxable Value

Class & Property Description	FY 2014	FY 2015	FY 2016	FY 2017
1. Net Proceeds	-21.9%	**15.9%**	-3.25%	4.80%
2. Mine Gross Proceeds (w/o Abatements)	-12.6%	**-13.9%**	18.74%	3.51%
3. Agricultural Land	-1.8%	**4.8%**	-10.80%	3.83%
4. Residential & Commercial Real Property	2.5%	**2.6%**	**-3.07%**	**3.92%**
Residential	2.4%	**2.4%**	-5.29%	3.06%
Multifamily (commercial)	1.4%	**1.4%**	-6.32%	1.27%
Commercial	2.8%	**3.3%**	4.49%	6.73%
5. Rural Co-Op Utilities and Pollution Control	-1.4%	**-1.1%**	1.90%	1.90%
7. Non-centrally Assessed Util.	2.7%	**-1.7%**	1.57%	1.57%
8. Business Equipment (FY adjusted)	-2.2%	**-13.3%**	5.26%	4.41%
9. Pipelines, Electrical Transmission Lines	9.6%	**5.9%**	4.96%	4.96%
10. Forest Land	-1.7%	**-1.0%**	-51.00%	-0.50%
12. Airlines/Railroads	2.0%	**-1.4%**	1.39%	1.88%
13. Telecommunication & Electrical Generation	-17.3%	**5.7%**	1.80%	1.80%
14. Renewable Energy Production & Transmission	97.9%	**-4.4%**	0.00%	0.00%
15. CO2/Qualifying Liquid Pipelines		**83.3%**	**0.0%**	**0.0%**
16. High Voltage DC Converter Property				
Statewide Taxable Value Growth	1.6%	**1.9%**	**-1.2%**	**3.8%**

Step 5. Determine the taxable value base for statewide mill levies and 95 mill revenue.

In order to calculate the 95 mill revenue due the state, adjustments need to be made for Tax Increment Financing Districts (TIFs). TIFs do not transfer the 95 mill revenue generated in the district to the state. These districts (authorized under Title 7, chapter 14, part 42, MCA.) retain the taxes generated from all millage in the district (except the 6 mill university levies) on the taxable value greater than the taxable value existing in the district when it was created, commonly referred to as the “TIF incremental value”. The 95 mill revenue generated from these increments must be deducted from the estimate of state property tax revenue. This estimate grows TY 2014 TIF incremental taxable value by the TIF property class-weighted average annual percent changes. During the forecast period, only one TIF district may expire (the Missoula urban renewal district III).

Because the calculation of total property tax revenue is estimated by applying the standard statutory tax rates to the assessed market value property base, no adjustment is needed for locally abated property. Table 13 displays the calculation of state revenue generated from the 95 mill levies.

Table 13
Calculation of General Fund Revenue from 95 Mill Levy
($ millions)

Calculation	FY 2014	**FY 2015**	**FY 2016**	**FY 2017**
Statewide (FY) Taxable Value	$2,507.758	**$2,555.105**	**$2,525.131**	**$2,621.243**
Subtract TIF Value	($46.732)	**($46.659)**	**($49.253)**	**($51.924)**
Taxable Value for 95 Mills	$2,461.026	**$2,508.445**	**$2,475.878**	**$2,569.319**
Apply 95 Mills	0.095	**0.095**	**0.095**	**0.095**
State Revenue from 95 Mills	$233.797	**$238.302**	**$235.208**	**$244.085**

Table 14 shows the forecast for 1.5 mill levy revenue for colleges of technology and is based on the taxable value in counties with colleges of technology after adjusted for county TIFs.

Table 14
Property Tax 1.5 Mill Levy General Fund Revenue
($ millions)

	FY 2014	**FY 2015**	**FY 2016**	**FY 2017**
COT County Taxable Value	$837.521	**$826.434**	**$816.739**	**$847.826**
COT County TIF Value	($20.671)	**($21.622)**	**($21.588)**	**($22.788)**
Taxable Value for 1.5 Mills	$816.850	**$804.812**	**$795.151**	**$825.038**
Apply 1.5 Mills	0.0015	**0.0015**	**0.0015**	**0.0015**
1.5 Mill Levy Revenue	$1.225	**$1.207**	**$1.193**	**$1.238**

Step 6. Calculate total general fund property tax revenue due from mill levies and non-levy revenues.

The main non-levy revenues are shared by counties and the state based on the relative distribution of state and local mills. These include coal gross proceeds (in counties that have coal production) and federal forest receipts (in counties that have national forest acreage). Additionally, there is an assortment of miscellaneous revenues that are collected by counties that are shared with the state based on the proportionate share of statewide equalization mills and local education mills.

The base for coal gross proceeds non-levy revenue is the coal severance tax reports. The coal gross proceeds tax is a 5% levy on the gross value of coal produced. The state receives the TY 1989, elementary and high school mills (45 mill) share of the coal gross proceeds tax collections state to local education mill distribution. Under SB 266 (2011 session), the coal gross proceeds tax rate for underground mines was reduced to 2.5% for an initial period of ten years. The reduced tax rate would be available to any new underground mine for the first ten years of production. The bill also granted counties the ability to abate up to 50% of local coal gross proceeds distributions.

Beginning with FY 2009, the federal Secure Rural Schools and Communities Act (SRS) was reauthorized and fully funded through FY 2012 under the Emergency Economic Stabilization Act of 2008. The Act was reauthorized and funded for FY 2013 by Public Law 112-141, in July 2012. The SRS program has not been reauthorized by the 113th Congress, as of the end of October 2014. Montana's share of the final SRS Title I payments were $18.2 million in FY 2014. The expiration of SRS Act means payments will revert to the 1908 Act 25% distribution of the seven-year average of federal forest receipts that is anticipated to be around $2.3 million. The state receives the 55 mill share of one-third of Title I funds allocated to countywide school levies. In recent years, that has meant approximately 20.4% of

all Title I payments accrue to the state general fund due to the proportion share of school equalization mills (about $450,000 down from $3.8 million in FY 2014).

All other non-levy revenues are set at the level of the last known year's total (FY 2013).

Table 15 combines the 95 mill, 1.5 mill revenue, anticipated centrally assessed protested property taxes (net of known settlements) that may be allocated to the reserved account), and non-levy revenues. (Table 15 restates the values presented in Table 2).

Table 15
Summary of General Fund Property Tax Revenue
($ millions)

	--- Actual ---	---------- Forecast ----------		
	FY 2014	**FY 2015**	**FY 2016**	**FY 2017**
Property Tax - 95 Mill Levy	$233.797	**$238.302**	**$235.208**	**$244.085**
Property Tax - 1.5 Mill Levy	$1.207	**$1.225**	**$1.207**	**$1.193**
Net Protested Property Taxes	$3.425	**$0.168**	**-$0.360**	**-$0.490**
Net Property Mill Levy Revenue	$238.429	**$239.696**	**$236.056**	**$244.788**
Non-Levy Revenue:				
Coal Gross Proceeds	$6.822	**$7.139**	**$7.319**	**$7.392**
Federal Forest Reserves	$3.727	**$0.465**	**$0.444**	**$0.432**
All Other (last known year)	$0.558	**$0.558**	**$0.558**	**$0.558**
Subtotal Non-Levy Revenue	$11.107	**$8.162**	**$8.321**	**$8.382**
Total Property Tax Revenue	$249.536	**$247.857**	**$244.377**	**$253.170**

Distribution

The general fund receives 100% of the 33 mills, 22 mills, 40 mills levies, as well as the 1.5 mills levy. Only the general fund portion of non-levy revenues collected by counties that are distributed to the state, are presented.

Data Sources

Tax collections are extracted from the state accounting system (SABHRS). The summary property tax database and other property tax reports were provided by the Department of Revenue. The Office of Public Instruction prepares the FP6b summary of county school revenues used in the estimates of "all other" non-levy revenue. The producer price index for metals is from the IHS Economics October 2014 National Forecast.

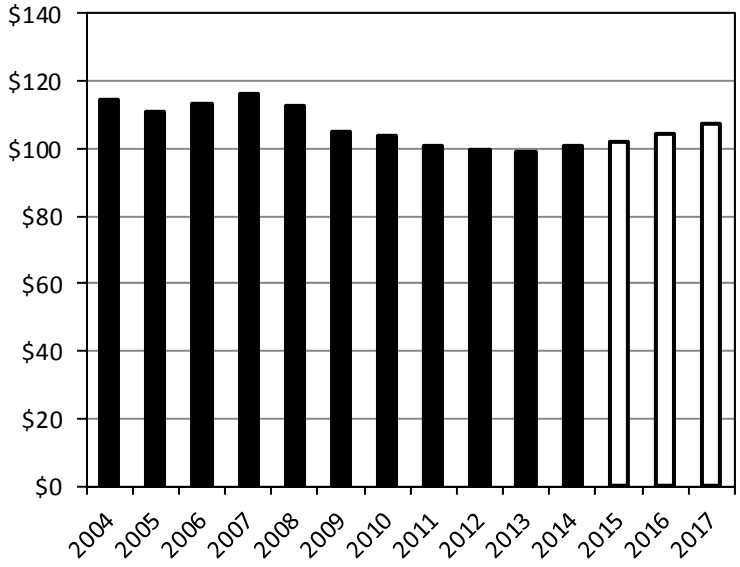
Revenue Description

Title 23 and Section 61-3-221 and 61-3-562, MCA, provide for multiple fees and fees-in-lieu of taxes on motor vehicles. Such vehicles include light vehicles, heavy vehicles weighing more than one ton, motor homes, trailers, travel trailers, watercraft, motorcycles, snowmobiles, and off-highway vehicles. Fees are based on one or a combination of the following criteria: age, weight, size, or vehicle type. Light vehicles (cars, light trucks, and sports utility vehicles) registration fees-in-lieu of taxes represent approximately 76% of general fund vehicle taxes and fees.

Table 1 shows actual revenue for vehicle taxes and fees to the general fund for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 1
Vehicle Taxes and Fees
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$114.331	10.42%
A	2005	$110.772	-3.11%
A	2006	$113.292	2.28%
A	2007	$116.455	2.79%
A	2008	$112.486	-3.41%
A	2009	$104.678	-6.94%
A	2010	$103.858	-0.78%
A	2011	$100.569	-3.17%
A	2012	$99.763	-0.80%
A	2013	$99.144	-0.62%
A	2014	$100.968	1.84%
F	**2015**	**$102.200**	**1.22%**
F	**2016**	**$104.600**	**2.35%**
F	**2017**	**$107.200**	**2.49%**



Since FY 2002, motor vehicle revenue has been deposited to the general fund. Fluctuations in revenue since FY 2004 have largely been the result of legislation. Major reforms in motor vehicle tax legislation by the 2005 Legislature resulted in accounting and registration changes. There is relatively little change in overall revenue because the number of automobiles and light trucks is large (over one million vehicles) and annual new vehicle registrations are relatively few. The vehicle stock changes only to the extent that new registrations are greater (or fewer) than the net number of vehicles that are moved out-of-state or are taken out of service. However, new light vehicles (those less than five years old) have a disproportionate effect on revenue because their registration fee is 2.5 times higher than light vehicles that are 5 to 10 years old, and 7.75 times higher than light vehicles over 10 years old.

Risks and Significant Factors

- Motor vehicle revenue responded to the decrease in light vehicle purchases that occurred during the most recent recession, dropping steadily from FY 2007 to FY 2013. Because of the cohort nature of motor vehicle revenue, the effects of this recession-induced decline in new light vehicle purchases (particularly in FY 2009 and FY 2010) will move through each registration category as the vehicles age. The recession eroded the revenue base for vehicles aged 0-4 years from FY 2009 through FY 2013, and is starting to effect registration revenue for middle-aged vehicles (5-10 years old). Middle-aged vehicle registration revenue will be depressed throughout the forecast period as the recessionary dip in new vehicle purchases moves its way through this age

category. The effect on total motor vehicle revenue, however, will be mitigated by the fact that middle-aged vehicles pay 2.5 times less in registration fees than new vehicles, so the decrease in middle-aged vehicle registration revenue will be offset by a larger number of new vehicles paying registration fees (i.e. recessionary effects of reduced new vehicle purchases are no longer affecting revenue from vehicles aged 0-4 years).

- The reduction in new vehicle registrations with the economic slowdown coincided with the transition to the MERLIN registration system. The conversion to the MERLIN system previously reduced the data available to identify underlying vehicle trends; however, the Motor Vehicle Division now provides large datasets of detailed monthly transaction information. Summarizing these data appropriately is crucial for understanding the behavior of motor vehicle revenue.
- This estimate uses a vehicle stock-and-flow methodology. Data from the Motor Vehicle Division are used to estimate the number of annual registrations for each vehicle age class, as well as an estimate of the light vehicle stock in Montana.
- Only vehicles over 10 years old can register permanently, and in recent years around 3.5% of all annual light vehicle registration revenue was collected from vehicles that were registering permanently. Permanent registration of eligible (over 10 years old) vehicles lowers future vehicle collections to the extent that it outpaces new vehicle registrations. Permanently registered vehicles only re-enter the vehicle tax collection system upon a change of ownership. For a permanently registered vehicle that changed ownership, the duration of the vehicle's presence in the tax collection system depends on the decision of the new owner to either register the vehicle annually or permanently. This change in ownership of permanently registered vehicles is a source of forecasting error because it is difficult to estimate how many previously permanently registered vehicles reappear in the revenue pool.

Forecast Methodology

Currently there are 35 separate general fund accounts for which vehicle taxes and fee revenues are recorded (down from 54 accounts in FY 2010). Table 2 sums revenue by functional category or vehicle type. These groupings are used to estimate total revenue. The estimate builds on the number of cars and light trucks which generate 75-80% of all general fund vehicle taxes and fees revenue.

It is important to note that, for this estimate, adjusted fiscal year light vehicle revenue is used rather than current year revenue found in SABHRS because of accounting delays related to timing. An October 2008, Legislative Audit Division report of the Department of Justice documents some of the timing challenges the department faces in recording fiscal year end revenues received from counties. These estimates minimize timing effects by using prior year adjustments to estimate underlying fiscal year activity. Additionally, with the advent of the MERLIN system, several revenue accounts have been added while others have been consolidated. In order to preserve comparability, only data since FY 2009 is used to form account cohorts. These aggregates are presented in Table 2. Prior-year revenue adjustments have been minimal to non-existent since FY 2012, suggesting that the Motor Vehicle Division continues to improve at recording the timing of revenue collections.

The method employed to forecast motor vehicle taxes and fees revenue is outlined below. There are five steps in the estimating process. The key inputs for producing the forecast are estimates of the light vehicle revenue base (vehicle stock), the annual number of permanent registrations, and annual vehicle registrations for the three age cohorts (0-4 years, 5-10 years, and over 10 years). Once a vehicle is purchased, it flows through the three age cohorts over the course of its life and eventually exits the vehicle revenue base when it is permanently registered (unless it changes ownership) or is scrapped. This flow-like nature of annual registrations results in rises and dips in registrations associated with vehicle age classes. Since these fluctuations persist in the annual registration revenue pool as vehicles move through the different age cohorts, significant shocks to new vehicle purchases can result in the growth or erosion of an age cohort's revenue base.

Table 2
Actual Vehicle Taxes and Fee Revenue by Grouped SABHRS Accounts
($ millions)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Light Vehicle Registrations	$85.179	$83.157	$78.443	$76.880	$75.585	$76.533
Other Vehicle Registrations	$13.191	$12.287	$12.406	$13.791	$13.413	$13.668
Other Fees	$6.365	$5.910	$5.212	$5.564	$6.138	$6.548
of which "other fees" revenue from:						
New Plates	*$1.308*	*$0.990*	*$0.529*	*$0.554*	*$0.535*	*$0.850*
Specialty Plates	*$1.687*	*$1.545*	*$1.421*	*$1.446*	*$1.446*	*$1.441*
Titles	*$2.165*	*$2.156*	*$2.286*	*$2.387*	*$2.444*	*$2.457*
Other	*$1.205*	*$1.219*	*$0.977*	*$1.177*	*$1.712*	*$1.800*
Permanent Registrations	$2.982	$2.849	$3.000	$3.421	$3.960	$4.220
Total	**$107.717**	**$104.203**	**$99.061**	**$99.656**	**$99.096**	**$100.968**
Reverse Prior Year Adj.	*($3.042)*	*$0.005*	*$1.507*	*$0.107*	*$0.048*	*unknown*
Actual Fiscal Year Revenue	*$104.675*	*$104.208*	*$100.569*	*$99.763*	*$99.144*	*$100.968*

Step 1. Current Stock. Table 3 presents the actual and forecast numbers of new car and light truck registrations and the estimated distribution of vehicles by age class. New vehicle registrations in Montana have been rising consistently since the sharp, recession-induced dip in new registrations that occurred in FY 2009. Detailed monthly registration data from the Motor Vehicle Division (starting in the second half of FY 2011) is used to count registrations and group them by month and vehicle age class. Additionally, the count of unique vehicle identification numbers (VINs) registering in each fiscal year is used to estimate the current motor vehicle revenue base. This revenue base is also referred to as the vehicle stock. Estimates of the vehicle stock in Montana for FY 2015 through FY 2017 are determined by adding forecast annual new registrations from IHS Economics to the previous year's vehicle stock and subtracting an estimated number of vehicles that were scrapped (i.e., taken off the road) during the course of the year. The scrap rate is estimated using national data on light vehicle stocks and sales from IHS Economics. This method of calculating the vehicle stock assumes a consistent number of permanent registrations per year, and does not include permanently registered vehicles as part of the vehicle stock in years following their permanent registration because they no longer contribute to the revenue base.

Table 3
Estimated Light Motor Vehicle Stock and the Number of Vehicles Eligible for Permanent Registration

New Light Vehicles			Estimated Population of Vehicle by Age					Estimated Registration Distribution -- Vehicles over 10 years old		
Fiscal Year	Registrations	Percent Change	0 to 4 Years	5 to 10 Years	Over 10 Years	All	Percent Change	Annual Permanent Registrations	Cumulative Permanent Registrations	Annual Registrations Vehicles over 10 Years Old
A 2011	42,153	11.5%	183,796	292,938	332,669	809,403	2.0%	32,954	130,805	332,669
A 2012	48,779	15.7%	182,681	305,318	352,316	840,315	3.8%	39,285	158,317	352,316
A 2013	56,818	16.5%	179,692	302,355	350,625	832,672	-0.9%	45,456	189,525	350,625
A 2014	60,772	7.0%	189,459	290,895	351,779	832,133	-0.1%	48,454	220,922	351,779
F 2015	**64,479**	**6.1%**	**204,558**	**263,768**	**356,626**	**824,952**	**-0.9%**	**51,650**	**252,688**	**356,626**
F 2016	**64,007**	**-0.7%**	**213,973**	**257,570**	**360,413**	**831,955**	**0.8%**	**55,056**	**285,003**	**360,413**
F 2017	**63,627**	**-0.6%**	**221,831**	**259,713**	**358,800**	**840,343**	**1.0%**	**58,687**	**318,040**	**358,800**

Step 2. Permanent Registrations. The right side of Table 3 presents the estimate of the number of vehicles that are eligible for permanent registration (vehicles over 10 years of age) as well as the number of vehicles that permanently register each year. Registered vehicles in Montana that are over 10 years old can be registered permanently for a fixed fee of $87.50 (approximately three-times the annual registration fee for vehicles in the same age class). Based on this fee, the number of vehicles that register permanently can be calculated from the data received from the Motor Vehicle Division. Permanently registered vehicles represent a reduction in the number of vehicles that register and pay fees annually (i.e. the vehicle revenue base). An estimate of the cumulative number of permanently registered vehicles is provided in Table 3. This number approximately represents the stock of cars that exist on roads in Montana, but that do not contribute to revenue collections.

Counts of permanent registrations for FY 2011 through FY 2014 were obtained from Motor Vehicle Division data. Future permanent registrations for FY 2015 through FY 2017 are estimated by applying the previous year's growth rate to that year's number of permanent registrations. Consistent growth in permanent registrations is expected from FY 2015 to FY 2017 due to a steady flow in the number of vehicles reaching over 10 years of age. Since permanently registered vehicles do not contribute to revenue collections unless they change ownership, they are not considered to be part of the future vehicle revenue base. Vehicles that register permanently are included in the revenue base in the year that they register, but not in any subsequent years. In recent years, the vehicle revenue base has remained steady as the addition of new registrations has offset the losses due to permanent registrations and scrapping.

Step 3. Annual Registrations. Table 4 presents the estimated revenue from light vehicle registrations by age class. Roughly 53% of annual light vehicle registration revenue comes from vehicles in the 0-4 year age class, 35% from vehicles in the 5-10 year age class, and 13% from vehicles over 10 years old. The number of cars and light trucks that are likely to register annually is based both on counts of annual registrations by age class from Motor Vehicle Division data as well as on estimates of Montana's light vehicle stock. The dip in revenue for the 5-10 year age class over the forecast period is a manifestation of the reduction in light vehicle purchases that occurred in FY 2009 and FY 2010.

Table 4
Estimate of Light Motor Vehicle Registration Revenue by Age Class
($ millions)

Fiscal Year	0 to 4 Years $217 Fee	5 to 10 Years $87 Fee	Over 10 Years $28 Fee	Annual Light Vehicle Revenue
A 2011	$39.884	$25.486	$9.315	$74.684
A 2012	$39.642	$26.563	$9.865	$76.069
A 2013	$38.993	$26.305	$9.818	$75.116
A 2014	$41.113	$25.308	$9.850	$76.270
F 2015	**$44.389**	**$22.948**	**$9.986**	**$77.322**
F 2016	**$46.432**	**$22.409**	**$10.092**	**$78.932**
F 2017	**$48.137**	**$22.595**	**$10.046**	**$80.779**

Step 4. Project growth of the other revenue aggregates. Additional motor vehicle revenue comes from registrations other than those for light vehicles (motor homes, large vehicles, etc.), as well as from licensing, plating, titling, and other fees. The other registration and fee revenue categories are expected to grow at the same rate as annual light vehicle registration revenue over the forecast period. The information is summarized in Table 5. This method maintains the relative share each revenue category represents of total motor vehicle revenue collections before permanent registration revenue is added. Since FY 2007, the relative shares for each revenue category shown in Table 5 have been stable; however, this stability is vulnerable to significant changes in legislation.

Table 5
Total Vehicle Revenue Net of Permanent Registrations
($ millions)

Fiscal Year	Light Vehicle Revenue	Growth	Other Vehicle Registration Revenue	Growth	All Other Fees	Growth	Total (Before Permanent Registrations)	Percent Change
A 2011	$78.443	-5.7%	$13.623	10.9%	$5.339	-9.7%	$100.569	-0.8%
A 2012	$76.880	-2.0%	$13.937	2.3%	$5.519	3.4%	$96.336	-4.2%
A 2013	$75.585	-1.7%	$13.931	0.0%	$5.669	2.7%	$95.185	-1.2%
A 2014	$76.533	1.3%	$14.199	1.9%	$6.009	6.0%	$96.741	1.6%
F 2015	**$77.322**	1.0%	**$14.345**	**1.0%**	**$6.072**	1.0%	**$97.739**	**1.0%**
F 2016	**$78.932**	2.1%	**$14.644**	**2.1%**	**$6.198**	2.1%	**$99.774**	**2.1%**
F 2017	**$80.779**	2.3%	**$14.986**	**2.3%**	**$6.343**	2.3%	**$102.108**	**2.3%**

Step 5. Combine All Estimates. The final step of the estimate is to combine the estimate of revenue from permanent registrations with all other vehicle taxes and fees revenue. The results are presented in Table 6. Total revenue is expected to increase throughout the entire forecast period, as the effects of the recession fade away and new vehicle sales continue to track upward.

Table 6
All Vehicle Taxes and Fees Revenue
($ millions)

Fiscal Year	Total Collections Net of Permanent Registrations	Permanent Registration Estimate	Total Revenue	Percent Change
A 2011	$100.569	$2.883	$103.452	-0.7%
A 2012	$96.342	$3.421	$99.763	-3.6%
A 2013	$95.185	$3.960	$99.144	-0.6%
A 2014	$96.748	$4.220	$100.968	1.8%
F 2015	**$97.700**	**$4.500**	**$102.200**	**1.2%**
F 2016	**$99.800**	**$4.800**	**$104.600**	**2.3%**
F 2017	**$102.100**	**$5.100**	**$107.200**	**2.5%**

Distribution

- SB 508 (2009 Legislature) instituted a five-year rolling re-issue process for new license plates effective January 1, 2010. The bill also changed the distribution of new plate fees, directing $2 to the general fund, and $8 to a state special revenue fund to be used to develop an insurance coverage verification system. SB 508 reduces general fund revenue by approximately $660,000 per year.
- HB 559 (2013 Legislature) allowed motor homes with collegiate or generic specialty license plates and light vehicles with collegiate license plates to register permanently.

Data Sources

Tax revenue data are from SABHRS. Montana vehicle stock and age distribution for FY 2011 and beyond is from the data provided by the Department of Justice's Motor Vehicle Division. The light vehicle registration forecast is from IHS Economics.

Corporation License Tax

Revenue Description

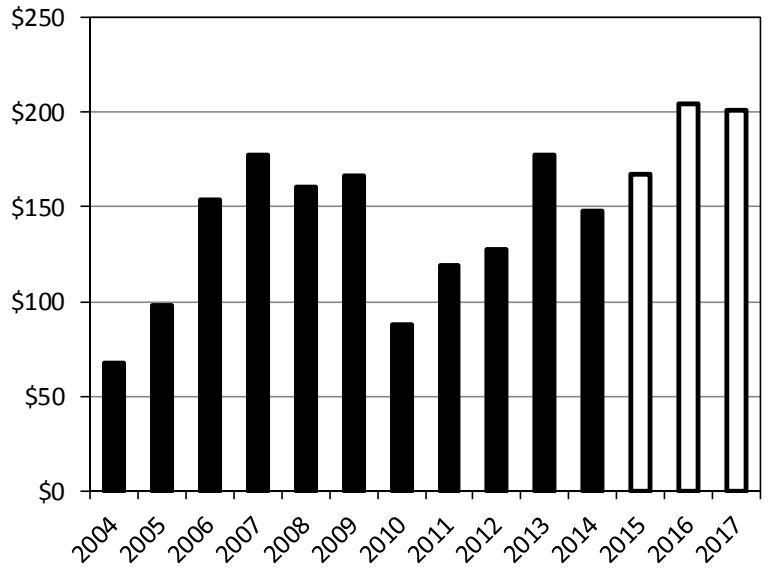
In accordance with 15-31-121, MCA, Montana imposes a corporation license tax on corporate income apportioned to Montana. The tax is levied at a flat rate of 6.75% of net income; however, corporations making a "water's edge" election are taxed at 7%. Since FY 2006, revenues have been deposited 100% in the general fund.

Corporations expecting to have tax liability of at least $5,000 are required to make quarterly estimated payments. Returns are due five months after the end of the tax year, but a corporation may have an automatic six-month extension and the Department of Revenue may grant additional extensions. Corporations taking an extension and expecting to have tax liability greater than their estimated payments generally make a tentative payment when their return is due. The minimum corporation tax payment for a year is $50.

Table 1 shows general fund revenue from corporation license taxes for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017. Corporate profits declined sharply in FY 2010 as a result of the "Great Recession," and the freezing of corporate bond and financial instrument markets. Corporation profits rebounded strongly, as did tax collections.

Table 1
Corporation License Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$67.723	53.44%
A	2005	$98.214	45.02%
A	2006	$153.675	56.47%
A	2007	$177.504	15.51%
A	2008	$160.342	-9.67%
A	2009	$166.355	3.75%
A	2010	$87.901	-47.16%
A	2011	$119.044	35.43%
A	2012	$127.771	7.33%
A	2013	$177.497	38.92%
A	2014	$147.548	-16.87%
F	**2015**	**$167.400**	**13.45%**
F	**2016**	**$204.000**	**21.86%**
F	**2017**	**$201.300**	**-1.32%**



Corporate tax revenue fell by more than 47% in FY 2010, but collections recovered in FY 2011 through FY 2013. As forecast in October 2012, corporate profits have shown strong growth relative to their FY 2007 peak levels and were essentially as forecast for FY 2012, FY 2013 and FY 2014 by IHS Economics (less than 3% error). It appears the extension, expansion, and retroactive changes to business bonus depreciation and expensing provisions of the *American Taxpayer Relief Act of 2012* (P.L. 112-240), passed as part of the "fiscal cliff" deal on January 2, 2013, led to much of the unanticipated change when compared to estimates for the 2015 biennium. While the main features of the tax law were the extension through calendar year (CY) 2013 (and CY 2014 for certain property) of bonus depreciation and accelerated expensing, these tax benefits were more extensive than prior law. The new law effectively broadened applicability of tax advantages retroactively for CY 2012, and extended them for CY 2013. Additionally, the allowable expensing threshold increased to $2 million (from $500,000). It is likely that these changes contributed to the overpayment in FY 2013, compared to forecast, as adjustments to the law change were delayed. What followed in FY 2014 appears to be a significant adjustment for overpayments in FY 2013, and the extended tax benefits in CY 2013.

Collections are expected to recover FY 2015 and FY 2016 and then stabilize as corporate profits growth slows and the effects of the expiration of bonus deprecation and expensing rules create positive offsets to these anticipated flattening (but high) profits. These effects on tax collections, as companies lose depreciation expenses, creates upside risk. Recent Bureau of Economic Analysis (BEA) estimates of the tax effects of the law changes in 2002 through 2012 and their effects on tax liability for CY 2002 through CY 2014 are summarized below:

Table 2

Net Effects of the Tax Acts of 2002, 2003, 2008, 2009, 2010 and 2012.
Percent Change in Calendar Year Corporate Tax Liability

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
-8.6%	-8.5%	-6.8%	4.3%	2.7%	1.5%	-7.2%	-4.8%	-5.7%	-11.1%	0.5%	-0.2%	8.4%

BEA (Sept. 2014) - "Net Effects of the Tax Acts of 2002, 2003, 2008, 2009, 2010, and 2012 on Selected Measures of Corporate Profits". http://www.bea.gov/newsreleases/national/gdp/2014/gdp2q14_3rd.htm
2014* - actual for Q1 and Q2 of CY 2014 and estimates for Q3 and Q4 based on the 2005 pattern

The accelerated depreciation does not eliminate or reduce tax liability; rather the liability is shifted into the future, further complicating the difficult-to-forecast timing of corporation income tax collections.

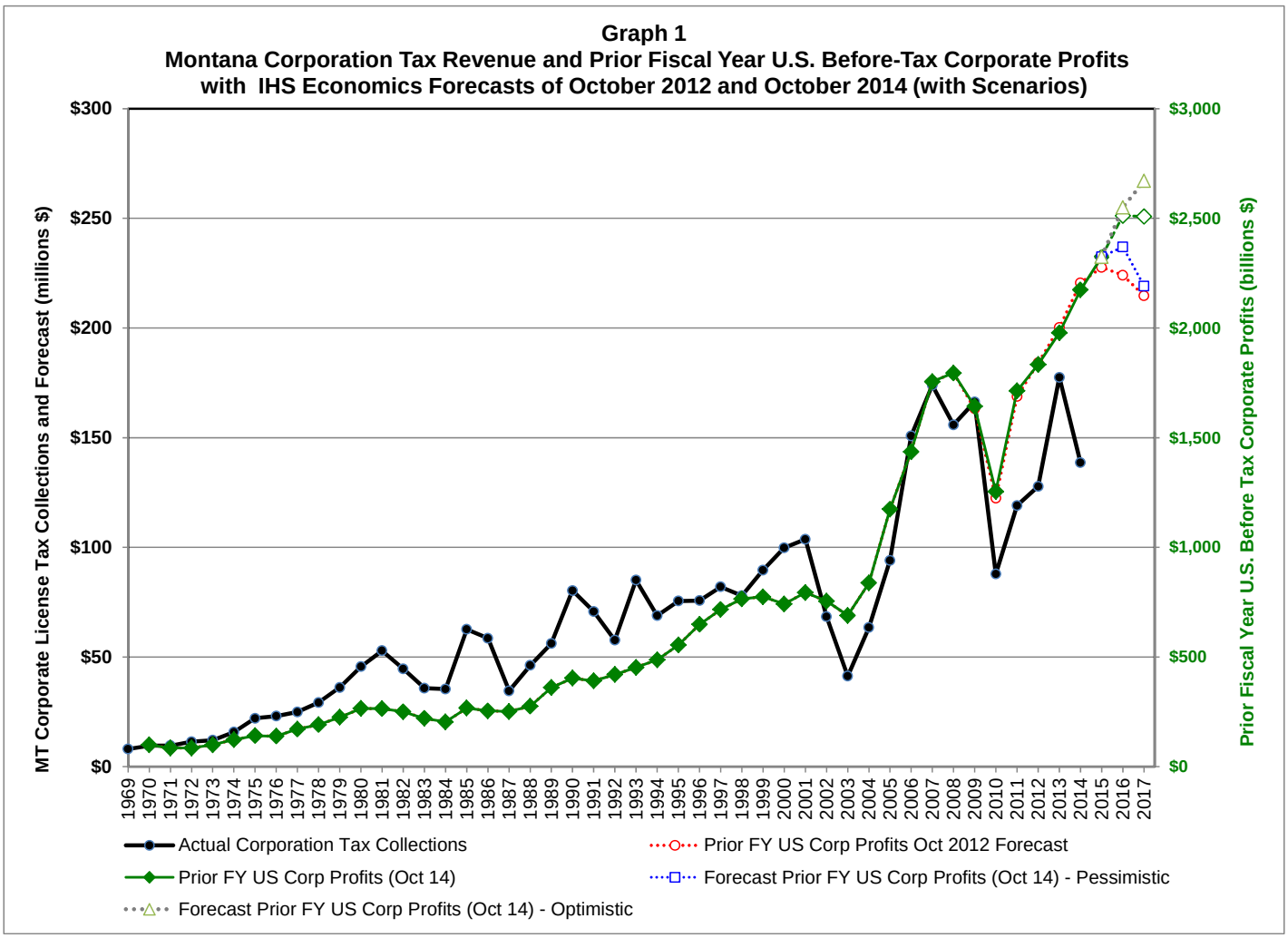
Risks and Significant Factors

- Corporate tax revenue is highly correlated with the profitability of corporations doing business in the United States.
- The variation in corporate tax revenue can be much greater than that of corporate profits as Montana allows:
  - Firms to deduct losses from up to seven years in the past and offset current taxable income.
  - Corporations may amend past returns (back three years) and use current losses to offset past profits.
  - Business structures and tax treatment of expenditures and income may change.
- A series of federal policy changes beginning in CY 2002 at the federal level have created a series of temporary changes (often last minute or retroactive) in expensing and depreciation which have introduced additional variation in annual revenue collections.
  - *The Job Creation and Worker Assistance Act of 2002* allowed 30% depreciation between September 10, 2001, and May 5, 2003.
  - The *Jobs and Growth Tax Relief Reconciliation Act of 2003* allowed for 50% depreciation between May 6, 2003, and December 31, 2004.
  - In 2008, the Bush Administration's *Economic Stimulus Act of 2008* reinstituted 50% depreciation for CY 2008.
  - Under the *American Recovery and Reinvestment Act of 2009,* 50% depreciation was extended for CY 2009.
  - *Small Business Jobs Act of 2010*, 50% bonus depreciation was extended through CY 2012.
  - The *Tax Relief, Unemployment Insurance Reauthorization of 2010* provided for 100% expensing for most property put in service before the end of CY 2011.
  - *The Job Creation Act of 2010* extended 50% depreciation for certain "long-production period" property through CY 2013 and 100% expensing was allowed if the property was placed in service by the end of CY 2012.
  - Under *The American Taxpayer Relief Act of 2012,* the provisions of the two 2010 Acts were expanded and extended through CY 2013 for most property and through CY 2014 for "long-production period" property.
- These temporary changes in accounting rules shift taxes into later years. The expiration of special depreciation and expensing rules should generate additional revenue in the forecast period.
- In addition to changes in law, accounting rules, and economic conditions, corporations may reorganize which can have significant effects on the level and allocation of tax receipts. As an example, a change in business ownership in TY 2012 led to a one-time increase in corporation tax revenue in FY 2013. More recently, a major pipeline and energy firm recently announced it was consolidating and changing back to a C-Corp. structure. These changes tend to shift collections between corporation tax and individual income tax. The implications for Montana are difficult to establish in advance as Montana's total collections from these structures are dependent on the Montana apportionment factors for Schedule C corporations and the residency status for individuals and entities (including pass-through) receiving partnership distributions or dividends may have different incidence.
- Other risks to the forecast could include a federal decision to make bonus depreciation permanent. Such a change would likely reduce corporation income tax collections in the years immediately following the change. Preferential

tax treatment for repatriated profits could increase Montana tax collections to the extent that these are distributed based on the standard apportionment formulas.

- In tax year (TY) 2012 there were approximately 16,500 companies that filed corporate income forms in Montana. In recent years, the largest 25 filers tend to pay around 50% of the total tax, and the top 100 filers pay around 70% of the total tax. If one of these top tax-filing companies has significantly more (or less) tax liability than expected, it could have a significant impact on collections.
- The true stock of carry-forward losses is not known. Therefore, the extent that firms are able to use these losses to offset recent profits is also not well known. Greater than normal historical use of these accumulated losses may lower corporation license tax collections.

Graph 1 displays the simple relationship between corporate license tax revenue and US before-tax corporate profits (lagged one fiscal year). Actual Montana corporate tax collections are presented on the left axis (note round markers) in millions of dollars, and US corporate profits (line with solid diamond markers) and the IHS Economics October 2012 (dotted line with hollow round markers) and October 2014 baseline projections (dashed line and hollow diamond markers) in billions of dollars. For reference, the level of IHS Economics October 2014 optimistic (dotted line and hollow triangles) and pessimistic (dots with hollow squares) scenarios are also presented.



This simple relationship is the principle that underpins the more detailed econometric model (which accounts for statistical bias) used to project Montana corporate license tax revenue.

Forecast Methodology

Step 1. Total corporate license tax collections, (including both general fund and non-general fund revenues) for FY 1969 through FY 2014 were regressed against the two prior fiscal years of national corporate profits (before taxes), a variable of the accelerated depreciation rate, and a dummy variable to capture the extraordinary (positive) effects of FY 2009 collections. This produces an estimate of the relationship between total corporation license tax collections and US corporate profits. The model was tested for serial autocorrelation bias (accounting also for lagged variables). The fit and power of the model was compared for the pre-FY 1992 and post-FY 1992 periods and were found to be very similar, providing support for the use of the longer time series, despite historical tax policy changes.

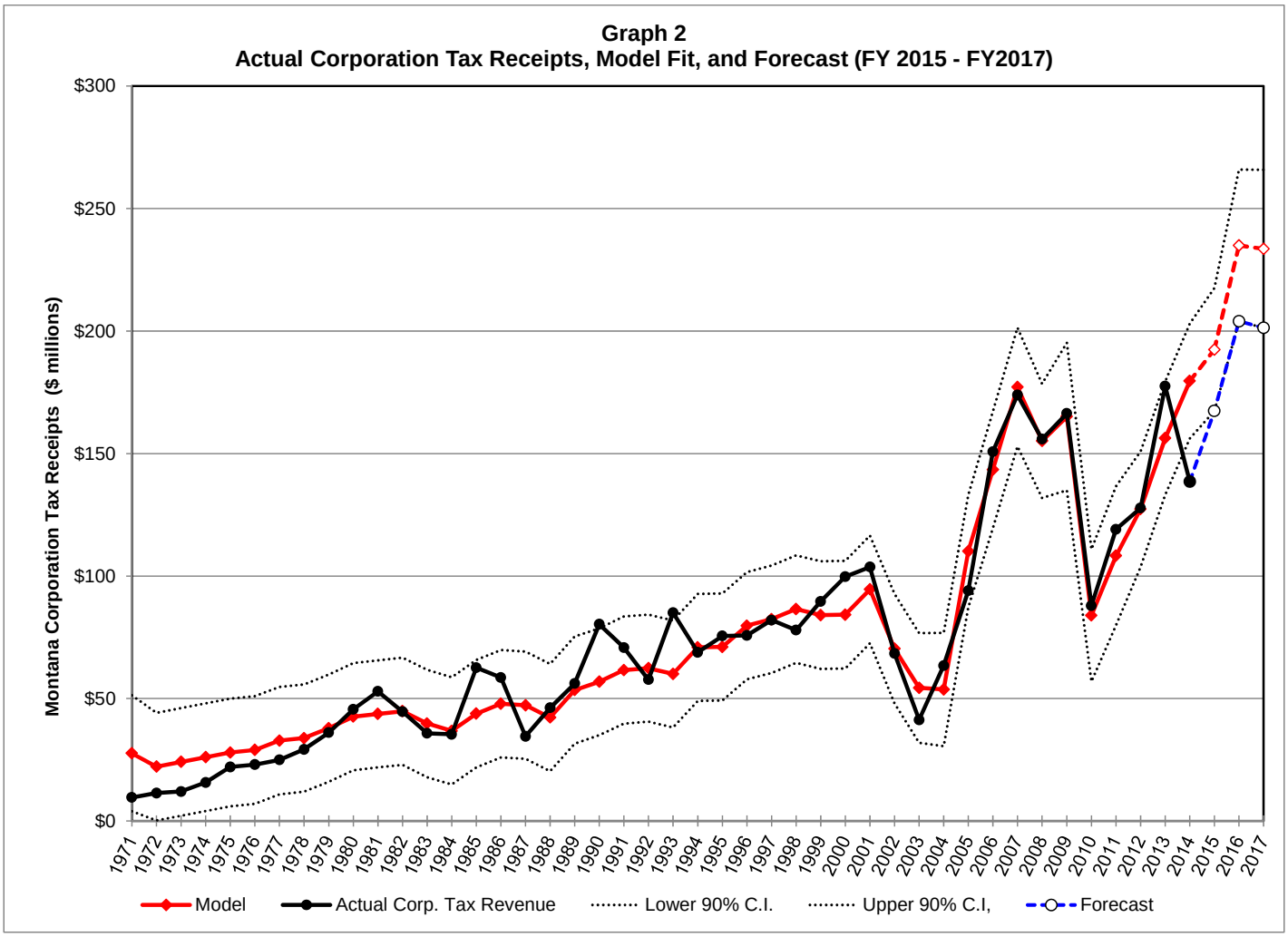
Other models were considered including the use of West Texas Intermediate (WTI) oil prices and dummy variables to account for the last minute tax changes for CY 2012 and CY 2013. An important finding of this work was that for the 1975 - 2014 period, US corporate profits and WTI oil prices are equally (and highly) correlated for more recent periods, though the simple relationship has weakened for both correlates of corporation tax receipts. This weakening in the relationship is more pronounced for corporate profits. This is not surprising given the changes in federal tax policy and the growing importance of oil related activities since the development of the Elm Coulee oil field and the Bakken boom. The model used for this forecast therefore incorporates a variable to address the federal policy changes. The model omits WTI oil prices for the reasons stated above and because the oil price forecast is rather benign, contributing little variation and hence additional explanatory power to the forecast. The use of a dummy variable for the much lower than anticipated collections in FY 2014 was tested, but rejected because using such a variable produces forecasts that were deemed too high.

The final model produces an estimate with a root mean square error of $12.8 million and a mean absolute error of $8.8 million. (The square root of the mean squared error measure assigns more weight to large model error regardless of sign, and means absolute error weighs error equality, regardless of sign). The model R^2 is 0.9308. All the (autocorrelation-adjusted) coefficients are highly significant except for the second fiscal year lagged US corporation profits variable.

Step 2. The model parameters were then used with the IHS Economics (base) forecast to project tax revenue. Since the carry-forward losses firms are likely to claim are unknown, and the model projects rapid increases in revenue in the near-term, the lower 90% confidence interval estimate is used for the forecast of FY 2015, FY 2016, and FY 2017 tax collections. It also bears mentioning that actual FY 2014 US corporate profits are essentially known (but the tax choices of firms are not), setting the basis for FY 2015 collections. The tax strategies of US corporations that do business in Montana however are unknown, but assumed to comport with historical averages. The model implicitly assumes average historical economic sector tax paying behavior with respect to the US national economic sector tax paying behavior; as such, the model does consider the typical structure of Montana corporation taxpaying behavior.

Graph 2 shows actual collections compared to the model estimates of corporation license tax collections. The graph includes the upper and lower 90% model estimated forecast confidence intervals. The model fits the past well given the volatility of these revenues. The model also tends to underestimate revenues when profits are rising rapidly.

Given the difficulty in predicting corporate taxpayer behavior and federal tax policy, the Montana corporation tax estimate is based on the 90 percent lower confidence interval as produced by the IHS Economics baseline scenario.



Distribution

100% of the corporation license tax revenue collected is distributed to the general fund.

Data Sources

Data was obtained from SABHRS, revenues prior to FY 1993 are from LFD historical records, and US corporation profits and forecasts are from the October 2012 and 2014 IHS Economics forecasts. Estimates of the tax effects of the various federal tax acts (2002-2012) are from the US Bureau of Economic Analysis. The Department of Revenue provided the corporation tax annual master files through the latest available dataset (TY 2012).

Insurance Premiums Tax

2017 Biennium

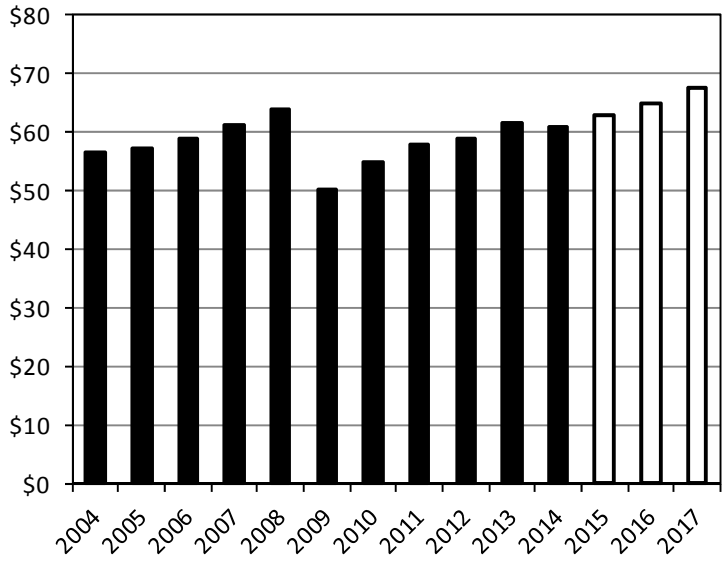
Revenue Description

Per 33-2-705, MCA, Montana levies a tax of 2.75% on net premiums on all insurance policies except those issued by health service corporations (HSCs). HSCs are exempt from all premium taxes under 33-30-203, MCA. An additional surcharge of 2.5% on premiums is collected for fire and casualty insurance on property (50-3-109, MCA). There is also a premium insurance tax for captive insurance companies levied under 33-28-201, MCA. Starting in November 2008, Initiative 155 transfers 33% of insurance premium taxes collected (under 33-2-705, MCA) to a state special revenue fund for the Healthy Montana Kids Plan Act (53-4-1101, MCA). HB 676 of the 2009 Session reduced the transfer to 16.67% for the 2011 and 2013 biennia, but the transfer returned to 33% for the 2015 biennium and beyond. The State Auditor's Office (SAO) administers the collection of these taxes.

Table 1 presents the actual general fund receipts from insurance premium taxes for FY 2004 through FY 2014 as well as the forecast for FY 2015 through FY 2017.

Table 1
Insurance Premiums Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$56.527	11.25%
A	2005	$57.308	1.38%
A	2006	$58.795	2.59%
A	2007	$61.074	3.88%
A	2008	$64.004	4.80%
A	2009	$50.038	-21.82%
A	2010	$54.892	9.70%
A	2011	$57.964	5.59%
A	2012	$58.951	1.70%
A	2013	$61.678	4.63%
A	2014	$60.873	-1.31%
F	**2015**	**$62.995**	**3.49%**
F	**2016**	**$64.884**	**3.00%**
F	**2017**	**$67.496**	**4.03%**

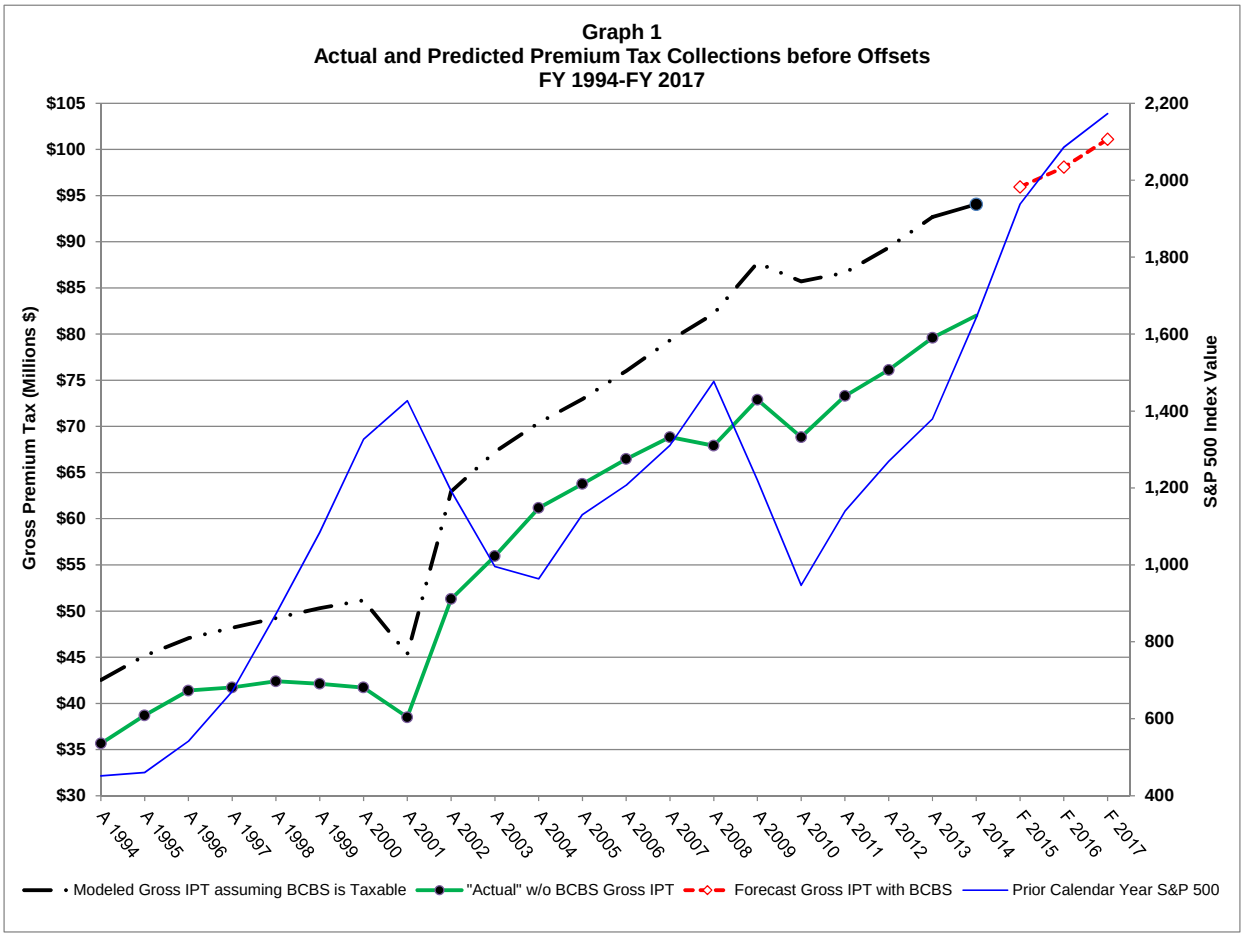


Risks and Significant Factors

- In August 2013 Health Care Services Corporation (HCSC) purchased Blue Cross Blue Shield of Montana (BCBS). As a result of the merger, premiums paid to BCBS are now taxable. As BCBS market share changes, so will taxable insurance premium.
- Beginning January 1, 2014, the individual mandate of the Affordable Care Act (ACA) became effective. As not all insurance plans are currently taxable, any changes in the tax liability of individual health plans available on the healthcare exchange will have an impact on tax collections.
- Financial or other turmoil raises insurer's costs; slow wage growth may reduce insurance purchases.
- Revenues may be reduced if consumers choose insurance coverage provided by non-taxable or public plans.
- Premium tax collections tend to move counter cyclically with financial markets as companies collect premiums from policy holders and pay claims from premiums and investment earnings. When investment earnings are high, insurance companies can reduce premiums charged to clients.
- Accounting changes in the past have masked underlying real consumer behavior and tax collections.

Forecast Methodology

Step 1. Insurance premium taxes forecast. Insurance premiums taxes, before offsets, are projected from a model of the relationship of insurance premium tax collections with respect to the average Standard and Poor's 500 stock index value for the prior calendar year. The effect of modeling FY 1994 through FY 2014 is presented in Graph 1. With the sale of BCBS, those premiums became taxable. To adjust for the purchase of BCBS by HCSC, the model assumes that the BCBS share of the market for the last three years was constant for the full 1994 through 2014 period. Historic collections are represented by the solid lines with filled black dots. The black dashed line represents the estimate of what taxable premiums would have been if BCBS had been taxable in the past, as they are now. A portion of the model error in recent years may be due to the refund of insurance company credit carryover balances. Because of this, the forecast is based on the model as the effective "actuals" are distorted by these after-the-fact refunds.



Step 2. Calculate offsets and insurance tax bases for distributions. Insurance companies are allowed to offset some of their premium taxes for other statutory mandates. These programs are: the Montana Life and Health Insurance Guarantee Association (MLHIGA) and the Montana Comprehensive Health Association (MCHA). The collective impacts of these programs have reduced state general fund receipts by an average of $2.06 million a year over the previous four fiscal years. Offsets are forecast based on prior trends and SAO estimates. MLHIGA assessments are projected to be zero for the forecast period. Table 2 lists claimed premium tax offsets through FY 2014 and estimates of future offsets. The MCHA assessments fluctuate and tend to grow in biennial jumps. These estimates assume that MCHA assessments will be $944,000 in FY 2015, $450,000 in FY 2016, and $0 in FY 2017 with the expiration of the program, as defined in statute.

Additionally, captive insurance company premiums taxes, yearly insurance premium taxes, and surplus lines taxes need to be estimated and excluded from insurance premium taxes that are the base for distributions to the Healthy Montana Kids fund. This also allows for the calculation of captive insurance company insurance premium taxes that are directed to the captive insurance company administration fund.

Captive insurance companies are regulated under Title 33, Chapter 28, of the Montana Code, (SB 373 of the 2001 Legislature). Captive insurance firms pay tax on premiums collected under 33-28-201, MCA, and were recorded in the same account as premium taxes collected under 33-2-705, MCA, until FY 2010. The 2007 Legislature, through SB 161, reserved five percent (5%) of the tax paid by captive insurance companies for the oversight of captive insurance companies. HB 160 of the 2009 Session, reduced the number of tax rate bands from four to two (with no revenue effects) and allowed for quarterly proration of initial year fees. In FY 2014, nearly $1,375,000 in premium taxes were collected from captive insurance companies and nearly $70,000 was directed to the state special revenue account for supervising captive insurance companies. Premium tax collections from captive insurance companies represent a small but rapidly growing fraction of total insurance premiums tax collections.

In FY 2011, there was a federal change in the allocation of some surplus lines premiums taxes from a multi-state distribution formula to a formula more heavily weighted by the domicile of the insurance company collecting surplus lines premiums. SB 331 (the 2011 session) restored the allocation of surplus lines taxes to the historical practice.

Step 3. Calculate fire surtax. The Fire Marshal surtax on fire and casualty insurance is projected using the growth in total estimated insurance base (before offsets). Table 2 lists the actual fire/casualty (or Fire Marshall tax) and forecast collections. Surtax collections represented 4.83% of gross insurance premiums taxes in FY 2014.

Step 4. Calculate insurance licenses and permits revenue. Revenue from insurance licenses and permits represented 4.6% of gross insurance premiums taxes in FY 2014, and this percentage is held constant during the forecast period.

Step 5. Total the estimates. Total general fund insurance premiums tax revenue (net of offsets and I-155 distributions), fire/casualty insurance surtax, and licenses and permits fees are summed to determine the estimate of insurance premiums tax collections for FY 2015, FY 2016, and FY 2017.

Distribution

- Distributions to the general fund, Healthy Montana Kids' fund, SAO Insurance Operations, and the Captive Insurance fund are presented in table 2.

Table 2
Distribution of Insurance Taxes by Type and Fund
($ millions)

Tax/Fund	Fund	FY 2014	FY 2015	FY 2016	FY 2017
Captive Premium Tax		**$1.375**	**$1.638**	***$1.901***	***$2.164***
General Fund (95%)	01100	*$1.306*	*$1.556*	*$1.806*	*$2.056*
Captive Insurance Operations (5%)	02528	*$0.069*	*$0.082*	*$0.095*	*$0.108*
Other Insurance Taxes		**$4.662**	**$4.755**	**$4.861**	**$5.011**
Retaliation Tax	02235	*$0.284*	*$0.289*	$0.290	$0.290
Insurance Licenses & Permits		**$4.378**	**$4.465**	**$4.571**	**$4.721**
Of which:					
General Fund (est. 0.65%)	01100	*$0.032*	*$0.033*	*$0.030*	*$0.031*
SAO Insurance Operations (est. 98.45%)	02235	*$4.275*	*$4.361*	*$4.501*	*$4.648*
Captive Insurance Operations (est. 0.90%)	02528	*$0.071*	*$0.072*	*$0.040*	*$0.041*
Insurance Taxes and Offsets		**$9.359**	**$8.538**	***$8.097***	***$7.522***
Fire & Casualty Surtax (GF)	01100	$4.547	$4.638	$4.742	$4.888
MLHIGA & MCHA Offsets/[Credits]	Credit	$2.361	$1.400	$0.800	$0.000
Surplus Lines Tax	01100	$2.319	$2.366	$2.418	$2.493
Insurance Premium Tax - Yearly (GF)	01100	$0.131	$0.134	$0.137	$0.141
I-155 Premium InsuranceTax		**$78.654**	**$80.998**	**$83.210**	**$86.398**
Healthy Montana Kids Fund (16.67% / 33%)	02597	$26.118	26.729	**27.459**	**28.511**
General Fund (83.33% / 67%)	01100	$52.537	54.268	**55.751**	**57.887**
Gross Insurance Taxes, Licenses, & Fees	All Funds	**$94.049**	**$95.928**	**$98.069**	**$101.095**

Fund Distribution of All Insurance Taxes, Licenses and Fees

Fund	Fund	FY 2014	FY 2015	FY 2016	FY 2017
General Fund	01100	$60.873	$62.995	$64.884	$67.496
SAO Insurance Operations	02235	$4.559	$4.650	$4.791	$4.938
Captive Insurance Operations	02528	$0.139	$0.154	$0.135	$0.150
Healthy Montana Kids Fund	02597	$26.118	$26.729	$27.459	$28.511
MLHIGA & MCHA Offsets/[Credits]	Credit	$2.361	$1.400	$0.800	$0.000
Gross Insurance Taxes, Licenses, & Fees	All Funds	**$94.049**	**$95.928**	**$97.269**	**$101.095**

Data Sources

Tax collections are from SABHRS. The Insurance Division of the State Auditor's Office provided historical data on offsets and estimates of future offsets. The Standard & Poor's 500-stock index is from IHS Economics October 2014 forecast.

Video Gambling Tax

2017 Biennium

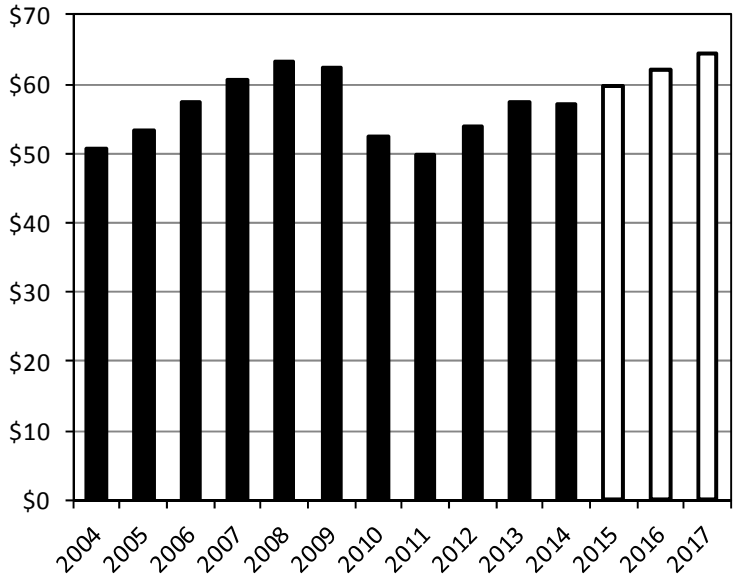
Revenue Description

In accordance with 23-5-610, MCA, a 15% tax is imposed on the gross machine income received from video gambling machines in the state of Montana. Gross machine income is the difference between total receipts from a machine and cash payouts. All video gambling tax collections are deposited in the general fund.

Table 1 shows actual video gambling revenue to the general fund for FY 2004 through FY 2014 and projected revenue for FY 2015 through FY 2017.

Table 1
Video Gambling Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$50.749	10.82%
A	2005	$53.361	5.15%
A	2006	$57.277	7.34%
A	2007	$60.641	5.87%
A	2008	$63.134	4.11%
A	2009	$62.458	-1.07%
A	2010	$52.396	-16.11%
A	2011	$49.824	-4.91%
A	2012	$53.824	8.03%
A	2013	$57.261	6.39%
A	2014	$57.147	-0.20%
F	**2015**	**$59.751**	**4.56%**
F	**2016**	**$61.952**	**3.68%**
F	**2017**	**$64.362**	**3.89%**



Video gambling tax revenue exhibited strong growth during FY 2004 – FY 2008, averaging 6.6% annual growth over the period. Economic recession during FY 2008 and FY 2009 led revenues lower for FY 2009, FY 2010, and FY 2011. The effects of the recession on video gambling machine income and general fund revenue were lagged. The full impact of the recession was not realized until FY 2010 and FY 2011. Machine income dropped slightly in FY 2009, but decreased sharply in FY 2010 and FY 2011, reflecting a reduction in consumer spending on video gambling. Previous to the recession (FY 2004 – FY 2008), annual machine income averaged 2.8% of total Montana (nominal) wage disbursements. From FY 2009 through FY 2014, annual machine income averaged 2.3% of Montana wage disbursements. Table 2 shows actual total wage disbursements for Montana, net machine income, the percentage of wages spent on video gambling, tax revenue for FY 2004 through FY 2014, and estimates for FY 2015 though FY 2017. The reduction in the share of wage income consumers allocated to video gambling expenditures suggests that the economic recession had an effect on consumers' spending decisions.

Table 2
Video Gambling Trends
($ millions)

Fiscal Year	Wage Disbursements		Machine Inc.		% of Income	Tax Revenue[1]
A 2004	$11,746.566	÷	$333.828	=	2.84%	$50.749
A 2005	$12,517.613	÷	$355.812	=	2.84%	$53.361
A 2006	$13,450.723	÷	$379.416	=	2.82%	$57.277
A 2007	$14,545.795	÷	$405.073	=	2.78%	$60.659
A 2008	$15,381.341	÷	$422.829	=	2.75%	$63.134
A 2009	$15,417.758	÷	$413.771	=	2.68%	$62.458
A 2010	$15,392.100	÷	$349.260	=	2.27%	$52.396
A 2011	$15,783.933	÷	$329.559	=	2.09%	$49.824
A 2012	$16,653.292	÷	$358.219	=	2.15%	$53.824
A 2013	$17,312.218	÷	$380.330	=	2.20%	$57.261
A 2014	$17,842.908	÷	$383.773	=	2.15%	$57.147
F 2015	**$18,726.357**	**÷**	**$398.340**	**=**	**2.13%**	**$59.751**
F 2016	**$19,661.115**	**÷**	**$413.015**	**=**	**2.10%**	**$61.952**
F 2017	**$20,737.335**	**÷**	**$429.079**	**=**	**2.07%**	**$64.362**

[1]Does not include surcharge fees in FY 2004 and FY 2005

In addition to the economic recession, the full implementation of the Montana Clean Indoor Air Act occurred on October 1, 2009. This law required casinos and bars to enforce a no-smoking policy. This indoor smoking ban may have exacerbated the decline in video gambling revenue that occurred in FY 2010 and FY 2011. Revenues rebounded in FY 2012 and FY 2013 as economic conditions improved. Revenues remained essentially unchanged in FY 2014 from FY 2013. The American Taxpayer Relief Act (ATRA), which took effect on January 2, 2013, did not extend the reduction in payroll taxes that existed in 2011 and 2012 as a result of Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. This expiration of the payroll tax likely had an adverse effect on consumers' wage income, which may be partially responsible for the slightly negative growth in video gambling revenue in FY 2014.

Risks and Significant Factors

- The two main factors affecting video gambling tax revenue are total wage disbursements for the state as a whole and video gambling participation rates. Increases in wages imply that individuals will allocate more money towards gambling.
- Economic activity is gaining momentum, and forecasts for economic growth are increasingly positive. There are signs that consumers are developing an optimistic outlook for the economy going forward, according to data from the Consumer Sentiment Index. A ramp up in economic activity will likely see employment and wage gains increasing the pool of individuals willing to spend money on video gambling and increasing the discretionary funds available for those individuals to spend.

Forecast Methodology

Video gambling revenue is forecast using a multiple linear regression model. The model uses quarterly data and video gambling receipts are regressed on a collection of independent variables. These independent variables include total wage disbursements in Montana and dummy variables to account for changes in legislation and economic phenomena.

Wage disbursements are used as a predictor variable because they are assumed to be a good representation of an individual's "spending money", the most likely income source an individual uses to engage in video gambling. Before being input into the model, the wage data are transformed with the natural log function. The natural log transformation straightens out the exponential growth trend present in the raw wage data, allowing for better estimation using the linear regression model. Dummy variables are added to account for the economic recession, the implementation of the smoking ban from the Montana Clean Indoor Air Act, and the expiration of the payroll tax cut contained in the ATRA.

The regression model produces coefficient estimates for the effect wages, the economic recession, the smoking ban, and the payroll tax cut expiration have on video gambling revenue. Each of these coefficient estimates is statistically significant with the expected sign (i.e., the direction of the impact on gambling receipts). Wages have a positive effect on video gambling revenue, while the recession, the smoking ban, and the payroll tax cut expiration contribute negatively to revenue. The recession is over and will not affect revenue growth over the forecast period; however, the continuation of the smoking ban and the tax cut expiration will keep future revenues lower than they otherwise might be.

By multiplying the estimated regression coefficients against forecast values of the independent variables, future estimates of quarterly video gambling revenue are obtained for FY 2015, FY 2016, and FY 2017. These quarterly forecasts are summed to produce annual estimated video gambling revenue for the forecast period.

Distribution

All of the revenue collected from the video gambling tax is distributed to the general fund.

Data Sources

Historic video gambling revenues were obtained from SABHRS and the Department of Justice. Historical and forecast values for Montana's total wage disbursements were obtained from IHS Economics.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Oil and Natural Gas Production Tax

2017 Biennium

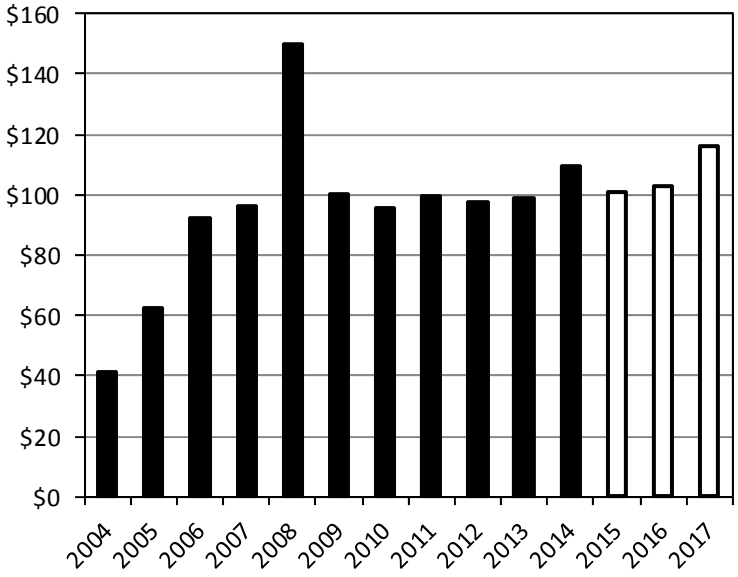
Revenue Description

In accordance with 15-36-304, MCA, Montana taxes the gross value of oil and natural gas production. The tax rates can vary depending on the product being produced, method of production, age of the well, previous year's production, and the price of oil. Working interest owners who share in a well's costs pay lower rates than royalty recipients who do not. Revenues are distributed to a variety of state, county, and school accounts. Since FY 2004, oil and natural gas production tax deposits to the general fund have averaged 46% of total production tax collections.

Table 1 shows actual general fund revenue from the oil and natural gas production tax for FY 2004 through FY 2014 and projected revenues for FY 2015 through FY 2017.

Table 1
Oil and Gas Production Taxes
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$41.324	42.07%
A	2005	$62.626	51.55%
A	2006	$92.563	47.80%
A	2007	$96.335	4.08%
A	2008	$149.994	55.70%
A	2009	$100.491	-33.00%
A	2010	$95.491	-4.98%
A	2011	$99.764	4.47%
A	2012	$97.560	-2.21%
A	2013	$98.683	1.15%
A	2014	$109.606	11.07%
F	**2015**	**$101.000**	**-7.85%**
F	**2016**	**$102.995**	**1.98%**
F	**2017**	**$115.865**	**12.50%**



The onset of horizontal drilling and the discovery of the Elm Coulee field in CY 2000 provided a large boost to Montana's oil and natural gas production tax revenue. Montana oil production reached over 36 million barrels in FY 2007, bringing general fund oil and natural gas tax collections close to the $100 million mark. Over half of the oil production in FY 2007 came from the Bakken shale formation in the northeastern part of the state. High oil and natural gas prices led to record general fund revenue in FY 2008, eclipsing the $100 million threshold for the first time; however, prices came crashing back down in FY 2009 leading to a decline of almost $50 million in general fund tax receipts from FY 2008 to FY 2009. From FY 2010 to FY 2013, general fund revenue remained between $95 and $100 million. A dip in oil production in the latter half of FY 2011 was mitigated by relatively high oil prices during that time. Both natural gas production and prices fell in FY 2012, leading to a significant decline in natural gas revenue that year. Natural gas prices rebounded to some degree in FY 2013 and FY 2014, but gas production remained subdued. Oil production grew consistently in FY 2013 and was on track to continue the trend in FY 2014, but harsh winter conditions caused production to slow. Nonetheless, FY 2014 general fund revenue ended over $100 million for the third time with the help of rising oil prices.

The production tax rates for working and royalty interests, established in 15-36-304, MCA, are outlined in Table 2. In addition, the combined tax rates including the Board of Oil and Gas Conservation (BOGC) privilege and license tax (0.09%) and the Oil & Gas Natural Resource Account tax (0.17%) are shown. The tax rate on royalties is constant, regardless of the tax rate on the working interest. Working interest tax rates are subject to numerous conditions that determine which tax rate will be applied to the value of production.

Table 2
Oil and Natural Gas Tax Rates by Well Category and Interest

		Working Interest		Royalty Interest	
Product	Well Category	Production Tax	Total Tax	Production Tax	Total Tax
Gas	New Horizontal 0-18 Months	0.50%	0.76%	14.80%	15.06%
	After 18 Months	9.00%	9.26%	14.80%	15.06%
	New Vertical 0-12 Months	0.50%	0.76%	14.80%	15.06%
	Vertical Post-1999	9.00%	9.26%	14.80%	15.06%
	Vertical Pre-1999 Stripper	11.00%	11.26%	14.80%	15.06%
	Vertical Pre-1999 Regular	14.80%	15.06%	14.80%	15.06%
Oil	New Vertical 0-12 Months	0.50%	0.76%	14.80%	15.06%
	New Horizontal 0-18 Months	0.50%	0.76%	14.80%	15.06%
	Horizontal Recompletion 0-18 Months	5.50%	5.76%	14.80%	15.06%
	Post-1999 Regular	9.00%	9.26%	14.80%	15.06%
	Pre-1999 Regular	12.50%	12.76%	14.80%	15.06%
	Stripper Exemption (WTI < $38/bbl)	0.50%	0.76%	14.80%	15.06%
	Stripper Exemption (WTI > $38/bbl)	6.00%	6.26%	14.80%	15.06%
	Stripper[1]	5.50%	5.76%	14.80%	15.06%
	Stripper[1] 10-15 Bbl/Day	9.00%	9.26%	14.80%	15.06%
	Incremental Secondary[1&2]	8.50%	8.76%	14.80%	15.06%
	Incremental Tertiary[1&2]	5.80%	6.06%	14.80%	15.06%

1 Applies only when average price of WTI < $30/bbl
2 Applies only to increment of increased production

The following charts illustrate the different tax rates for the working interest and portion of oil and natural gas production.

Chart 1 illustrates the different total tax rates for working interest natural gas extraction.

The grey boxes indicate tax rates, while the white boxes represent criteria that must be achieved in order to reach the particular tax rates.

Chart 1
Working Interest Tax Rates for Natural Gas

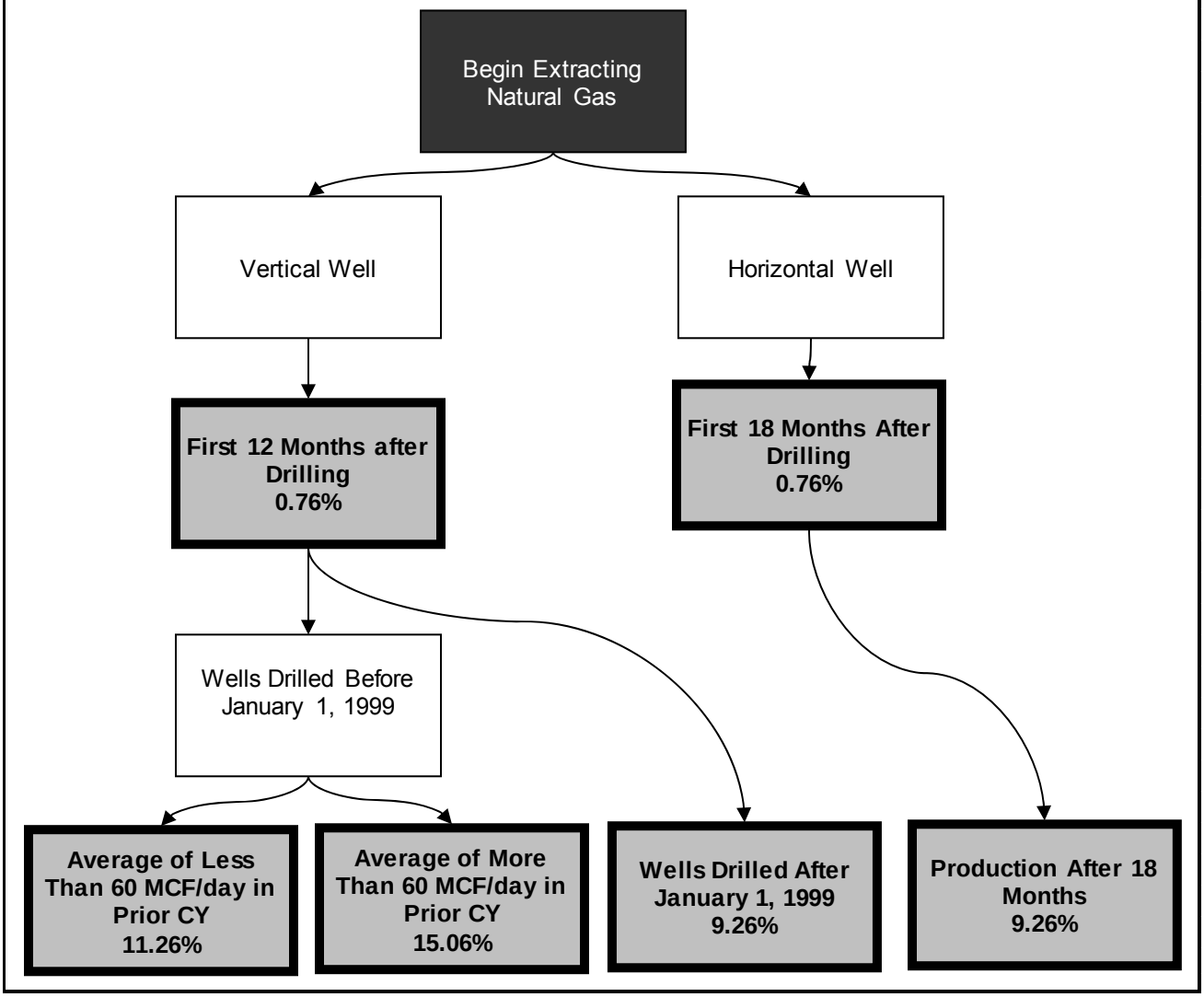
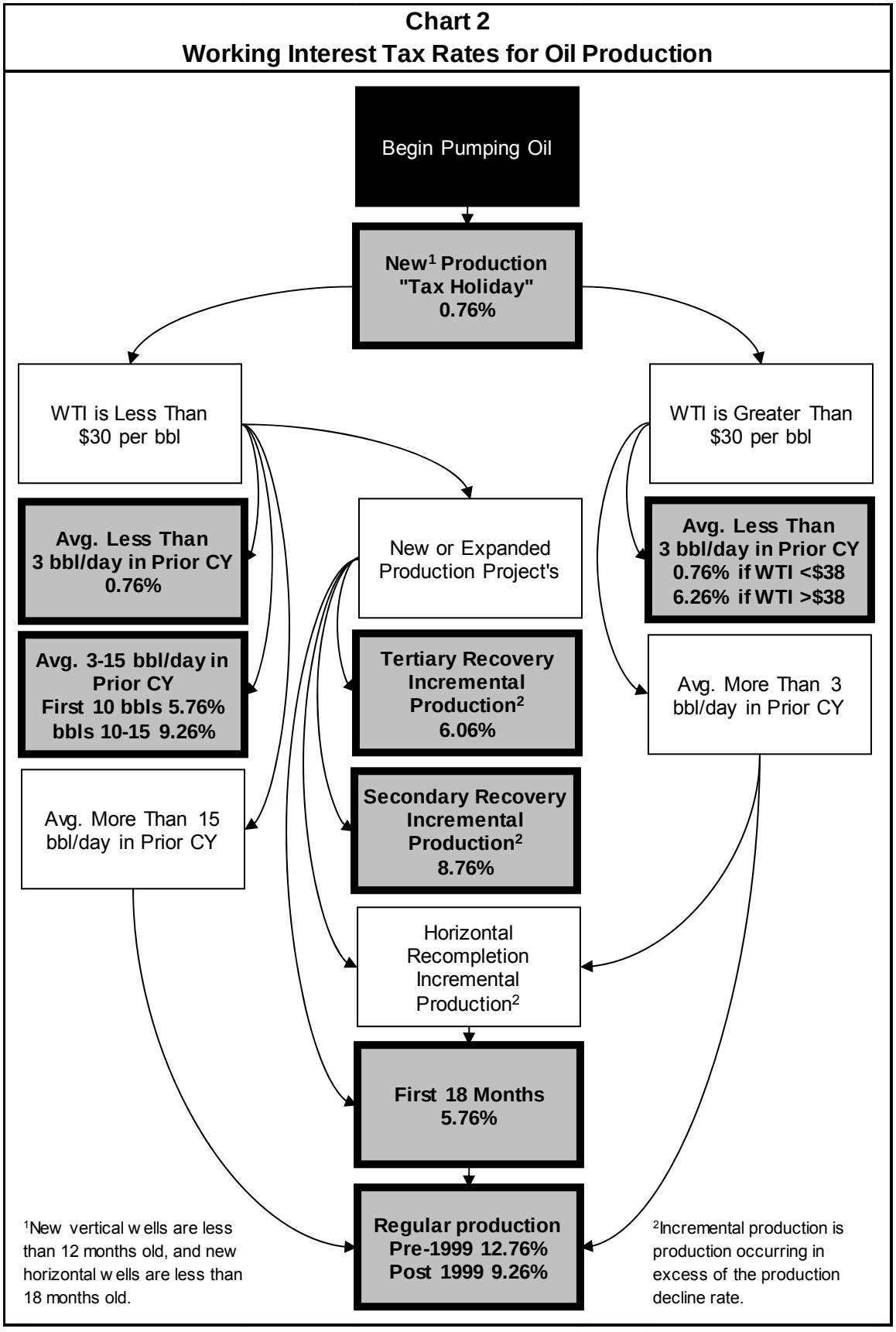


Chart 2 illustrates the different total tax rates for working interest oil extraction.



Risks and Significant Factors

- Price
  - Oil prices are a key driver of Montana oil and natural gas production tax revenue, accounting for the majority of the variation in tax revenue in recent years. The correlation between changes in oil prices and changes in tax revenue from oil and natural gas production is approximately 94%. To a lesser extent, changes in natural gas prices are approximately 65% correlated with changes in oil and natural gas tax revenue.
  - The volatility of oil and natural gas prices makes them hard to predict. Oil and natural gas prices are influenced by factors such as market activity, weather patterns, and geopolitical events (not as pronounced for natural gas because most US natural gas comes from domestic producers), and are subject to shocks that can cause large dips or spikes in prices.
  - Montana oil prices are generally lower than national West Texas Intermediate (WTI) and international, Brent, crude oil benchmark prices. The margin between the price for Montana oil and the price for WTI or Brent oil reflects the transportation costs required to get Montana's oil to major market destinations. The margin between the Montana price and the benchmark prices can widen or narrow depending on factors such as transportation constraints. Montana prices are influenced by national and international prices and generally move in tandem with these prices.
  - If the US decided to lift its ban on crude oil exports, it would likely have a positive effect on Montana oil prices. If the US were allowed to export crude oil, domestically produced oil would be tied more closely to international markets and international benchmark prices, which are consistently higher than domestic prices.
  - Natural gas prices are highly susceptible to weather-related price spikes, as seen during the winter of FY 2014. There is a large network of natural gas pipelines in the US and Canada. This allows Montana to export natural gas relatively easier and at lower cost than oil. As a result, there is not a pronounced margin between Montana natural gas prices and national benchmark (Henry Hub) prices.

- Production
  - Montana oil production rose rapidly after the discovery of the Elm Coulee field in CY 2000 and the development of the Bakken shale formation. Production declined since its FY 2007 peak, mostly due to the maturity of the Elm Coulee field, before picking up again in FY 2013.
  - As was evident in FY 2014, harsh winter weather conditions can negatively affect oil and natural gas production, especially in the shale formations where cold temperatures and high winds can put a stop to well drilling and completion activities.
  - The geology of the Montana portion of the Bakken formation does not support the same level of oil and natural gas production that has been occurring in North Dakota (the heart of the Bakken shale boom). Significantly less of the Bakken formation underlies Montana, and the oil-bearing rock is much thicker in North Dakota than it is in Montana.
  - In April of 2013, the United States Geological Service (USGS) stated that it estimated the Bakken and Three Forks formations contained approximately 7.4 billion barrels of technically recoverable oil, a significant increase from its 2008 estimate of approximately 3.7 billion barrels. The Bakken and Three Forks formations are also estimated to contain 6.7 trillion feet of recoverable natural gas.
  - In September of 2014, Continental Resources, a major player in the Bakken, revised its estimate of the amount of recoverable oil in the Bakken formation, a number much higher than that produced by the USGS. Based on current technology, Continental estimates that there exists between 62 and 96 billion barrels of recoverable oil in the Bakken. It is not known how much of this recoverable oil lies in Montana.
  - Exploration and production activity in other parts of Montana have not proved to be nearly as fruitful as the Bakken. Output from the historically productive Red River formation has been declining since calendar year (CY) 2005. A project to inject CO_2 into the Bell Creek field in Powder River County has the potential to increase enhanced recovery production from that field.
  - Output from Montana's conventional natural gas wells has been declining in the absence of new drilling activity. The onset of Bakken shale drilling has led to a large increase in associated natural gas production in the state (associated natural gas is a byproduct of oil production and is either captured or burned off at the wellhead). Associated natural gas is making up an increasing share of Montana's total natural gas production; thus, the future of the state's natural gas output is partially tied to what happens in the Bakken.
  - In total, natural gas production has been steadily decreasing since mid-FY 2009. Ample natural gas supply in the United States and periods of relatively low prices have likely been factors in this decline.

- Transportation Constraints
  - The onset of the Bakken shale boom has led to transportation constraints for moving oil and natural gas out of the area. The limited pipeline network resulted in a large amount of Bakken crude oil being shipped by rail, which is a more costly method of delivery than moving oil via pipeline. These transportation constraints create price differentials between Montana oil and benchmark oil grades.
  - Pipelines are the most efficient way to transport oil and natural gas (it is rare for natural gas to be moved by anything other than a pipeline). As pipelines became overwhelmed with Bakken oil, increasing price discounts allowed railroads to start transporting large amounts of oil out of Montana and North Dakota. Rail transport is associated with larger margins between Bakken oil prices and benchmark oil prices. The development of more pipelines in the Bakken region will help reduce price discounts for Montana oil by increasing access to major oil markets and reducing transportation costs.
  - The Keystone XL pipeline is still waiting on presidential approval. If the Keystone XL project is approved and the pipeline is constructed, it would provide a major outlet for Montana oil. The ability of Montana oil to move to market through a pipeline such as Keystone XL would likely have a positive impact on Montana oil prices. The Keystone XL pipeline is not expected to affect oil and natural gas production tax revenues during the forecast period.

Forecast Methodology

Oil and natural gas production tax revenue is determined by oil and natural gas production, the price received, and the tax rate applied to the gross value of the production.

Step 1. Estimate oil and natural gas production.

Oil Production

- Montana oil production is forecast using a linear regression model with two explanatory variables. The explanatory variables used in the model are quarterly counts of drilling rigs operating in the state and the number of well completions (making the well ready for production). Drilling rigs are assumed to be an indicator of future oil production, and are expected to be positively related to Montana's oil output. Additionally, the drilling rig variable captures information about the expectations of oil producers. If producers are willing to bring more drilling rigs online, this acts as a signal that producers are optimistic about future production potential. Once a well is drilled, it is not ready to begin producing until necessary completion procedures have taken place. Due to this interval between drilling and completion, drilling rigs are lagged one period in the model. By lagging the drilling rigs variable, it is assumed that the number of drilling rigs operating in a quarter will affect oil output in the next quarter. Like the number of drilling rigs, the number of oil well completions is predicted to have a positive effect on oil production. Lots of well completion activity indicates the presence of numerous economically viable wells.
- Forecasts were created for drillings rigs and well completions in order to have the necessary information to forecast oil production. The drilling rig forecast assumes a constant number of operating rigs throughout the forecast period. Well completions are forecast to decrease at a decreasing rate during the forecast period.
- The output of the model shows that both the number of drilling rigs and the number of well completions are statistically significant predictors of Montana oil production. Both variables impact production in the expected positive direction. Over the forecast period Montana oil production is expected to remain relatively flat, declining slightly in each successive year.

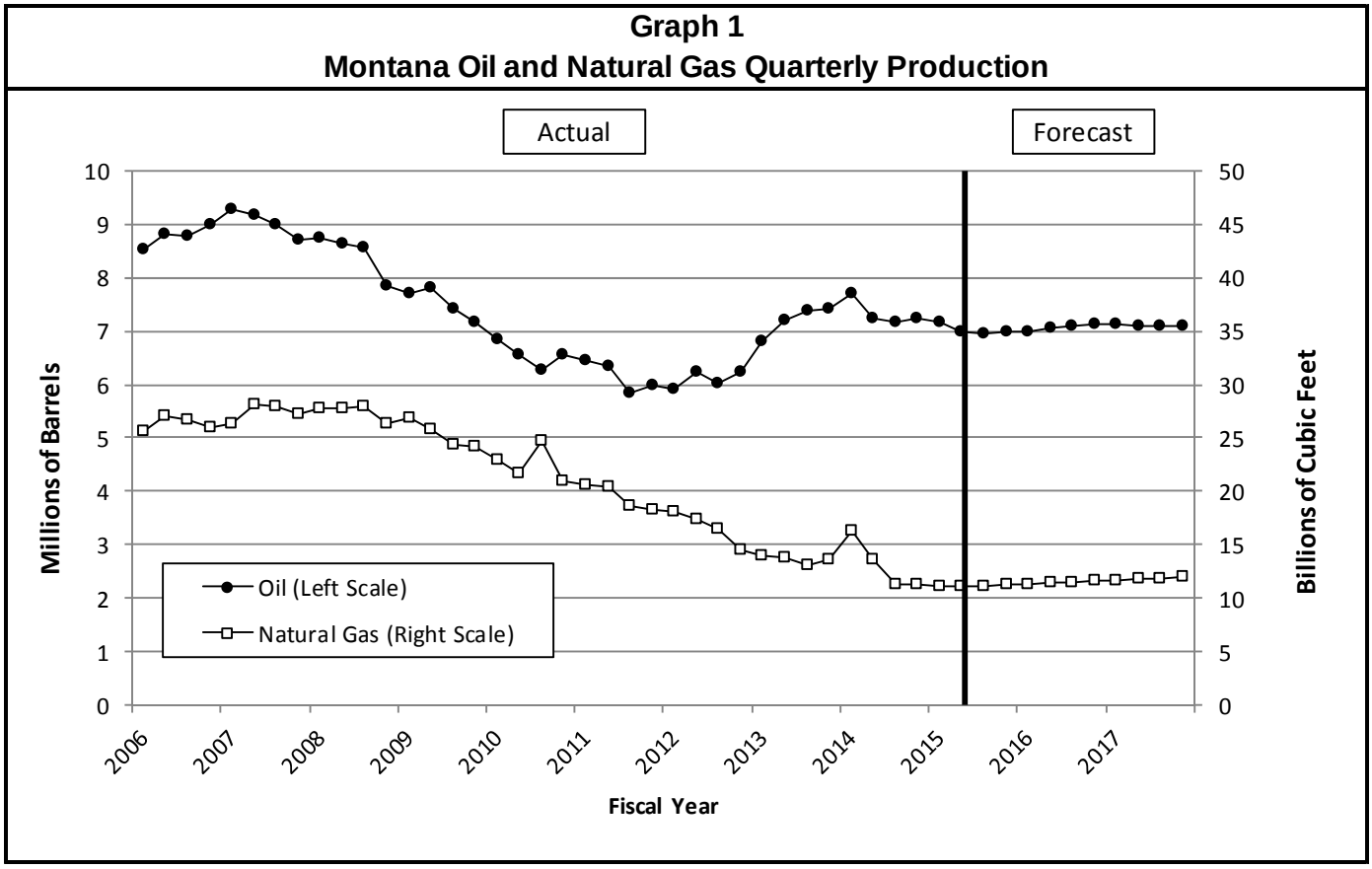
Natural Gas Production

- Montana natural gas production is estimated as a function of Montana oil production. Bakken region oil production has resulted in an increase in associated natural gas production in Montana; thus, for modeling purposes, oil production is perceived to be a good indicator of natural gas production since a growing percentage of Montana's total natural gas production is coming from oil wells operating in the Bakken region of the state. Changes in oil production are predicted to have a positive effect on natural gas production.
- In order to create the natural gas production forecast, the forecast series for oil production must be obtained first. The oil production series is used as the sole independent variable in the autoregression model employed to forecast quarterly values of total natural gas production. In addition to the oil production variable, an autoregressive component is included in the model. The autoregressive variable is a one-period lag of natural gas production (the dependent variable). Including this one-period lag of natural gas production allows the

model to capture information about the dependent variable from the previous period to aid in predicting the value of the dependent variable in the current period. This is useful because natural gas production in one quarter is likely to be a good indication of what natural gas production will be in the following quarter.

- Estimation of the autoregression model shows that both oil production and one-period lagged natural gas production are statistically significant in explaining total natural gas production. Like oil production, natural gas production in Montana is forecast to remain relatively constant over the forecast period.

Graph 1 shows the actual and projected quarterly production levels of oil and natural gas in Montana from FY 2006 through FY 2017.



As Graph 1 shows, oil production hit a local peak in FY 2007 with the maturation of the Elm Coulee field. Oil production decreased consistently until a small rebound occurred in FY 2012 and FY 2013. For the exception of a couple of one-quarter spikes, natural gas production has followed a downward trend since FY 2008.

Step 2. Estimate price of oil and natural gas.

Oil Price

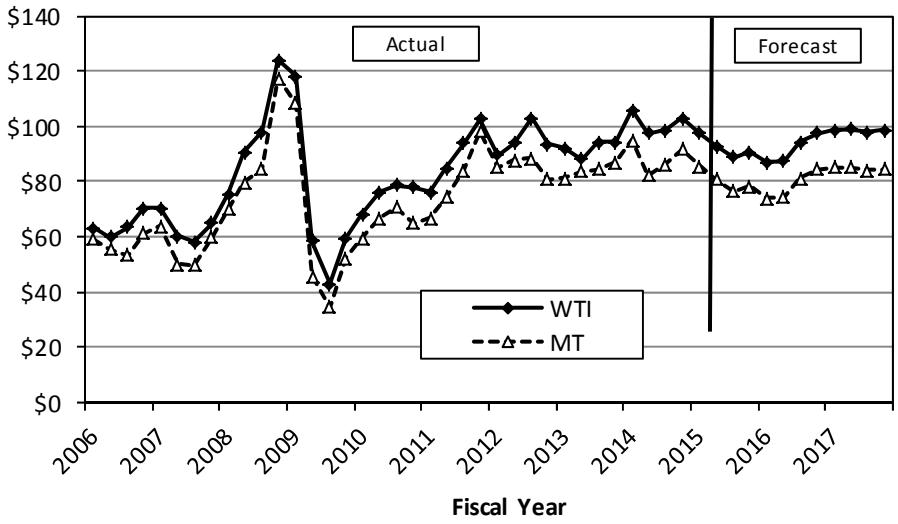
- A linear regression model with first differencing is used to estimate the price of Montana oil. By first-differencing the dependent variable (subtracting the current period from the previous period and modeling the changes rather than the levels of the variable), the series becomes stationary, meaning that its statistical properties like mean and variance are relatively stable over time. Stationary series are easier to estimate than nonstationary series. The first-differenced price of WTI oil is incorporated as an explanatory variable in the model. Movements in Montana oil prices are correlated with movements in WTI oil prices. The relationship between Montana and WTI oil prices is expected to be positive.
- The model results show that changes in the price of WTI have a statistically significant positive effect on changes in the price of oil in Montana.

Natural Gas Price

- Montana natural gas prices are forecast using the same method employed to forecast Montana oil prices. First-differenced natural gas prices are modeled as a function of first-differenced Henry Hub prices (a national natural gas benchmark price). Montana natural gas prices track Henry Hub prices closely and are generally lower than Henry Hub prices. A positive relationship is expected to exist between Montana prices and Henry Hub prices.
- The Henry Hub natural gas price is a statistically significant predictor of the Montana natural gas price. In addition, the coefficient on the Henry Hub natural gas price variable is shown by the model to possess the expected positive sign, meaning that Montana prices move in the same direction as Henry Hub prices.

Table 3
Montana and West Texas Intermediate Oil Prices
(Dollars per Barrel)

Fiscal Year	Montana Price	WTI Price
A 2006	$57.32	$64.25
A 2007	$55.84	$63.38
A 2008	$88.03	$97.01
A 2009	$60.12	$69.76
A 2010	$65.40	$79.04
A 2011	$80.78	$89.42
A 2012	$85.45	$95.04
A 2013	$84.13	$92.25
A 2014	$88.78	$101.23
F 2015	**$80.34**	**$92.50**
F 2016	**$78.50**	**$91.59**
F 2017	**$84.63**	**$98.49**



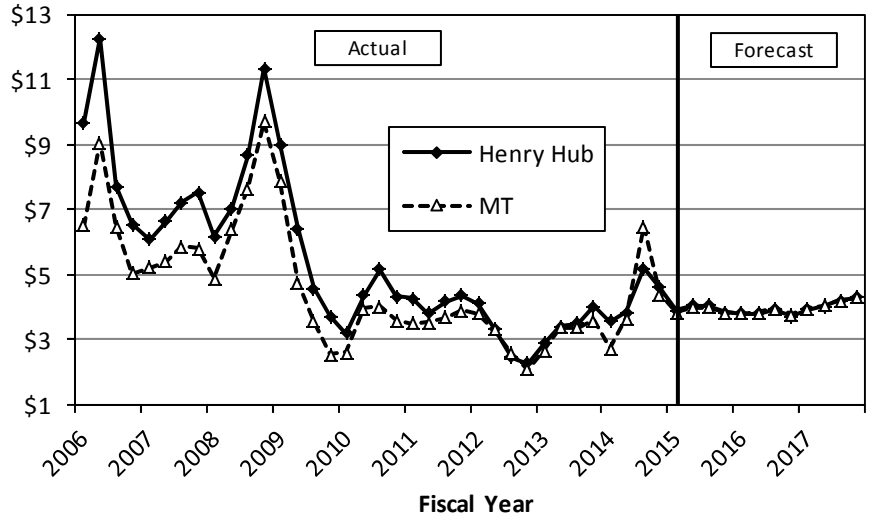
The graph on the right in Table 3 shows quarterly WTI and Montana oil prices in dollars per barrel. Actual prices are shown from FY 2006 though FY 2014 and forecast prices are shown for FY 2015 through FY 2017.

The graph in Table 4 shows quarterly Henry Hub and Montana natural gas prices in dollars per thousand cubic feet (MCF). Actual prices are shown from FY 2006 though FY 2014 and forecast prices are shown for FY 2015 through FY 2017.

Forecast prices for the national benchmark commodities (WTI oil and Henry Hub gas) are produced by IHS Economics. The forecast Montana prices are produced via the methods outlined in Step 2 above.

Table 4
Montana and National Natural Gas Prices
(Dollars per MCF)

Fiscal Year	Montana Price	National Price
A 2006	$6.77	$9.04
A 2007	$5.57	$6.87
A 2008	$7.14	$8.30
A 2009	$4.68	$5.92
A 2010	$3.54	$4.25
A 2011	$3.64	$4.16
A 2012	$2.94	$3.04
A 2013	$3.25	$3.45
A 2014	$4.30	$4.30
F 2015	**$3.91**	**$3.96**
F 2016	**$3.84**	**$3.80**
F 2017	**$4.13**	**$4.11**



Step 3. Estimate effective tax rates for oil and natural gas and determine tax revenue.

- Effective tax rates are estimated for both working and nonworking (royalty) interests. The effective tax rate for the working interest portions of oil and natural gas production varies from year to year because there are different nominal tax rates for different types of working interest production. All royalty interest production is taxed at one rate, so the effective tax rate is equal to the nominal tax rate.
- A four-year moving average is used to estimate effective working interest tax rates for oil and natural gas production over the forecast period. Effective royalty tax rates are assumed to equal the nominal rates for all forecast years.
- Working interest oil tax revenue is determined by multiplying the effective working interest tax rate for oil production by the estimated gross value of working interest oil production. Tax revenue for the working interest portion of natural gas revenue is determined the same way.
- Royalty tax revenue for oil and natural gas is calculated by applying the royalty tax rate of 15.06% to the gross royalty value of oil and natural gas production.
- Total oil and natural gas tax revenue to be distributed to the state of Montana is equal to the sum of working interest and royalty interest tax revenue from oil and natural gas production.

Table 5 shows the components that determine total tax revenue from oil production in Montana. Similarly, Table 6 summarizes how total tax revenue from natural gas production is calculated. Table 7 shows the combination of oil and natural gas tax revenue, plus audit, penalty, and interest income, to determine total tax revenue received by the state of Montana from the oil and natural gas production tax. All of the tables show actual values for FY 2006 through FY 2014 and forecast values for FY 2015 through FY 2017.

Table 5
Montana Oil Revenue
($ millions)

Fiscal Year	Millions of Barrels of Oil	Gross Value		Average Tax Rate		Tax Revenue
A 2006	35.102	$1,961.331	X	7.44%	=	$145.941
A 2007	36.161	$1,968.255	X	8.21%	=	$161.683
A 2008	33.753	$2,870.909	X	9.13%	=	$262.008
A 2009	30.080	$1,770.894	X	9.74%	=	$172.530
A 2010	26.212	$1,663.963	X	10.34%	=	$171.973
A 2011	24.588	$1,924.638	X	9.88%	=	$190.220
A 2012	24.389	$2,028.983	X	9.44%	=	$191.599
A 2013	28.768	$2,358.778	X	8.48%	=	$200.027
A 2014	29.343	$2,542.626	X	8.49%	=	$215.872
F 2015	**29.138**	**$2,313.388**	**X**	**8.76%**	**=**	**$202.593**
F 2016	**29.886**	**$2,318.866**	**X**	**8.76%**	**=**	**$203.247**
F 2017	**30.480**	**$2,549.635**	**X**	**8.77%**	**=**	**$223.594**

Table 6
Natural Gas Production Revenue
($ millions)

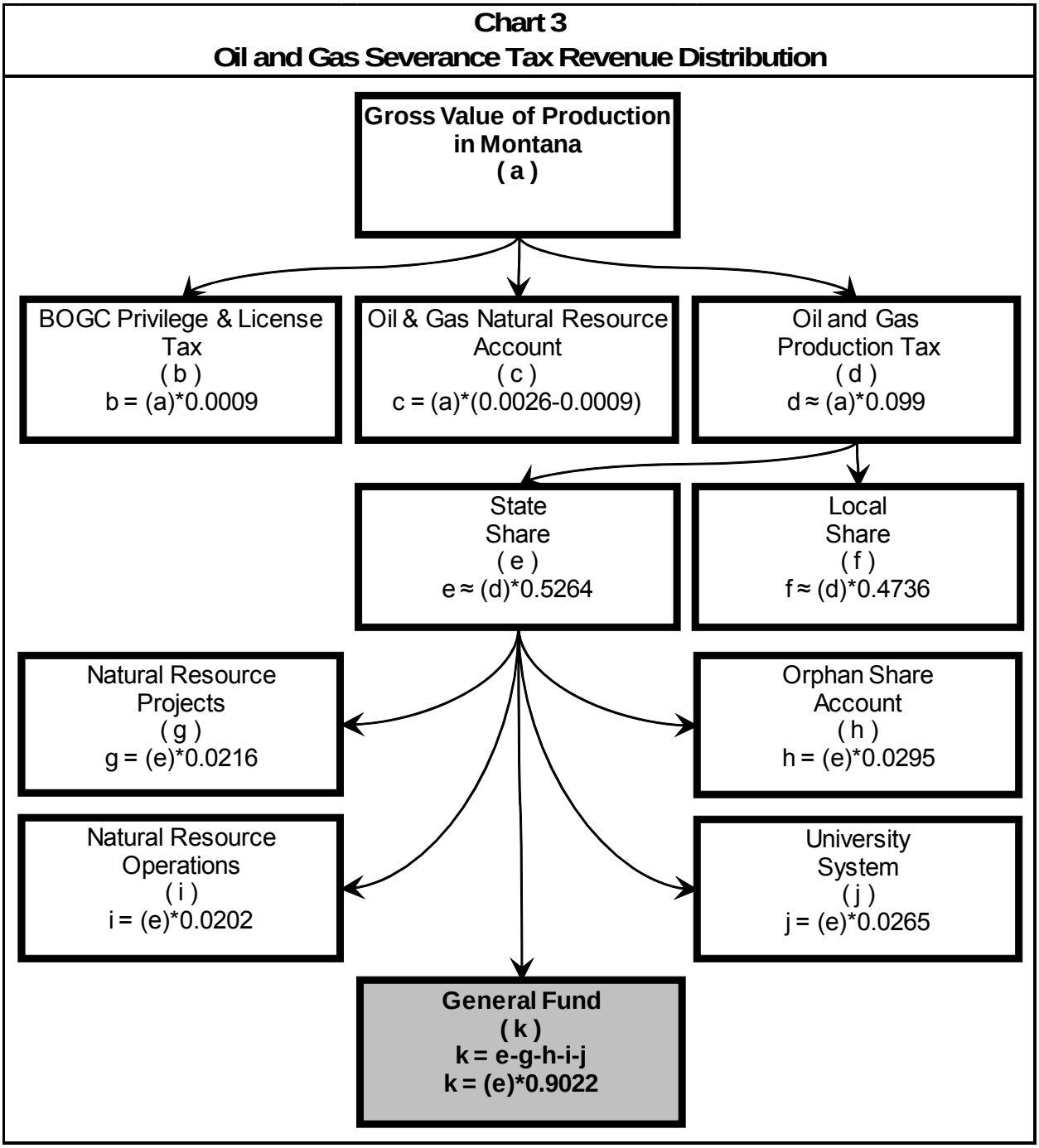
Fiscal Year	Billions of cubic Feet of Gas	Gross Value		Average Tax Rate		Tax Revenue
A 2006	105.239	$680.440	X	8.68%	=	$59.044
A 2007	109.496	$582.417	X	8.34%	=	$48.558
A 2008	109.821	$748.177	X	8.12%	=	$60.718
A 2009	101.207	$459.422	X	9.14%	=	$41.971
A 2010	90.315	$305.038	X	9.96%	=	$30.381
A 2011	77.934	$270.110	X	9.78%	=	$26.407
A 2012	66.292	$190.533	X	9.95%	=	$18.954
A 2013	63.551	$177.064	X	9.33%	=	$16.526
A 2014	56.071	$228.149	X	9.18%	=	$20.955
F 2015	**44.773**	**$175.189**	**X**	**9.20%**	**=**	**$16.121**
F 2016	**45.828**	**$175.960**	**X**	**9.21%**	**=**	**$16.209**
F 2017	**47.455**	**$196.128**	**X**	**9.21%**	**=**	**$18.070**

Table 7
Montana Oil and Gas Tax Revenue
($ millions)

Fiscal Year	Oil Revenue		Natural Gas Revenue		Audits, Penalties, & Interest		Total Revenue
A 2006	$145.941	+	$59.044	+	$1.429	=	$206.414
A 2007	$161.683	+	$48.558	+	$1.242	=	$211.483
A 2008	$262.008	+	$60.718	+	$3.168	=	$325.894
A 2009	$172.530	+	$41.971	+	$5.221	=	$219.722
A 2010	$171.973	+	$30.381	+	$1.395	=	$203.749
A 2011	$190.220	+	$26.407	+	$1.254	=	$217.881
A 2012	$191.599	+	$18.954	+	$0.737	=	$211.289
A 2013	$200.027	+	$16.526	+	$1.366	=	$217.919
A 2014	$215.872	+	$20.955	+	$0.864	=	$237.691
F 2015	**$202.593**	**+**	**$16.121**	**+**	**$1.055**	**=**	**$219.768**
F 2016	**$203.247**	**+**	**$16.209**	**+**	**$1.005**	**=**	**$220.462**
F 2017	**$223.594**	**+**	**$18.070**	**+**	**$1.073**	**=**	**$242.737**

Distribution

Oil and natural gas revenue is distributed in accordance with 15-36-331, MCA. Chart 3 is a graphic illustration of how the revenues are distributed.



The BOGC imposes a privilege and license tax in addition to the base oil and natural gas tax rates. This tax rate is currently set at 0.09% of the gross value of oil and natural gas production. The tax rate that determines the amount of revenue distributed to the oil and gas natural resource account is equal to the difference between 0.26% and the rate of the BOGC's privilege and license tax. Currently 0.17% of gross oil and natural gas production value is allocated to the oil and gas natural resource account.

Total oil and gas production tax revenue in Montana is divided between the state and the producing counties. Prior to HB 748 (2003 session), the distribution was based primarily on property tax mill levies. After HB 748, the counties and schools were each assigned a percentage of the production tax revenue generated in their county that they would receive. Beginning in FY 2012, SB 329 (2011 session) capped the amount of oil and natural gas receipts distributed to a school district at 130%, with some exceptions, of a district's maximum general fund budget, and distributed any excess revenues to the state special revenue accounts (guarantee account, state school oil and gas impact fund, and county oil and natural gas impact fund). The 2013 legislative session passed SB 175, which changed the local distribution of oil and natural gas tax revenue starting in FY 2014. The amount of oil and natural gas revenue a school district could receive was still capped at 130% of the district's maximum budget; however, school districts with budgets less than $1.5 million were allowed to keep revenue equivalent to up to 150% of their maximum budget. Any excess tax revenue existing in a school district after the aforementioned limits have been reached is distributed elsewhere in the following order until the excess revenue is completely distributed:

1. To other school districts within the same unified school system as the original district (the school district with the excess revenue) or to those districts that share joint board status with the original district (up to 130% of maximum budget, with some exceptions).
2. To any school district neighboring the original district (up to 130% of maximum budget, with some exceptions).
3. To any school district located (in whole or in part) in the same county as the original district (up to 130% of maximum budget, with some exceptions).
4. To any school district located (in whole or in part) in a county adjoining a county where a horizontally completed well has been drilled in the last three years (up to 130% of maximum budget, with some exceptions).
5. Remaining revenue is deposited 70% in the guarantee account, 5% in the state school oil and natural gas impact account, and 25% in the county school oil and natural gas impact fund.

Throughout the forecast period, the state share is then divided as follows:

- 2.16% to the natural resource projects state special revenue account;
- 2.02% to the natural resource operations state special revenue account;
- 2.95% to the orphan share account;
- 2.65% to the university system; and
- the remainder, 90.22%, is distributed to the general fund.

Table 8 shows the actual distribution of oil and natural gas production tax revenues for FY 2014 and forecast distributions for FY 2015 through FY 2017.

Table 8
Oil and Gas Tax Revenue Distribution
($ millions)

Entity	Fiscal Year 2014	**Fiscal Year 2015**	**Fiscal Year 2016**	**Fiscal Year 2017**
Tax Revenue	**$236.497**	**$219.768**	**$220.462**	**$242.737**
BOGC	$2.506	**$2.417**	**$2.313**	**$2.452**
Oil & Gas Natural Resource Acct.	$4.733	**$4.565**	**$4.368**	**$4.631**
County Oil & Gas Impact Fund	$0.000	**$0.000**	**$0.000**	**$1.993**
Guarantee Fund	$0.000	**$0.000**	**$0.000**	**$5.581**
School Oil & Gas Impact Fund	$0.000	**$0.000**	**$0.000**	**$0.399**
State School Oil & Gas Distribution*	$11.773	**$10.973**	**$9.473**	**$0.000**
Local Share	$95.998	**$89.865**	**$90.148**	**$99.256**
State Share	$121.488	**$111.948**	**$114.160**	**$128.42**
Natural Resource Projects Acct. (2.16%)	$2.624	**$2.418**	**$2.466**	**$2.774**
Natural Resource Operations Acct. (2.02%)	$2.454	**$2.261**	**$2.306**	**$2.594**
Orphan Share Acct. (2.95%)	$3.584	**$3.302**	**$3.368**	**$3.789**
University System (2.65%)	$3.219	**$2.967**	**$3.025**	**$3.403**
General Fund Share (90.22%)	**$109.606**	**$101.000**	**$102.995**	**$115.865**

*This fund is set to expire in FY 2017, so revenue will be distributed back to the County Oil & Gas Impact Fund, the Guarantee Fund, and the School Oil & Gas Impact Fund.

Data Sources

Montana oil and natural gas tax data were supplied by the Montana Department of Revenue's GENTAX system. Historic and forecast WTI prices, as well as historic and projected Henry Hub prices for natural gas, are from IHS Economics. Supplemental data were obtained from the Board of Oil and Gas Conservation and from the US Energy Information Administration.

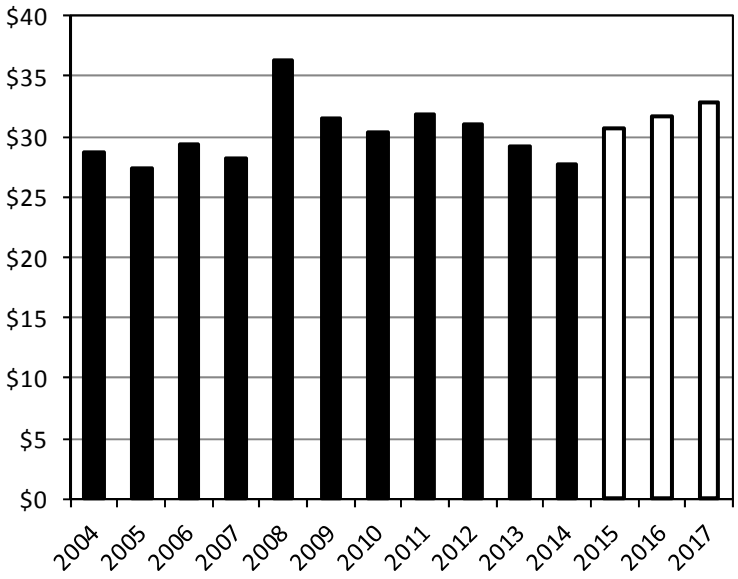
Revenue Description

In accordance with 30 USC, Section 191, a portion of the revenue from minerals produced in Montana on federal land must be shared with the state of Montana. When the US Government leases public lands for mineral production, it pays part of the income to the state where the leased land is located. In the past, Montana received 50% of the royalty revenue from coal, oil, and natural gas production on federal lands within the state. With the passage of the federal budget for FY 2009, the federal government increased their share to 52% and effectively decreased the state share to 48%. From the state share, 75% is deposited in the general fund and 25% is deposited in a state special revenue fund for mineral impacts in accordance with 17-3-240, MCA.

Table 1 shows actual revenue to the general fund from US mineral royalties for FY 2004 through FY 2014, and forecast revenues for FY 2015 through FY 2017.

Table 1
U.S. Mineral Royalties
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$28.736	10.57%
A	2005	$27.294	-5.02%
A	2006	$29.304	7.36%
A	2007	$28.221	-3.70%
A	2008	$36.389	28.94%
A	2009	$31.573	-13.23%
A	2010	$30.288	-4.07%
A	2011	$31.923	5.40%
A	2012	$31.057	-2.71%
A	2013	$29.205	-5.96%
A	2014	$27.744	-5.00%
F	**2015**	**$30.768**	**10.90%**
F	**2016**	**$31.706**	**3.05%**
F	**2017**	**$32.863**	**3.65%**



Prior to FY 2005, 12.5% of US mineral royalty revenue was allocated to counties. Currently, 25% of the US mineral royalty revenue is allocated to counties to help mitigate the impacts of mineral extraction. General fund revenue from US mineral royalties fluctuates as mineral prices and production levels change. Changes in revenue in recent years are primarily attributable to price changes.

From FY 2006 through FY 2013, an average of 71% of coal production in Montana took place on federally-owned land. Comparatively, 11% of oil production and 33% of natural gas production in Montana has occurred on federal land over the same time period. The development of the Bakken shale formation in eastern Montana has increased overall oil and natural gas production in the state, as well as the amount of oil and gas being produced from private lands. Oil production from federal lands in Montana has been on a general decline since FY 2006. The same can be said for natural gas production in the state, with the exception of FY 2008 and FY 2009.

Coal is the leading source of US mineral royalty revenue for Montana, averaging 43% of total collections from FY 2006 through FY 2013. Oil is the second largest revenue source, averaging 27% of total collections, followed by natural gas at 17%. Remaining royalty revenue comes from other mineral sources, along with revenue from bonus and rental payments. Revenue from these sources (referred to as other revenue) averaged 13% of the total during the FY 2006 -

FY 2013 span. Over the forecast period, FY 2015 through FY 2017, income from coal production is projected to average 53% of total royalty revenue, followed by oil at 31%, natural gas at 8%, and other revenue at 8%.

Risks and Significant Factors

- Most royalty revenue is calculated as a percentage of the gross value of the minerals produced. As prices fluctuate, so will royalty revenue.
- As became apparent with the passage of the FY 2009 federal budget, Congress can change the amount of revenue that gets distributed to the state. Also, changes to the federal Mineral Management Service may affect the timing of some of the revenue flows from year to year.
- Montana has large coal reserves, but it is not known when and to what extent these reserves will be developed. The recent approval of Signal Peak's expansion plans for its Bull Mountain mine has the potential to increase the amount of coal produced on federal land in Montana, which could increase future royalty revenue. In addition, the pending developments of the Tongue River Railroad and the Otter Creek coal mine near Ashland, Montana have implications for future royalty revenue; however, the Otter Creek mine is not expected to begin commercial production during the forecast period.

Forecast Methodology

US mineral royalty revenue is calculated in four steps.

Step 1. Forecast the gross value of coal, oil, and natural gas production on federal land by multiplying estimated production by estimated price. Historical proportions of resource production on federally-owned land in Montana to total state production are used to estimate future production for each resource type. A three-year moving average is used to estimate the forecast federal production proportions. Forecast production proportions for each resource type are then multiplied by estimated total Montana production for each resource to determine estimated federal production. Estimated federal production is then multiplied by an estimated price for each resource to determine gross value. The total production and price estimates for coal, oil, and natural gas come from data contained in each resource's respective revenue estimate.

Step 2. Estimate the federal royalty rate to be applied to the gross value of each resource type. The nominal federal royalty rate for coal, oil, and natural gas production is 12.5%; however, the effective royalty rate is often less than 12.5%. A three-year moving average is used to estimate the federal royalty rate for each resource type over the forecast period. To determine estimated total royalty revenue from coal, oil, and natural gas production on federal lands in Montana, the gross value of production for each resource type is multiplied by the estimated royalty rate.

Step 3. Calculate the average percentage of receipts that are remitted by the federal government to the state for each type of commodity. Although the federal government is required to return 48% of the revenue to the state, there are exceptions that may reduce the actual percentage to less than 48%. This is primarily dependent on the nature of the property where the federal lease is issued. For example, a federal lease could be on General Services Administration (GSA) land, in which case 100% of the revenue would be distributed to the US Treasury. Federal leases on Indian reservations and timing issues between fiscal years can also contribute to variation. The percentage of federal royalty revenue estimated to be returned to the state is assumed to be equal to the percentage of revenue that was returned in the prior year. The state's percentage is multiplied by total federal royalty revenue to yield total state mineral royalty revenue from coal, oil, and natural gas extraction.

Step 4. Estimate revenue from sources other than coal, oil, and natural gas, as well as rental and bonus payments. Montana is assumed to receive 48% of federal rental and bonus payments, and approximately 40% of federal revenue from other sources. Add rental/bonus and other revenue to the state's share of coal, oil, and natural gas revenue to obtain total mineral royalty revenue.

Table 2 shows the actual revenues, royalty rates, and state revenue from federal mineral royalties for FY 2006 through FY 2013. Due to the federal fiscal year, FY 2014 data is not available; therefore, FY 2014 revenues are estimated alongside the forecast for FY 2015 through FY 2017.

Table 2
U.S. Mineral Royalty Revenue
($ millions)

Fiscal Year	Coal Income	Royalty Rate	Royalty Revenue	State Percentage	State Revenue	Oil Income	Royalty Rate	Royalty Revenue	State Percentage	State Revenue	Natural Gas Income	Royalty Rate	Royalty Revenue	State Percentage	State Revenue
A 2006	$326.726	10.62%	$34.695	42.65%	14.798	$232.786	11.78%	$27.433	38.43%	$10.542	$211.256	11.77%	$24.875	42.11%	$10.475
A 2007	$290.008	12.10%	$35.084	47.96%	16.827	$206.960	10.91%	$22.569	46.59%	$10.515	$167.103	10.73%	$17.922	47.03%	$8.428
A 2008	$281.414	12.15%	$34.201	50.85%	$17.393	$354.921	10.62%	$37.685	44.99%	$16.955	$186.180	10.96%	$20.414	51.23%	$10.458
A 2009	$262.330	11.96%	$31.366	62.23%	$19.518	$180.710	10.87%	$19.648	51.67%	$10.153	$120.850	10.94%	$13.226	47.95%	$6.342
A 2010	$358.895	11.61%	$41.675	49.80%	$20.754	$223.490	10.59%	$23.657	46.72%	$11.053	$95.875	11.18%	$10.721	44.85%	$4.808
A 2011	$377.500	11.62%	$43.867	49.12%	$21.546	$244.195	10.86%	$26.520	52.01%	$13.793	$68.875	11.46%	$7.895	-17.10%	-$1.350
A 2012	$383.177	11.62%	$44.508	48.28%	$21.487	$231.460	11.87%	$27.471	45.39%	$12.469	$42.430	11.61%	$4.926	46.34%	$2.283
A 2013	$363.321	11.82%	$42.946	48.28%	$20.733	$210.733	11.94%	$25.158	45.38%	11.4179	$33.151	12.93%	$4.286	44.79%	$1.920
A 2014	$364.738	11.69%	$42.621	48.28%	$20.576	$265.261	11.56%	$30.653	45.38%	$13.912	$53.963	12.00%	$6.476	44.79%	$2.901
F 2015	**$389.416**	**11.71%**	**$45.590**	**48.28%**	**$22.009**	**$245.477**	**11.79%**	**$28.936**	**45.38%**	**$13.132**	**$46.091**	**12.18%**	**$5.614**	**44.79%**	**$2.515**
F 2016	**$426.630**	**11.74%**	**$50.077**	**48.28%**	**$24.175**	**$234.340**	**11.76%**	**$27.560**	**45.38%**	**$12.508**	**$42.194**	**12.37%**	**$5.220**	**44.79%**	**$2.338**
F 2017	**$422.167**	**11.71%**	**$49.436**	**48.28%**	**$23.866**	**$263.618**	**11.70%**	**$30.847**	**45.38%**	**$14.000**	**$47.839**	**12.18%**	**$5.829**	**44.79%**	**$2.611**

Fiscal Year	Rentals and Bonuses	Royalty Rate	Revenue	State Percentage	State Revenue	Other Revenue	Royalty Rate	Other Revenue	State Percentage	State Revenue	**State Coal Revenue**		**State Oil Revenue**		**State Gas Revenue**		**All Other Revenue (Including Sequester)**		**Total State Revenue**
A 2006	$4.653	100%	$4.653	39.56%	1.841	$2.785	NA	$2.785	20.85%	$0.581	$14.798	+	$10.542	+	$10.475	+	$2.422	=	$38.236
A 2007	$5.084	100%	$5.084	42.47%	2.159	$2.720	NA	$2.720	45.20%	$1.230	$16.827	+	$10.515	+	$8.428	+	$3.389	=	$39.158
A 2008	$8.786	100%	$8.786	44.72%	3.929	$2.154	NA	$2.154	9.71%	$0.209	$17.393	+	$16.955	+	$10.458	+	$4.138	=	$48.944
A 2009	$8.906	100%	$8.906	45.11%	$4.018	$14.798	NA	$14.798	44.11%	$6.527	$19.518	+	$10.153	+	$6.342	+	$10.545	=	$46.559
A 2010	$14.046	100%	$14.046	48.18%	$6.767	$1.994	NA	$1.994	19.19%	$0.383	$20.754	+	$11.053	+	$4.808	+	$7.149	=	$43.765
A 2011	$11.954	100%	$11.954	48.11%	$5.751	$2.487	NA	$2.487	136.08%	$3.384	$21.546	+	$13.793	+	-$1.350	+	$9.134	=	$43.125
A 2012	$21.264	100%	$21.264	50.84%	$10.811	$0.300	NA	$0.300	49.46%	$0.149	$21.487	+	$12.469	+	$2.283	+	$10.959	=	$47.198
A 2013	$5.390	100%	$5.390	23.78%	$1.282	$1.929	NA	$1.929	39.06%	$0.753	$20.733	**+**	$11.418	**+**	$1.920	**+**	$2.035	=	$36.106
A 2014	$5.799	100%	$5.799	48.00%	$2.783	$1.677	NA	$1.677	39.06%	$0.655	$20.576	+	$13.912	+	$2.901	+	$3.439	=	$40.827
F 2015	**$5.716**	**100%**	**$5.716**	**48.00%**	**$2.744**	**$1.598**	**NA**	**$1.598**	**39.06%**	**$0.624**	**$22.009**	**+**	**$13.132**	**+**	**$2.515**	**+**	**$3.368**	=	**$41.024**
F 2016	**$5.659**	**100%**	**$5.659**	**48.00%**	**$2.716**	**$1.376**	**NA**	**$1.376**	**39.06%**	**$0.538**	**$24.175**	**+**	**$12.508**	**+**	**$2.338**	**+**	**$3.254**	=	**$42.275**
F 2017	**$5.622**	**100%**	**$5.622**	**48.00%**	**$2.699**	**$1.645**	**NA**	**$1.645**	**39.06%**	**$0.643**	**$23.866**	**+**	**$14.000**	**+**	**$2.611**	**+**	**$3.341**	=	**$43.818**

Distribution

US mineral royalties are distributed to both the general fund and the mineral impact account in accordance with 17-3-240, MCA. Table 3 shows the distribution of US mineral royalty revenue to the state of Montana for FY 2006 through FY 2014 along with the estimated distribution for FY 2015 through FY 2017.

Table 3
U.S. Mineral Royalty Revenue Distribution
($ millions)

Fiscal Year	General Fund (75%)	Mineral Impact (25%)	Total
A 2006	$29.304	$9.768	$39.071
A 2007	$28.221	$9.407	$37.628
A 2008	$36.389	$12.130	$48.518
A 2009	$31.573	$10.524	$42.098
A 2010	$30.288	$10.096	$40.384
A 2011	$31.923	$10.641	$42.564
A 2012	$31.057	$10.352	$41.409
A 2013	$29.205	$9.735	$38.940
A 2014	$27.744	$9.248	$36.992
F 2015	**$30.768**	**$10.256**	**$41.024**
F 2016	**$31.706**	**$10.569**	**$42.275**
F 2017	**$32.863**	**$10.954**	**$43.818**

Data Sources

Historical general fund and mineral impact account numbers are from SABHRS. Federal mineral statistics are available from the Department of Interior's Office of Natural Resources Revenue.

Coal Severance Tax

2017 Biennium

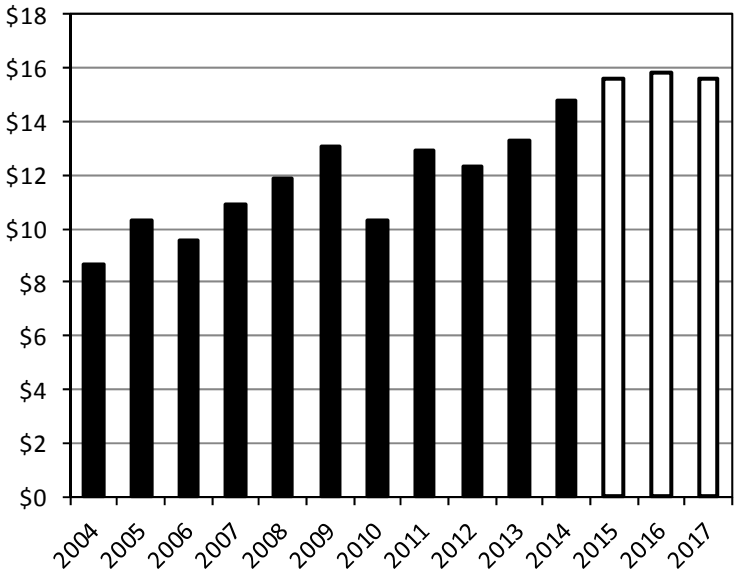
Revenue Description

In accordance with 15-35-103, MCA, Montana levies a tax on the value of coal produced in Montana. The tax rate on coal varies with heat content of the coal and the type of mine (open pit, auger, or underground). Each producer is exempt from tax on 20,000 tons per year and mines producing less than 50,000 tons per year are exempt from the tax.

Table 1 shows actual coal severance tax revenue to the general fund for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 1
Coal Severance Tax
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	$8.643	-11.09%
A 2005	$10.312	19.31%
A 2006	$9.597	-6.94%
A 2007	$10.919	13.78%
A 2008	$11.894	8.93%
A 2009	$13.028	9.53%
A 2010	$10.322	-20.77%
A 2011	$12.883	24.81%
A 2012	$12.350	-4.13%
A 2013	$13.265	7.41%
A 2014	$14.745	11.15%
F 2015	**$15.613**	**5.89%**
F 2016	**$15.831**	**1.39%**
F 2017	**$15.602**	**-1.44%**



Under the provisions of HB 10 (2002 August special session) the general fund received 33.04% of the coal severance tax revenue. In FY 2004 and FY 2005, the general fund allocation changed to 27.4% under HB 18 (2002 August special session). HB 688 (2007 session) established that $250,000 would be allocated to the coal and uranium mine permitting and reclamation program beginning in FY 2008. Starting in FY 2010 through the first quarter of FY 2014, SB 100 (2009 session) increased the percentage to the coal natural resource account from 2.9% to 5.8%. After the first quarter of FY 2014, the percentage reverted to 2.9%.

Risks and Significant Factors

- In FY 2010, Arch Coal Company purchased the leasing rights to the Otter Creek coal tracts near Ashland, Montana, with the intent to develop a new coal mine. The fate of the mine depends partially on the pending development of the Tongue River Railroad, which, if built, will link Otter Creek to major rail lines. An environmental impact statement for the Tongue River Railroad is being put together and is due out sometime in calendar year (CY) 2015. Otter Creek likely won't be developed until the fate of the railroad is known. As such, it is not anticipated that the mine will come online and produce coal during the forecast period, so it will not influence revenue collections. If the mine is developed sooner than anticipated, coal severance tax revenue could rise substantially.
- One of the primary uses for coal is in the production of electricity at coal-fired power plants. Montana coal is shipped to many states in the US and also exported overseas. New air pollution regulations proposed by the Environmental Protection Agency (EPA) are leading to shutdowns of some of the nation's older coal-fired power

plants. It is unclear if the new regulations will have a significant impact on US domestic coal demand. Demand for Montana coal is expected to remain consistent over the forecast period.

- In March 2014, the Montana Land Board approved an expansion plan for Signal Peak Energy's Bull Mountain Mine in Musselshell county. The expansion is expected to add nine years to the life of the mine. At this time it is not clear when the expansion will be completed and how it will affect coal production from the mine. If the expansion results in more annual coal production, increased coal severance tax revenues could result.

Forecast Methodology

There are four main steps in forecasting coal severance tax revenue:

Step 1. Estimate the quarterly average mine price using a linear regression model with coal stocks, West Texas Intermediate (WTI) oil prices, and U.S. natural gas prices as explanatory variables. Forecast prices are adjusted for model error. The heating quality of coal produced in Montana varies by mine. Coal with higher heating qualities receives a higher market price and is taxed at a higher rate. Rather than forecasting coal prices for each mine, one forecast is produced for the average mine price.

Step 2. Estimate total annual coal production in Montana using a combination of monthly production data and production survey data submitted by coal producers in Montana. Two different methods are used to estimate future coal production by mine and the results from each method are combined to generate the forecast for total coal production in Montana.

Method 1. Using historical, monthly, mine-level data, coal production by mine for each month in the forecast period is estimated using a 12-month moving average of each mine's historical production. Monthly production is then summed by fiscal year for each mine.

Method 2. Data from mine production surveys are used to estimate mine-level coal production. For those mine operators who submitted survey responses, the historical accuracy of their survey data is evaluated and then applied to current survey data to estimate fiscal year production for each mine. Survey accuracy in a given year is determined by the ratio of actual production to the production estimate contained in the survey.

The two estimates of mine-level production are averaged to come up with a predicted level of production for each mine. Total Montana coal production for each year in the forecast period is the sum of all mines' total fiscal year coal production.

Step 3. Estimate total annual deductions and exemptions to determine taxable coal production. Deductions and exemptions include the first 20,000 tons produced in a year (for operator's with over 50,000 tons of production per year), and the deductions for other state and federal tax liabilities related to coal production including the black lung tax, the coal gross proceeds tax, federal reclamation tax, and others.

Step 4. Apply the appropriate tax rate to yield total coal severance tax revenue. The tax rate varies by mine because it is dependent on the heating quality of the coal and the process employed to remove the coal from the ground. To account for differing tax rates across mines, a weighted average tax rate is estimated and used to determine annual coal severance tax revenue.

Table 2 shows the actual coal production, average price per ton, total deductions, taxable revenue, average tax rate, and total coal severance tax revenue for FY 2012 through FY 2014 and the estimated values for FY 2015 through FY 2017.

Table 2
Coal Severance Tax
(millions)

	FY 2012	FY 2013	FY 2014	**FY 2015**	**FY 2016**	**FY 2017**
Tons Produced	36.740	35.566	35.725	**37.424**	**37.357**	**37.396**
Average FOB Price	x $15.81	x $16.56	x $16.68	**x $17.04**	**x $17.30**	**x $17.05**
Gross Revenue	$581.024	$588.975	$595.771	**$637.63**	**$646.384**	**$637.75**
Exemptions	- $150.350	- $154.060	- $151.754	**$175.792**	**$178.206**	**$175.824**
Taxable Revenue	$430.674	$434.915	$444.017	**$461.837**	**$468.179**	**$461.922**
Average Tax Rate	x 12.38%	x 13.08%	x 12.19%	**x 12.82%**	**x 12.82%**	**x 12.81%**
Tax Revenue	$53.332	$56.899	$54.147	**$59.213**	**$60.025**	**$59.171**

Distribution

Coal Severance tax is distributed in accordance with 15-35-108, MCA. Table 3 shows the distribution of actual and estimated coal severance tax revenue for FY 2014 through FY 2017.

Table 3
Coal Severance Tax Revenue Allocation by Fund
($ millions)

Entity	Percent Allocation	FY 2014 Actual	**FY 2015 Projected**	**FY 2016 Projected**	**FY 2017 Projected**
Coal Tax Trust Fund (50%)	50.00%	$28.838	**$29.606**	**$30.012**	**$29.586**
Long Range Building Program Account	12.00%	$6.921	**$7.106**	**$7.203**	**$7.101**
Local Impacts (Shared Account)	5.46%	$3.149	**$3.233**	**$3.277**	**$3.231**
Coal Board (5.8% to 9/2013)	2.90%	$2.129	**$1.717**	**$1.741**	**$1.716**
Parks Trust Fund	1.27%	$0.732	**$0.752**	**$0.762**	**$0.751**
Renewable Resource Loan Debt Service Fund	0.95%	$0.548	**$0.563**	**$0.570**	**$0.562**
Capitol Art Protection Trust Fund	0.63%	$0.363	**$0.373**	**$0.378**	**$0.373**
DEQ Mine Permitting and Restoration	$250k	$0.250	**$0.250**	**$0.250**	**$0.250**
General Fund	Remainder	$14.745	**$15.613**	**$15.831**	**$15.602**
Total Coal Severance Tax		$57.676	**$59.213**	**$60.025**	**$59.171**

[1]Total revenue does not match table 2 due to accrual adjustments

Data Sources

Historical quarterly coal statistics were obtained for the Department of Revenue coal severance tax returns. Monthly coal production data were received from the Department of Labor and Industry. Production survey data were received from Montana coal producers via the Legislative Fiscal Division.

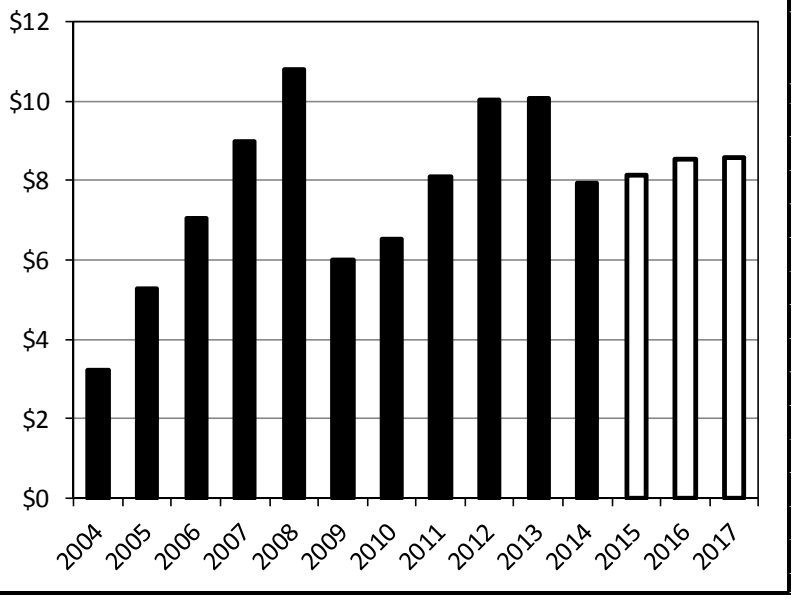
Revenue Description

Montana levies a tax on the gross value of metals mined in the state under 15-37-101, MCA. Gross value, as defined in 15-23-801, MCA, is the market value of the refined product, less the costs of transporting the unrefined product and refining it. The first $250,000 of gross value is not taxed; this effectively exempts small mines from this tax. The tax rate for production beyond $250,000 depends on the mineral and the amount of processing at the mine. Concentrate, which is non-smelted ore that may have undergone mechanical processing, has a tax rate of 1.81%. Metals that have been partially or completely separated from impurities by smelting, but may not have had the individual metals separated, have a tax rate of 1.6% (15-37-103, MCA).

Revenues from the metalliferous mines license tax are divided between the state and counties that have fiscal or economic impacts from large-scale mining. The state general fund currently receives 57% of the revenue. Table 1 shows general fund revenue for FY 2004 through FY 2014 and projected revenue for FY 2015 through FY 2017.

Table 1
Metalliferous Mines Tax
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	$3.232	-29.53%
A 2005	$5.264	62.89%
A 2006	$7.028	33.51%
A 2007	$8.991	27.93%
A 2008	$10.774	19.83%
A 2009	$5.993	-44.38%
A 2010	$6.541	9.15%
A 2011	$8.097	23.77%
A 2012	$10.010	23.64%
A 2013	$10.049	0.39%
A 2014	$7.948	-20.91%
F 2015	**$8.127**	**2.26%**
F 2016	**$8.546**	**5.15%**
F 2017	**$8.571**	**0.29%**



Prior to FY 2006 the general fund received 58% of the total tax collection, except for FY 2003 when the general fund received 65% of the tax revenue.

Revenue increased from FY 2004 through FY 2008 due to production growth and price increases. Price declines and mine closures during FY 2009 and FY 2010 significantly reduced revenues. Revenue recovered with prices through FY 2013. Price declines and a temporary mine closure led to a drop in revenue in FY 2014. Metals prices are expected to be relatively flat in the forecast period. Recently completed mine repairs should generate modest increases in output (and revenue) over the forecast period.

Risks and Significant Factors

- The price of metals and other natural resources have varied substantially in recent years. Price increases will generate greater revenues and price decreases will result in less revenue.
- Production by the major companies that pay the tax has varied over the years. New discoveries, new mining ventures, and management decisions at currently producing firms all influence production levels with corresponding

impacts on tax revenues.

- Significant financing deals could reopen old mines. New production attributable to such deals, are not contemplated in this estimate.
- A major mine was forced to stop production for a year-and-a-half due to infrastructure issues. The mine has retooled and has recently restarted milling operations. This estimate assumed that the mine will return to its previous full production level in calendar (CY) 2015.
- There are four main factors in determining the revenue from metal mines.
    - The relative proportion of the share of each type of metal in the gross value of production will have an impact on overall revenue. Currently, most Montana producers concentrate their production on gold, silver, platinum, palladium, rhodium, copper, and molybdenum.
    - The price of each of these metals is positively related to the total tax revenue.
    - The amount of each metal produced is also positively related to total tax revenue.
    - Allowable deductions reduce total tax revenue. Metal producers are allowed to deduct transportation, treatment, and refining costs from the gross value of production to yield taxable value of production. As deductions rise, tax revenue will go down, and vice versa.
- This estimate implicitly assumes that the production mix of metals will remain as it was in FY 2012 through FY 2014.

Forecast Methodology

There are three steps in estimating metal mines tax revenue:

Step 1. FY 2014 production and prices serve as the base for this revenue estimate. Total revenue is projected based on the change in the IHS Economics forecast of the producer price sub-index for metal products and analyst's projections of future metals prices.

Step 2. The transportation, refining, and treatment cost deductions are assumed to maintain their share of the total value of production during the forecast period. These are deducted from the gross value of the minerals.

Step 3. The estimated average tax rate that applied during FY 2014 is applied to the total net value of production to yield fiscal year tax liability.

Table 2 shows the gross value of all metal products in Montana, deductions taken by the metal producers, the average tax rate, and the total tax revenue generated for the metal mines license tax.

Table 2
Metal Mines Production Forecast
($ millions)

Fiscal Year	Gross Value	Deductions	Net Value	Average Tax Rate	Tax Revenue
A 2013	$1,056.7	$84.42	$972.3	1.81%	$17.63
A 2014	$968.6	$85.46	$883.2	1.58%	$13.94
F 2015	$990.5	$87.39	$903.2	**1.58%**	**$14.26**
F 2016	$1,041.6	$91.89	$949.7	**1.58%**	**$14.99**
F 2017	$1,044.7	$92.17	$952.5	**1.58%**	**$15.04**

Distribution

Table 3 shows the distribution of the metal mines tax to the various entities in accordance with 15-37-117, MCA.

Table 3
Total Collections and Allocation of Metal Mines Tax
($ millions)

Entity	Allocation Percentage	Actual FY 2014	**Projected FY 2015**	**Projected FY 2016**	**Projected FY 2017**
General Fund (57%)	57.0%	$7.948	$8.127	$8.546	$8.571
Hard-Rock Mining Impact Trust (2.5%)	2.5%	$0.349	$0.356	$0.375	$0.376
Impacted Counties (25.0%)	25.0%	$3.486	$3.565	$3.748	$3.759
Reclamation and Development Grants	0.0%	$0.000	$0.000	$0.000	$0.000
Natural Resource Operations (7.0%)	7.0%	$0.976	$0.998	$1.050	$1.053
Hard-Rock Mining Reclamation Debt Service (Trust)	8.5%	$1.185	$1.212	$1.274	$1.278
Total Collections	100.0%	**$13.943**	**$14.258**	**$14.993**	**$15.037**

Data Sources

Historical Montana production, value, and deduction data was obtained from Department of Revenue tax records. Price forecasts are based on IHS Economics October 2014 producer price sub-index for metals and analyst's public projections of metal prices.

Electrical Energy Producer's License Tax

2017 Biennium

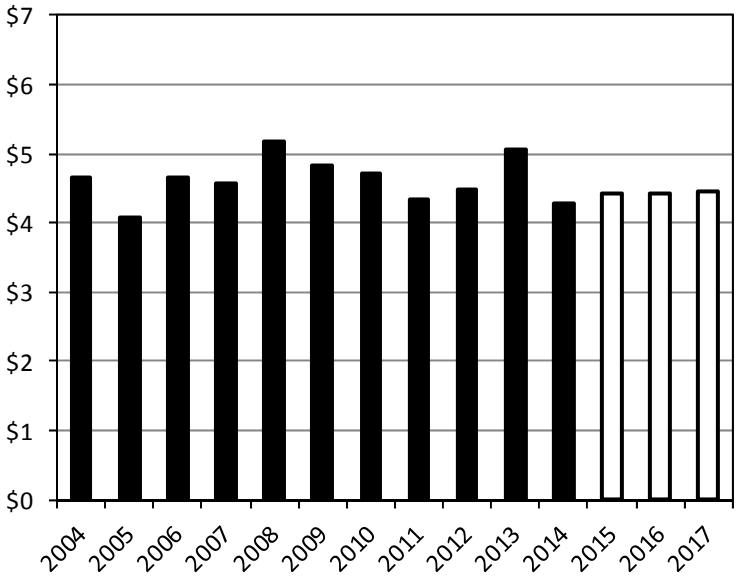
Revenue Description

In accordance with 15-51-101, MCA, Montana levies an electrical energy producer's license tax (EET) at a rate of $0.0002 per kilowatt-hour (kWh). The tax applies to all electricity generated, manufactured, or produced in Montana for barter, sale, or exchange. Electricity generated for plant use is excluded from the tax. All revenue from the electrical energy producer's license tax is allocated to the general fund.

Table 1 shows actual general fund revenue collections from the electrical energy producer's license tax for FY 2004 through FY 2014, and the forecast for FY 2015 through FY 2017.

Table 1
Electrical Energy Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$4.661	12.85%
A	2005	$4.074	-12.59%
A	2006	$4.645	14.00%
A	2007	$4.564	-1.72%
A	2008	$5.179	13.47%
A	2009	$4.825	-6.84%
A	2010	$4.713	-2.31%
A	2011	$4.332	-8.08%
A	2012	$4.481	3.44%
A	2013	$5.067	13.06%
A	2014	$4.280	-15.53%
F	**2015**	**$4.419**	**3.25%**
F	**2016**	**$4.428**	**0.21%**
F	**2017**	**$4.457**	**0.65%**



Risk and Significant Factors

- Northwestern Energy is in the process of attempting to purchase the hydroelectric assets owned by PPL Montana. If this purchase is approved, Northwestern Energy's decision(s) regarding how to manage these hydroelectric facilities may affect future electrical energy tax revenue.
- Unit 4 at the Colstrip Power Plant was shut down for 6-7 months in calendar year (CY) 2013. Colstrip Unit 4 has generation capacity of approximately 740 megawatts (MW). Taxable kWhs in FY 2014 were reduced while Unit 4 sat idle, contributing to the decrease in EET revenue for the year.
- The effective tax rate on electricity production in Montana is consistently less than the statutory $0.0002 per kWh.
- Environmental regulations pertaining to air quality may affect future operations of some coal-fired power plants. The Environmental Protection Agency's (EPA) Mercury and Air Toxics Standards will take effect starting in 2015. These air quality standards, along with greenhouse gas regulations, may be pertinent for some of Montana's older coal-fired power plants. Currently coal is the fuel source for 50-60% of total generation output from the electric power industry in Montana. Significant reduction in coal-fired generation capacity could reduce taxable kWhs in the state if the generation loss is not mitigated by the addition of other electric generation projects.
- Montana produces more electricity than it consumes, so new generation projects must either offset losses in existing generation or have contracts with out-of-state consumers.

Forecast Methodology

Electrical energy tax revenue is forecast in three steps:

Step 1. Total kWhs are forecast for electrical energy producers in Montana using producer-level data. Annual, individual firm production is forecast using a moving average technique and then summed by fiscal year to achieve the estimate for total kWhs produced in Montana. Historically, taxable kWhs have averaged approximately 96% of total kWhs. This ratio is assumed to remain the same over the forecast period and is used to estimate taxable kWhs from total kWhs.

Step 2. Estimate the effective tax rate to be applied to total taxable kWhs. To account for the fact that the effective tax rate is often less than the $0.0002 per kWh outlined in MCA, a moving average of previous years' effective tax rates is used to estimate effective tax rates for the forecast years. The tax rate for FY 2015, for example, is estimated by taking the average of the tax rates realized over the period FY 2005 – FY 2014. For FY 2016, the average moves ahead one year, so the estimated tax rate in FY 2016 is the average tax rate for the FY 2006 – FY 2015 time period.

Step 3. Once taxable kWhs and effective tax rates are determined for the forecast period, estimated general fund revenue for each of the three forecast years is obtained by multiplying taxable kWhs in a year by the respective effective tax rate.

Table 2 shows the actual electricity production and tax revenue for FY 2005 through FY 2014 and forecast values for FY 2015 through FY 2017.

Table 2
Electricity Production Tax Revenue
($ millions)

Fiscal Year	kWh (millions)		Tax Rate		Tax Revenue
A 2005	23,065.262	X	$0.00017665	=	$4.074
A 2006	23,156.213	X	$0.00020057	=	$4.645
A 2007	23,160.458	X	$0.00019708	=	$4.564
A 2008	24,081.011	X	$0.00021507	=	$5.179
A 2009	23,872.111	X	$0.00020210	=	$4.825
A 2010	23,968.455	X	$0.00019665	=	$4.713
A 2011	24,101.745	X	$0.00017975	=	$4.332
A 2012	22,493.417	X	$0.00019923	=	$4.481
A 2013	25,420.025	X	$0.00019932	=	$5.067
A 2014	21,964.432	X	$0.00019485	=	$4.280
F 2015	**22,531.545**	**X**	**$0.00019613**	**=**	**$4.419**
F 2016	**22,355.911**	**X**	**$0.00019808**	**=**	**$4.428**
F 2017	**22,529.302**	**X**	**$0.00019783**	**=**	**$4.457**

Distribution

Pursuant to 15-51-103 and 17-2-124, MCA, the general fund receives 100% of the EET tax.

Data Sources

Historical electricity data were provided by the Department of Revenue. Forecast values for the Montana industrial production index for utilities were obtained from IHS Economics.

Wholesale Energy Transaction Tax

2017 Biennium

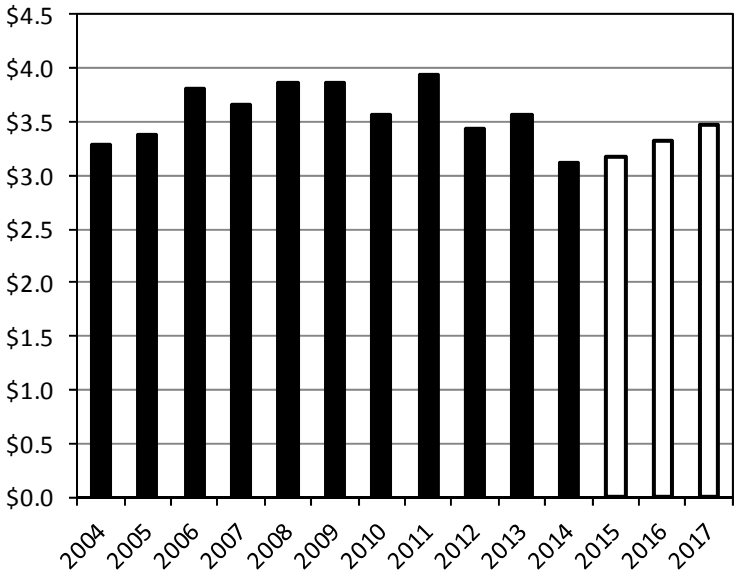
Revenue Description

In accordance with 15-72-104, MCA, Montana levies a wholesale energy transaction (WET) tax at a rate of $0.00015 per kilowatt-hour (kWh) on the movement of electricity by a transmission service provider in the state. This tax became effective January 1, 2000.

Table 1 shows actual general fund collections from the WET tax for FY 2004 through FY 2014 and the projected revenue for FY 2015 through FY 2017.

Table 1
Wholesale Energy Transaction Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$3.293	-
A	2005	$3.370	2.35%
A	2006	$3.813	13.16%
A	2007	$3.651	-4.26%
A	2008	$3.856	5.62%
A	2009	$3.865	0.22%
A	2010	$3.556	-7.99%
A	2011	$3.946	10.95%
A	2012	$3.427	-13.13%
A	2013	$3.558	3.82%
A	2014	$3.112	-12.53%
F	**2015**	**$3.172**	**1.92%**
F	**2016**	**$3.315**	**4.49%**
F	**2017**	**$3.478**	**4.94%**



Risks and Significant Factors

- There has been an increased investment in electricity transmission infrastructure in Montana. The Montana Alberta Tie Line (MATL), which links Montana to Canadian electricity markets, was completed in September, 2013.
- Montana generates more electricity than it consumes, creating interest for the continued development of additional transmission projects to take advantage of the state's surplus generation capacity. New transmission projects would export Montana-generated electricity out of state to meet growing demand in other western electricity markets.
- The approval and construction of new transmission lines is an arduous process. Consequently, estimated WET revenue over the forecast period is not expected to be affected by any significant additions to Montana's electricity transmission grid.
- Electricity transmission from the Colstrip Power Plant was reduced in FY 2014 due to inactivity of Unit 4 for part of the year. The shutdown of Unit 4 reduced electricity transmission from Colstrip, likely contributing to the dip in taxable kWhs and WET revenue in FY 2014.
- The effective tax rate for electricity transmission is often different than the statutory $0.00015 per kWh. In some years the tax rate is higher and in some years the rate is lower than the statutory rate.

Forecast Methodology

Wholesale energy transaction tax revenue is forecast in three steps:

Step 1. Use forecasted values of the industrial production index for utilities in Montana to calculate the annual growth rate in the index for the years in the forecast period. To estimate future taxable kWh, grow taxable kWh at the same rate as the industrial production index for the forecast years.

Step 2. Estimate the effective tax rate to be applied to taxable kWh. Similar to the effective electrical energy tax rate, the effective tax rate for wholesale electricity transactions often differs from the statutory rate. A moving average is used to estimate the effective tax rate for wholesale electricity transmission.

Step 3. Multiply the estimated effective tax rate for wholesale electricity transmission by the estimated amount of taxable electricity transmitted in the state to yield total tax revenue.

Table 2 shows actual taxable electricity production and realized tax revenue for FY 2004 through FY 2014 and forecasts for FY 2015 through FY 2017.

Table 2
Taxable kWh for Wholesale Energy Tax
($ millions)

Fiscal Year	Taxable KWH (million)		Tax Rate		Tax Revenue[1]
A 2004	23,235.939	x	0.00014	=	$3.293
A 2005	23,576.673	x	0.00014	=	$3.370
A 2006	24,112.351	x	0.00016	=	$3.813
A 2007	24,609.110	x	0.00015	=	$3.651
A 2008	24,704.406	x	0.00016	=	$3.856
A 2009	24,704.406	x	0.00016	=	$3.865
A 2010	24,772.237	x	0.00014	=	$3.556
A 2011	24,481.526	x	0.00016	=	$3.946
A 2012	22,519.496	x	0.00015	=	$3.427
A 2013	24,838.693	x	0.00014	=	$3.558
A 2014	19,937.699	x	0.00016	=	$3.112
F 2015	**21,020.360**	**x**	**0.00015**	**=**	**$3.172**
F 2016	**21,843.085**	**x**	**0.00015**	**=**	**$3.315**
F 2017	**22,802.984**	**x**	**0.00015**	**=**	**$3.478**

[1] Historical revenues do not match Table 1 due to accrual adjustments and amended returns.

Distribution

Pursuant to 15-72-106, MCA, the general fund receives 100% of the WET tax.

Data Sources

Historical electricity transmission data were provided by the Department of Revenue. Forecast data for the industrial production index for utilities in Montana were obtained from IHS Economics.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

INTEREST REVENUE
SECTION 5

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Interest Rates Introduction

2017 Biennium

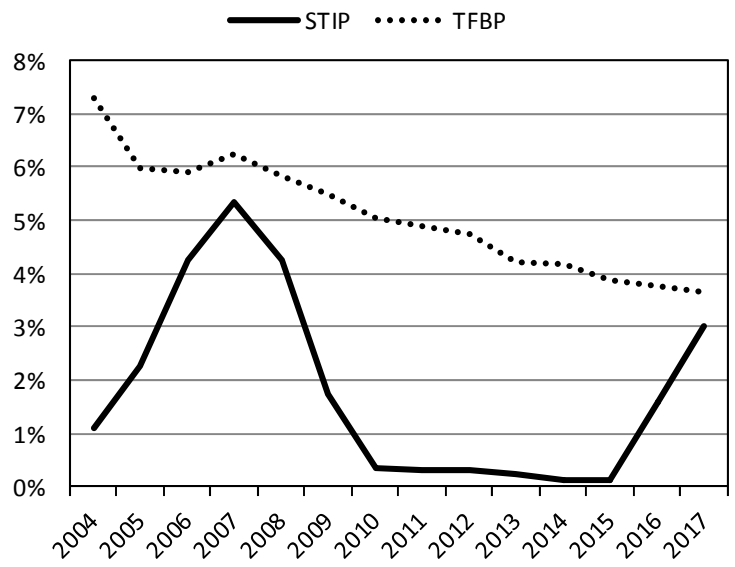
Revenue Description

The Board of Investments (BOI) manages trust fund balances and invests agency cash balances for the state. The board invests most of the agency cash and a small portion of fund balances in the short-term investment pool (STIP). The STIP is managed like a money market account so that daily withdrawals and deposits are allowed and the pool continues to earn interest. The board also manages trust fund balances in the Trust Fund Bond Pool (TFBP). The TFBP's portfolio is mainly comprised of long-term bonds and is managed in a way so as to provide consistent interest earnings. The estimates for the rates of return are used to forecast revenue earnings for the treasury cash account, the common school trust, the various coal trusts, and several other funds.

Table 1 shows actual annual percentage interest rates for both STIP and TFBP in FY 2004 through FY 2014 and projections for FY 2015 through FY 2017.

Table 1
Short Term Investment Pool and Trust Fund Bond Pool
Annual Rates of Return

Fiscal Year	STIP	TFBP
A 2004	1.10%	7.28%
A 2005	2.28%	5.97%
A 2006	4.25%	5.89%
A 2007	5.34%	6.25%
A 2008	4.24%	5.81%
A 2009	1.73%	5.49%
A 2010	0.34%	5.04%
A 2011	0.31%	4.91%
A 2012	0.30%	4.75%
A 2013	0.25%	4.20%
A 2014	0.14%	4.17%
F 2015	**0.14%**	**3.89%**
F 2016	**1.57%**	**3.76%**
F 2017	**3.00%**	**3.65%**



The economic recession that began in FY 2008 and lasted through FY 2009 led the Federal Open Market Committee (FOMC) to cut their target federal funds rate in order to help stimulate the economy. The federal funds rate is the rate at which banks lend to each other overnight to meet daily reserve requirements and is a benchmark for many other types of short-term interest rates. The FOMC has kept the target federal funds rate between 0.00% and 0.25% through FY 2014. It is becoming increasingly likely that the FOMC will increase its target rate sometime in calendar year (CY) 2015. Action by the FOMC is not expected to affect STIP rates in FY 2015, but FY 2016 and FY 2017 rates will be affected.

According to the BOI, the TFBP is managed to maximize income generation rather than total rate of return. The TFBP rate of return has followed a decreasing trend since FY 2004. This is primarily due to the replacement of older bonds with newer bonds that have relatively lower rates of return. The TFBP rate of return continues its downward trend over the forecast period. Corporate bond yields started to drop during the recession, and continued to do so after the recession was over. Bonds with these relatively lower yields that have not yet matured are keeping downward pressure on the total rate of return for the TFBP. Corporate bond yields started to rise in CY 2012, but the rate of return for the TFBP has not followed suit. Improvements in the TFBP rate of return are lagged because there is a waiting period for low-yield bonds acquired during the recessionary period to mature. As soon as these bonds begin to mature, and insofar as they are replaced with higher-yield bonds, there should be an increase in the TFBP total rate of return.

Risks and Significant Factors

- Improving economic conditions are raising the likelihood of a FOMC decision to increase the target federal funds rate sometime in CY 2015; however, the federal funds rate is likely to remain subdued near zero throughout FY 2015.
- The majority of FOMC participants predict the first increase in the federal funds rate will come in CY 2015. Currently, there is no consensus on what the target rate will be when the FOMC decides to take action. According to a survey of FOMC participants, potential levels for the federal funds rate after an increase are estimated to fall in the range of 0.5% to 2.0%.
- It is unclear if a federal funds rate increase in CY 2015 will affect STIP rates of return in FY 2015. The response in FY 2015 STIP rates depends on the timing of the FOMC's decision to raise the federal funds rate. The assumption is that the FOMC won't take action until the second half of CY 2015. As a result, FY 2015 STIP rates of return are likely to remain low, with any significant increases not being realized until FY 2016. Even if there is an increase in the federal funds rate in early CY 2015, it is unlikely that the change will have a significant effect on STIP interest earnings in FY 2015 because STIP rates respond to federal funds rate changes with an approximate 45-day lag.

Forecast Methodology

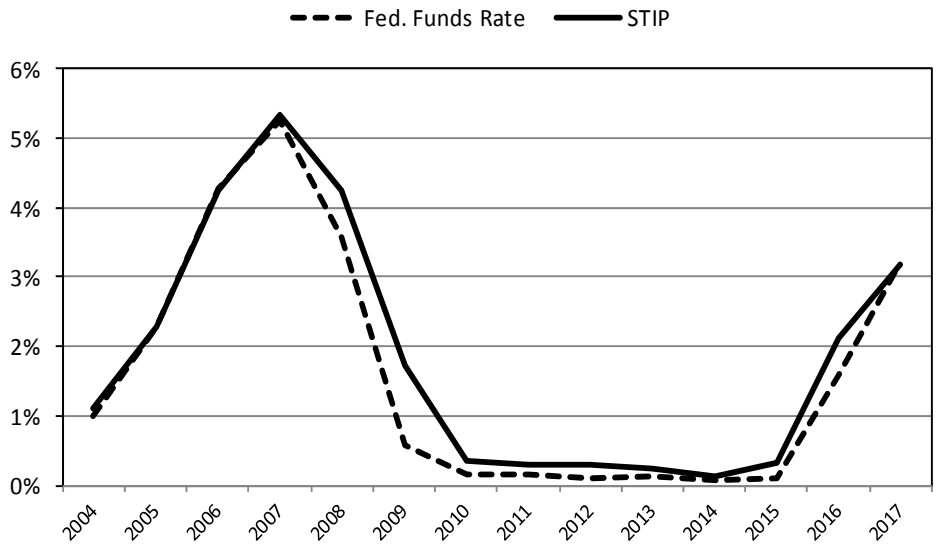
Short Term Investment Pool

The STIP rate forecast is produced using an autoregressive integrated moving average (ARIMA) model. The model contains an autoregressive component to account for the likelihood that future values of the STIP rate will be influenced by past rates. A first-difference component is also included in the model. The first-differencing technique transforms the input data so that its statistical properties (mean, variance, etc.) are relatively constant over time. Data with consistent statistical properties are easier to forecast than data that exhibit properties such as non-constant mean or variance. To add further explanatory power to the model, the federal funds rate is included as an explanatory variable. Including the federal funds rate variable allows the model to capture information about the health of the economy and the status of national short-term interest rates. Historically, the STIP rate of return has tracked the federal funds rate quite closely.

Table 2 shows the actual annual average STIP rate and federal funds rate for FY 2004 through FY 2014 and forecast values for FY 2015 though FY 2017.

Table 2
STIP and Federal Funds Rates of Return
FY 2004 Through FY 2017

Fiscal Year	Fed. Funds Rate	STIP
A 2004	1.01%	1.10%
A 2005	2.28%	2.28%
A 2006	4.29%	4.25%
A 2007	5.25%	5.34%
A 2008	3.57%	4.24%
A 2009	0.58%	1.73%
A 2010	0.15%	0.34%
A 2011	0.16%	0.31%
A 2012	0.10%	0.30%
A 2013	0.14%	0.25%
A 2014	0.08%	0.14%
F 2015	**0.11%**	**0.33%**
F 2016	**1.59%**	**2.13%**
F 2017	**3.20%**	**3.18%**



Trust Fund Bond Pool

There are three scenarios used to calculate the TFBP forecast, a pessimistic scenario, an optimistic scenario, and a moderate scenario. The forecast presented in Tables 1 and 3 represents the rates of return under the moderate scenario. The moderate scenario is the average of the pessimistic and optimistic scenarios, both of which are explained in further detail below.

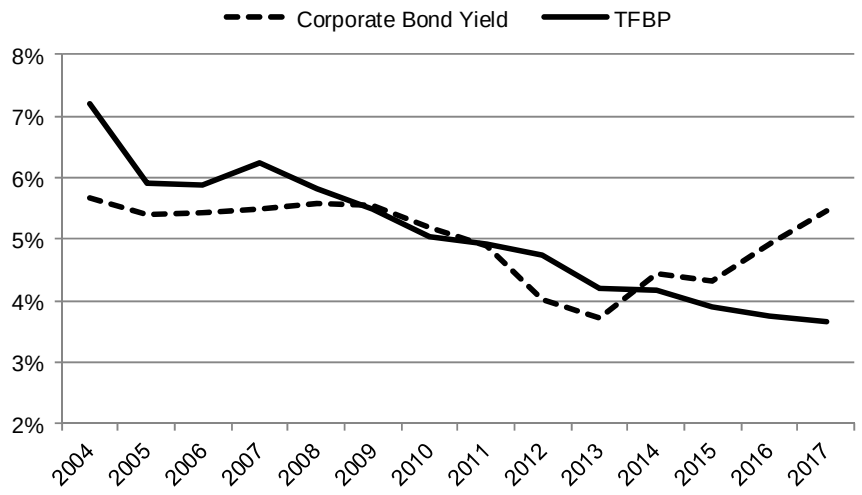
The pessimistic scenario is developed using individual bond data from the BOI. Book value and income information are gathered and summarized for the collection of bonds held in the TFBP. Non-maturing bonds and new bonds make up the stock of bonds for which total book value and income are calculated for each year in the forecast period. Total rate of return is calculated by dividing by the income from new and non-maturing bonds by the book value of those bonds.

Rates of return for the TFBP in the optimistic scenario are forecast using a simple linear regression model. Quarterly TFBP annual percentage rates are regressed against corporate bond yields. The TFBP consists of a large number of corporate bonds, and so it is assumed that TFBP rates of return will be influenced by the rates of return on corporate bonds. The yield on corporate bonds is a statistically significant explanatory variable of TFBP annual percentage rates. To predict future TFBP rates of return, the parameter estimate on the corporate bond yield variable is multiplied by forecast values of corporate bond yields.

Table 3 shows actual annual corporate bond yields and the TFBP annual percentage rates of return for FY 2004 through FY 2014, and forecast values for FY 2015 through FY 2017.

Table 3
Corporate Bond Yields and TFBP Rates of Return
FY 2004 through FY 2017

	Fiscal Year	Corporate Bond Yield	TFBP
A	2004	5.68%	7.20%
A	2005	5.40%	5.90%
A	2006	5.44%	5.89%
A	2007	5.50%	6.25%
A	2008	5.58%	5.81%
A	2009	5.56%	5.49%
A	2010	5.20%	5.04%
A	2011	4.90%	4.91%
A	2012	4.02%	4.75%
A	2013	3.71%	4.20%
A	2014	4.44%	4.17%
F	**2015**	**4.32%**	**3.89%**
F	**2016**	**4.93%**	**3.76%**
F	**2017**	**5.45%**	**3.65%**



Data Sources

The State Street Bank and BOI provide monthly reports on STIP and TFBP investment earnings and balances. TFBP specific data were obtained from the BOI's website. Historic Federal Funds Rate can be found on the Federal Reserve's website. Forecast corporate bond yields and federal funds rates of return are from IHS Economics.

Coal Trust Interest Earnings

2017 Biennium

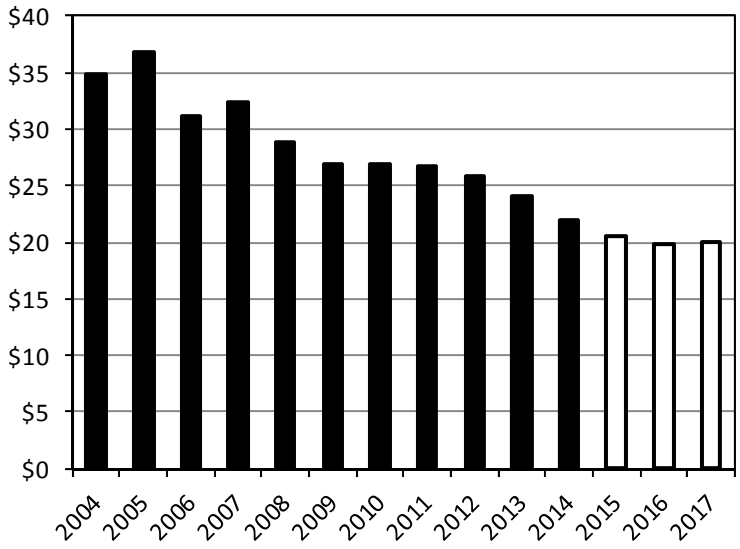
Revenue Description

Article IX, Section 5, of the Montana Constitution established the coal severance tax permanent trust fund. Under current law, half of the severance tax revenue is deposited into the trust fund and is then subdivided into several other funds. The trust funds are described in more detail in the *Introduction to Coal Trusts Interest* section. Interest earnings from the coal severance tax permanent fund and the coal severance tax bond fund are allocated to the general fund.

Table 1 shows actual interest earnings allocated from the coal severance tax permanent fund and the coal severance tax bond fund to the general fund from FY 2004 through FY 2014 and the revenue forecast for FY 2015 through FY 2017.

Table 1
Coal Trust Interest Earnings
($ millions)

	Year	Fund	Change
A	2004	$34.907	-3.83%
A	2005	$36.752	5.28%
A	2006	$31.106	-15.36%
A	2007	$32.335	3.95%
A	2008	$28.855	-10.76%
A	2009	$26.958	-6.57%
A	2010	$26.914	-0.16%
A	2011	$26.783	-0.49%
A	2012	$25.840	-3.52%
A	2013	$24.153	-6.53%
A	2014	$21.996	-8.93%
F	**2015**	**$20.549**	**-6.58%**
F	**2016**	**$19.866**	**-3.33%**
F	**2017**	**$20.045**	**0.91%**



Since FY 2007, coal trust interest earnings deposited to the general fund have decreased every year. The rate of decline was less than one percent from FY 2009 to FY 2011, but picked up in FY 2012 and has increased every year since. The rise in the rate of negative revenue growth since FY 2012 reflects the impact of the economic recession. Bond yields dropped during the economic recession and have remained low in the post-recessionary period. As a result, the rate of return of the trust fund bond pool (TFBP) – the primary investment pool the coal trust fund participates in – has been falling as higher-yield bonds mature and are replaced with lower-yield bonds. Even as the economy improves and bond yields rise, increases in coal trust revenues will lag behind until the lower-yield bonds mature and higher-yield bonds take their place. This means current economic conditions are not necessarily indicative of where coal trust revenues will be in the short term. As such, coal trust revenues are expected to continue to decline through FY 2015 and FY 2016 as low-yield bonds keep downward pressure on trust fund bond pool rates of return. Coal trust interest earning growth is predicted to turn positive in FY 2017 as a result of a change in the distribution of coal severance tax revenue to the coal trust funds. Two funds, the treasure state endowment (TSE) fund and the treasure state regional water system TSRWS fund, stop receiving coal severance tax revenue beginning in FY 2017. It is expected that the revenue previously allocated to the TSE and TSRWS funds will be deposited into the coal severance tax permanent fund. The new inflow of money into the permanent fund is expected to increase the investment balance (primarily in the TFBP) in the fund. Interest earnings are a function of a fund's investment balance and the rate of return on those investments. Even though the overall rate of return on investment in the permanent fund is expected to decline in FY 2017, the increased investment balance will be enough to boost interest earnings from the fund and result in positive general fund revenue growth for the first time since FY 2007.

Risks and Significant Factors

- There is growing consensus that the Federal Open Market Committee (FOMC) will raise the target Federal Funds Rate sometime in CY 2015. This will affect short-term investment pool (STIP) earnings for the coal trust. Income from STIP is a small portion of coal trust revenue, so increases in the STIP rate of return will have little impact on total coal trust revenue.

- Most coal trust interest income (~70%) is not subject to short-term risk because the majority of the trust fund balance is invested in fixed income investments. Behavior of long-term bond yields is a more telling indicator of future coal trust revenue than short-term rates of return.

Forecast Methodology

Coal trust interest income is comprised of three components: TFBP income, STIP income, and commercial loan income. There are three steps taken to determine total coal trust interest income:

Interest earnings for the coal tax trust are forecast in three main steps:

Step 1. Balances and rates of return are forecast for each of the above three income sources.

Step 2. Forecast rates of return for each source are applied to their respective balances to determine annual income. TFBP income, STIP income, and commercial loan income are summed for each year in the forecast period to determine total coal trust interest income.

Step 3. Other income and administrative expenses are then estimated and added to total interest income to determine total coal trust revenue.

Table 2 shows the actual average balance, rate of return, and income for each investment category, as well as the fund totals for FY 2012 through FY 2014, and forecast values for FY 2015 through FY 2017.

Table 2
Coal Trust Interest Income
($ millions)

Loan Income				TFBP Income			
Fiscal Year	Balance	Interest Rate	Income	Fiscal Year	Balance	Interest Rate	Income
A 2012	$162.712	5.26%	$8.554	A 2012	$355.140	4.96%	$17.622
A 2013	$140.371	5.07%	$7.115	A 2013	$371.031	4.49%	$16.667
A 2014	$118.521	4.87%	$5.766	A 2014	$383.987	4.22%	$16.221
F 2015	**$115.368**	**4.67%**	**$5.388**	**F 2015**	**$378.199**	**4.01%**	**$15.164**
F 2016	**$119.764**	**4.48%**	**$5.368**	**F 2016**	**$385.679**	**3.74%**	**$14.410**
F 2017	**$129.629**	**4.30%**	**$5.577**	**F 2017**	**$403.469**	**3.49%**	**$14.096**
Stip Income				**Trust Fund Total**			
Fiscal Year	Balance	Interest Rate	Income	Fiscal Year	Balance	Interest Rate	Income
A 2012	$11.006	0.28%	$0.031	A 2012	$528.857	4.96%	$26.207
A 2013	$9.024	0.44%	$0.040	A 2013	$520.426	4.58%	$23.822
A 2014	$5.886	0.15%	$0.009	A 2014	$508.394	4.33%	$21.996
F 2015	**$7.955**	**0.14%**	**$0.011**	**F 2015**	**$501.521**	**4.10%**	**$20.563**
F 2016	**$10.000**	**1.01%**	**$0.100**	**F 2016**	**$515.442**	**3.86%**	**$19.879**
F 2017	**$10.000**	**3.00%**	**$0.296**	**F 2017**	**$543.098**	**3.68%**	**$19.970**

The Montana Constitution states that one half of revenue from the coal severance tax is to be deposited into a trust fund. Receipts into the trust fund are first obligated to fulfill all principle and interest payments on bonds issued from the coal severance tax bond fund. The amount needed to meet this requirement is determined by the state treasurer and is retained in the coal severance tax bond fund. Any amount of coal severance tax revenue in the trust fund in excess of the amount needed to make bond payments is distributed to three coal trust sub-funds, the TSE fund, the TSRWS fund, and the big sky economic development (BSED) fund. Through FY 2016, the TSE fund receives 50% of the distribution, while the TSRWS and BSED funds each receive 25% of the distribution, as established in Article IX, Section 5, of the Montana Constitution. In accordance with 17-5-703, MCA, the TSE fund and the TSRWS fund stop receiving distributions from coal severance tax revenue starting in FY 2017. This will not change the percentage distribution to the BSED fund, but is expected to result in more money being allocated to the coal severance tax permanent fund.

Table 3 shows actual administrative expenses, other income, and interest income for FY 2010 through FY 2014 and forecast income for FY 2015 through FY 2017. The last column also shows the total revenue for the coal severance tax permanent trust fund.

Table 3
Coal Trust Total General Fund Revenue
($ millions)

Fiscal Year	Interest Income		Capital Gain		Other Income		Admin. Expense		Total Revenue
A 2010	$26.934	+	$0.000	+	$0.399	+	($0.419)	=	$26.914
A 2011	$26.802	+	$0.000	+	$0.381	+	($0.400)	=	$26.783
A 2012	$26.207	+	$0.000	+	$0.114	+	($0.482)	=	$25.840
A 2013	$23.822	+	$0.000	+	$0.731	+	($0.400)	=	$24.153
A 2014	$21.996	+	$0.000	+	$0.430	+	($0.431)	=	$21.996
F 2015	**$20.563**	+	**$0.000**	+	**$0.414**	+	**($0.428)**	=	**$20.549**
F 2016	**$19.879**	+	**$0.000**	+	**$0.422**	+	**($0.435)**	=	**$19.866**
F 2017	**$19.970**	+	**$0.000**	+	**$0.499**	+	**($0.424)**	=	**$20.045**

Occasionally, permanent fund TFBP shares are sold. An example of this is the shares sold to finance the Big Sky economic development fund transfer in FY 2005. About 186,000 shares were sold for a capital gain of $0.86 million. The capital gain occurred because the TFBP share price at the time of sale was more than the average price paid for TFBP shares in the permanent fund. No capital gains are forecast for FY 2015 through FY 2017.

Other income is derived primarily from the following two sources: 1) interest earned on a bond fund that provides debt security for coal severance tax bonds; and 2) interest earned on the short-term investment of the coal tax income fund, which comes from the deposit of interest earnings from both the permanent fund and the bond fund into the coal tax income fund. Although this income fund balance is swept monthly into the general fund, it is invested in STIP during the interim. The income from this investment is returned to the income fund before being deposited into the general fund. These two combined sources of revenue are forecast using a moving average of the four fiscal years immediately preceding the fiscal year being forecast.

Similarly, administrative expenses are forecast for FY 2015 through FY 2017 using the same four-year moving average technique.

Data Sources

The State Street Bank and BOI provide monthly reports on the trust fund balances and income. Fiscal year end revenues and administrative expenses were obtained from SABHRS.

Treasury Cash Account Interest

2017 Biennium

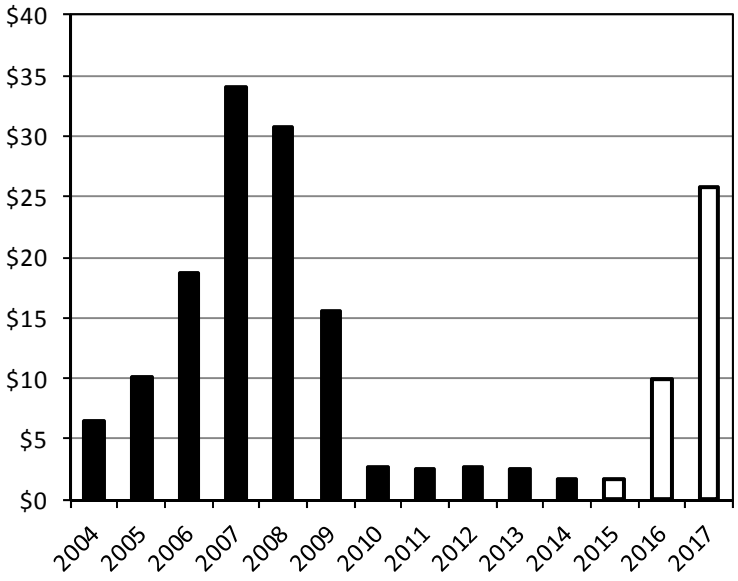
Revenue Description

The treasury cash account (TCA) contains general fund cash balances and cash balances from several other funds invested by the Montana Board of Investments (BOI). The interest earnings from the TCA are deposited into the general fund. In some years, the state borrows money to maintain a positive balance in the general fund by issuing tax or revenue anticipation notes (TRANS). TRANS are short-term bonds that are repaid in the same fiscal year that they are issued. Issuing TRANS increases the average balance in the TCA and, therefore, increases the interest earned on the account; however, the state pays interest on the TRANS. Fiscal year 2004 is the last time the state issued TRANS. An issuance of TRANS is not anticipated for the forecast period.

Table 1 shows actual revenue generated from TCA interest for FY 2004 though FY 2014 and projected revenues for FY 2015 through FY 2017.

Table 1
Treasury Cash Account Interest
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$6.393	0.42%
A	2005	$10.068	57.49%
A	2006	$18.631	85.05%
A	2007	$33.951	82.23%
A	2008	$30.783	-9.33%
A	2009	$15.507	-49.62%
A	2010	$2.692	-82.64%
A	2011	$2.519	-6.44%
A	2012	$2.653	5.31%
A	2013	$2.465	-7.09%
A	2014	$1.756	-28.74%
F	**2015**	**$1.698**	**-3.29%**
F	**2016**	**$9.878**	**481.64%**
F	**2017**	**$25.791**	**161.08%**



TCA revenue fell from highs over $30 million in FY 2007 and FY 2008 down to less than $2 million in FY 2014. The extended period of a near-zero federal funds rate has resulted in historically low rates of return for the short term investment pool (STIP). The TCA is invested heavily in STIP and so the STIP rate of return has a large influence on TCA revenues. Along with STIP, money in the TCA is also held overnight in a bank sweep account (referred to here as cash) and in medium-term bonds. Similar to the STIP rate of return, the rates of return on cash and medium-term bonds have also dropped significantly in the wake of the recession. Until these rates begin to rise, interest income on the TCA balance will stay low. According to the Federal Reserve's Summary of Economic Projections, short-term interest rates are not expected to begin increasing until mid-calendar year (CY) 2015. STIP interest rates track the federal funds rate closely, so as soon as the Federal Reserve (Fed) raises its target short-term interest rate, the rate of return on the TCA's STIP investments will increase in response. There is an approximate 45-day lag between a change in the market interest rate and a change in the STIP interest rate.

Risks and Significant Factors

- Since the STIP rate of return is tied closely to the federal funds rate, Fed monetary policy decisions have a large effect on TCA revenue, and Fed decisions regarding the pace of increases in the federal funds rate over the next few years will influence the interest earnings from the cash and STIP balances in the TCA.
- Medium and long-term interest rates might begin to rise in response to the end of the Fed's quantitative easing monetary policy.
- Interest income from medium-term bonds will take longer to recover from the downturn than interest income from STIP and cash because bonds last longer in the investment portfolio than the short-term holdings.

Forecast Methodology

There are two steps used to calculate TCA earnings:

Step 1. Determine the average quarterly TCA balance by summing the balances of the individual investment categories (cash, STIP, and bonds). The balance for each investment category is forecast individually using data from the BOI. The STIP balance is expected to drop in FY 2015 and remain near the same level in FY 2016, before dropping again in FY 2017. The bond balance and cash balance are expected to remain essentially the same throughout the forecast period.

Although there are many funds contributing to the TCA balance, the general fund makes up the largest portion of the account. The average annual general fund cash balance is projected to decrease in FY 2015 compared to FY 2014, but gradually rise throughout the FY 2017 biennium.

Graph 1 shows the monthly balance for TCA and the monthly general fund cash balance from the beginning of FY 2010 to the end of FY 2014.

Graph 1
Average TCA and General Fund Cash Balance
($ millions)

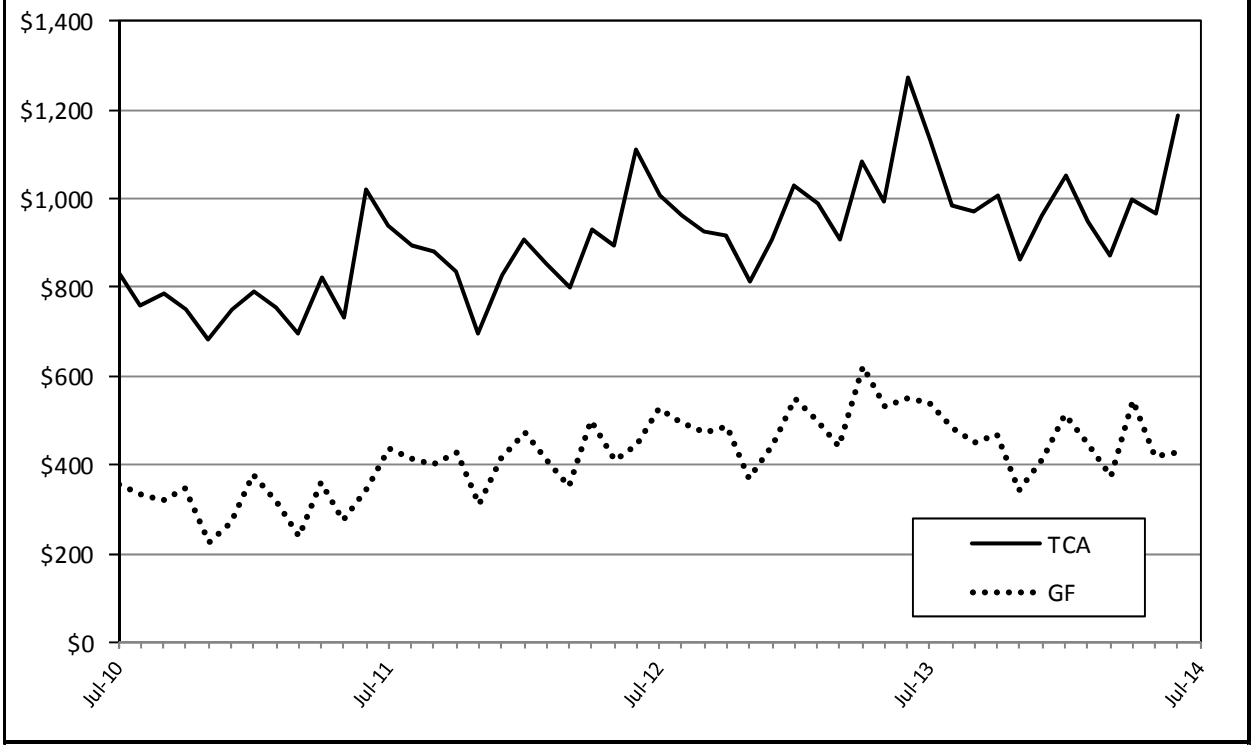


Table 2 shows the annual average historical TCA and general fund cash balance for FY 2010 through FY 2014, as well as the forecast balances for FY 2015 through FY 2017. Additionally, the percentage of the TCA that consists of general fund cash is shown. Historically, general fund cash makes up approximately 50% of the TCA balance. In FY 2010 and FY 2011, the general fund portion was reduced to 40% due to relatively low general fund cash balances stemming from the economic recession.

Table 2
General Fund and TCA Balances
($ millions)

Fiscal Year	General Fund	TCA	GF Percent
A 2010	$293.291	$725.340	40.43%
A 2011	$314.332	$781.875	40.20%
A 2012	$415.989	$880.985	47.22%
A 2013	$499.250	$984.183	50.73%
A 2014	$452.092	$995.578	45.41%
F 2015	**$415.875**	**$942.982**	**44.10%**
F 2016	**$471.536**	**$943.224**	**49.99%**
F 2017	**$487.592**	**$902.313**	**54.04%**

Step 2. Determine the appropriate rate of return for each of the three investment components of the TCA and calculate expected interest income. TCA balances are invested in overnight bank sweep accounts, STIP, and medium-term bonds. Table 3 shows the average annual balance, rate of return, and income for these investments from FY 2012 to FY 2014, and forecast values for FY 2015 through FY 2017.

Table 3
TCA Rates of Return by Investment Type
($ millions)

	Cash				STIP		
Fiscal Year	Balance	Interest Rate	Income	Fiscal Year	Balance	Interest Rate	Income
A 2012	$14.25	0.03%	$0.00	A 2012	$828.31	0.29%	$2.41
A 2013	$15.33	0.03%	$0.00	A 2013	$942.41	0.24%	$2.30
A 2014	$16.13	0.04%	$0.01	A 2014	$934.73	0.14%	$1.32
F 2015	**$13.12**	**0.05%**	**$0.01**	**F 2015**	**$821.61**	**0.12%**	**$0.96**
F 2016	**$13.84**	**1.11%**	**$0.15**	**F 2016**	**$819.38**	**1.02%**	**$8.39**
F 2017	**$13.94**	**3.14%**	**$0.44**	**F 2017**	**$778.37**	**2.97%**	**$23.16**
	Medium Term Bonds				**Total**		
Fiscal Year	Balance	Interest Rate	Income	Fiscal Year	Balance	Interest Rate	Income
A 2012	$38.43	2.04%	$0.78	A 2012	$880.99	0.30%	$2.63
A 2013	$26.44	2.51%	$0.66	A 2013	$984.18	0.25%	$2.45
A 2014	$44.72	0.51%	$0.23	A 2014	$995.58	0.17%	$1.74
F 2015	**$108.25**	**0.70%**	**$0.75**	**F 2015**	**$942.98**	**0.18%**	**$1.72**
F 2016	**$110.00**	**1.24%**	**$1.36**	**F 2016**	**$943.22**	**1.05%**	**$9.90**
F 2017	**$110.00**	**2.02%**	**$2.22**	**F 2017**	**$902.31**	**2.86%**	**$25.81**

The majority of the TCA fund balance is invested in STIP. The STIP rate of return can vary for different investments, and differs from that found in the *Interest Rates Introduction* section. For the TCA, STIP rates have been historically low since the recession, averaging 0.23% over the last three years. In FY 2014, the STIP rate of return for the TCA balance was just 0.14%. The STIP rate of return is expected to dip slightly below the FY 2014 level in FY 2015, then begin rising in FY 2016 and FY 2017 in response to tightening monetary policy. The interest rate on cash invested in overnight repurchase agreements is generally the effective federal funds rate, which is expected to remain near zero throughout FY 2015.

Both the quarterly medium-term bond balance and bond interest rates for the forecast period are calculated using information from the BOI. Medium-term bonds are classified as bonds with a maximum maturity period of three years. The BOI holds these bonds, which are comprised of federal treasury and agency securities, until maturity. Most of the bonds currently held in the TCA were purchased in the last year-and-a-half and will not start maturing until FY 2016. As such, FY 2015 bond balances and interest rates are expected to remain relatively constant.

Step 3. Calculate general fund TCA revenue and deduct administrative expenses. Table 4 shows the administrative expenses from FY 2010 to FY 2014 and estimated values for FY 2015 through FY 2017.

Table 4
Net TCA Income
($ millions)

Fiscal Year	Gross Income		Expenses		Net Income
A 2010	$2.65	+	($0.04)	=	$2.69
A 2011	$2.49	+	($0.03)	=	$2.52
A 2012	$2.63	+	($0.02)	=	$2.65
A 2013	$2.45	+	($0.01)	=	$2.46
A 2014	$1.74	+	($0.02)	=	$1.76
F 2015	**$1.72**	+	**($0.02)**	=	**$1.70**
F 2016	**$9.90**	+	**($0.02)**	=	**$9.88**
F 2017	**$25.81**	+	**($0.02)**	=	**$25.79**

Future expenses are assumed to be the same as the past year's expenses.

Data Sources

Fiscal year end revenues are from SABHRS. The State Street Bank and BOI provide monthly reports on TCA investment earnings and balances. General fund balances were provided by the Department of Administration.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

ALCOHOL REVENUE
SECTION 6

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Liquor Excise and License Tax

2017 Biennium

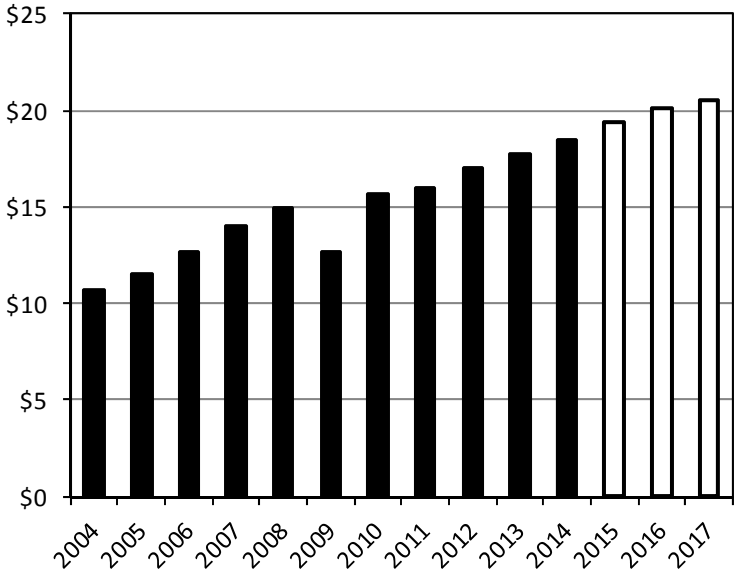
Revenue Description

According to 16-1-401 and 16-1-404, MCA, the Department of Revenue is directed to collect an ***excise*** tax of 16% and a ***license*** tax of 10% of the retail selling price on all liquor sold and delivered in the state and manufactured by distillers producing 200,000 or more proof gallons of alcohol annually. Both the excise and license tax rates are smaller for distillers that produce less than 200,000 proof gallons of alcohol. Currently, the majority of the distilled spirits sold in the state of Montana are acquired from vendors that produce more than 200,000 proof gallons annually.

Section 16-1-404, MCA, states that 65.5% of the liquor ***license*** tax is deposited to the Department of Public Health and Human Services (DPHHS) to fund treatment, rehabilitation, and prevention of alcoholism and chemical dependency. Three Indian tribes have an agreement with the state and a portion of the remaining revenue from both the excise and license tax is shared with tribes that have a revenue sharing agreement with the state. The remaining revenue is deposited to the general fund.

Table 1
Liquor Excise and License Taxes
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$10.718	6.73%
A	2005	$11.468	7.00%
A	2006	$12.709	10.82%
A	2007	$13.982	10.01%
A	2008	$14.925	6.75%
A	2009	$12.651	-15.24%
A	2010	$15.626	23.52%
A	2011	$15.989	2.33%
A	2012	$17.037	6.55%
A	2013	$17.724	4.03%
A	2014	$18.418	3.92%
F	**2015**	**$19.338**	**5.00%**
F	**2016**	**$20.158**	**4.24%**
F	**2017**	**$20.516**	**1.78%**



Risk and Significant Factors

- Liquor bottles sold experienced an average annual increase of 3.41% between FY 2008 and FY 2014.
- Cost per liquor bottle sold experienced an average annual increase of 0.87% between FY 2008 and FY 2014.
- The Fort Peck, Fort Belknap, and Blackfeet Indian Reservations have a revenue sharing agreement with the state. The revenue sharing agreement distributes revenues to the tribes based on the per capita general fund revenue multiplied by the number of enrolled tribal members. Tribal revenue is estimated to be 2.04% of the non-DPHHS liquor revenue for FY 2015 through FY 2017.

Forecast Methodology

The general fund share of the liquor excise and license tax is prepared in five steps:

Step 1. Calculate gross sales.

Step 2. Calculate retail selling value.

Step 3. Calculate gross liquor excise and license tax collections.

Step 4. Calculate tribal portion of revenue.

Step 5. Calculate liquor excise and license tax general fund revenue.

Distribution

Table 2 shows liquor license tax is first distributed to DPHHS, and then revenue from the liquor excise tax is added. Finally, tribal revenues are subtracted to obtain general fund revenue.

Table 2
Liquor Excise and License Tax Revenue Allocation

Description	Actual FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Liquor License Tax	$9,705,319	$10,143,914	$10,573,901	$10,762,019
Less DPHHS Share (65.5%)	$6,328,906	$6,644,264	$6,925,905	$7,049,122
	$3,376,413	$3,499,650	$3,647,996	$3,712,896
Liquor Excise Tax	$15,531,276	$16,233,153	$16,921,254	$17,222,296
Non DPHHS Liquor Tax Revenue	$18,907,689	$19,732,803	$20,569,250	$20,935,192
Less Tribal Share (2.04%)	$376,214	$394,996	$411,739	$419,065
General Fund Revenue	**$18,531,475**	**$19,337,807**	**$20,157,510**	**$20,516,128**

Data Sources

Data is from the Department of Revenue monthly cost of sales report, the Department of Revenue Liquor Distribution annual financial schedules, and SABHRS.

Liquor Profits

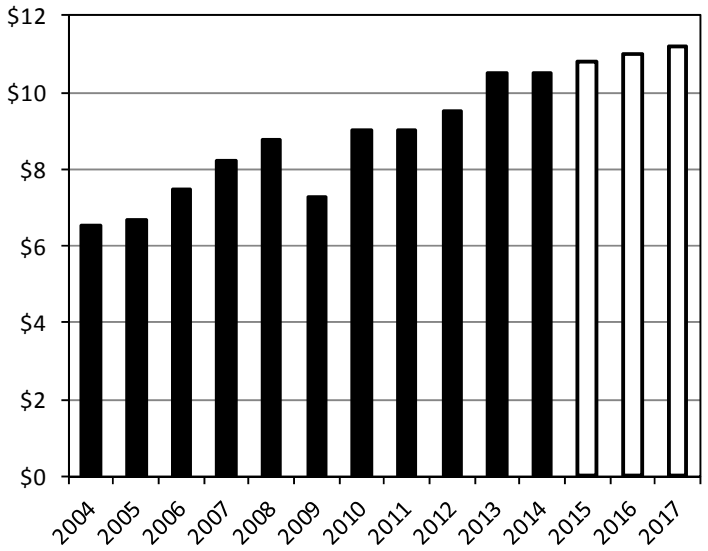
2017 Biennium

Revenue Description

Title 16, chapters 1 through 6, MCA, directs the Department of Revenue to administer liquor laws relating to alcoholic beverage control, sale, distribution, and the licensing of alcoholic beverage manufacturers, wholesalers, and retailers. Agency franchisees purchase liquor products from the state liquor warehouse. A 40% markup on the state's base costs covers the operating costs of the state liquor system and provides a net profit. All liquor profit net revenue is transferred to the general fund at fiscal year end.

Table 1
Liquor Profits
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$6.500	8.33%
A	2005	$6.650	2.31%
A	2006	$7.450	12.03%
A	2007	$8.200	10.07%
A	2008	$8.775	7.01%
A	2009	$7.250	-17.38%
A	2010	$9.000	24.14%
A	2011	$9.000	0.00%
A	2012	$9.500	5.56%
A	2013	$10.500	10.53%
A	2014	$10.500	0.00%
F	**2015**	**$10.792**	**2.78%**
F	**2016**	**$11.009**	**2.01%**
F	**2017**	**$11.182**	**1.56%**



The state privatized liquor retailing operations in FY 1996. Liquor profit transfers to the general fund have gradually increased since that time. The decreased general fund transfer in FY 2009 is attributable to a one-time transfer of $1.75 million for renovation of the State Liquor Warehouse, approved in HB 5 by the 2009 Legislature.

Risks and Significant Factors

- Liquor gross sales have experienced an average annual increase of 5.94% between 2004 and 2014.
- Sale commissions and discounts are paid to liquor store owners by the state of Montana in the form of a cost reduction for purchases. The primary commission rates were determined by a bidding process for stores in communities with populations over 3,000 and a proposal process for stores in communities with a population under 3,000 when privatization occurred in 1996. Rates vary among store owners. In compliance with the law, the commission rates are reviewed and adjusted up to average every three years. In FY 2011, the average commission rates increased to 9.50% (from 9.40%) for FY 2011 through FY 2013. Commission rates will be reviewed again in FY 2015 with an expected average rate of 9.71% which will be effective in FY 2016.
- In addition to the commission rates, HB 348 (2001 session) increased the commission rates over a three-year period based on the annual sales volume by agency liquor stores. Stores above $500,000 in sales are awarded an additional 0.875% and stores below $500,000 in sales are awarded an additional 1.50%. In 2007, the $500,000 cut-off was adjusted based on legislative action to $560,000 and requires an inflation factor for subsequent years. This commission is referred to as the "sales volume discount" and is adjusted every fiscal year.

Forecast Methodology

The liquor profit transfer to the general fund is based on the net income from liquor operations for the fiscal year.

Step 1. Net income from liquor operations is calculated as gross liquor sales less the cost of goods sold, liquor taxes (liquor excise tax and liquor license tax), commissions, discounts, and liquor operating expenses.

Step 2. The calculations for gross liquor sales, cost of goods sold, and liquor taxes are ascertained through the process of forecasting Liquor Excise and License Tax General Fund Revenue.

Table 2 summarizes the calculations of commissions, discounts, operating expenses, and profits.

Distributions

Table 2 shows the actual liquor profit transfer for FY 2014 and projections for FY 2015 through FY 2017. Gross liquor sales are added to a small amount of other revenue. The profits are then adjusted for the changes to the net assets of the Liquor Control Division, and the remainder is transferred to the general fund.

Table 2
Distribution of Forecast Liquor Profits
($ millions)

Fiscal Year	Gross Sales		License Fees/Other Revenue		Commissions		Discounts		Cost of Goods Sold		Liquor Taxes		Operating Expenses		Profit		Change in Net Assets		Transfer to Genral Fund	Percent Change
A 2014	$124.278	+	$0.875	-	$12.062	-	$3.478	-	$70.767	-	$25.088	-	$2.865	▶	$10.894	-	$0.394	=	$10.500	0.00%
F 2015	$130.102	+	$0.800	-	$12.620	-	$3.673	-	$73.520	-	$26.390	-	$3.165	▶	$11.534	-	$0.742	=	$10.792	2.78%
F 2016	$135.834	+	$0.638	-	$13.312	-	$3.835	-	$76.759	-	$27.508	-	$3.292	▶	$11.767	-	$0.757	=	$11.009	2.01%
F 2017	$138.471	+	$0.629	-	$13.570	-	$3.910	-	$78.249	-	$27.997	-	$3.423	▶	$11.951	-	$0.769	=	$11.182	1.56%

Data Sources

Gross liquor sales data and other related data comes from the Department of Revenue Liquor Services Division Annual Financial Report. Other data is from SABHRS and IBARS.

Beer Tax

2017 Biennium

Revenue Description

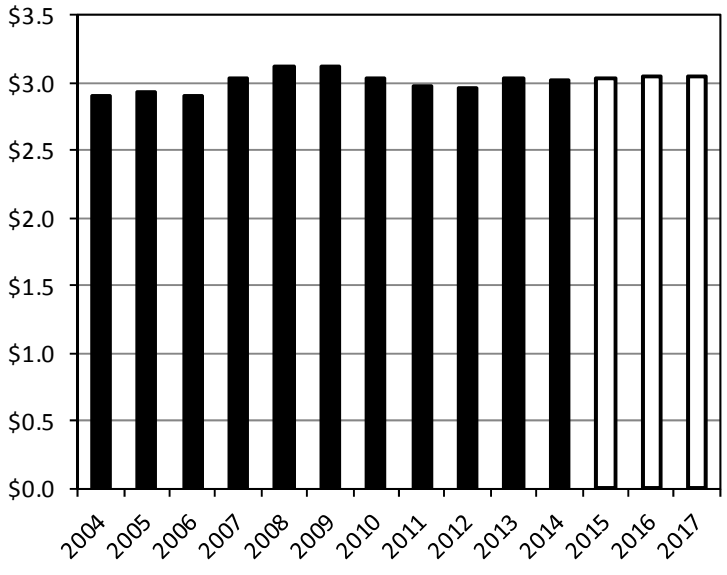
According to 16-1-406, MCA, the Department of Revenue is directed to collect a tax on each barrel (31 gallons) of beer sold in Montana by a wholesaler at the following rates:

Barrels Produced by a Brewer	Tax Rate Per Barrel
Less than or equal to 5,000	$1.30
5,001 to 10,000	$2.30
10,001 to 20,000	$3.30
Greater than 20,000	$4.30

From total beer tax revenue, 76.74% is distributed to the state general fund and 23.26% is distributed to the Department of Public Health and Human Services (DPHHS) to fund alcohol treatment programs. A small portion of the beer tax revenue allocated to the general fund (approximately 2.0%) is remitted to the Blackfeet, Fort Peck, and Fort Belknap Reservations in compliance with revenue sharing agreements with the tribes.

Table 1
Beer Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$2.897	4.52%
A	2005	$2.937	1.38%
A	2006	$2.908	-0.99%
A	2007	$3.034	4.35%
A	2008	$3.124	2.97%
A	2009	$3.115	-0.30%
A	2010	$3.032	-2.66%
A	2011	$2.982	-1.65%
A	2012	$2.956	-0.86%
A	2013	$3.033	2.59%
A	2014	$3.023	-0.34%
F	**2015**	**$3.033**	**0.35%**
F	**2016**	**$3.044**	**0.34%**
F	**2017**	**$3.052**	**0.28%**



Risks and Significant Factors

- Per capita beer consumption decreased at an annual average of -0.78% between FY 2010 and FY 2014.
- The average tax rate per barrel decreased at an annual average of -0.52% between FY 2010 and FY 2014, due to an increased proportion of total barrel production by brewers producing less than 20,000 barrels annually, which are taxed at a lower rate.
- Montana population age 20 and over experienced an average annual increase of 1.1% between FY 2010 and FY 2014.
- Montana population age 20 and over was used for this forecast because, according to a statistical analysis, this demographic tracked total beer consumption over time better than changes in other age demographics such as total population, the population between 30 and 60 years old, etc.
- Tribal revenue is estimated to be 2.06% of the non DPHHS beer revenue for FY 2015 through FY 2017.

Forecast Methodology

The general fund share of the beer tax is prepared in three steps:

Step 1. Calculate per capita consumption of beer.

Step 2. Total revenue is projected by multiplying the number of barrels sold by the average tax rate per barrel.

Step 3. Total revenue is allocated to the general fund, DPHHS, and the tribes, per the revenue sharing agreements.

Distribution

Table 2 shows the actual allocation for FY 2014 and the projected allocation of beer tax revenue to the general fund, DPHHS, and the tribes for FY 2015 through FY 2017. DPHHS revenue allocation is subtracted from total beer tax revenue to obtain total general fund and tribe share. Tribe share is then calculated and subtracted to obtain estimated beer tax revenue for the general fund.

Table 2
Beer Tax Revenue Allocation
($ Millions)

Description	FY 2014	FY 2015	FY 2016	FY 2017
Total Revenue	$ 4.021	$ 4.036	$ 4.049	$ 4.061
Less DPHHS Share (23.26%)	$ 0.935	$ 0.939	$ 0.942	$ 0.945
General Fund and Tribes' Share	$ 3.086	$ 3.097	$ 3.108	$ 3.116
Less Tribes' Share (2.06%)	$ 0.063	$ 0.064	$ 0.064	$ 0.064
General Fund	**$ 3.023**	**$ 3.033**	**$ 3.044**	**$ 3.052**

Data Sources

Department of Revenue GENTAX reports provided historical information on the number of total production by producer type. SABHRS provided historical beer tax revenue and allocation information. IHS Economics provided historical and projected Montana population data.

Wine Tax

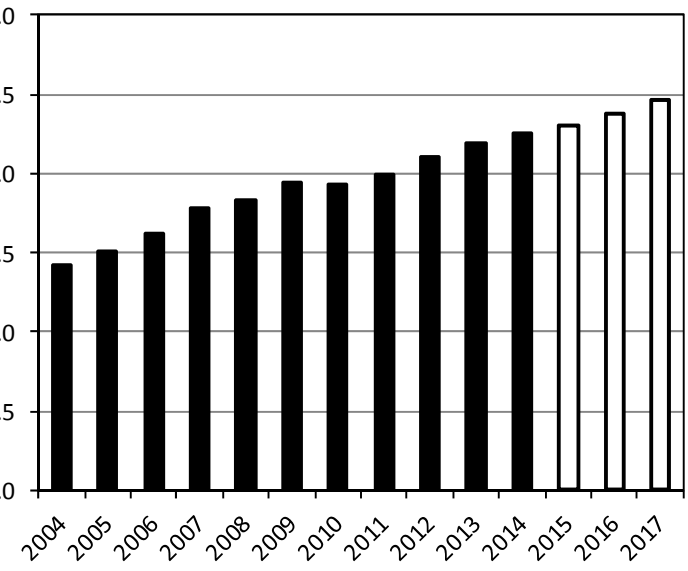
Revenue Description

According to 16-1-411, MCA, the Department of Revenue is directed to collect a tax of 27 cents on each liter of table wine and 3.7 cents on each liter of hard cider imported by a distributor or the department. Additionally, a tax of 1 cent per liter of wine is levied on table wine sold by a table wine dealer to an agent, pursuant to 16-2-301, MCA.

Wine tax revenues are distributed 69% to the state general fund and 31% to the Department of Public Health and Human Services (DPHHS) for the treatment, rehabilitation, and prevention of alcoholism and chemical dependency. Approximately 2% of the wine tax revenue allocated to the general fund is remitted to the Blackfeet, Fort Peck, and Fort Belknap Reservations in compliance with revenue sharing agreements with the tribes.

Table 1
Wine Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$1.423	6.24%
A	2005	$1.503	5.56%
A	2006	$1.624	8.08%
A	2007	$1.775	9.29%
A	2008	$1.829	3.07%
A	2009	$1.936	5.84%
A	2010	$1.933	-0.17%
A	2011	$1.994	3.16%
A	2012	$2.104	5.55%
A	2013	$2.195	4.31%
A	2014	$2.250	2.52%
F	**2015**	**$2.300**	**2.22%**
F	**2016**	**$2.380**	**3.46%**
F	**2017**	**$2.461**	**3.40%**



This forecast projects the per capita consumption of wine in Montana will increase at an annual rate of 0.62 liters per person between FY 2015 and FY 2017.

Risks and Significant Factors

- Per capita consumption experienced an average annual increase of 2.4% between FY 2011 and FY 2014.
- Montana population age 20 and over was used for this forecast because, according to a statistical analysis, this demographic tracked total wine consumption over time better than changes in other age demographics such as total population or the population between 30 and 60 years old.
- Montana population age 20 and over experienced an average annual increase of 1.1% between FY 2011 and FY 2014.

Forecast Methodology

The general fund share of the wine tax is prepared in three steps:

Step 1. Estimate liters of per capita wine consumption for FY 2015 through FY 2017 using average per capita consumption growth from FY 2011 through FY 2014.

Step 2. Multiply the estimates of per capita consumption by population and the tax rate ($0.27/liter) to obtain estimates of total tax revenue through FY 2017.

Step 3. Determine the wine tax allocation to the general fund.

Distribution

Table 2 shows the actual allocation for FY 2014 and the projected allocation for FY 2015 through FY 2017. Of the total revenue, 31% is first distributed to the DPHHS. The tribal revenue allocation payment (1.98%) is then subtracted from the remaining revenue for FY 2015 through FY 2017. All revenue which remains after DPHHS and tribal payments have been subtracted is deposited to the general fund.

Table 2
Wine Tax Revenue Allocation
($ millions)

Description	FY 2014	FY 2015	FY 2016	FY 2017
Total Revenue	$3.327	$3.402	$3.520	$3.640
Less DPHHS Share (31%)	$1.031	$1.055	$1.091	$1.128
General Fund and Tribes' Share	$2.296	$2.347	$2.429	$2.511
Less Tribes' Share (1.98%)	$0.046	$0.047	$0.049	$0.050
General Fund*	**$2.250**	**$2.300**	**$2.380**	**$2.461**

Data Sources

Department of Revenue GENTAX reports provided historical information on the number of wine liters sold. SABHRS provided historical wine tax revenue and allocation information. IHS Economics provided historical and projected Montana population data.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

TOBACCO REVENUE
SECTION 7

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Cigarette Tax

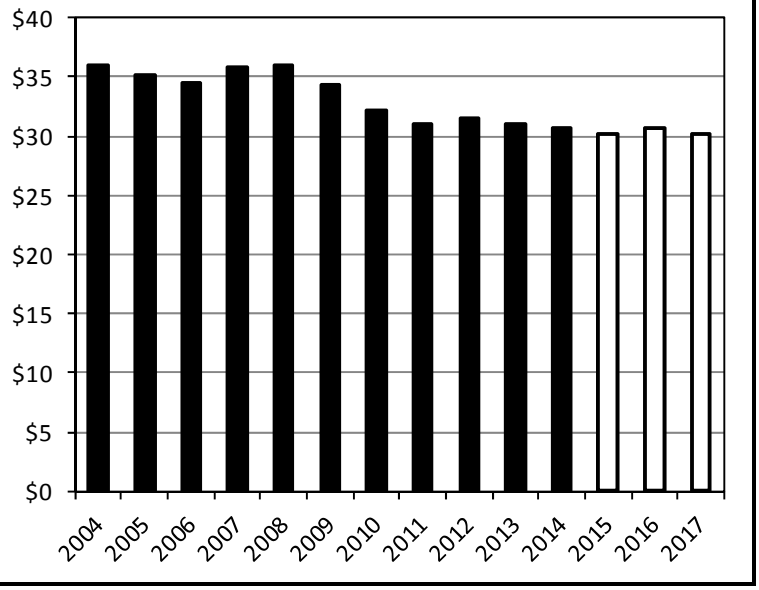
2017 Biennium

Revenue Description

According to 16-11-111, MCA, a specific tax of $1.70 is imposed on each pack of 20 cigarettes. If a pack contains more than 20 cigarettes, the tax is pro-rated by 1/20th of the $1.70 tax for each cigarette exceeding 20 cigarettes. Currently, revenue generated from the cigarette tax is distributed as follows: 43.9% to the general fund (through FY 2015); 44.0% to the health and Medicaid initiatives account; 2.6% to the long-range building account; the greater of 8.3% or $2 million for operation of state veterans' nursing homes; and 1.2% to the Southwest Montana Veterans Home account (through FY 2015).

Table 1
Cigarette Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$36.002	186.26%
A	2005	$35.117	-2.46%
A	2006	$34.573	-1.55%
A	2007	$35.830	3.64%
A	2008	$36.004	0.49%
A	2009	$34.320	-4.68%
A	2010	$32.218	-6.13%
A	2011	$30.992	-3.81%
A	2012	$31.483	1.59%
A	2013	$31.011	-1.50%
A	2014	$30.623	-1.25%
F	**2015**	**$30.177**	**-1.46%**
F	**2016**	**$30.627**	**1.49%**
F	**2017**	**$30.246**	**-1.25%**



Beginning May 1, 2003, SB 407 (2003 session) increased the tax on cigarettes from $0.18 to $0.70 per pack. SB 407 also changed the distribution of cigarette taxes, increasing the general fund portion to 87.40%, the long-range building account to 4.3%, and the DPHHS portion to the greater of 8.3% or $2.0 million.

Initiative 149 (I-149) further increased the tax on each pack of cigarettes to $1.70 as of January 1, 2005. I-149 also changed the allocation of total collections as follows: 45.1% to the general fund; 44.0% to the health and Medicaid initiatives account; 2.6% to the long-range building account; and the greater of 8.3% or $2 million for operation of state veterans' nursing homes.

For FY 2010 through FY 2015, 1.2% of the general fund portion is designated for the Southwest Montana Veterans' Home, reducing the general fund portion to 43.9%. In FY 2016, the general fund distribution returns to 45.1%.

Risks and Significant Factors

- Per capita consumption experienced an average annual decrease of 2.65% between FY 2010 and FY 2014; however, consumption increased 0.23% in FY 2012.
- Montana population age 15 and over, which experienced an average annual increase of 0.74% between FY 2010 and FY 2014, was used for this forecast because, according to statistical analysis, this demographic tracked total cigarette consumption over time better than changes in other age demographics such as total population, the population between 30 and 60 years old, etc.

- Although national trends indicate an overall downward trend for cigarette consumption, the rate at which consumption declines is also declining. According to the Center for Disease Control, the national prevalence of cigarette smoking has resumed a slow decline after stalling for several years. This model assumes a 2% annual decrease in per capita consumption during the forecast period.
- There are three types of arrangements for cigarette taxes with the seven Indian reservations in Montana:
  1. Currently, no Indian reservations have a tax-free quota agreement with the state.
  2. The Flathead Reservation abides by the tax-free quota law with no specific agreement with the state.
  3. The Blackfeet, Fort Belknap, Rocky Boy, Fort Peck, Crow, and Northern Cheyenne Reservations have a revenue sharing agreement with the state.
- Tribes in categories 1 and 2 receive cigarettes tax free for the enrolled tribal members residing on the reservation. Under the revenue sharing agreements, the tribe and state cigarette tax rates are the same. The tribe's share of the tax revenue is 150% of the per capita cigarette tax collected for each of the tribes' enrolled members residing on the reservation.

Forecast Methodology

The general fund share of the cigarette tax is prepared in four steps:

Step 1. Estimate taxable per capita cigarette consumption.

Step 2. Estimate cigarette tax revenue.

Step 3. Calculate tribal revenue sharing agreement payments.

Step 4. Calculate distributable state cigarette tax revenue and allocation.

Distributions

Table 2 shows the actual allocation for FY 2014 and projected state cigarette tax revenue/allocation for FY 2015 through FY 2017. The tribes' revenue allocations are subtracted from the gross cigarette tax revenue to yield total state cigarette tax revenue. Revenue is allocated to each fund by multiplying state cigarette tax revenue by the fund's share.

Table 2
Distribution of Cigarette Tax Revenue
($ million)

Calculation	FY 2014	FY 2015	FY 2016	FY 2017
Gross Cigarette Tax Revenue	$73.840	$72.808	**$71.927**	**$71.031**
Subtract Tribal Payments	$4.083	$4.067	**$4.017**	**$3.967**
Total Distributable State Cigarette Tax Revenue	$69.756	$68.741	**$67.910**	**$67.064**
Allocation				
Health and Medicaid (44.0%)	$30.693	$30.246	**$29.880**	**$29.508**
Long Range Building Fund (2.6%)	$1.814	$1.787	**$1.766**	**$1.744**
State Veterans' Nursing Homes (8.3%)	$5.790	$5.706	**$5.637**	**$5.566**
SW Veteran's Home (1.2% through FY 2015)	$0.837	$0.825	**$0.000**	**$0.000**
General Fund (43.9% through FY 2015; 45.1% After)	**$30.623**	**$30.177**	$30.627	$30.246

Data Sources

Department of Revenue GENTAX reports provided historical information on the number of cigarette packs sold. The general fund revenue data was obtained from SABHRS. Current tribal payments are provided by DOR Revenue Sharing Agreement Quarterly Reports. Population data forecasts are from by IHS Economics.

Tobacco Products Tax

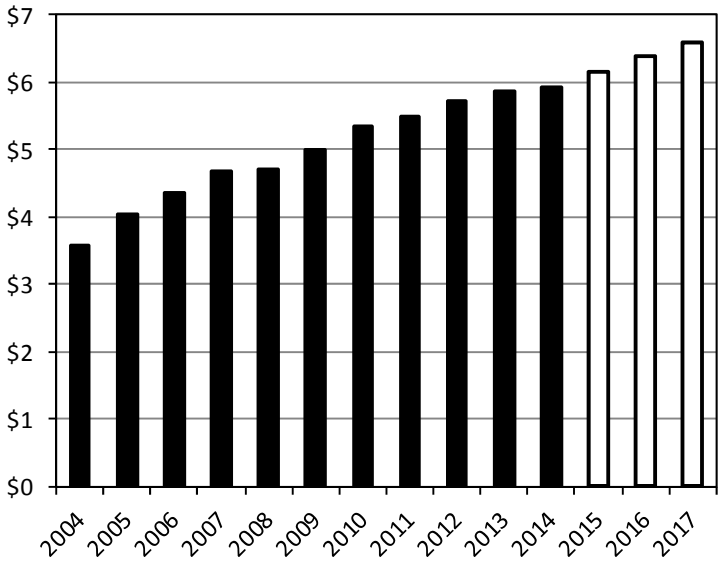
2017 Biennium

Revenue Description

According to 16-11-111, MCA, the Department of Revenue (DOR) is directed to collect a tax of 85 cents per ounce of moist snuff and 50% of the wholesale price of all other tobacco products (OTP), excluding cigarettes. Tobacco products destined for retail sale and consumption outside Montana are not subject to this tax. The general fund and the health and Medicaid initiatives account each receive 50% of the tobacco products tax revenue after payments are made as per tribal revenue sharing agreements.

Table 1
Tobacco Products Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$3.562	54.55%
A	2005	$4.024	12.98%
A	2006	$4.360	8.35%
A	2007	$4.670	7.10%
A	2008	$4.699	0.63%
A	2009	$4.990	6.21%
A	2010	$5.334	6.89%
A	2011	$5.477	2.68%
A	2012	$5.709	4.24%
A	2013	$5.853	2.51%
A	2014	$5.929	1.31%
F	**2015**	**$6.161**	**3.90%**
F	**2016**	**$6.376**	**3.50%**
F	**2017**	**$6.602**	**3.53%**



In FY 2004, there was a 54.5% increase in tobacco tax revenue due to SB 407 (2003 session). On May 1, 2003, SB 407 changed the tax on moist snuff from 12.5% of the wholesale price to 35 cents per ounce, an effective increase of 7 cents per ounce. SB 407 also increased the tax on all other tobacco from 12.5% of the wholesale price to 25% of the wholesale price.

On January 1, 2005, Initiative 149 (I-149) changed the tax on moist snuff to 85 cents per ounce and increased the tax on all other tobacco products to 50% of the wholesale price. This tax increase explains the increase in total tobacco tax revenue in FY 2005 and FY 2006.

Risks and Significant Factors

- Montana population age 15 and over, which experienced an average annual increase of 0.74% between FY 2010 and FY 2014, was used for this forecast because, according to statistical analysis, this demographic tracked total cigarette consumption over time better than changes in other age demographics such as total population, the population between 30 and 60 years old, etc.
- Moist snuff per capita consumption has experienced an average annual increase of 4.11% from FY 2011 to FY 2014. Per capita OTP consumption is projected to decrease 2.50% per year.
- The excise tax on tobacco products is imposed on retail consumers, but the tax is collected by wholesalers. In accordance with 16-11-112, MCA, wholesalers are allowed a discount equal to 1.5% of total tax collections to defray collection and administrative costs.

- Tobacco product sellers can obtain a refund credit for tobacco products that could not be sold due to defect. The average percentage of defective product credits of total collections in FY 2011 through FY 2014 was 1.09% and is used to forecast refund credits for FY 2015 through FY 2017.
- Six Indian reservations in Montana have a tobacco revenue sharing agreement with the state: Blackfeet, Fort Belknap, Rocky Boy, Fort Peck, Crow, and Northern Cheyenne Reservations. Under the revenue sharing agreements, the tribe tobacco tax and the state tobacco tax are the same. The tribe's share of the tax revenue is 150% of the per capita state tobacco tax collected for each of the tribes' enrolled members residing on the reservation.

Forecast Methodology

The tobacco tax revenue is comprised of two taxes: (1) moist snuff tax of 85 cents per ounce; and (2) other tobacco products tax of 50% of the wholesale price. The six steps in estimating tobacco tax revenues are:

Step 1. Estimate per capita moist snuff consumption and the per capita consumption of other tobacco products.

Step 2. Estimate projected gross tobacco tax revenue by multiplying the per capita consumption times the population over 15 times the tax rate.

Step 3. Calculate wholesaler discounts at 1.5% of total tobacco tax revenue.

Step 4. Calculate refunds for unsalable product.

Step 5. Calculate tribes' revenue allocation.

Step 6. Calculate state tobacco tax revenue and allocation.

Distribution

Wholesaler discounts and refund credits are subtracted from total tobacco tax revenue and tribal allocation payments are subtracted from net revenue to determine total state other tobacco tax revenue. Fifty percent of the state tobacco tax revenue goes to the general fund and 50% goes to the health and Medicaid initiatives account.

Table 2
Distribution of Tobacco Products Tax
($ million)

Calculation	FY 2014	FY 2015	FY 2016	FY 2017
Total Tobacco Tax Revenue	$12.962	$13.390	$13.859	$14.348
Subtract Discounts/Refund Credits	$0.357	$0.347	$0.359	$0.372
Subtract Tribal Payments	$0.704	$0.722	$0.747	$0.774
Total State Tobacco Tax Revenue	$11.901	$12.322	$12.752	$13.203
Allocation				
Total to Health and Medicaid (50%)	$5.951	$6.161	$6.376	$6.602
Total to General Fund (50%)	**$5.951**	**$6.161**	**$6.376**	**$6.602**

Data Sources

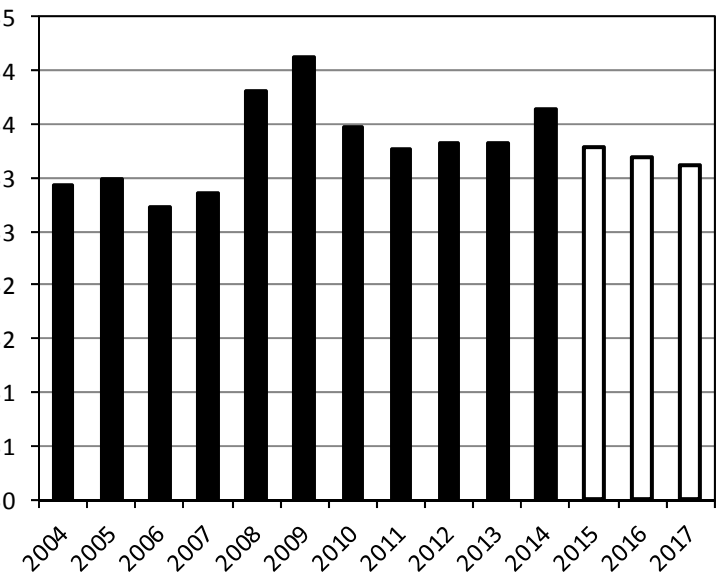
Department of Revenue GENTAX reports provided historical information on the amount of moist snuff ounces sold and the price of other tobacco products sold. General fund revenue data is from SABHRS. Current tribal payments are provided by DOR Revenue Sharing Agreement Quarterly Reports. Other data provided by DOR includes the amount of discounts and credits applied to distributors of other tobacco products. Population data is provided by IHS Economics.

Revenue Description

In 1998, Montana, along with 45 other states, signed a settlement agreement with major tobacco companies. Pursuant to the agreement, Montana will receive approximately $832 million by the year 2025. Payments are made annually beginning in FY 2000. The schedule of payments provided for under the settlement agreement is subject to change depending on adjustment criteria specified in the agreement.

Table 1
Tobacco Settlement
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	$2.934	-
A 2005	$2.978	1.50%
A 2006	$2.734	-8.21%
A 2007	$2.861	4.67%
A 2008	$3.808	33.07%
A 2009	$4.128	8.41%
A 2010	$3.469	-15.97%
A 2011	$3.259	-6.05%
A 2012	$3.322	1.95%
A 2013	$3.321	-0.03%
A 2014	$3.646	9.76%
F 2015	**$3.276**	**-10.14%**
F 2016	**$3.198**	**-2.38%**
F 2017	**$3.111**	**-2.73%**



In FY 2008, the base payment paid to states increased from $8 billion to $9 billion. This accounts for the large percentage increase from FY 2007 to FY 2008. However, the forecast payments, when adjusted for inflation, are decreasing or flat because cigarette consumption per capita (nationwide) has slightly decreased. Further, additional adjustments to the annual payments have been made since FY 2005 to compensate for changes in market share among the participating and non-participating manufacturers. These market share adjustments are forecast to continue through FY 2017.

Two major arrangements in the allocation of the tobacco settlement revenue have existed since the first payment was received in FY 2000. First, in November 2000, Montana's electorate passed Constitutional Amendment 35. The amendment required no less than 40% of tobacco settlement revenue to be deposited in a trust fund, with the remaining money deposited in the state general fund. The trust fund was established to provide a permanent source of revenue to fund the costs associated with programs for tobacco disease prevention and healthcare benefits, services, or coverage. The amendment further stated that 90% of the interest income from the trust fund could be appropriated; with 10% of the interest income from the trust fund to be deposited in the trust fund on or after January 1, 2001. The principal of the trust fund and 10% of the interest income was to be deposited in the trust fund and remain forever inviolate unless appropriated by a vote of two-thirds of the members of each house of the Legislature.

Second, in the November 2002 election, Initiative 146 (I-146) was passed. I-146 required the tobacco settlement payments received after June 30, 2003, be deposited as follows: 32% in a state special revenue account for tobacco prevention; 17% in a state special revenue account for health insurance benefits; 40% in the trust fund; and 11% in the state general fund.

Risks and Significant Factors

If Original Participating Manufacturer's (OPMs) and Subsequent Participating Manufacturers (SPMs) lose market share to Non-Participating Manufacturers (NPMs), OPMs and SPMs may be entitled to pay less by means of an NPM adjustment. The NPM adjustment is conditional upon two factors: (1) whether there has been a loss in market share by participating manufacturers to NPMs; and (2) whether that loss is attributable to disadvantages resultant from the tobacco settlement.

A specific provision of the Master Settlement Agreement (MSA), referred to as the safe harbor provision, is relevant to this adjustment. Under the safe harbor provision, a state can avoid a payment reduction due to the NPM adjustment if a qualifying statute is enacted and "diligently enforced". The qualifying statute provides for an amount to be paid into an escrow account for each cigarette sold by NPMs in the state that is equivalent to the amount that would have been paid had the NPMs participated in the settlement.

An independent auditor determined that, beginning in 2003, participating manufacturers started losing market share to NPMs. Pursuant to this finding, OPMs and SPMs can pay a portion of their tobacco settlement payments into a disputed payments account (DPA), and have routinely done so beginning in FY 2006. Withheld disputed amounts are not to be distributed to the states until the dispute is resolved.

There are numerous possible outcomes to the dispute over the NPM adjustment. The following is a short list of possible outcomes over this disputed money.

- Litigation/arbitration may extend beyond FY 2017. If this is the case, then it is likely that OPMs and SPMs will continue to place the disputed money in the separate dispute account.
- If it is found that the loss in market share for participating manufacturers was not due to disadvantages resulting from the tobacco settlement, then the monies withheld would likely be distributed to the states immediately.
- If a settlement is reached between the states and the participating manufacturers, payments could be reduced by some amount, the safe harbor statute could be revised, or some combination of the two. The fiscal impacts of such a settlement are unknown because the terms of such a settlement are uncertain.
- It may be found that the loss in market share is due to disadvantages as a result of the tobacco settlement and that every state did not "diligently enforce" their safe harbor statutes. This finding would mean that states would likely face an undetermined reduction to the settlement funds they receive.
- Many possible outcomes exist and it is unknown at this time which scenarios are more likely. However, for purposes of this estimate, it is assumed that the dispute over the NPM adjustment will not be resolved prior to the FY 2015 payment, and that for FY 2015 through FY 2017, the participating manufacturers will continue to withhold NPM adjustment amounts proportional to those withheld in FY 2012 through FY 2014.

Forecast Methodology

The MSA provides for complex methods and formulas to calculate annual payments made by the settling tobacco companies to each state. Several clauses in the tobacco settlement set forth the precise calculations for the adjustments to the payments due from the two categories of settling companies: (1) OPMs and (2) SPMs.

Seven major steps are used to calculate the annual amount due to Montana from tobacco companies which are parties to the MSA. These calculations are completed for both the non-strategic and strategic payments and are summarized in Table 2:

Step 1. The inflation adjustment;

Step 2. The volume adjustment to the base payment;

Step 3. The volume adjustment to the base operating income (This adjustment has not taken place since 2000.);

Step 4. Previously settled states' reduction;

Step 5. SPM payments;

Step 6. Montana's share of the total payment; and

Step 7. Adjustments for NPM and other payment disputes.

Table 2
Summary Calculation of Tobacco Settlement Revenue
($ millions)

Description	FY 2014	FY 2015	FY 2016	FY 2017
Non-Strategic Base Payment	$8,139.000	$8,139.000	$8,139.000	$8,139.000
Inflation Adjustment	$4,806.475	$5,194.839	$4,810.245	$4,810.245
Net Volume Adjustment	($6,422.951)	($6,831.275)	($6,836.653)	($7,032.304)
Previously Settled States Reduction	($798.186)	($795.743)	($748.021)	($724.078)
Adjusted OPM Base Payment	**$5,724.339**	**$5,706.821**	**$5,364.571**	**$5,192.863**
Adjusted SPM Base Payment	**$310.380**	**$242.753**	**$228.195**	**$220.891**
Adjustments	($0.374)	$4.955	$4.955	$4.955
Sub-total Adjusted Base Payment	$6,034.345	$5,954.529	$5,597.721	$5,418.709
Montana's Percentage	0.4247591%	0.4247591%	0.4247591%	0.4247591%
Total Adjusted Non-Strategic Payment (IX)(c)(1)	**$25.631**	**$25.292**	**$23.777**	**$23.016**
Strategic Base Payment	$861.000	$861.000	$861.000	$861.000
Inflation Adjustment	$508.462	$549.546	$508.861	$508.861
Volume Adjustment	($679.464)	($722.660)	($723.229)	($743.926)
Adjusted OPM Base Payment	**$689.998**	**$687.886**	**$646.632**	**$625.935**
Adjusted SPM Base Payment	**$32.834**	**$25.680**	**$24.140**	**$23.367**
Adjustments	($0.203)	($0.066)	($0.066)	($0.066)
Sub-total Adjusted Base Payment	$722.629	$713.501	$670.707	$649.237
Montana's Percentage	1.0447501%	1.0447501%	1.0447501%	1.0447501%
Total Adjusted Strategic Payment (IX)(c)(2)	**$7.550**	**$7.454**	**$7.007**	**$6.783**
Total MT Payment	**$33.181**	**$32.747**	**$30.784**	**$29.799**
Total of NPM and Other Adjustment	($0.039)	($2.964)	($1.712)	($1.520)
Adjusted MT Payment	**$33.142**	**$29.782**	**$29.072**	**$28.279**

Distributions

Table 3 shows the actual allocation for FY 2014 and the projected distribution of Montana's share of the Tobacco Master Settlement Agreement for FY 2015 through FY 2017.

Table 3
Tobacco Settlement Payment Distributions
($ millions)

	FY 2014	FY 2015	FY 2016	FY 2017
Tobacco Trust Fund (40%)	13.257	11.913	11.629	11.312
Tobacco Prevention Account (32%)	10.605	9.530	9.303	9.049
Health Insurance Benefits Acc. (17%)	5.634	5.063	4.942	4.807
General Fund (11%)	3.646	3.276	3.198	3.111
Total MT Payment	**33.142**	**29.782**	**29.072**	**28.279**

Data Sources

Tobacco Settlement data was obtained from SABHRS, Price Waterhouse Coopers Tobacco Master Litigation Master Settlement website, and the Tobacco Master Settlement Agreement (MSA). Historical inflation data was obtained from the Bureau of Labor Statistics and forecast inflation was derived from IHS Economics.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

SALES REVENUE
SECTION 8

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Telecommunications Excise Tax

2017 Biennium

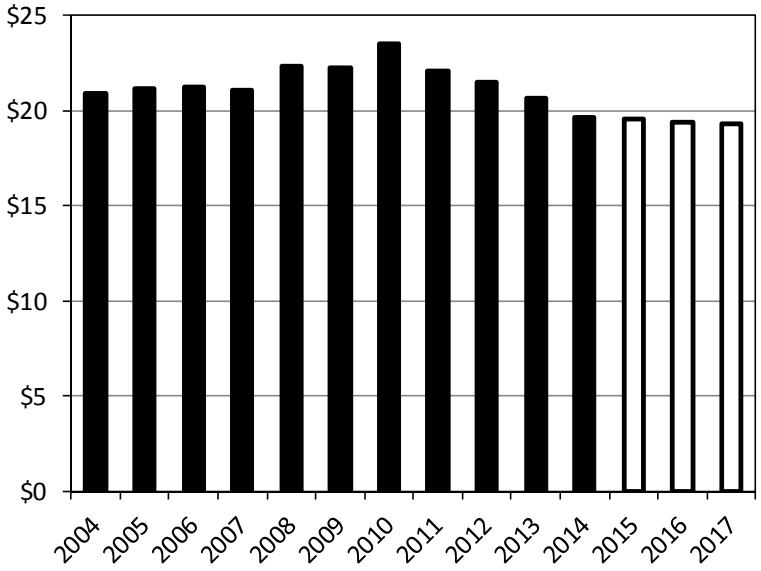
Revenue Description

Under 15-53-130, MCA, a 3.75% excise tax is assessed on retail telecommunications services. Telecommunications services are defined as two-way transmission of information over a telecommunications network that originates or terminates in the state and are billed to a customer with a Montana service address. Telecommunications service providers are required to collect the tax and make quarterly payments within 60 days after the end of each quarter.

Table 1 shows actual general fund revenue from retail telecommunications excise tax collections for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 1
Telecommunications Excise Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$20.919	0.39%
A	2005	$21.176	1.23%
A	2006	$21.226	0.23%
A	2007	$21.066	-0.75%
A	2008	$22.350	6.10%
A	2009	$22.250	-0.45%
A	2010	$23.523	5.72%
A	2011	$22.050	-6.26%
A	2012	$21.459	-2.68%
A	2013	$20.652	-3.76%
A	2014	$19.657	-4.82%
F	**2015**	**$19.518**	**-0.71%**
F	**2016**	**$19.380**	**-0.71%**
F	**2017**	**$19.322**	**-0.30%**



Risks and Significant Factors

- The telecommunications excise tax replaced the telephone company license tax on January 1, 2000.
- In the past, audit and penalty collections introduced significant variation in total collections masking underlying trends. Additionally, there are timing issues with the attribution of audit collections -- FY 2009 audit assessments were not resolved and collected until FY 2010, thereby understating FY 2009 revenue and overstating FY 2010 revenue.
- A State Tax Appeal Board (STAB) ruling (July 2011) determined that the tax does not apply to the sale of mobile telecommunications services paid with prepaid calling cards sold by third party retailers. This has reduced collections .
- The reduced use of wire-line services by households and businesses is expected to continue, but at a decreasing rate. This change in consumer preferences reduces the tax base.
- The expansion of “smartphone” use is assumed to continue to shift services offered by telecommunications companies to (tax free) internet-based services.
- The closure of a mobile telecommunications company in September 2014 is expected to reduce the telecommunications tax base by a small amount. This estimate assumes that other taxable providers pick up only one-half of the services. To the extent that more customers switch, or switch to higher cost services, revenues could be slightly higher than estimated.

- If the federal Internet Tax Freedom Act is allowed to expire on December 11, 2014, revenue from this tax could increase. This potential growth has not been estimated and is not included in this estimate.

Forecast Methodology

The estimate is a simple projection based on the long run trend growth of base collections. The base collections are taxes due before audit, penalty, and interest assessments. The non-compounding annual growth rate between FY 2003 to FY 2014 was negative 0.3%. Audit revenues are excluded from this calculation to reduce the effect of misallocating audit revenue to fiscal years.

STAB decisions on the non-taxable status of certain pre-paid resellers and court decisions on the Internet Tax Freedom act applicability to some telecommunications services has resolved many audit items. Audit revenues are assumed to be equal to the audit share of revenue in the three lowest (and most recent) positive audit collection years. The average audit share was 0.29% and when rounded represents $0.060 million per year.

There is a further adjustment to estimated base collections for the termination of operations by a mid-sized mobile telecommunications company in September 2014. It is assumed that the company will make its normal quarterly payment the first quarter of FY 2015 (due November 30th, 2014) and that only one-half of the company's taxable base will eventually transfer to other taxable service providers.

Table 2 illustrates the trends in actual revenue collections for the excise tax, as well as audit and penalty collections for FY 2003 through FY 2014. The forecast of total collections for FY 2015, FY 2016, and FY 2017 is presented with the associated audit revenue and the implied growth rate of the tax.

Table 2
Total Collections
($ millions)

	Fiscal Year	Excise Tax		Audits, Penalties & Interest		General Fund	Percent Change
A	2003	$20.294	+	$0.544	=	$20.838	
A	2004	$20.081	+	$0.838	=	$20.919	0.39%
A	2005	$21.173	+	$0.003	=	$21.176	1.23%
A	2006	$21.226	+	$0.166	=	$21.392	1.02%
A	2007	$21.066	+	$0.697	=	$21.762	1.73%
A	2008	$21.128	+	$1.223	=	$22.350	2.70%
A	2009	$21.905	+	$0.345	=	$22.250	-0.45%
A	2010	$21.121	+	$2.402	=	$23.523	5.72%
A	2011	$21.950	+	$0.100	=	$22.050	-6.26%
A	2012	$21.199	+	-$0.306	=	$20.893	-5.25%
A	2013	$20.586	+	$0.066	=	$20.652	-1.15%
A	2014	$19.636	+	$0.020	=	$19.657	-4.82%
F	**2015**	**$19.458**	**+**	**$0.060**	**=**	**$19.518**	**-0.71%**
F	**2016**	**$19.320**	**+**	**$0.060**	**=**	**$19.380**	**-0.71%**
F	**2017**	**$19.262**	**+**	**$0.060**	**=**	**$19.322**	**-0.30%**

Distribution

All telecommunications excise tax collections are allocated to the general fund pursuant to 15-53-156, MCA.

Data Sources

Revenue data is drawn from GENTAX data provided by the Department of Revenue and state accounting records (SABHRS).

Accommodations Tax

2017 Biennium

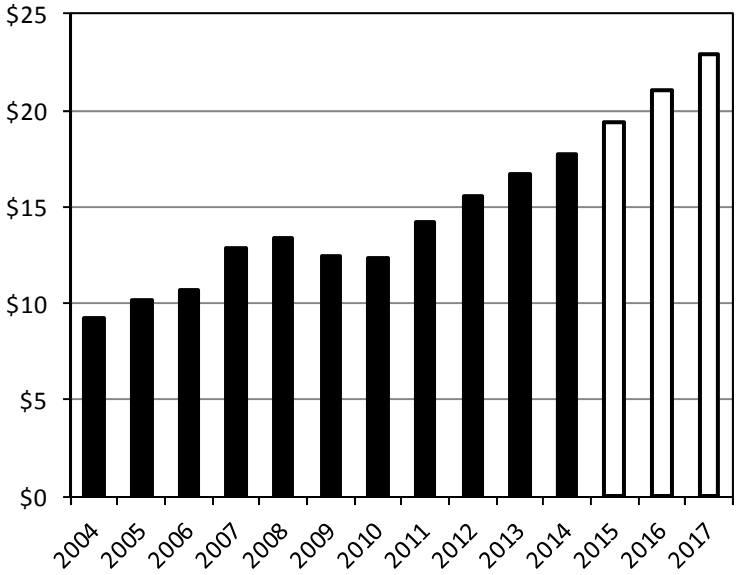
Revenue Description

In accordance with 15-68-102, MCA, a 3% accommodations **sales** tax is levied on all charges for accommodations at lodging facilities and campgrounds in the state. In accordance with 15-65-111, MCA, Montana charges a lodging facility **use** tax of 4% on all accommodations. All revenue from the **sales** tax and a portion of the **use** tax is distributed to the general fund. The majority of the **use** tax is distributed to other funds.

Table 1 shows actual revenue for the accommodations **sales** and **use** tax distributed to the general fund for FY 2004 though FY 2014 and forecast values for FY 2015 through FY 2017.

Table 1
Accommodations Tax
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	9.279	-
A 2005	$10.201	9.94%
A 2006	$10.679	4.69%
A 2007	$12.916	20.95%
A 2008	$13.390	3.67%
A 2009	$12.477	-6.81%
A 2010	$12.331	-1.18%
A 2011	$14.241	15.49%
A 2012	$15.606	9.59%
A 2013	$16.720	7.13%
A 2014	$17.725	6.01%
F 2015	**$19.436**	**9.65%**
F 2016	**$21.055**	**8.33%**
F 2017	**$22.888**	**8.71%**



The accommodations **sales** tax was enacted in the 2003 session in SB 407 and was only collected for one month in FY 2003. The first full year of collections was FY 2004. As disposable income fell in FY 2009 and FY 2010, both in Montana and in the US, people spent less on accommodations and as a result, tax revenue declined during those years.

Table 2 summarizes the actual distribution of the lodging facility **use** tax. HB 111 in the 2011 session changed the allocation of the lodging facility **use** taxes collected from state agencies and formerly distributed to agencies to now be deposited 30% to the general fund, with the balance returned to the agencies that made the in-state lodging expenditure. Any lodging **use** tax collected from state agencies paying with federal funds was held by the Department of Revenue to be returned to the federal government. The remainder of the funds paid by state agencies for lodging facility **use** taxes was distributed to the funds in 15-65-121, MCA. HB 32 in the 2013 session revised statute to allow the lodging **use** tax paid by state agencies with federal funding to be returned to the state agency that had paid the in-state lodging **use** tax.

HB 477 in the 2011 session changed the distribution of the lodging facility **use** tax reducing the amount distributed to the Department of Commerce by 2.6% and allocating 2.6% to Montana Historical Interpretation.

Table 2
Lodging Use Tax Distribution
($ millions)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
DOR Tax Administration	$0.136	$0.136	$0.144	**$0.146**	**$0.147**	**$0.149**
State Agency Reimbursements	$0.024	$0.016	$0.041	**$0.087**	**$0.087**	**$0.087**
MT Heritage Preservation Society	$0.400	$0.400	$0.400	**$0.400**	**$0.400**	**$0.400**
Montana Historical Society	$0.217	$0.227	$0.239	**$0.253**	**$0.275**	**$0.299**
University System	$0.541	$0.568	$0.596	**$0.633**	**$0.687**	**$0.748**
Fish, Wildlife, & Park	$1.408	$1.478	$1.551	**$1.647**	**$1.787**	**$1.946**
Commerce	$14.060	$14.758	$15.482	**$16.441**	**$17.841**	**$19.428**
Regional Travel Promotion	$4.873	$5.116	$5.367	**$5.700**	**$6.185**	**$6.735**
Montana Historical Interpretation	$0.558	$0.591	$0.620	**$0.659**	**$0.715**	**$0.778**
Total Use Tax Revenue	$22.216	$23.292	$24.441	**$25.965**	**$28.124**	**$30.570**

Forecast Methodology

There are three steps used when forecasting the accommodations **sales** and **use** taxes:

Step 1: Estimate lodging receipts.

Step 2: Estimate vendor allowances. A 5% vendor allowance is permitted, up to $1,000 for accommodations **sales** tax.

Step 3: The lodging facility **use** tax is 4% of the taxable value of accommodations charges, while the **sales** tax is 3%.

Distribution

After the DOR administration and state agency reimbursements are made, the remainder is distributed as follows (15-65-121, MCA):

1. 30% of the **use** tax revenue generated by state agency travel paid with state funds goes to the general fund.
2. The Montana heritage preservation and development account receives $400,000.
3. The remainder is distributed as follows:
    a. 1.0% to the Montana Historical Society for roadside historic sites and signs;
    b. 2.5% to the university system for tourism research;
    c. 6.5% to the Department of Fish, Wildlife and Parks for parks maintenance;
    d. 64.9% to the Department of Commerce for statewide tourism promotion;
    e. 22.5% to regional tourism promotion agencies; and
    f. 2.6% to the Montana historical interpretation state special revenue account.

Data Sources

Fiscal year end revenues are from the SABHRS MTGL0109 report. Additional data were provided by DOR's GENTAX system.

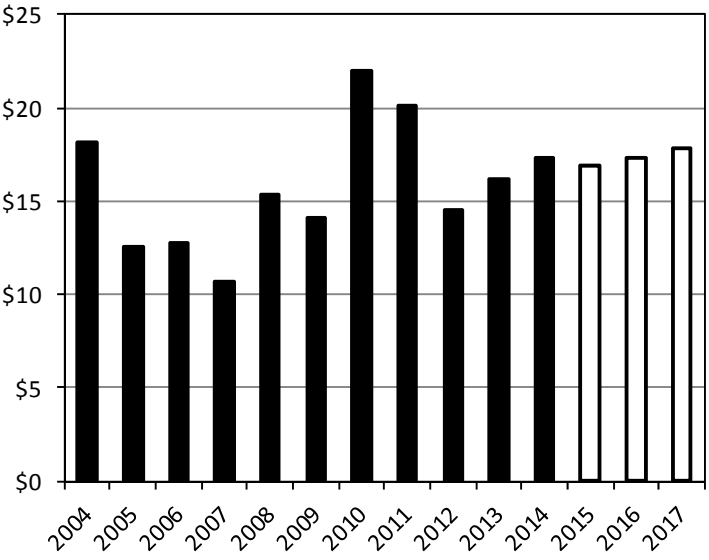
Revenue Description

The Montana Department of Public Health and Human Services (DPHHS) operates facilities to treat persons with developmental disabilities and mental illnesses. The Montana Developmental Center in Boulder (MDC) serves persons with developmental disabilities. The Montana State Hospital in Warm Springs (MSH) and the Montana Mental Health Nursing Care Center in Lewistown (MMHNCC) treat persons with severe mental illnesses.

The department charges patients for treatment based on cost and on their ability to pay (53-1-405, MCA). Patients and their families, patients' insurance, Medicare, and Medicaid pay these charges. Payments go first to repay MDC and MSH debt service obligations associated with the institutions' mortgages (90-7-220 and 221, MCA). After the debt service obligations are met, payments for care at the institutions are deposited in the general fund.

Table 1
Institutional Reimbursements
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$18.110	38.86%
A	2005	$12.509	-30.93%
A	2006	$12.728	1.75%
A	2007	$10.669	-16.17%
A	2008	$15.335	43.73%
A	2009	$14.101	-8.05%
A	2010	$22.000	56.02%
A	2011	$20.158	-8.37%
A	2012	$14.562	-27.76%
A	2013	$16.212	11.33%
A	2014	$17.298	6.70%
F	**2015**	**$16.953**	**-1.99%**
F	**2016**	**$17.325**	**2.19%**
F	**2017**	**$17.802**	**2.76%**



Risks and Significant Factors

- DPHHS expects the average daily number of residents at the three state-run facilities to remain relatively steady for FY 2015 through FY 2017.
- The increased revenue received in FY 2010 and FY 2011 is primarily due to the enhanced FMAP rate resulting from the American Recovery and Reinvestment Act (ARRA).

Forecast Methodology

There are four steps to estimating general fund receipts:

Step 1. Estimate daily reimbursement rates for each type of reimbursement at each institution.

- The primary reimbursement sources are payments from patients and their families, insurance, Medicare, and Medicaid. Residents and their families are billed by DPHHS based on cost and their ability to pay. For adults in long-term care, the primary resource for these payments is Supplemental Security Income (SSI) disability payments. Private and SSI reimbursement rates are based upon estimates provided by DPHHS.

- Insurance rates are insurance reimbursements for a few covered residents divided by the total number of care days for all residents, most of whom have no applicable coverage.
- Medicare provides coverage for medical costs for the aged and disabled. Medicare rates are set for each fiscal year by the Centers for Medicare and Medicaid Services using a formula that depends on medical cost inflation, past payments, growth in the number of persons covered, the type of health care service received, and the state and county where it is received. Medicare payments per day are based upon information provided by DPHHS.
- Medicaid pays costs that residents cannot. Therefore, the Medicaid daily rate is equal to the full cost rate less the patient/family and SSI reimbursements per day. Medicaid is a joint federal-state program so only the federal portion comes to the state as net reimbursement. Medicaid also pays some ancillary service costs that are not on a daily basis, such as medications and laboratory work. Historically, the variability in Medicaid payment rates can be attributed to, in part, changes in the FMAP rates.

Step 2. Estimate the average daily population and the number of care days for which each institution will be reimbursed.

Step 3. Multiply the reimbursement rates by the number of care days to obtain reimbursement revenue.

- Private reimbursement for a fiscal year is the average daily reimbursement times the number of care days. Medicaid reimbursement for a fiscal year is the average daily reimbursement times the number of Medicaid eligible residents times the number of days.

Step 4. Subtract the institution's debt service payments to derive the general fund revenue.

- General fund revenue is total reimbursements for MDC, MSH, and MMHNCC, plus other receipts, minus debt service payments for MDC and MSH. Debt service payments are provided by DPHHS and are shown in Table 2.

Distributions

Table 2 shows the actual reimbursements for FY 2014 and the projection of general fund revenue from institutional reimbursements in FY 2015 through FY 2017.

Table 2
Institutional Reimbursements to the General Fund
($ millions)

	Fiscal	----------Reimbursements----------								----------Debt Service----------				General
	Year	MDC		MSH		MMHNCC		Other Receipts		MDC		MSH		Fund
A	2014	$7.528	+	$8.407	+	$4.077	+	$0.026	-	$0.986	-	$1.756	=	$17.269
F	**2015**	**$7.125**	**+**	**$8.528**	**+**	**$4.043**	**+**	**$0.026**	**-**	**$0.968**	**-**	**$1.774**	**=**	**$16.953**
F	**2016**	**$7.022**	**+**	**$8.929**	**+**	**$4.116**	**+**	**$0.026**	**-**	**$0.968**	**-**	**$1.774**	**=**	**$17.325**
F	**2017**	**$6.948**	**+**	**$9.397**	**+**	**$4.201**	**+**	**$0.026**	**-**	**$0.970**	**-**	**$1.774**	**=**	**$17.802**

Data Sources

DPHHS provided actual and projected per day reimbursement rates and care days, as well as information regarding debt service for the facilities. FMAP percentages are based on OBPP estimates.

Health Care Facility Utilization Fees

2017 Biennium

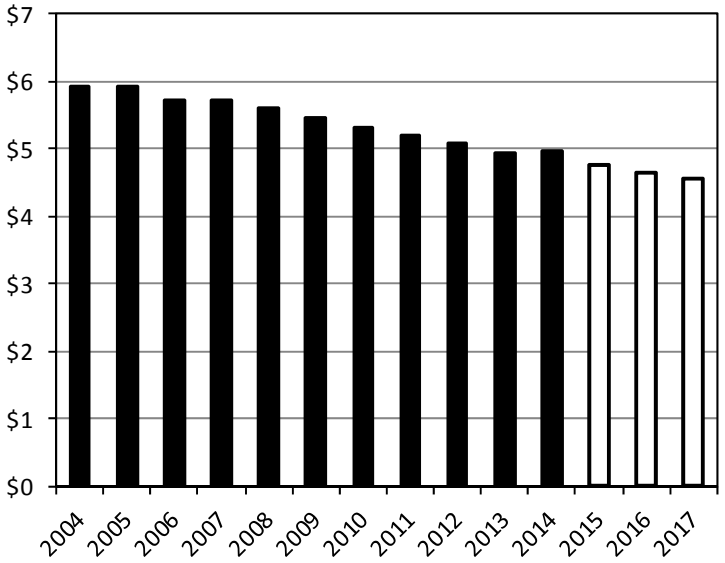
Revenue Description

Per 15-60-102, MCA, Montana imposes a per bed day fee on nursing facilities and intermediate care facilities for the developmentally disabled. The fee for nursing facilities was $2.80 per bed day through FY 2002. The fee was raised to $4.50 in FY 2003, to $5.30 in FY 2005, and to $7.05 in FY 2006. In FY 2007, it was raised to $8.30 (15-60-102, MCA). Through FY 2002, all fees were allocated to the general fund. Currently, $2.80 of the fee is allocated to the general fund and the remaining $5.50 is allocated to the nursing facility utilization fee special revenue account.

The fee for intermediate care facilities for the developmentally disabled is 6% of revenue (15-67-102, MCA). The only facility in Montana currently meeting this definition is the Montana Developmental Center (MDC). Fees collected from the facilities operated by the Department of Public Health and Human Services (DPHHS) are allocated 30% to the general fund and 70% to the prevention and stabilization special revenue account.

Table 1
Health Care Facility Utilization Fees
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$5.916	0.96%
A	2005	$5.912	-0.06%
A	2006	$5.712	-3.39%
A	2007	$5.717	0.09%
A	2008	$5.610	-1.87%
A	2009	$5.469	-2.52%
A	2010	$5.300	-3.08%
A	2011	$5.197	-1.94%
A	2012	$5.077	-2.32%
A	2013	$4.928	-2.93%
A	2014	$4.961	0.67%
F	**2015**	**$4.754**	**-4.18%**
F	**2016**	**$4.654**	**-2.09%**
F	**2017**	**$4.556**	**-2.10%**



The 2003 Legislature passed three bills that changed health care facility fees. HB 705 set the nursing facilities fee at $4.50 in FY 2004 and $5.30 beginning in FY 2005 and allocated the additional revenue to the nursing facility utilization fee account. HB 743 made the Montana Mental Health Nursing Care Center (MMHNCC) subject to the nursing facility utilization fee and allocated 30% of fees from this facility to the general fund and 70% to a new prevention and stabilization special revenue account. HB 722 created a new fee equal to 5% of charges for care that applied only to the MDC. The revenue from the new fee is allocated 30% to the general fund and 70% to the prevention and stabilization special revenue account.

In 2005, the Legislature passed two bills, HB 749 and SB 82, which changed health care facility fees. HB 749 increased the facility bed tax to $7.05 per day in FY 2006 and to $8.30 per day in FY 2007. The increased revenue from fees collected from non-state facilities is allocated to the nursing facility utilization fee account. SB 82 increased the bed tax on intermediate facilities for the developmentally disabled from 5% to 6% and amended the definition of facilities to which the 6% bed tax applies to include intermediate care facilities for the intellectually disabled. SB 82 was effective immediately on passage and was retroactive to the beginning of tax year (TY) 2005.

Risks and Significant Factors

- Taxable bed days at non-state facilities declined at an average rate of 2.26% between FY 2011 and FY 2014. Bed days are projected to continue to decline at that rate in FY 2015 through FY 2017. Revenue from non-state facilities is declining over the forecast period because fewer bed days are estimated.

Forecast Methodology

Revenue is estimated separately for fees from private nursing homes, the MMHNCC, and the MDC. The estimate is based on forecast bed days for the MMHNCC and budget estimates for the MDC. Forecast bed days for non-state owned facilities are based on the historic trend.

- Bed days for FY 2015 through FY 2017 for the MMHNCC are forecast by DPHHS, which operates the facility. Total collections equal the number of bed days multiplied by the fee per bed day of $8.30. Thirty percent of collections are allocated to the general fund and 70% are allocated to the prevention and stabilization account. Estimated bed days for MMHNCC are estimated to average 29,789 per year for the period FY 2015 through FY 2017.

- MDC is the only facility in Montana subject to the intermediate care facility utilization fee. The fee is 6% of the cost of care billed to residents and third parties. The cost of care for FY 2015 through FY 2017 is estimated by DPHHS, which operates the facility, and is based on planned numbers of residents and expected costs. Thirty percent of collections are allocated to the general fund and 70% are allocated to the prevention and stabilization account.

Distributions

Total collections for each fund are calculated by summing the collections from non-state facilities and collections from the two state facilities. Table 2 shows the actual allocation for FY 2014 and the projected allocation for FY 2015 through FY 2017.

Table 2
Health Care Facilities Utilization Fee
Collections and Distribution
($ millions)

	FY 2014	FY 2015	FY 2016	FY 2017
Nursing Facility Utilization Fee Account	9.067	8.651	8.456	8.264
Prevention and Stabilization Account	0.807	0.815	0.815	0.815
General Fund	4.961	4.754	4.654	4.556
Total Collections	**14.836**	**14.220**	**13.925**	**13.635**

Data Sources

Department of Revenue GENTAX reports provided historical information on the number of taxable bed days. SABHRS provided historical tax revenue and allocation information. Future bed days and cost of care at MMHNCC and MDC are from DPHHS.

Rental Car Sales Tax

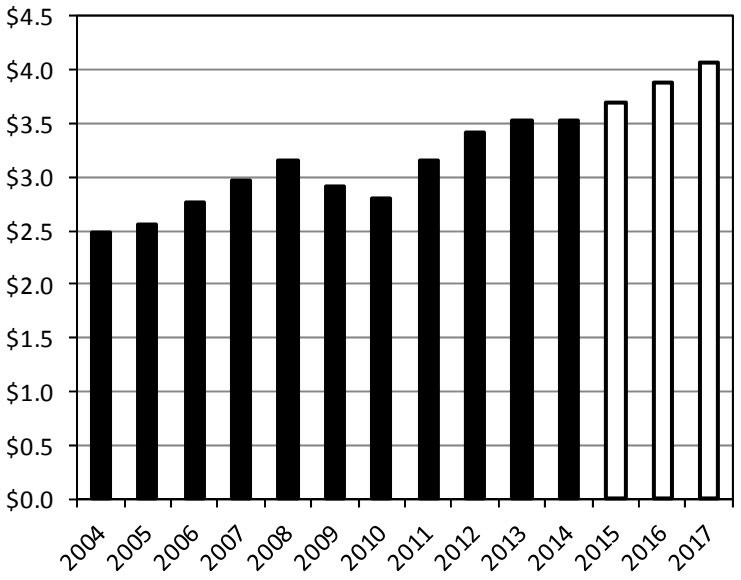
2017 Biennium

Revenue Description

Montana levies a 4% tax on base rental charges on rental vehicle sales per 15-68-102(1b), MCA. The rental vehicle sales tax collections began in FY 2004. Table 1 shows actual revenue for the rental car sales tax for FY 2004 through FY 2014 and projected revenue for FY 2015 through FY 2017.

Table 1
Rental Car Sales Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$2.486	-
A	2005	$2.566	3.20%
A	2006	$2.755	7.39%
A	2007	$2.976	8.03%
A	2008	$3.157	6.08%
A	2009	$2.904	-8.01%
A	2010	$2.807	-3.34%
A	2011	$3.149	12.17%
A	2012	$3.420	8.59%
A	2013	$3.523	3.02%
A	2014	$3.521	-0.05%
F	**2015**	**$3.697**	**5.00%**
F	**2016**	**$3.882**	**5.00%**
F	**2017**	**$4.076**	**5.00%**



Risks and Significant Factors

- Rental car sales tax revenue is highly reliant on tourism and business travel, and is assumed to be linked to hotel and lodging activity.
- Glacier National Park experienced record visitation in the first two months of FY 2015, which could provide a bump to total revenue collections for the year.

Forecast Methodology

There are two steps to calculate rental car sales tax:

Step 1: Calculate growth rates for the forecast period based on the projected growth in Montana lodging receipts.

Step 2: Apply the growth rate to project revenues from the previous year's collections.

The growth rate for tax revenue is linked to the accommodations tax model.

Distribution

This tax is distributed 100% to the general fund

Data Sources

General fund collections as reported in SABHRS.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

OTHER GENERAL FUND REVENUE SECTION 9

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

Lottery Profits

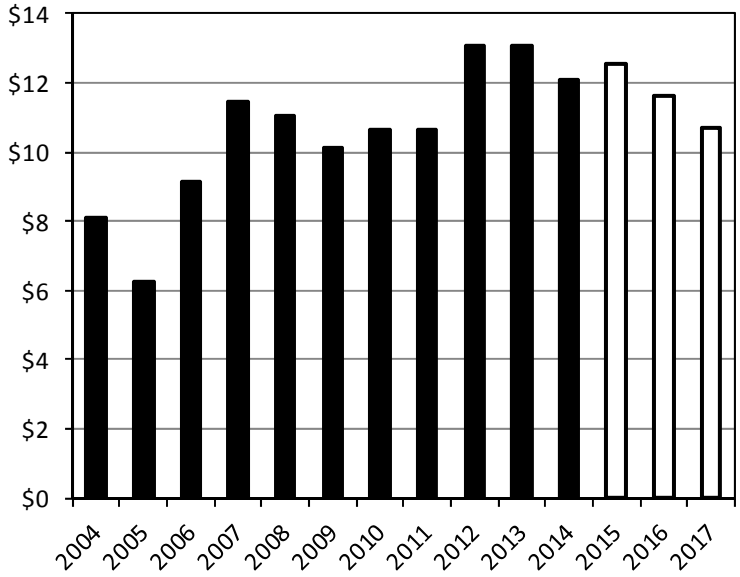
Revenue Description

In accordance with 23-7-402, MCA, net revenue from the operation of the lottery is to be deposited quarterly in the general fund. Net revenue from the lottery includes the sum of ticket sales, short-term investment pool, Multi-State Lottery Association interest, and miscellaneous income, less payment of prizes, commissions, and operating expenses.

Table 1 shows actual lottery revenue transferred to the general fund for FY 2004 to FY 2014 and forecast revenues for FY 2015 through FY 2017.

Table 1
Lottery Profits
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$8.116	8.89%
A	2005	$6.223	-23.33%
A	2006	$9.110	46.41%
A	2007	$11.420	25.35%
A	2008	$11.029	-3.43%
A	2009	$10.136	-8.09%
A	2010	$10.631	4.88%
A	2011	$10.636	0.05%
A	2012	$13.086	23.03%
A	2013	$13.084	-0.01%
A	2014	$12.091	-7.59%
F	**2015**	**$12.544**	**3.75%**
F	**2016**	**$11.594**	**-7.57%**
F	**2017**	**$10.689**	**-7.81%**



General fund lottery revenue has followed a broad upward trend from FY 2004 through FY 2014; however, year-to-year lottery collections are highly variable. Beginning in FY 2006, the chances of winning the Powerball were decreased in order to increase the jackpot levels, leading to an increase in player participation for FY 2006 and FY 2007. Decreased revenues in FY 2008 and FY 2009 are likely due to the economic recession in those years. A rapid slowdown in disposable income growth in Montana may have contributed to reduced participation in lottery games in FY 2008 and FY 2009. Beginning in FY 2012, the Legislative Audit Division stopped witnessing lottery drawings, which resulted in a slight positive effect on deposits made to the general fund due to the elimination of the auditing expense. Also in FY 2012, there was an unprecedentedly large Mega Millions jackpot, with the new placement of lottery WinStation machines in some grocery stores, and the simultaneous doubling of Powerball minimum jackpots and ticket prices. All of these factors contributed to increased ticket sales which led to the jump in general fund lottery revenue in FY 2012. The relatively flat growth in FY 2013 and negative FY 2014 growth are likely sourced, in part, from the change in the payroll tax environment. Payroll tax cuts enacted as part of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 were not extended when the American Taxpayer Relief Act took effect in January, 2013. This increase in payroll taxes reduced individuals' disposable income, and may have had an adverse effect on their willingness to pay for lottery games.

Risks and Significant Factors

- The Montana Lottery is signing a new contract with game vendors that will take effect in March of 2016. This new contract is likely to result in increased vendor fees, which will increase the Montana Lottery's direct game costs. All else equal, higher game costs are expected to reduce the distribution of lottery revenue to the general fund in FY 2016 and FY 2017.

Forecast Methodology

Lottery revenue is forecast using three main steps:

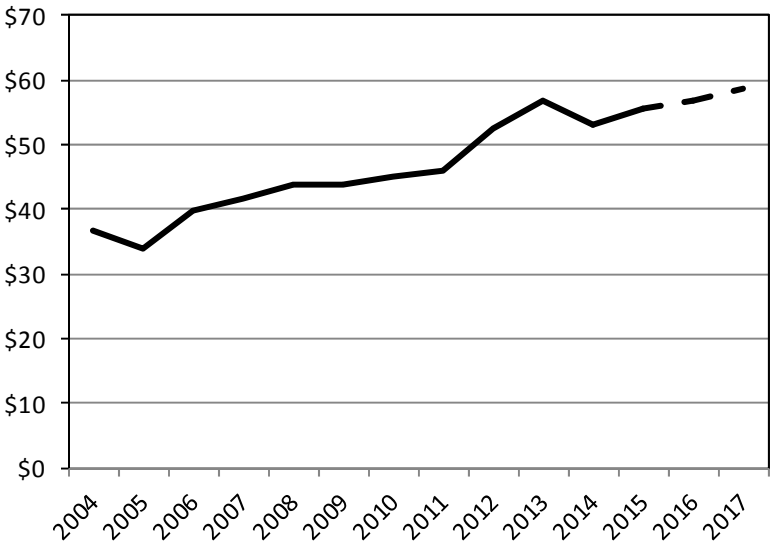
Step 1. Model and forecast lottery gross receipts. A linear regression model is used to predict gross receipts, which are modeled as a function of disposable income in Montana and a dummy variable to account for Powerball changes and new machines. Disposable income is defined as the income individuals possess after income taxes have been accounted for. Income influences individuals' willingness to pay for lottery games; therefore, gross lottery receipts are predicted to respond positively to changes in disposable income. The dummy variable that accounts for the increase in Powerball jackpots and the addition of new machines in FY 2012 is predicted to have a positive effect on lottery gross receipts in future years. More machines increase the accessibility of engaging in lottery games, which may lead to increased participation. Additionally, larger jackpots can increase participation because individuals may change their lottery risk preferences when they are promised a larger payout.

The results of the linear regression model show that both disposable income and Powerball changes/new machines are statistically significant predictors of lottery gross receipts. Both variables have positive coefficients, meaning increases in disposable income leads to increases in lottery revenue, and that the change to Powerball jackpots and new machine placements contributed to positive lottery revenue growth in FY 2012 and beyond.

Table 2 shows actual gross receipts for FY 2004 through FY 2014 and forecast receipts for FY 2015 through FY 2017.

Table 2
Lottery Gross Receipts
($ millions)

	Fiscal Year	Gross Receipts
A	2004	$36.738
A	2005	$33.811
A	2006	$39.918
A	2007	$41.565
A	2008	$43.822
A	2009	$43.827
A	2010	$45.193
A	2011	$46.035
A	2012	$52.602
A	2013	$56.803
A	2014	$53.091
F	**2015**	**$55.705**
F	**2016**	**$56.946**
F	**2017**	**$58.631**



Step 2. Estimate prizes and commissions as a percentage of lottery gross receipts. Historically, prizes and commissions have averaged about 66% of gross receipts. A three-year moving average is used to project the prizes and commissions percentage of gross receipts for FY 2015. The prizes and commissions portion of gross receipts is expected to average 69% for FY 2015, and multiplying this percentage by the predicted amount of gross receipts gives the estimated amount of prizes and commissions expenses for the year. The costs of prizes and commissions as a percentage of gross receipts are predicted to be higher in FY 2016 and FY 2017 due to increased vendor fees resulting from the Montana Lottery's new vendor contract. The estimated marginal increase in vendor fees for FY 2016 and FY 2017 is added to the baseline estimate for prizes and commissions expenses in those years.

Table 3 shows actual prizes and commissions and the ratio of prizes and commissions to gross receipts for FY 2004 through FY 2014. Forecast values are shown for FY 2015 through FY 2017.

Table 3
Prizes and Commissions
($ millions)

Fiscal Year	Gross Receipts		Prizes and Comm.		% of Gross Receipts
A 2004	$36.738	÷	$20.771	=	56.54%
A 2005	$33.811	÷	$19.769	=	58.47%
A 2006	$39.918	÷	$26.140	=	65.48%
A 2007	$41.565	÷	$27.278	=	65.63%
A 2008	$43.822	÷	$29.330	=	66.93%
A 2009	$43.827	÷	$29.486	=	67.28%
A 2010	$45.193	÷	$32.283	=	71.43%
A 2011	$46.035	÷	$31.314	=	68.02%
A 2012	$52.602	÷	$35.733	=	67.93%
A 2013	$56.803	÷	$39.869	=	70.19%
A 2014	$53.091	÷	$36.481	=	68.71%
F 2015	**$55.705**	÷	**$38.406**	=	**68.94%**
F 2016	**$56.946**	÷	**$40.489**	=	**71.10%**
F 2017	**$58.631**	÷	**$42.934**	=	**73.23%**

Step 3. Add other income to gross receipts and then subtract prizes and commissions as well as operating expenses to determine general fund revenue. Other income comes primarily from short-term interest earnings on prize money, and is forecast using a three-year moving average. Operating expenses are forecast by applying the average historical proportion of expenses to gross receipts to the forecast values of gross receipts.

Table 4 shows the breakdown of income minus expenditures to yield the total revenue distributed into the general fund.

Table 4
Total General Fund Revenue
($ millions)

Fiscal Year	Gross Receipts		Other Income		Prizes & Comm.		Expenses		General Fund Revenue
A 2004	$36.738	+	$0.047	-	$20.771	-	$7.898	=	$8.116
A 2005	$33.811	+	$0.093	-	$19.769	-	$7.913	=	$6.223
A 2006	$39.918	+	$0.210	-	$26.140	-	$4.009	=	$9.110
A 2007	$41.565	+	$0.271	-	$27.278	-	$3.135	=	$11.420
A 2008	$43.822	+	$0.185	-	$29.330	-	$3.650	=	$11.029
A 2009	$43.827	+	$0.084	-	$29.486	-	$4.294	=	$10.136
A 2010	$45.193	+	$0.038	-	$32.283	-	$4.078	=	$10.631
A 2011	$46.035	+	$1.647	-	$31.314	-	$4.066	=	$10.611
A 2012	$52.602	+	$0.027	-	$35.733	-	$4.069	=	$13.086
A 2013	$56.803	+	$0.029	-	$39.869	-	$4.180	=	$13.084
A 2014	$53.091	+	$0.021	-	$36.481	-	$4.557	=	$12.074
F 2015	**$55.705**	**+**	**$0.025**	**-**	**$38.406**	**-**	**$4.781**	**=**	**$12.544**
F 2016	**$56.946**	**+**	**$0.025**	**-**	**$40.489**	**-**	**$4.888**	**=**	**$11.594**
F 2017	**$58.631**	**+**	**$0.024**	**-**	**$42.934**	**-**	**$5.032**	**=**	**$10.689**

Data Sources

Fiscal year-end revenues were obtained from SABHRS, and other lottery figures were provided by the Montana State Lottery.

Highway Patrol Fines

2017 Biennium

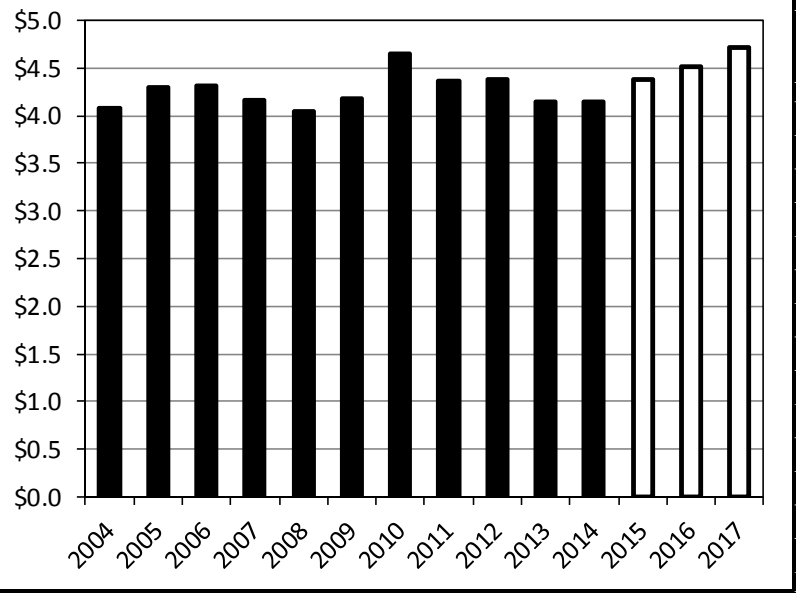
Revenue Description

Highway patrol fines are provided for in Title 61, Chapter 8, parts 3 and 7, MCA. Citation fines are collected in justice courts. Highway patrol fines are distributed 50% to the county general fund and 50% to the state general fund, pursuant to 3-10-601, MCA. One-hundred percent of fines resulting from highway patrol officer stops for highway use or vehicle violations processed in any other court are paid into the state general fund (61-12-701, MCA).

Table 1 shows actual general fund revenue from highway patrol fines for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 1
Highway Patrol Fines
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$4.084	-0.62%
A	2005	$4.293	5.10%
A	2006	$4.316	0.55%
A	2007	$4.155	-3.74%
A	2008	$4.049	-2.55%
A	2009	$4.180	3.22%
A	2010	$4.646	11.16%
A	2011	$4.359	-6.18%
A	2012	$4.385	0.59%
A	2013	$4.140	-5.58%
A	2014	$4.142	0.04%
F	**2015**	**$4.374**	**5.60%**
F	**2016**	**$4.512**	**3.15%**
F	**2017**	**$4.708**	**4.35%**



The table shows that fine collections demonstrate occasional increases (FY 2005 and FY 2010) followed by several years of modest growth or decline. Recent declines in revenue are attributable to the combined effects of higher fuel prices and SB 264 (2005 anti-quota bill) which introduced highway patrol officer management changes in FY 2008. Highway patrol fine collections are forecast to gradually increase during the forecast period.

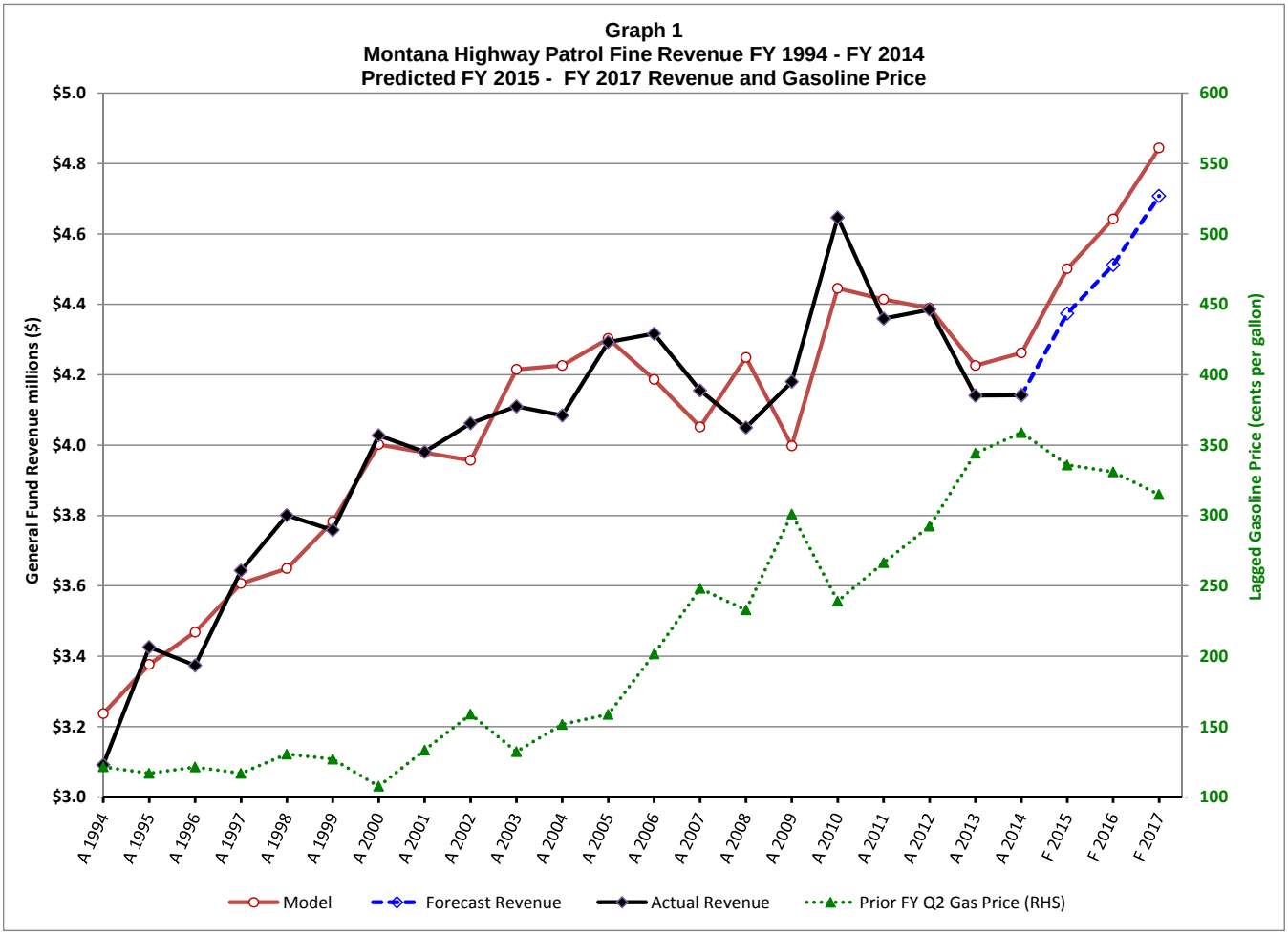
Risks and Significant Factors

- Significant revenue peaks are attributable to major changes in traffic laws. In FY 2005, implementation of HB 195 (2003 session) which raised penalties for driving under the influence (DUI) and SB 13, which lowered legal blood alcohol thresholds, generated revenue increases.
- Prior to FY 2006, a simple time trend analysis of revenue collected would produce good estimates. Revenue declined in FY 2007 and FY 2008 despite legislation thought to increase revenue.
- There were minor law changes affecting traffic regulations in the 2013 session. These are unlikely to change highway patrol fine revenue trends.
- A review of Highway Patrol operations reports show that enforcement effort in FY 2014, as measured by patrol miles covered, maintained the FY 2005 – FY 2014 trend (1.17% annual increase).
- Anticipated decreases in relative motor fuel gasoline prices are expected to increase highway traffic volume.
- Significant changes in Highway Patrol operations, overall economic activity, or fuel prices may raise or lower the level of collections.

Forecast Methodology

The estimate is based on a regression model of revenue as a function of time-trend, and actual (and forecast) prior fiscal year 2nd quarter gasoline prices. Including the lagged gasoline prices in the model improved the model fit (R^2=0.9508 and model standard error of $122,000) and accounted for recent increases and decreases in revenue. The level of early season gasoline prices may serve as an indicator of the marginal change (relative to trend) in traffic volume and possibly vehicle velocity. Increases in fuel prices above seasonal trend are believed to have a negative effect on discretionary travel planning. Structurally, collections lag citations as adjudication processes and revenue recording create natural lags in receipts.

The model fit and forecast are presented in Graph 1. Note that the forecast assumes the modeled growth rates are the most probable and centers anticipated collections on FY 2014 actual collections. This represents a 2.9% hedge that collections will be lower than modeled. Actual collections have been higher and lower than the model has predicted. The graph also shows that revenue tends to increase over time, but revenue growth slows (or declines) after gasoline prices rise rapidly.



Distribution:

All highway patrol fines received by the state are directed to the general fund.

Data Sources

SABHRS provided historical tax revenue. Highway Patrol headquarters staff provided fiscal year operations reports. Gasoline prices and the gasoline price forecasts are from IHS Economics October 2014 national forecast.

Investment Licenses and Permits

2017 Biennium

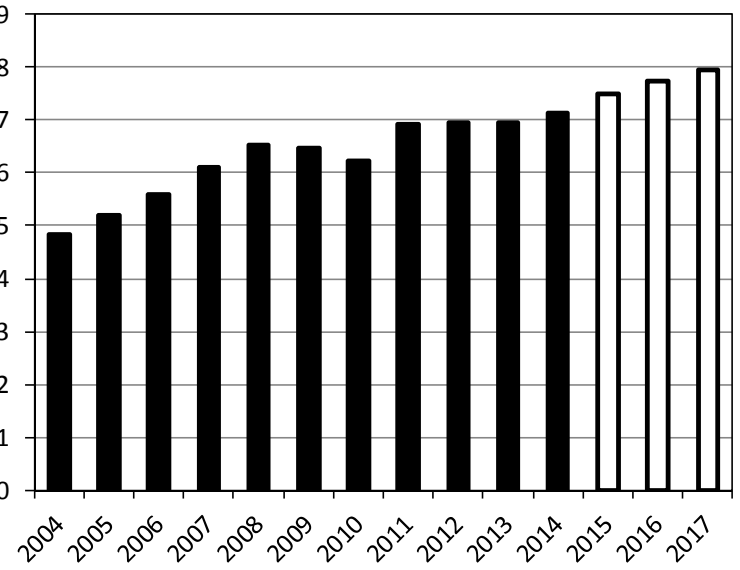
Revenue Description

Individuals and firms who plan to sell securities in Montana must register with the State Auditor and pay fees as specified in 33-10-209, MCA. The fee to register as a broker-dealer or investment advisor is $200 a year. The fee for salespersons and representatives working for a broker-dealer or investment advisor is $50.

Newly issued securities not regulated at the federal level, or traded on regulated or self-regulating exchanges, or otherwise exempt from state regulation, must be registered with the State Auditor's Office (SAO). The first year registration fees are $200 plus 0.1% of the issue value over $100,000, up to a maximum fee of $1,000. In succeeding years, the registration may be renewed for a fee of 0.1% of the value of securities to be offered that year with a minimum fee of $200 and a maximum fee of $1,000.

Table 1
Investment Licenses and Permits
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	$4.834	-5.98%
A 2005	$5.192	7.41%
A 2006	$5.584	7.55%
A 2007	$6.095	9.15%
A 2008	$6.514	6.88%
A 2009	$6.461	-0.81%
A 2010	$6.225	-3.66%
A 2011	$6.922	11.21%
A 2012	$6.961	0.56%
A 2013	$6.951	-0.15%
A 2014	$7.115	2.36%
F 2015	**$7.492**	**5.31%**
F 2016	**$7.734**	**3.22%**
F 2017	**$7.954**	**2.85%**



Risks and Significant Factors

- Despite an increase in market volatility and a decline in financial sector jobs, securities brokers-dealers and their sales representatives continue to register to do business in Montana in increasing numbers. This is thought to be precautionary registration to avoid unlicensed securities dealing. This trend may end.
- Most securities agents and sales representatives registered in Montana do not operate from within the state, but register via the (national) Financial Industry Regulatory Authority (FINRA) clearinghouse which became mandatory in CY 2003 after an initial phase-in period. This registration appears to have accelerated revenue growth during the FY 1997 to FY 2004 period. Since FY 2005, revenues have more closely followed the traditional relationship with changes in financial markets.
- Recent legislation has indirect effects on this revenue source. HB 125 (2011) clarified that securities notice fees apply to each class of securities offered in a portfolio. This has raised notice fee collections by approximately $1.5 million per year. To the extent these collections exceed appropriated SAO expenditures, they are transferred to the general fund (and recorded in Other Revenue) at fiscal year end. HB 81 (2011) created a state special revenue fund for securities fraud restitution. These payments are returned to victims of securities fraud subject to application, a cap, and review by a SAO panel. HB 81 in the 2013 session created a permanent

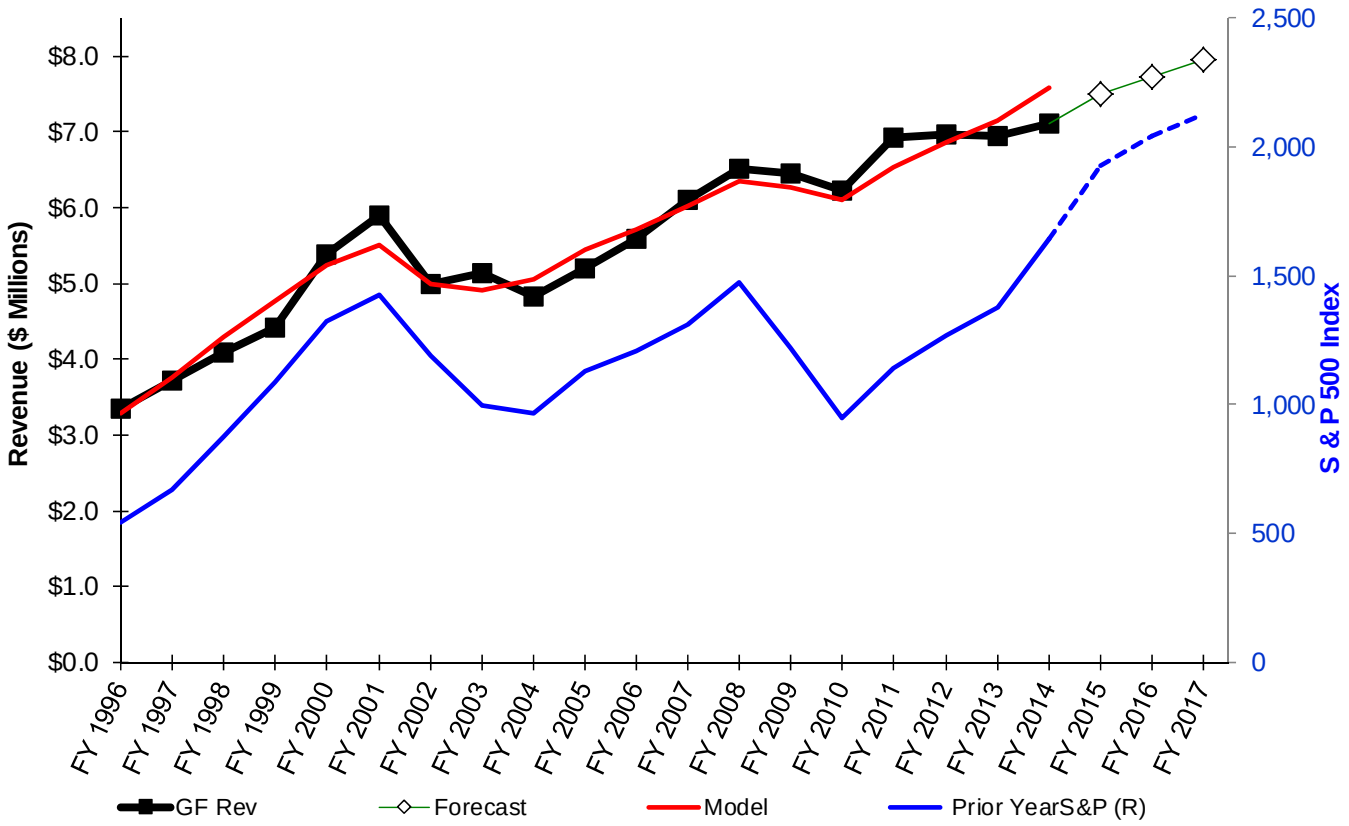
source of funding for the securities restitution fund with the allocation of 4.5% of total portfolio fees (approximately $335,000 per year).

Forecast Methodology

Step 1. Insurance license and permit revenue is estimated using a regression model of time and the natural log of prior fiscal year performance of the S&P 500 index, with indicator for FINRA registration.

The model fit and forecast are presented in Graph 1. The graph shows that revenues move in concordance with financial markets.

Graph 1
Investment License Revenue and Prior Year S&P 500 Average
FY 1996-2014 and Forecast for FY 2015-2017



Data Sources

Historical tax revenue is extracted from SABHRS. The Securities Department of the State Auditor's Office provided information on law changes, counts of securities broker-dealers, securities sales representatives, investment advisors, and investment advisor sales representative registrations. The S&P 500 stock index and forecast is from the IHS Economics October 2014 national forecast.

Public Contractors' Gross Receipts Tax

2017 Biennium

Revenue Description

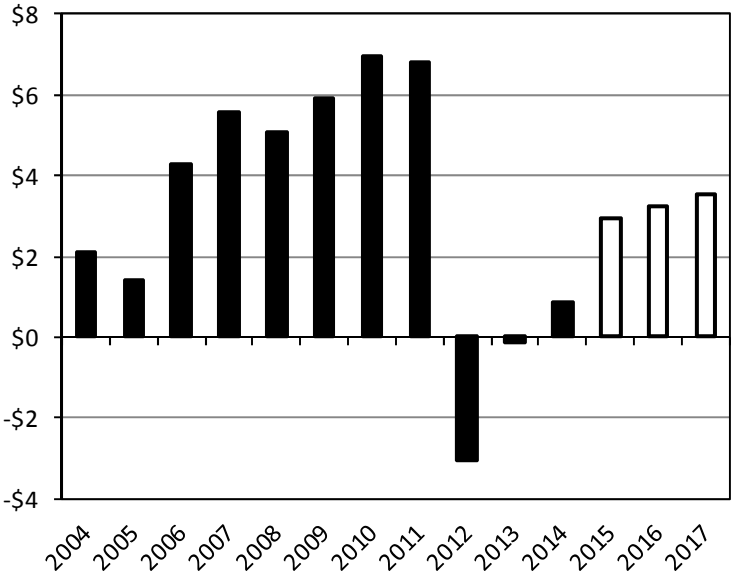
In accordance with 15-50-205, MCA, a 1% tax is assessed on the gross receipts contractors receive for construction work within the state for federal, state, or local governments. Contractors may use the amount of gross receipts tax paid as an offset or credit against either their corporation license tax or their individual income tax. In addition, any personal property taxes paid on property located within Montana and used in the contractor's business may be used to obtain a refund of contractors' gross receipts taxes paid. Any tax not credited or refunded is allocated to the general fund.

Table 1 shows actual general fund revenue from the contractor's gross receipts tax for FY 2004 through FY 2014, and forecast revenue for FY 2015 through FY 2017. General fund revenue grew significantly in FY 2009 and FY 2010, which could be due to funds generated by the America Recovery and Reinvestment Act. Receipts to the general fund dipped slightly in FY 2011, and then went negative in FY 2012 and FY 2013 as refunds outpaced payments. Revenue escaped negative territory in FY 2014, and is expected to grow again in FY 2015.

SB 323 (2005 session) allows public contractors to carry forward individual income or corporate license tax credits for up to five years.

Table 1
Contractors' Gross Receipts Tax
($ millions)

	Fiscal Year	General Fund	Percent Change
A	2004	$2.120	-31.19%
A	2005	$1.411	-33.46%
A	2006	$4.275	202.95%
A	2007	$5.567	30.23%
A	2008	$5.063	-9.06%
A	2009	$5.930	17.13%
A	2010	$6.969	17.53%
A	2011	$6.803	-2.38%
A	2012	-$3.042	-144.7%
A	2013	-$0.138	-95.48%
A	2014	$0.887	n/a
F	**2015**	**$2.934**	**230.72%**
F	**2016**	**$3.246**	**10.64%**
F	**2017**	**$3.548**	**9.31%**



Risks and Significant Factors

- Some of the variation in revenue is largely the result of refund processing fluctuations. Due to administrative and technological changes, backlogs of refunds accumulated in FY 2002, FY 2003, and FY 2006. This likely contributed to the large jump in general fund revenue in FY 2006. Following the completion of administrative changes in FY 2006, and the processing of the ensuing backlog through FY 2008, the Department of Revenue (DOR) expects all future backlog amounts will be processed in the following year.
- Federal contracts are taxable, and if federal dollars were to decrease, then public contractors' gross receipts revenue is also likely to decrease.

Forecast Methodology

There are three steps used when calculating public contractor's gross receipts tax revenue:

Step 1. Estimate gross tax receipts based on the expected volume of public contracts. The Montana Department of Transportation (MDT) is the source of a large number of public contracts. Payments from MDT contracts as well as contracts from other sources are forecast Other contract payments historically have fluctuated more than MDT contract payments over the years. Payments from other contracts appear to have been heavily influenced by stimulus funds based on increases in FY 2009 and FY 2010. MDT contract payments are forecast to grow at a consistent rate over the forecast period. Data on government infrastructure spending is incorporated into a linear regression model in order to forecast payments from other public contracts, which are predicted to rise in each year of the forecast period.

Step 2. Forecast total tax credits and refunds. To estimate total credits and refunds for each year in the forecast period, the sum of MDT contract and other contract payments are multiplied by the estimated ratio of credit and refund payments to contract payments. The sum of credits and refunds from 2004 through 2014 is divided by the sum of total contract payments from 2004 through 2014 to get the average historical ratio of credit and refund payments to contract payments.

Step 3. Calculate the tax liability for the fiscal year and subtract the amount of credits and refunds to obtain general fund revenue.

Table 2 shows actual gross receipts from MDT and other contractors' payments, credits and refunds, and general fund revenue for FY 2004 through FY 2014. Forecast values are shown for FY 2015 through FY 2017.

Table 2
Gross Receipts, Refunds, and Credits
($ millions)

Fiscal Year	MDT	Other	Credits and Refunds	General Fund
A 2004	$241.63	$358.78	($3.88)	$2.12
A 2005	$239.25	$335.96	($4.34)	$1.41
A 2006	$254.39	$361.38	($1.88)	$4.27
A 2007	$262.78	$570.78	($2.77)	$5.57
A 2008	$271.91	$424.51	($1.90)	$5.06
A 2009	$290.29	$538.45	($2.36)	$5.93
A 2010	$327.79	$560.46	($1.91)	$6.97
A 2011	$329.75	$350.58	$0.00	$6.80
A 2012	$368.23	$138.58	($8.11)	($3.04)
A 2013	$306.05	$110.11	($4.30)	($0.14)
A 2014	$324.84	$115.88	($3.52)	$0.89
F 2015	**$344.79**	**$234.86**	**($2.86)**	**$2.93**
F 2016	**$365.96**	**$275.34**	**($3.17)**	**$3.25**
F 2017	**$388.43**	**$312.59**	**($3.46)**	**$3.55**

Data Sources

Gross tax receipts, tax credits, refunds, and net general fund collections were obtained from SABHRS. Data on government infrastructure spending were obtained from IHS Economics.

Driver's License Fees

2017 Biennium

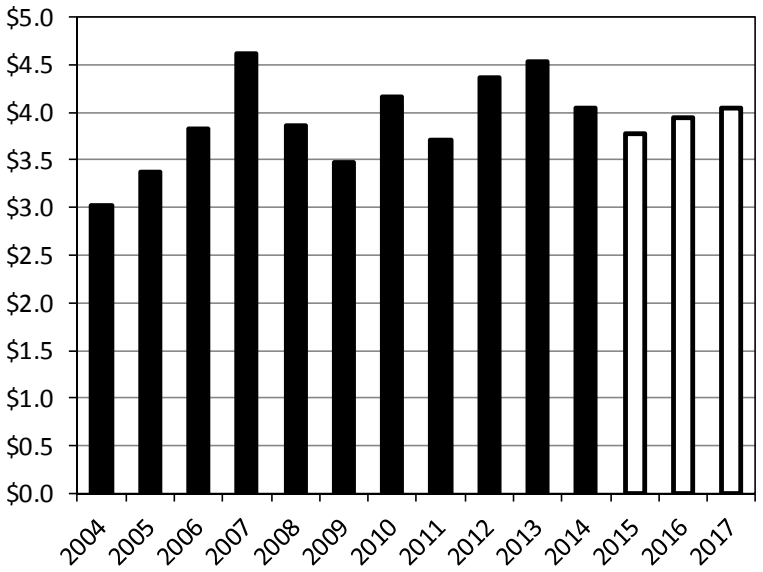
Revenue Description

Fees for driver's licenses, commercial driver's licenses, and motorcycle endorsements are set in 61-5-111, MCA. The fee for replacing a lost or destroyed license is set in 61-5-114, MCA. The distribution of revenue from driver's license fees is set in 61-5-121, MCA. Counties retain a small percentage of the fees they collect.

Table 1 shows general fund revenue from driver's license fees for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 1
Driver's License Fees
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	$3.021	42.55%
A 2005	$3.373	11.64%
A 2006	$3.828	13.50%
A 2007	$4.611	20.43%
A 2008	$3.866	-16.15%
A 2009	$3.478	-10.02%
A 2010	$4.169	19.86%
A 2011	$3.711	-10.99%
A 2012	$4.369	17.72%
A 2013	$4.527	3.61%
A 2014	$4.051	**-10.51%**
F 2015	**$3.768**	**-6.99%**
F 2016	**$3.938**	**4.51%**
F 2017	**$4.037**	**2.53%**



Basic fees for driver's licenses are five dollars per year of validity. Additional fees are charged for motorcycle endorsements ($0.50 per year). Commercial driver's licenses ($10 per year for inter-state and $8.50 per year for intra-state licenses) are valid for a five-year period and include basic driving privileges that run concurrently with the commercial license. Reduced fees are available to active military personnel for basic driver's licenses and motorcycle endorsements. Replacement licenses are $10. A $0.50 renewal notice fee is charged at issue of a license. Most license fees were revised by the 2003 Legislature. The validity of commercial drivers' licenses was reduced to five years and HB 192 revised fee distributions (2005 session). There was a correction to the distribution of fees by the 2007 Legislature in HB 23. In the 2013 session, there were only minor changes in drivers' licensing regulations; none had significant revenue impacts.

Risks and Significant Factors

- Revenue swings between fiscal years are principally due to the continued effects of the transition from four-year to eight-year licensing. While transition rules were in place to reduce large declines in revenue, peak-to-trough variations emerged as drivers' apparently actively sought eight-year licenses.
- The amplitude of the swing grew with fee changes in FY 2003. These effects have persisted despite nearing the end of the second complete eight-year cycle of license renewals in 2015.

- First year restrictions for drivers 18 years of age and under which began in FY 2006, have lengthened the transition to full licensure and reduced the number of drivers 16 and under. An examination of drivers' records suggests that this has not materially reduced driver's license revenue.
- The average driver age in Montana is rising and the growth of the core driving age cohort (20-74 years of age) is slowing. The growth of this age cohort is currently 0.9% and is expected to drop to 0.4% by the end of FY 2017.

Forecast Methodology

Forecasting general fund driver's license fee revenue:

Step 1: Calculate the average effective licensing fee for basic licenses by dividing the number of renewal notices by the basic license collections. Estimating the number of driver's licenses issued in any given year, is proxied by the renewal notices issued each fiscal year starting in FY 2006.

Step 2: Forecast the number of licenses to be issued. The estimate of fiscal year drivers' licenses' to be issued is calculated by taking the average of the prior sixth and seventh years of the licensing cycle and growing the number by the expected age-cohort growth rate.

Step 3: Project the effective average licensing fees for basis drivers' licenses. This is done by taking the three-year moving average.

Step 4: Project total basic driver's license revenue by multiplying projected driver's licenses by expected fees.

The results of Steps 1 through 4 are summarized in Table 2.

Table 2
Estimate of Basic Driver's License Collections

Fiscal Year	Standard Driver's License Fees		Effective Average Fee		Renewal Notices		Forecast Std. License Total Revenue
A 2006	$3,899,811	÷	33.74	=	115,575		
A 2007	$4,764,769	÷	33.75	=	141,193		
A 2008	$3,961,623	÷	34.17	=	115,938		
A 2009	$3,542,739	÷	32.95	=	107,517		
A 2010	$4,238,408	÷	32.48	=	130,477		
A 2011	$3,579,561	÷	30.89	=	115,866		
A 2012	$4,157,011	÷	30.68	=	135,507		
A 2013	$4,496,604	÷	31.44	=	143,000		
A 2014	$4,147,865	÷	32.66	=	127,015		
F 2015			**31.59**	**x**	**119,723**	**=**	**$3,782,384**
F 2016			**31.90**	**x**	**123,923**	**=**	**$3,952,891**
F 2017			**32.05**	**x**	**126,453**	**=**	**$4,052,715**

Step 5: Estimate revenue from other licenses. Commercial driver's license, motorcycle endorsement, and replacement license revenues are projected based on their respective seven-year Olympic average proportions relative to basic driver's license revenue. These estimates are reported in Table 3. Because a few counties retain a portion of the driver's license fee when they issue driver's licenses on behalf of the Motor Vehicles Division, and this retention is not reported in SABHRS, the amount is estimated and added back to the calculation of total license and fee revenue based on the FY 2014 proportion.

Table 3
Driver's License Total Revenue by Fee Type
($ millions)

Fiscal Year	Basic Driver's Licenses	Commercial Licenses	Motorcycle Endorsements	Replacement Licenses	Renewal Fee	Total Revenue	Estimate of county retention
A 2008	$3.962	$0.438	$0.039	$0.326	$0.058	**$4.822**	$0.011
A 2009	$3.543	$0.384	$0.035	$0.320	$0.054	**$4.335**	$0.010
A 2010	$4.238	$0.529	$0.050	$0.309	$0.065	**$5.192**	$0.013
A 2011	$3.580	$0.627	$0.041	$0.315	$0.058	**$4.620**	$0.013
A 2012	$4.157	$0.841	$0.050	$0.328	$0.068	**$5.444**	$0.018
A 2013	$4.497	$0.699	$0.052	$0.331	$0.071	**$5.650**	$0.018
A 2014	$4.148	$0.425	$0.040	$0.341	$0.064	**$5.017**	$0.009
Relative Proportion							
A 2008	1.000	0.110	0.00985	0.082	0.015	1.2172	0.0028
A 2009	1.000	0.108	0.00984	0.090	0.015	1.2236	0.0028
A 2010	1.000	0.125	0.01184	0.073	0.015	1.2251	0.0031
A 2011	1.000	0.175	0.01137	0.088	0.016	1.2908	0.0037
A 2012	1.000	0.202	0.01211	0.079	0.016	1.3096	0.0044
A 2013	1.000	0.155	0.01152	0.074	0.016	1.2564	0.0040
A 2014	1.000	0.102	0.00975	0.082	0.015	1.2096	0.0023
Olympic Avg. Proportion		**0.135**	**0.011**	**0.081**	**$0.016**	**1.243**	**0.0023**
All Fund Revenue by License Type							
A 2014	$4.148	$0.425	$0.040	$0.341	$0.064	$5.017	$0.009
F 2015	**$3.782**	**$0.510**	**$0.041**	**$0.306**	**$0.059**	**$4.699**	**$0.009**
F 2016	**$3.953**	**$0.533**	**$0.043**	**$0.320**	**$0.062**	**$4.911**	**$0.009**
F 2017	**$4.053**	**$0.546**	**$0.044**	**$0.328**	**$0.063**	**$5.035**	**$0.009**

Step 6: Allocate statutory distributions of revenue to the state traffic education and state motorcycle safety accounts, by type of licensing revenue. The remainder is distributed to county or state general funds. The basis for distributing fees for each license is shown in Table 4 as set by 61-5-121, MCA.

Table 4
Driver's License Fee Allocation

	Basic Driver's License	Commercial Licenses	Motorcycle Endorsement	Replacement License
State General Fund (remainder)	76.80%	80.56%	33.20%	87.50%
State or County General Fund[1]	2.50%	2.50%	3.34%	3.75%
Traffic Safety Education	20.70%	16.94%	0.00%	8.75%
Motorcycle Safety Training	0.00%	0.00%	63.46%	0.00%
	100.00%	100.00%	100.00%	100.00%

[1] County general fund receives the distribution if the license is issued at a county office (vs. a MVD office).

The estimates from the bottom of Table 3 are multiplied by the corresponding distribution percentage listed in Table 4 to estimate driver's license receipts allocated to each state special revenue account and to the state general fund.

Counties only receive a distribution if they issue the license. Only a very small portion of total collections are directed to counties' general fund (approximately 0.19% in FY 2014). The state special revenue and general fund estimates as presented in Table 5 are adjusted for the share of licenses issued at county offices. The general fund portion is also presented in Table 1.

Table 5
Allocation of Driver's License Fee Revenue
($ millions)

Fiscal Year	General Fund	Traffic Safety Education	Motorcycle Safety Training	County Retention	Total
A 2014	$4.051	$0.960	$0.026	$0.009	$5.017
F 2015	**$3.768**	**$0.896**	**$0.026**	**$0.009**	**$4.699**
F 2016	**$3.938**	**$0.937**	**$0.027**	**$0.009**	**$4.911**
F 2017	**$4.037**	**$0.960**	**$0.028**	**$0.009**	**$5.035**

Data Sources

Historical revenue data by license type is from SABHRS. Montana population estimates are from the IHS Economics October 2014 state forecast.

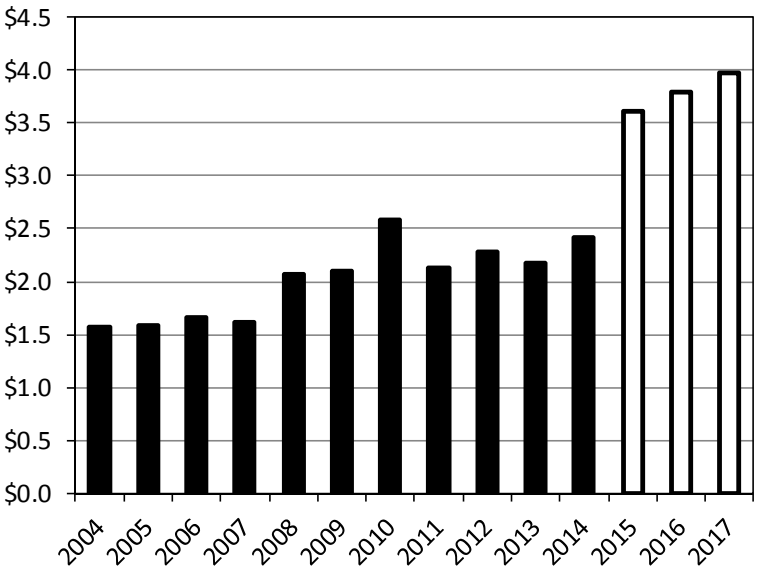
Revenue Description

Section 15-23-101, MCA, provides for the central assessment of rail car companies' operating properties. The tax is computed by multiplying the assessed value of the Montana allocated share of the national rail car fleet by the Class 12 tax rate, and that taxable value of Montana property by the average statewide mill levy for commercial and industrial property defined in 15-23-211, MCA.

Table 1 presents actual general fund revenue from the rail car tax for FY 2004 though FY 2014 and forecast for FY 2015 through FY 2017. (FY 2015 revenues are essentially known since the FY 2015 tax bills are issued at the end of October 2014).

Table 1
Rail Car Tax
($ millions)

Fiscal Year	General Fund	Percent Change
A 2004	$1.568	5.63%
A 2005	$1.585	1.10%
A 2006	$1.667	5.20%
A 2007	$1.615	-3.17%
A 2008	$2.064	27.84%
A 2009	$2.099	1.72%
A 2010	$2.579	22.85%
A 2011	$2.130	-17.41%
A 2012	$2.273	6.72%
A 2013	$2.179	-4.15%
A 2014	$2.418	10.97%
F 2015	**$3.612**	**49.39%**
F 2016	**$3.787**	**4.82%**
F 2017	**$3.969**	**4.82%**



Risks and Significant Factors

- The national economic recovery and increasing Montana coal and oil train traffic has led to a recent increase in tax billings. Investment in new rolling stock is growing the value of national fleet.
- The recent surge in coal and oil traffic, along with strong wheat harvests have increased Montana's share (in value terms) of the national rail car fleet. Rail car company billings for FY 2015 reflect the bulk of this change.
- The class 12 tax rate is the effective weighted average rate that applies to all commercial and industrial property in the state. Therefore, the rate is affected by commercial and industrial property tax reductions. Recent reductions include: the December 2013 *Gold Creek* Supreme court decision on intangible personal property; class 4 commercial property reappraisal; and the SB 372 (2011) and SB 96 (2013) reductions to class 8 tax rates. These are anticipated to lower the Class 12 tax rate in the future.
- The tax reductions may also raise statewide average commercial and industrial mill rates. However, trend statewide commercial and industrial average mill levy growth (1.1%) is used in this estimate. If tax rate reductions raise mill levies more than anticipated, they could paradoxically increase state general fund rail car tax revenue.
- Tax year (TY) 2014 rail car tax bills are mailed in October, the tax liability for FY 2015 is known.

Forecast Methodology

Step 1. Forecast the allocated market value of rail car companies operating in Montana. The (outlier adjusted) trend growth in the national rail car fleet value is projected and the Montana allocated share of that market value of all railcars is held constant at its TY 2014 level (0.61%).

Step 2. Apply the estimates of class 12 tax rates. These are estimated based on the simple trend rate of change (decline) and as such, this estimate decouples from the property tax estimate's class 12 tax rate. The class 12 tax rate incorporates the effective weighted average of the tax rates that apply to all commercial and industrial property statewide.

Step 3. Estimate the average statewide mill levy for commercial and industrial property. Mills are expected to grow at trend rates in the future (1.1%).

Step 4. Calculate general fund revenue. Table 2 presents the forecast of allocated market value, Class 12 tax rate, the estimated statewide average commercial and industrial property mill levy, and the resulting general fund tax revenue forecast. Rail car tax collections show the recent surge for FY 2015, then hold the long-term trend level over the forecast period.

Table 2
Calculation of Rail Car Tax Revenue
($ millions)

Description	FY 2014 Actual	**FY 2015 Billed**	**FY 2016 Projected**	**FY 2017 Projected**
Total Montana Allocated Value	$129.492	**$206.975**	**$216.208**	**$225.853**
Multiplied by Class 12 Tax Rate	3.28%	**3.25%**	**3.23%**	**3.20%**
Taxable Value	$4.247	**$6.736**	**$6.982**	**$7.236**
Multiplied by Mill Levy	$537.520	**$536.280**	**$542.360**	**$548.510**
General Fund Revenue	$2.418	**$3.612**	**$3.787**	**$3.969**

Distribution

The general fund receives 100% of rail car tax revenue.

Data Sources

Historical tax revenue is from SABHRS. The summary rail car tax database (TY 2003 – TY 2014), class 12 tax rates for TY 2003 – TY 2014, and statewide average commercial and industrial mill levies for TY 2003 – TY 2014 were provided by the Department of Revenue.

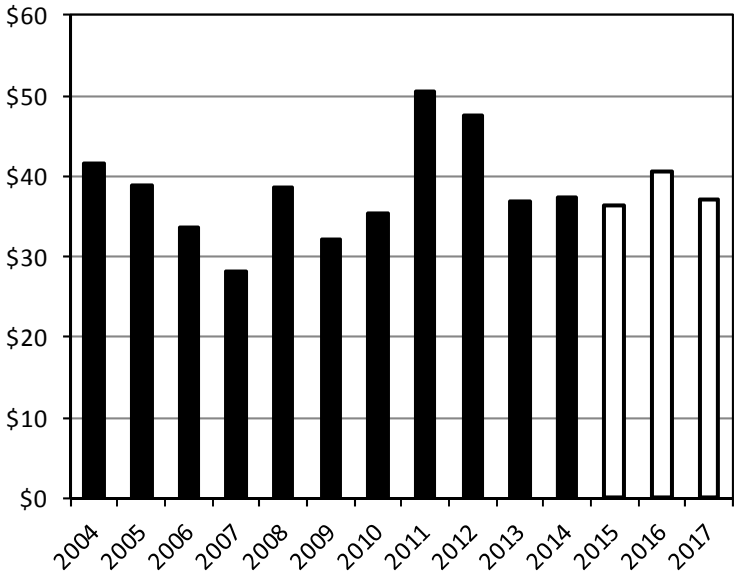
Revenue Description

Other revenue represents the sources of general fund revenue that do not have an individual line item in the revenue estimating resolution. Other revenue includes some one-time revenue that has been as large as $16.3 million in FY 2011 and $8.4 million in FY 2008. An average of $1.5 million per year is used to forecast one-time revenue going forward.

Table 1 shows actual general fund revenue from FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 1
Other Revenue
($ millions)

Fiscal Year		General Fund	Percent Change
A	2004	$41.679	6.32%
A	2005	$38.893	-6.68%
A	2006	$33.640	-13.51%
A	2007	$28.177	-16.24%
A	2008	$38.566	36.87%
A	2009	$32.141	-16.66%
A	2010	$35.454	10.31%
A	2011	$50.420	42.21%
A	2012	$47.486	-5.82%
A	2013	$36.785	-22.53%
A	2014	$37.441	1.78%
F	**2015**	**$36.285**	**-3.09%**
F	**2016**	**$40.533**	**11.71%**
F	**2017**	**$37.153**	**-8.34%**



Risks and Significant Factors

- State legislative and national congressional action may have a significant impact on “other revenue”.
- Many small variances over a large number of revenue categories may have a significant aggregate effect.

Forecast Methodology and Projection Calculation

The general fund “other revenue” is forecast in four steps:

Step 1. Estimate future one-time revenue.

- In FY 2008, the sale of the armory in Missoula for $3.5 million; unused funds from the *Jobs and Growth Tax Relief Act* totaling $2.5 million, and HB 4 (May 2007 special session) funded $2.5 million for the Miles City Readiness Center from the long range building fund. The Department of Military Affairs received funding from the federal government, and as a result of specific wording in HB 4, $2.4 million was returned to the general fund in FY 2008. In FY 2010, there was a non-budgeted transfer from the Department of Administration for $0.371 million. However, this transfer was largely overshadowed by a negative $1.2 million accounting correction made by the Department of Justice related to the implementation of the MERLIN system.

Step 2: Isolate and estimate large sources of other revenue.

- The veterans home transfer is the cigarette tax allocated to the state veterans home in excess of appropriations. This revenue is forecast using the cigarette tax revenue projections from the OBPP and the executive budget appropriation recommendation for the veteran's home.
- The bentonite tax is revenue based on the weight of bentonite production in the state of Montana. Revenue is split between the counties of production, the university system, and the general fund. Bentonite production is estimated to be similar to 2014, and the total revenue is distributed in accordance with 15-39-110, MCA.
- The sale of abandoned property is from financial accounts that have gone dormant and are forwarded to the state. The abandoned property revenue in FY 2014 was $8.9 million, but is expected to be about $5.4 million in FY 2015. Historically, this revenue has an up year and a down year during each biennium.

Step 3: Isolate and estimate smaller sources of revenue.

- There are many small sources of revenue that are forecast individually. These sources are projected like the larger sources of revenue; they are assessed for law changes and forecast based on trends or discussions with agencies.

Step 4: Estimate the remaining revenue as a group and sum the four categories. The general fund revenue that is not classified in one of the three previous groups is estimated as a single group.

Table 2 shows revenue to the general fund that is categorized as one-time revenue.

Table 2
One Time General Fund Revenue
($ millions)

Fiscal Year	One Time Revenue	Percent Change
A 2004	$0.917	-60.13%
A 2005	$4.634	405.36%
A 2006	$1.061	-77.09%
A 2007	$0.097	-90.89%
A 2008	$8.387	8570.78%
A 2009	$0.464	-94.47%
A 2010	-$0.863	-285.94%
A 2011	$16.324	1991.41%
A 2012	$3.450	-78.87%
A 2013	$2.030	-41.16%
A 2014	$0.649	-68.04%
F 2015	**$1.500**	**131.26%**
F 2016	**$1.500**	**0.00%**
F 2017	**$1.500**	**0.00%**

No extraordinary events are forecast at this time and one-time revenue is anticipated to be $1.5 million each year for FY 2015 through FY 2017.

Table 3 shows additional large sources of other revenue. Collections are projected by examining historical deposits to determine whether there is a trend or other pattern in receipts.

Table 3
Large Individual Sources of Other Revenue
($ millions)

Source of Revenue	FY 2012	FY 2013	FY 2014	**FY 2015**	**FY 2016**	**FY 2017**
Fire Reimbursement	$0.000	$0.000	$0.000	**$0.000**	**$0.000**	**$0.000**
Abandoned Property	$6.305	$5.370	$8.957	**$5.370**	**$8.957**	**$5.370**
Clerk of Court Fees	$3.434	$3.386	$3.275	**$3.275**	**$3.275**	**$3.275**
Vet's Home Transfer	$3.676	$3.379	$4.157	**$4.157**	**$4.157**	**$4.157**
Portfolio Transfer	$5.016	$5.023	$5.287	**$5.568**	**$5.747**	**$5.911**
Vehicle and Driving Records	$2.321	$2.256	$2.295	**$2.295**	**$2.295**	**$2.295**
SWCAP	$3.980	$2.338	$2.879	**$3.292**	**$3.786**	**$3.786**
HB 536 Criminal Surcharge	$1.585	$1.535	$1.449	**$1.585**	**$1.585**	**$1.585**
Bentonite Production	$0.456	$0.327	$0.161	**$0.330**	**$0.330**	**$0.330**
Estate Tax	$0.060	$0.002	$0.004	**$0.002**	**$0.001**	**$0.000**
Driver's License Reinstatement	$1.266	$1.218	$1.212	**$1.214**	**$1.229**	**$1.229**
Implementation of Stimulus	$0.000	$0.000	$0.000	**$0.000**	**$0.000**	**$0.000**
DOA Administrative Expense	$1.595	$1.616	$1.614	**$1.615**	**$1.615**	**$1.615**
Total	$29.693	$26.449	$31.291	**$28.703**	**$32.977**	**$29.553**

Table 4 shows the four different revenue categories that make up general fund other revenue for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

Table 4
All Other Revenue Sources
($ millions)

Fiscal Year	One Time	Large Sources	Smaller Sources	Estimated as a group	Total
A 2004	$0.917	$26.066	$13.535	$0.345	$40.863
A 2005	$4.634	$27.109	$6.794	$0.204	$38.742
A 2006	$1.061	$24.440	$7.799	$0.445	$33.745
A 2007	$0.097	$21.616	$5.882	$0.582	$28.177
A 2008	$8.387	$22.873	$6.935	$0.371	$38.566
A 2009	$0.464	$24.401	$6.652	$0.623	$32.141
A 2010	($0.863)	$29.890	$5.679	$0.749	$35.454
A 2011	$16.324	$27.516	$3.934	$2.661	$50.434
A 2012	$3.450	$29.693	$4.840	$1.677	$39.660
A 2013	$2.030	$26.449	$4.585	$3.797	$36.861
A 2014	$0.649	$31.291	$4.431	$0.973	$37.344
F 2015	**$1.500**	**$28.703**	**$5.109**	**$0.973**	**$36.285**
F 2016	**$1.500**	**$32.977**	**$5.082**	**$0.973**	**$40.533**
F 2017	**$1.500**	**$29.553**	**$5.126**	**$0.973**	**$37.153**

Data Sources

SABHRS Report MTGL0109 and SABHRS Data Mine provided historical revenue. IHS Economics provided forecast numbers for state population, income, and various statistics used in estimating other sources of revenue.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

NON-GENERAL FUND REVENUE SECTION 10

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

School Trust Land Interest and Income

2017 Biennium

Revenue Description

The United States Congress granted public lands to the state of Montana by the Enabling Act in 1889 to provide income to support public schools. The Enabling Act also granted smaller amounts of land to other state institutions. The land grants have been supplemented over time through gifts to the state, reversions of unclaimed property, and subsequent acts.

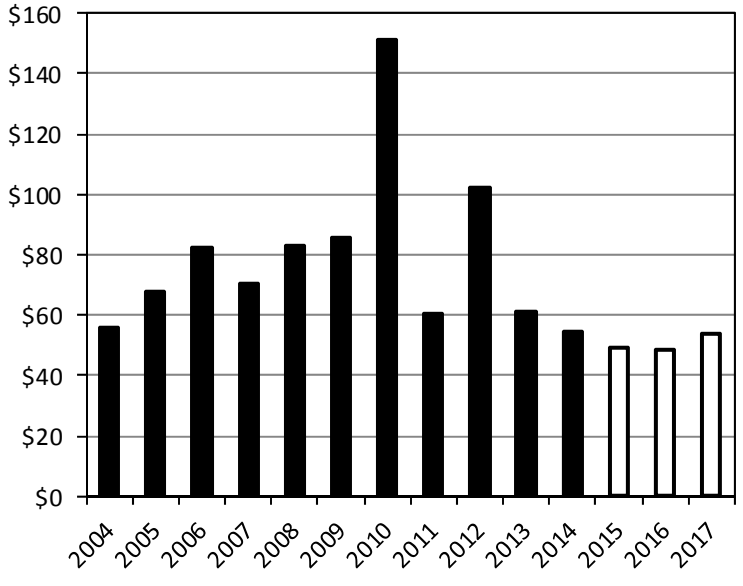
Proceeds from property sales of the granted land are deposited into an inviolate trust fund; thus, the proceeds are non-distributable. The trust fund is invested, almost exclusively, in the Trust Fund Bond Pool (TFBP). Of the interest income, 5% percent is retained by the trust fund corpus, and 95% of the interest earned by the trust fund, along with other income from the trust lands, is considered distributable. The distributable income from the common school trust land is deposited in the guarantee account for spending on public schools. The distributable income from the other trust lands goes to state special revenue accounts. Costs of administering state lands are deducted from allocations of the income. An amount is also deducted and put into a reserve fund in the event revenues do not meet the required expenses in a given fiscal year, but will be greater than the costs given a longer time period.

Table 1 shows actual distributable income from the Common School Trust for FY 2004 through FY 2014 and forecast revenue for FY 2015 through FY 2017.

The large increase in revenue in FY 2010 is due to the bonus payment of the Otter Creek coal tracks. The lower level in FY 2011 is due to the changing distribution of mineral royalties to the trust fund corpus rather than common schools. This change became effective toward the end of FY 2010.

Table 1
School Trust Land Interest and Income
($ millions)

	Fiscal Year	Revenue	Percent Change
A	2004	$55.663	13.65%
A	2005	$68.036	22.23%
A	2006	$82.606	21.41%
A	2007	$70.429	-14.74%
A	2008	$83.026	17.89%
A	2009	$85.385	2.84%
A	2010	$151.034	76.88%
A	2011	$60.144	-60.18%
A	2012	$102.391	70.24%
A	2013	$61.098	-40.33%
A	2014	$54.719	-10.44%
F	**2015**	**$49.477**	**-9.58%**
F	**2016**	**$48.231**	**-2.52%**
F	**2017**	**$53.605**	**11.14%**



School interest and income was deposited in the general fund through FY 2001. Because of SB 495 (2001 session) and HB 7 (2002 special session) a new special revenue account, the guarantee account, was created. Beginning in FY 2002, school trust interest and income has been deposited in the guarantee account rather than the general fund.

Revenue increased in FY 2002, because SB 495 resulted in a loan of $46 million from the coal trust to the school trust fund. The higher school trust fund balance increased interest earnings. SB 495 also allowed $138.9 million in net mineral royalties to be distributed to common schools rather than to the trust fund corpus. That limit was reached in FY 2010, and mineral royalty revenue will be deposited into the trust fund corpus to generate interest revenue.

After HB 152 (2009 session) was passed, all of the revenue generated from timber harvested in the state on common school trust lands over 18 million board feet, as well as 95% of the revenue from river bed leases, was deposited in the school facility and technology improvement account. However, the change in distribution of the revenue from riverbed rents did not take effect until FY 2015.

SB 65 (2009 session) consolidated four accounts that were used to pay for the administration of the trust fund into a single account. It also allowed for the diversion of up to 25% of the prior year's distributable revenue to be deposited into the trust administration account (TAC) for the Department of Natural Resources and Conservation (DNRC) administrative costs. In the event costs were less than what was distributed to the TAC, then up to 1/3 of the excess would be deposited into a newly created reserve account. Money in the reserve account would then be used to cover administrative costs in the event there were inadequate funds in the TAC to cover all of the costs. The remaining revenue would be deposited in the trust fund corpus to generate interest. The balance in the earnings reserve fund may not exceed 200% of the appropriation to the TAC from the prior fiscal year.

Risks and Significant Factors

- In FY 2008, the state of Montana reached an agreement in settlement of litigation under Montana's Hydroelectric Resources Act. The annual fees represent the state's share of net benefits the trust land riverbeds contribute to the hydroelectric project as a whole. Two lease agreements were executed. One agreement is currently being contested and the case is working through the court systems.
- In FY 2010, the state negotiated the leasing right for the Otter Creek coal tracks. This forecast assumes a coal mine at Otter Creek will not be fully developed during the forecast period. If the coal mine is fully developed then the common school trust fund would receive additional royalty revenue that would be deposited into the trust's corpus and generate more interest revenue.
- Trust revenue is net of administration costs of DNRC. If DNRC's costs vary from expectations, then common school revenue could also be greater or less than anticipated.

Forecast Methodology

Step 1. Total interest earnings from the trust and legacy fund are based on interest rate forecasts described in the *Interest Rates Introduction* section.

Step 2. The Common School portion of the total trust fund is then estimated and applied to yield interest income.

Step 3. Agricultural and grazing rentals are determined based on projections provided by the DNRC and historical projection patterns.

Step 4. School trust non-royalty mineral income is based on projections provided by the DNRC and historical projection patterns.

Step 5. Timber revenue is based on projections by DNRC, long-term trends, and executive budget recommendations. The price of timber, along with decisions about the amount of land to be harvested, could have an effect on trust land revenues.

Step 6. Mineral revenue is calculated based on projections provided by the DNRC and historical projection patterns.

Step 7. All other revenue to the common school trust is forecast based on communication with DNRC and long-term trends.

Step 8. All the pieces are added together and distributed appropriately.

Distributions

Table 2 shows forecast gross revenue, estimated administrative expenses, allocation, and net revenue to schools for FY 2015 through FY 2017. In addition, SB 175 (2013 Legislative Session) allocated revenue to the guarantee account that shows at the bottom of the table.

Table 2
School Trust Income Allocation and Distribution
($ millions)

Fiscal Year	FY 2015	FY 2016	FY 2017
Investment Income	$20.360	$19.777	$19.291
Agriculture and Grazing Rents	$28.798	$27.050	$26.625
Mineral Management	$6.684	$6.980	$7.330
Forest Management	$3.159	$3.627	$3.897
Licenses and Other Income	$1.913	$1.946	$1.981
Subtotal	**$60.914**	**$59.380**	**$59.124**
Expenses			
Trust Land Administration Account	$8.833	$8.610	$8.573
Subtotal	**$52.082**	**$50.770**	**$50.551**
Permanent Fund			
5% to permanent fund	$2.604	$2.538	$2.528
Total Common Schools Distribution	**$49.477**	**$48.231**	**$48.024**
Other Revenue to Guarantee Account			
Excess Oil and Gas (SB 329 & SB 175)			$5.581
Total Revenue to Guarantee Account	$49.477	$48.231	$53.605

Data Sources

Historical interest income information was provided by the State Street Bank and BOI monthly reports.

Tobacco Settlement Trust Interest

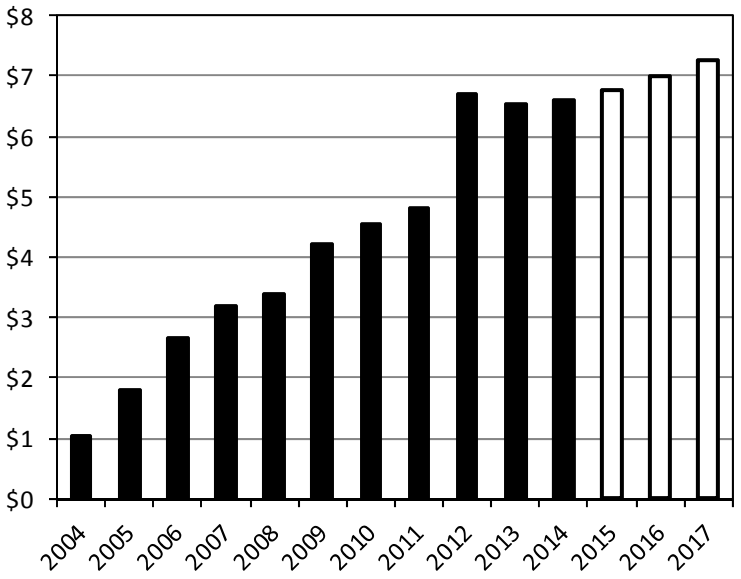
2017 Biennium

Revenue Description

Montana receives payments from a multi-state settlement with tobacco companies. Forty percent of the receipts from this settlement are deposited in the tobacco settlement trust. Ten percent of interest earnings from this trust fund are retained in the trust and 90% are deposited in a special revenue account and may be appropriated by the Legislature for tobacco prevention and health care programs (17-6-603, MCA).

Table 1
Tobacco Settlement Trust Interest
($ millions)

Fiscal Year	Revenue	Percent Change
A 2004	$1.038	-
A 2005	$1.808	-
A 2006	$2.670	47.7%
A 2007	$3.202	19.9%
A 2008	$3.388	5.8%
A 2009	$4.208	24.2%
A 2010	$4.546	8.0%
A 2011	$4.825	6.1%
A 2012	$6.701	38.9%
A 2013	$6.526	-2.6%
A 2014	$6.592	1.0%
F 2015	**$6.783**	**2.9%**
F 2016	**$6.987**	**3.0%**
F 2017	**$7.249**	**3.8%**



The tobacco settlement trust was established in January 2001, following passage of Constitutional Amendment 35 in the November 2000 election. Spendable interest is the portion of tobacco trust interest that is not retained by the trust. Tobacco trust interest revenue grows because the trust fund balance increases with the settlement payments made each year.

Forecast Methodology and Significant Factors

There are three steps to forecasting interest revenue from the tobacco trust fund:

Step 1. The annual average balance of the fund is projected. The fund balance increases yearly as 40% of the tobacco settlement payments and 10% of the interest earned on the fund balance are deposited into the trust fund.

Step 2. The annual average balance by investment type is projected. The fund balance is invested in the short-term investment pool (STIP) and the trust fund bond pool (TFBP). STIP and TFBP are managed by the Board of Investments (BOI) and forecasts of annual rates of return for STIP and TFBP are explained in the *Interest Rates Introduction*.

Step 3. Interest earnings are forecast by multiplying the tobacco trust fund balance by the projected average interest rate. The STIP and TFBP interest rates are expected to change throughout the 2017 biennium, as described in the *Interest Rates Introduction*. However, total tobacco trust fund income will continue to increase each year because the increasing trust fund balance offsets lower interest rates, to the extent that lower interest rates are realized.

Distributions

Table 2 summarizes actual and projected interest earnings and the allocation of interest earnings from FY 2005 through FY 2017. Ten percent of tobacco trust earnings are retained by the trust and 90% are allocated to a state special revenue account.

Table 2
Tobacco Trust Interest Revenue Distribution
($ millions)

Fiscal Year	Reinvested Revenue (10%)		Remaining Revenue (90%)		Total Interest Revenue
A 2005	$0.320	+	$2.882	=	$3.202
A 2006	$0.339	+	$3.049	=	$3.388
A 2007	$0.421	+	$3.787	=	$4.208
A 2008	$0.455	+	$4.091	=	$4.546
A 2009	$0.483	+	$4.343	=	$4.825
A 2010	$0.560	+	$5.039	=	$5.599
A 2011	$0.617	+	$5.556	=	$6.173
A 2012	$0.670	+	$6.031	**=**	$6.701
A 2013	$0.653	+	$5.873	**=**	$6.526
A 2014	$0.659	**+**	$5.933	**=**	$6.592
F 2015	**$0.678**	**+**	**$6.105**	**=**	**$6.783**
F 2016	**$0.699**	**+**	**$6.288**	**=**	**$6.987**
F 2017	**$0.725**	**+**	**$6.524**	**=**	**$7.249**

Data Sources

Tobacco trust balances and earnings are obtained from the BOI and SABHRS. Projections of tobacco settlement deposits are from the *Tobacco Settlement* revenue estimate. Projections of the STIP and TFBP interest rates are from *Interest Rates Introduction.*

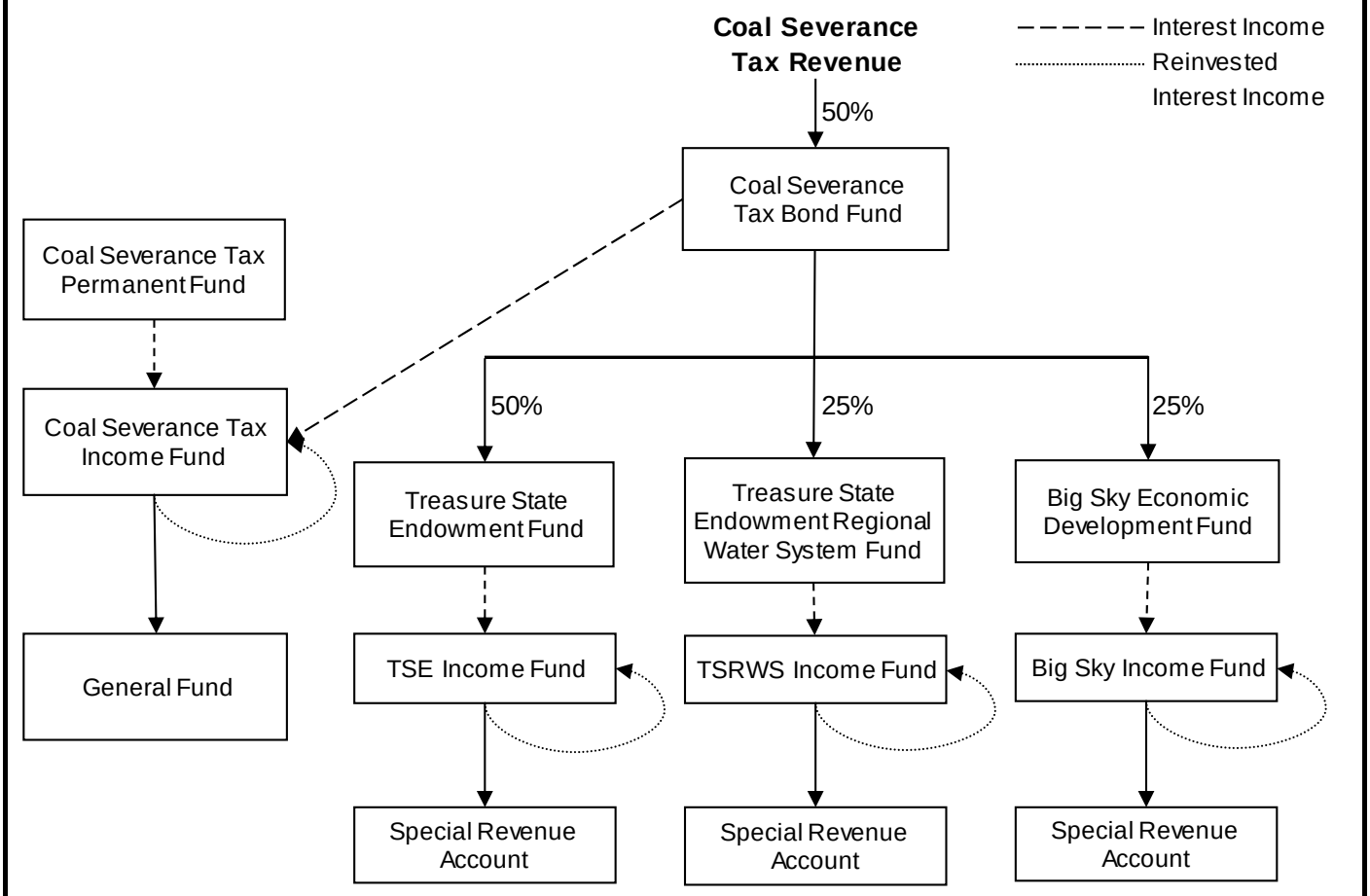
Revenue Description

Article IX, Section 5, of the Montana Constitution established a permanent trust fund into which at least half of coal severance tax revenue must be deposited as principal. Interest income from this principal may be appropriated, but the principal itself is inviolate unless approved by three-fourths of the members of each house in the legislature. Under current law, 50% of coal severance tax revenue is deposited in the trust fund, which is divided into the following funds. (17-5-703, MCA)

- coal severance tax bond fund
- coal severance tax permanent fund
- treasure state endowment fund (TSE)
- treasure state endowment regional water system fund (TSRWS)
- big sky economic development fund (BSED)

The coal severance tax revenue allocated to the trust is initially deposited in the coal severance tax bond fund. The revenue is then distributed to the various accounts as shown in Figure 1.

Figure 1: Coal Severance Tax Distribution[1]



[1] Effective July 1, 2016, the treasure state endowment fund and the treasure state endowment regional water fund no longer receive their distributions from the coal severance tax bond fund. Instead, the distributions will be allocated to the coal severance tax permanent fund.

Coal Severance Tax Bond Fund

The coal severance tax revenue deposited into the coal severance tax bond fund (bond fund) secures state issued bonds referred to as coal severance tax bonds. The tax bonds are issued to finance loans through the Department of Natural Resources and Conservation (DNRC). The Department of Revenue (DOR) administers the bond fund, and at the beginning of a fiscal year, DNRC informs DOR of the amount necessary to meet all principal and interest payments on coal severance tax bonds in the next twelve months. This amount is maintained as a reserve balance in the bond fund.

A portion of the reserve balance in the bond fund is invested in the short-term investment pool (STIP). This investment averages about $6 million per year, and the interest earnings are deposited in the coal severance tax income fund. The coal severance tax income fund balance is transferred monthly to the general fund, but the balance is invested in STIP during the interim with the reinvested interest income returning to the fund.

The coal severance tax revenue that is not reserved in the bond fund is allocated 50% to the TSE fund, 25% to the TSRWS fund, and 25% to the BSED fund.

Risks and Significant Factors

- There is increasing likelihood that the Federal Reserve (Fed) will raise the federal funds sometime in CY 2015. An increase in the federal funds rate will lead to rising short-term interest rates, which will have a positive effect on the interest earnings of STIP investments.
- It is unclear how rapidly short-term interest rates will rise when the Fed decides to raise the federal funds rate. The Fed may ease into federal funds rate increases to avoid shocking the economy with an abrupt increase in short-term interest rates.
- The actions of the Fed will be dictated, in part, by its outlook for inflation in the near future.
- Trust fund bond pool (TFBP) rates of return are a large determinant of interest earnings for the coal tax trust funds because the majority of the balance in each fund is invested in the TFBP. The rates of return on TFBP investments are declining due to low bond yield in both the TFBP portfolio and in the market.
- Collections of coal severance tax revenue affect the interest earnings of the bond fund (as well as the other trust funds). Higher severance tax collections can boost the fund's balance. All else equal this increases interest income from the fund.

Forecast Methodology

Revenue for the three trust funds is forecast in two main steps.

Step 1. Estimate the composition of the trusts investments.

Step 2. Apply the appropriate interest rate to each investment. The different rates of return are forecast in the *Interest Rate Introduction* section.

The following sections discuss the revenue for each individual trust.

Coal Severance Tax Permanent Fund

The coal severance tax permanent fund (permanent fund) is the original coal tax trust fund. Generally, the permanent fund is not a recipient of coal severance tax revenue, but it earns interest income on its balance. The permanent fund balance in FY 2014 was $508 million with 23% invested in loans, 1% invested in STIP, and the remaining 76% invested in the TFBP. The interest earnings from the permanent fund are deposited into the coal severance tax income fund. General fund interest earning is discussed in the *Coal Trust Interest Earnings* section. According to current law, the distribution of the revenue deposited in the coal severance tax bond fund changes effective July 1, 2016. Under this change, the TSE fund and the TSRWS fund will no longer receive revenue from the coal severance tax; however, the fund balances will remain intact and will continue to earn interest. The elimination of the coal severance tax distribution to the TSE and TSRWS funds will affect interest income from these funds, along with the permanent fund, in FY 2017. The permanent fund will receive the distributions previously allocated to the TSE and TSRWS funds, resulting in an increase in the fund's balance in FY 2017. A higher balance will lead to higher interest earnings for the permanent fund. This is accounted for the in *Coal Trust Interest Earnings* estimate.

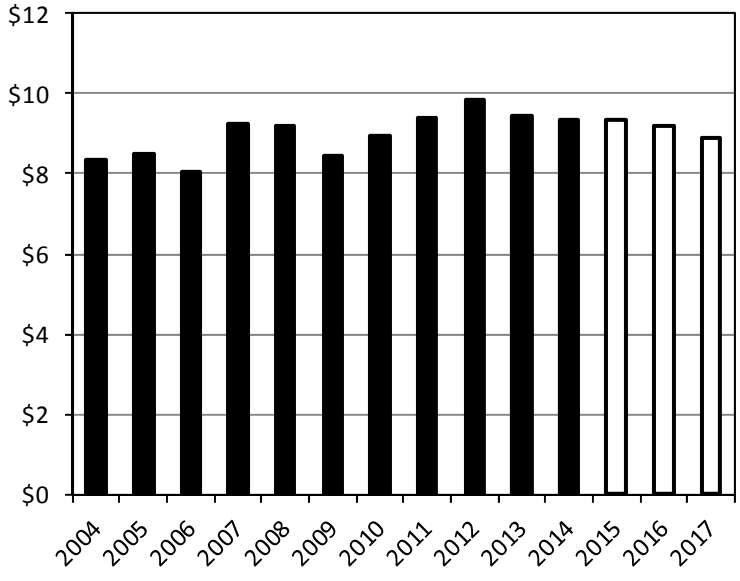
Treasure State Endowment Fund

The TSE fund is used for local government projects, improving drinking water systems, wastewater treatment facilities, sewer systems, solid waste disposal systems, and bridges.

The coal tax contributions to the TSE have varied across years. In FY 2002 and FY 2003, the trust fund received 37.5% of net coal tax collections. Deposits to the trust fund fell in FY 2004 because the TSE fund allocation dropped to 25% of net coal tax collections (SB 10, 2003 session).

Table 1
Treasure State Endowment Fund Interest
($ millions)

Fiscal Year	Revenue	Percent Change
A 2004	$8.349	16.37%
A 2005	$8.482	1.58%
A 2006	$8.039	-5.22%
A 2007	$9.225	14.76%
A 2008	$9.194	-0.33%
A 2009	$8.450	-8.09%
A 2010	$8.940	5.79%
A 2011	$9.416	5.33%
A 2012	$9.866	4.78%
A 2013	$9.448	-4.24%
A 2014	$9.356	-0.98%
F 2015	**$9.326**	**-0.32%**
F 2016	**$9.185**	**-1.51%**
F 2017	**$8.878**	**-3.34%**



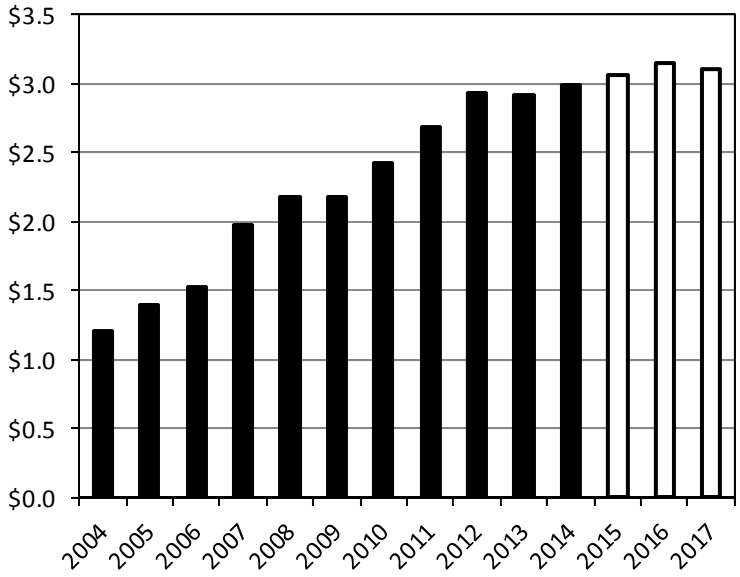
The TSE fund receives 50% of the coal severance tax transfers from the bond fund, or 25% of coal severance tax revenue. The fund balance at the end of FY 2014 was $237.5 million with 98.2% of the balance invested in TFBP, 0.2% percent in loans, and 1.6% invested in STIP. The interest income from the TSE fund is deposited in the TSE income fund, which earns reinvested interest income from STIP investments. The money needed for local government projects is transferred from the income fund to a state special revenue account for distribution. As mentioned above, the TSE fund stops receiving coal severance tax revenue starting in FY 2017.

Treasure State Endowment Regional Water System Fund

The TSRWS provides funding for regional water projects. Funds may be used to match funds for construction of water systems, pay debt service on water system bond issues, pay administrative expenses of state and local entities, and provide interim funding to state or local entities pending receipt of grants or loans.

Table 2
Treasure State Endowment Regional Water System Fund Interest
($ millions)

	Fiscal Year	Revenue	Percent Change
A	2004	$1.201	34.3%
A	2005	$1.396	16.3%
A	2006	$1.527	9.4%
A	2007	$1.979	29.6%
A	2008	$2.175	9.9%
A	2009	$2.179	0.2%
A	2010	$2.419	11.0%
A	2011	$2.685	11.0%
A	2012	$2.937	9.4%
A	2013	$2.912	-0.9%
A	2014	$2.994	2.8%
F	**2015**	**$3.060**	**2.2%**
F	**2016**	**$3.151**	**3.0%**
F	**2017**	**$3.109**	**-1.3%**



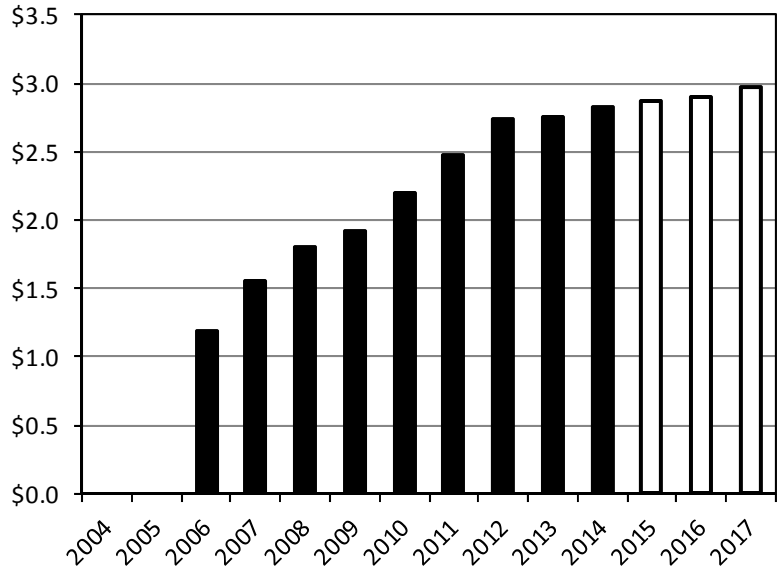
TSRWS receives 25% of the coal severance tax transfers from the bond fund, or about 12.5% of coal severance tax receipts. The fund balance at the end of FY 2014 was $77.9 million, which was invested 98% in TFBP and 2% in STIP. The interest income from TSRWS is deposited in the TSRWS income fund, which is invested in STIP. Funds needed for projects are transferred to a state special revenue account for distribution. Like the TSE fund, the TSRWS fund stops receiving its coal severance tax distribution beginning in FY 2017.

Big Sky Economic Development Fund

On July 8, 2005, $20 million was taken from the permanent fund to create the BSED fund. The interest income from the BSED fund provides financial assistance for economic development to local governments and certified regional development corporations.

Table 1
Big Sky Economic Development Fund Interest Earnings
($ millions)

Fiscal Year	Interest Earnings	Percent Change
A 2004	-	-
A 2005	-	-
A 2006	$1.194	-
A 2007	$1.559	30.62%
A 2008	$1.801	15.53%
A 2009	$1.925	6.88%
A 2010	$2.196	14.06%
A 2011	$2.472	12.57%
A 2012	$2.731	10.48%
A 2013	$2.745	0.51%
A 2014	$2.822	2.79%
F 2015	**$2.868**	**1.66%**
F 2016	**$2.903**	**1.21%**
F 2017	**$2.971**	**2.33%**



The BSED fund receives 25% of the coal severance tax transfers from the bond fund. The year-end fund balance in FY 2014 was $74 million. This balance was invested 97.4% in TFBP and less than 2.6% in STIP. Income from the fund's investments is transferred to a state special revenue account to fund program expenditures. Income not needed for program expenditures remains in the BSED fund and earns interest. Current law dictates that the BSED fund will continue to receive coal severance tax revenue through FY 2025.

Data Sources

Trust fund balances and earnings were obtained from the Board of Investments and SABHRS. Establishment and legal description of the coal trusts is discussed in 17-5-701 through 17-5-731, MCA.

Resource Indemnity Tax

2017 Biennium

Revenue Description

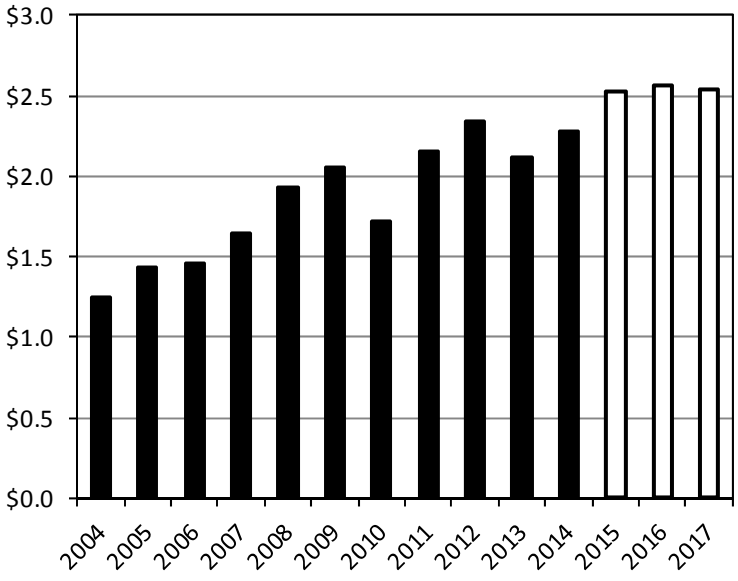
Title 15, Chapter 38, MCA, created a resource indemnity and groundwater assessment tax. The tax (also called the Resource Indemnity Tax or RIT) funds the Resource Indemnity Trust. The tax also provides revenues for groundwater assessment and resource development programs to benefit the state and its citizens. The purpose of the trust and other programs is to indemnify the citizens of Montana for depletion of the state's natural resources and for environmental damage caused by mineral development.

Until the Resource Indemnity Trust Fund balance reached $100 million, 50% of the Resource Indemnity Tax was deposited in the trust fund. The fund balance reached $100 million in December 2001, and this allocation ceased. Under current law, the tax is deposited into several state special revenue accounts.

Table 1 shows actual Resource Indemnity Tax revenues for FY 2004 through FY 2014 and forecast revenue for FY 2015 though FY 2017.

Table 1
Resource Indemnity Tax
($ millions)

Fiscal Year	Revenue	Percent Change
A 2004	$1.251	-46.4%
A 2005	$1.436	14.9%
A 2006	$1.456	1.4%
A 2007	$1.647	13.1%
A 2008	$1.926	16.9%
A 2009	$2.054	6.6%
A 2010	$1.712	-16.7%
A 2011	$2.147	25.4%
A 2012	$2.344	9.2%
A 2013	$2.112	-9.9%
A 2014	$2.279	7.9%
F 2015	**$2.531**	**11.0%**
F 2016	**$2.563**	**1.3%**
F 2017	**$2.542**	**-0.8%**



The tax rates for RIT vary depending on the type of mineral being extracted.

- Talc's tax rate is $25 plus an additional 4% of the gross value of the talc produced in excess of $625 in the prior calendar year.
- Coal's tax rate is $25 plus an additional 0.4% of the gross value of the coal produced in excess of $6,250 in the prior calendar year.
- Vermiculite's tax rate is $25 plus an additional 2% of the gross value of the vermiculite produced in excess of $1,250 in the prior calendar year.
- Limestone's tax rate is $25 plus an additional 10% of the gross value of the limestone produced in excess of $250 in the prior calendar year.
- Industrial garnets and its associated byproducts tax rate is $25 plus an additional 1% of the gross value of product in excess of $2,500 in the prior calendar year.
- All other mineral's tax rate (excluding metals, oil, and natural gas) is $25 and an additional 0.5% of the gross value of the product in excess of $5,000 in the prior calendar year.

Forecast Methodology

There are 2 steps in forecasting RIT revenues:

Step 1. Estimate the amount of revenue from coal production. Over the past five years, RIT revenue has averaged approximately 13% of general fund coal severance tax revenue. Forecast values of RIT revenue are estimated by multiplying the five-year average proportion of RIT revenue to coal severance tax revenue by the forecast values of general fund coal severance tax revenue from the Coal Severance Tax Revenue estimate.

Step 2. All other minerals that pay the Resource Indemnity Tax are projected to increase at the same rate as the IHS Economics forecast for minerals and mineral product's producer price index.

Table 2 shows the actual and forecast RIT revenues from coal production and other mineral production.

Table 2
Resource Indemnity Tax
($ millions)

Fiscal Year	Coal Tax Revenue		Other Minerals Tax Revenue		Total
A 2004	$0.966	+	$0.285	=	$1.251
A 2005	$1.109	+	$0.328	=	$1.436
A 2006	$1.087	+	$0.370	=	$1.456
A 2007	$1.212	+	$0.435	=	$1.647
A 2008	$1.215	+	$0.711	=	$1.926
A 2009	$1.262	+	$0.792	=	$2.054
A 2010	$1.362	+	$0.350	=	$1.712
A 2011	$1.598	+	$0.549	=	$2.147
A 2012	$1.728	+	$0.616	=	$2.344
A 2013	$1.745	+	$0.367	=	$2.112
A 2014	$1.782	+	$0.497	=	$2.279
F 2015	**$2.028**	**+**	**$0.502**	**=**	**$2.531**
F 2016	**$2.057**	**+**	**$0.507**	**=**	**$2.563**
F 2017	**$2.027**	**+**	**$0.515**	**=**	**$2.542**

Distribution

The Resource Indemnity Tax revenue is allocated to several state special revenue accounts. These include the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) match debt service fund (75-10-622, MCA), the ground water assessment account (85-2-905, MCA), the water storage account (85-1-631, MCA), the Hazardous Waste/CERCLA state special revenue account (75-10-621, MCA), the Environmental Quality Protection Fund (75-10-704, MCA), and the Natural Resource Projects state special revenue account (15-38-302, MCA). The allocations are made in the specific order described below.

First, the CERCLA match debt service fund must allocate the required amount to pay the principal, redemption premiums, and interest on CERCLA bonds, after transfers from the CERCLA cost recovery account (75-10-631, MCA).

Second, $0.366 million is distributed to the groundwater assessment account. In FY 2003, the groundwater assessment account allocation increased from $0.300 million to $0.366 million (SB 322, 2001 session). In FY 2005, the groundwater assessment account received only $0.114 million due to a correction from a previous error in distribution.

Third, at the beginning of the biennium (even numbered years), $0.150 million is allocated to the water storage state special revenue account.

Lastly, 25% of the remaining revenue is distributed to the Hazardous Waste /CERCLA state special revenue account, 25% is distributed to the Environmental Quality Protection Fund, and 50% to the Natural Resource Projects state special revenue account.

Table 3 shows the actual and forecast distribution of the RIT revenue for FY 2012 through FY 2017.

Table 3
Resource Indemnity Tax Revenue Allocation
($ millions)

	Fiscal Year	CERCLA Match Debt Service Fund	Groundwater Assessment	Water Storage	Environmental Quality Protection	Hazardous Waste / CERCLA	Natural Resources Projects	Total
A	2012	$0.267	$0.366	$0.150	$0.390	$0.390	$0.780	$2.344
A	2013	$0.270	$0.366	$0.000	$0.369	$0.369	$0.738	$2.112
A	2014	$0.272	$0.366	$0.150	$0.373	$0.373	$0.745	$2.279
F	**2015**	**$0.272**	**$0.366**	**$0.000**	**$0.473**	**$0.473**	**$0.946**	**$2.531**
F	**2016**	**$0.272**	**$0.366**	**$0.150**	**$0.444**	**$0.444**	**$0.888**	**$2.563**
F	**2017**	**$0.272**	**$0.366**	**$0.000**	**$0.476**	**$0.476**	**$0.952**	**$2.542**

Data Sources

Historical allocations were obtained from SABHRS and historical RIT revenue was obtained from the Department of Revenue.

Resource Indemnity Trust Interest

2017 Biennium

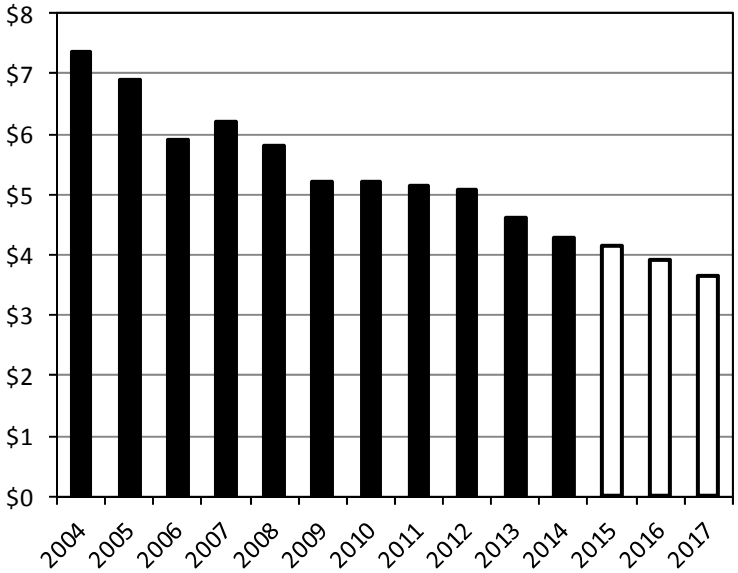
Revenue Description

Title 15, Chapter 38, MCA, created a Resource Indemnity Trust (RIT) fund to indemnify the citizens of Montana for depletion of the state's natural resources and for the environmental damage due to mineral development. The trust was to be funded with proceeds from the Resource Indemnity Tax until the trust balance reached $100 million, which occurred in December 2001. Deposits from the Resource Indemnity Tax ceased at that point, and the balance has remained at $100 million. Interest income from the trust fund is used to fund environmental and natural resource programs.

Table 1 shows actual interest income from the RIT trust fund from FY 2004 through FY 2014 and forecast income for FY 2015 through FY 2017.

Table 1
Resource Indemnity Trust Interest
($ millions)

Fiscal Year		Revenue	Percent Change
A	2004	$7.380	2.9%
A	2005	$6.902	-6.5%
A	2006	$5.916	-14.3%
A	2007	$6.220	5.2%
A	2008	$5.801	-6.7%
A	2009	$5.197	-10.4%
A	2010	$5.213	0.3%
A	2011	$5.135	-1.5%
A	2012	$5.064	-1.4%
A	2013	$4.602	-9.1%
A	2014	$4.296	-6.6%
F	**2015**	**$4.166**	**-3.0%**
F	**2016**	**$3.911**	**-6.1%**
F	**2017**	**$3.649**	**-6.7%**



Forecast Methodology

The interest income is forecast in two steps:

Step 1. Estimate the balance of the RIT fund.

Step 2. Forecast interest rates based on data from the Montana Board of Investments and apply these rates to the estimated RIT fund balances.

Distribution

The revenue distribution of the RIT interest revenue is defined in section 15-38-202, MCA. Some of the accounts receive a fixed allocation per biennium, some accounts receive a fixed allocation per fiscal year, and some accounts receive a percentage each fiscal year of remaining revenue after the fixed allocations have been made. If there isn't enough interest revenue to cover the fixed allocations for all the funds, then each fund gets a percentage of the available revenue. This percentage is equal to the proportion the fund's fixed allocation is of the total revenue needed to cover the fixed allocations for all funds.

In the first year of each biennium the following accounts receive these fixed allocations:

- $50,000 to the oil and gas production damage mitigation account until the account balance reaches $200,000 (82-11-161, MCA).
- $500,000 to the water storage account (85-1-631, MCA).
- $175,000 to the environmental contingency account until the account balance reaches $750,000 (75-1-1101, MCA).

Each fiscal year the following accounts receive these fixed allocations:

- $3.5 million to the natural resource projects account for grants (15-38-302, MCA).
- $300,000 to the groundwater assessment account (85-2-905, MCA).
- $500,000 to the Department of Fish, Wildlife, and Parks for the trout habitat enhancement program (87-1-283, MCA).

It is important to know that if the above fixed allocations cannot be met, then the available money will be distributed to each account on a percentage basis. The percentage each account receives is equal to the share the account's allocation is of the total money needed to cover the fixed allocations for all accounts.

Each fiscal year any funds remaining after all fixed allocations have been made are distributed to the following accounts in these proportions:

- 65% to the natural resource operation account.
- 26% to the hazardous waste/CERCLA account (75-10-621, MCA).
- 9% to the environmental quality protection fund (75-10-704, MCA).

Table 2 shows the distribution of RIT interest for FY 2014 and the forecast distribution for FY 2015 through FY 2017.

Table 2
Resource Indemnity Trust Interest Allocation
($ millions)

Entity	FY 2014	FY 2015	FY 2016	FY 2017
Total Revenue	**$4.296**	**$4.166**	**$3.911**	**$3.649**
Biennial Fixed Allocations				
Oil & Gas Damage Mitigation	$0.001	$0.000	$0.039	$0.000
Environmental Contingency	$0.151	$0.000	$0.136	$0.000
Water Storage	$0.433	$0.000	$0.389	$0.000
Annual Fixed Allocation				
Natural Resources Projects	$3.022	$3.391	$2.724	$2.971
Ground Water Assessment	$0.259	$0.291	$0.234	$0.255
Future Fisheries	$0.432	$0.484	$0.389	$0.424
Remainder	**$0.000**	**$0.000**	**$0.000**	**$0.000**
Annual Percentage Allocations				
Natural Resource Operations (65%)	$0.000	$0.000	$0.000	$0.000
Hazardous Wast/CERCLA (26%)	$0.000	$0.000	$0.000	$0.000
Environmental Quality Protection (9%)	$0.000	$0.000	$0.000	$0.000

Data Sources

Investment balances and interest earnings data was obtained from the Board of Investments and SABHRS.

GOVERNOR
STEVE BULLOCK

STATE OF MONTANA

SUMMARY OF MAJOR ASSUMPTIONS SECTION 11

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
Personal Income Tax (Prior Tax Year)				
Full Year Resident Returns (Annual)	0.0%	0.6%	1.5%	1.4%
Full Year Resident Returns (Growth)	100.0%	100.6%	102.1%	103.5%
Wages and salaries	3.4%	4.6%	5.1%	5.0%
Interest income	-6.1%	-6.5%	5.8%	24.4%
Dividend income	-12.3%	17.5%	-0.2%	4.0%
Net business income	10.7%	5.8%	3.4%	4.1%
Capital gains	-11.9%	11.5%	-12.4%	-2.2%
Supplemental gains	65.3%	-20.2%	-0.1%	2.9%
Rents, royalties, etc.	9.1%	2.2%	0.4%	-1.0%
IRA distributions	4.5%	10.9%	11.0%	8.6%
Taxable Retirement	4.5%	10.9%	11.0%	8.6%
Taxable soc. sec. & pensions	11.4%	11.5%	10.8%	9.6%
Farm income	2.0%	-32.4%	-1.4%	-1.5%
Other income	-0.6%	-29.6%	22.1%	3.8%
ADJUSTMENTS TO INC:	9.6%	17.5%	7.1%	7.1%
ADDITIONS:				
Interest on local govt. bonds	12.3%	13.8%	1.2%	3.0%
Federal income tax refunds	-4.8%	3.6%	0.7%	2.0%
Other additions	-5.6%	-5.7%	2.9%	2.3%
REDUCTIONS:				
Farm risk management account	-80.1%	452.4%	0.0%	0.0%
Exclusion for savings bonds	-13.2%	1.7%	11.8%	47.0%
Unemployment income	-18.0%	-12.5%	-3.9%	2.3%
Medical savings account excl.	5.4%	5.3%	5.0%	4.8%
Family education account excl.	37.2%	3.8%	3.6%	3.5%
First-time homebuyers acct. excl.	0.1%	1.5%	1.5%	1.5%
Health Care Professional Loan Pmt excl.	11.6%	10.4%	9.4%	8.6%
Other reductions	-6.6%	6.1%	6.1%	6.1%

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
TAX ITEMS:				
Montana tax withheld	3.3%	4.6%	5.1%	5.0%
Payments of estimated tax	2.9%	9.5%	2.6%	4.6%
ITEMIZED DEDUCTIONS:				
Medical insurance premiums	5.4%	5.6%	5.6%	5.6%
Medical deduction	-2.4%	1.5%	1.5%	1.5%
Long-term care insurance	6.8%	6.3%	6.0%	5.6%
Balance of federal tax	43.9%	7.0%	7.0%	7.0%
Additional federal tax backyear	61.4%	-33.1%	0.0%	0.0%
Property taxes	4.8%	2.3%	2.1%	2.1%
Other deductible taxes	3.2%	0.9%	0.9%	0.9%
Home mortgage interest	-3.0%	1.7%	1.7%	1.7%
Deductible investment interest	19.3%	5.1%	7.0%	3.0%
Contributions	5.6%	5.7%	5.7%	5.7%
Child/dependent care expenses	-0.4%	0.0%	0.0%	0.0%
Casualty and theft losses	0.0%	0.0%	0.0%	0.0%
Tier I - Miscellaneous	7.1%	2.5%	2.5%	2.5%
Tier II - Miscellaneous	-13.4%	8.6%	0.0%	0.0%
Gambling Losses	45.2%	-26.8%	6.2%	6.2%
FY Adjustments (tax revenue)--				
Wage Growth Adjustment (million $)				
TY 2012 Tax Planning Shifts (million $)				
Net Adjustment (million $)	$0.000	$0.000		
Property Tax				
Mill Levy Revenue (millions $)				
Property Tax - 95 Mill Levy	$233.797	$238.302	$235.208	$244.085
Property Tax - 1.5 Mill Levy	$1.207	$1.225	$1.207	$1.193
Protested Property Taxes	$3.425	$0.168	($0.360)	($0.490)
Total Mill Levy Revenue (millions $)	$238.429	$239.696	$236.056	$244.788
Non-Levy PT Revenue (millions $)				
Coal Gross Proceeds	$6.822	$7.139	$7.319	$7.392
Federal Forest Reserves	$3.727	$0.465	$0.444	$0.432
All Other (by residual)	$0.558	$0.558	$0.558	$0.558
Total Non-Levy PT Revenue	$11.107	$8.162	$8.321	$8.382

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
Taxable Value by Class (millions)				
1. Net Proceeds	3.272	3.791	3.668	3.844
2. Gross Proceeds (w/o Abatements)	29.723	25.578	30.372	31.439
3. Agricultural Land	145.199	152.186	135.747	140.944
4. Res./Comm... Real Property	1,480.525	1,519.032	1,472.465	1,530.197
5. Rural Co-Op/Poll. Control	45.058	44.565	45.412	46.275
7. Non-centrally Assessed Util.	1.202	1.182	1.200	1.182
8. Business Equipment (FY adjusted)	175.610	152.214	160.225	167.289
9. Pipelines, Electrical Transmission	353.668	374.693	393.277	412.782
10. Forest Land	6.277	6.215	3.045	3.030
12. Airlines/Railroads	73.874	72.838	73.850	75.242
13. Telecomm./Elec Generation	160.660	169.881	172.939	176.051
14. Renewable Energy Prod.& Trans.	30.774	29.416	29.416	29.416
15. CO2/Qualifying Liquid Pipelines	1.918	3.515	3.515	3.515
16. High Voltage DC Converter	0.000	0.000	0.000	0.000
Statewide Taxable Value (millions)	3.272	3.791	3.668	3.844
Statewide TV Growth by Class				
1. Net Proceeds	-21.9%	15.9%	-3.2%	4.8%
2. Gross Proceeds (w/o Abatements)	-12.6%	-13.9%	18.7%	3.5%
3. Agricultural Land	-1.8%	4.8%	-10.8%	3.8%
4. Res./Comm... Real Property	2.5%	2.6%	-3.1%	3.9%
5. Rural Co-Op/Poll. Control	-1.4%	-1.1%	1.9%	1.9%
7. Non-centrally Assessed Util.	2.7%	-1.7%	1.6%	1.6%
8. Business Equipment (FY adjusted)	-2.2%	-13.3%	5.3%	4.4%
9. Pipelines, Electrical Transmission	9.6%	5.9%	5.0%	5.0%
10. Forest Land	-1.7%	-1.0%	-51.0%	-0.5%
12. Airlines/Railroads	2.0%	-1.4%	1.4%	1.9%
13. Telecomm./Elec Generation	-17.3%	5.7%	1.8%	1.8%
14. Renewable Energy Prod.& Trans.	97.9%	-4.4%	0.0%	0.0%
15. CO2/Qualifying Liquid Pipelines	0.0%	83.3%	0.0%	0.0%
16. High Voltage DC Converter	0.0%	0.0%	0.0%	0.0%
Statewide Taxable Value (millions)	**1.6%**	**1.9%**	**-1.2%**	**3.8%**
Taxable Value in TIF districts (millions)	(46.732)	(46.659)	(49.253)	(51.924)
Taxable value for COT Counties	837.521	826.434	816.739	847.826
TIF Taxable Value in COY Counties	(20.671)	(21.622)	(21.588)	(22.788)
Taxable Value for 1.5 Mills	816.850	804.812	795.151	825.038
1.5 mill Revenue ($ million)	$1.225	$1.207	$1.193	$1.238

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
Vehicle Taxes and Fees				
New Light Vehicles	60,772	64,479	64,007	63,627
Vehicle stock by age class				
0 to 4 Years	189,459	204,558	213,973	221,831
5 to 10 Years	290,895	263,768	257,570	259,719
Over 10 Years	351,779	356,626	360,413	358,800
All	832,133	824,952	831,956	840,350
Registrations of Vehicles over 10 years of age				
Permanent Registrations	48,454	51,650	55,056	58,687
Annual Registrations Vehicles over 10 yea	351,779	356,626	360,413	358,800
Cumulative Permanent Registrations	220,922	252,688	285,003	318,040
Annual Light Vehicle Revenue (million $)	$76.270	$77.322	$78.932	$80.779
Other Vehicle Registration revenue (million $)	$14.199	$14.345	$14.644	$14.986
All Other Fees (million $)	$6.009	$6.072	$6.198	$6.343
Permanent Registration Revenue (million $)	$4.220	$4.500	$4.800	$5.100
Corporate Income Tax				
FY Lagged (1) U.S. Corp Profits Bn $	$2,173	$2,325	$2,512	$2,508
FY Lagged (2) U.S. Corp Profits Bn $	$1,978	$2,173	$2,325	$2,512
FY Tax Law Effects	50%	25%	0%	0%
Dummy variable for FY 2009	0	0	0	0
Insurance Premiums Tax				
Estimated Gross Insurance Premium Tax	$94.049	$95.928	$98.069	$101.095
Prior Calendar Year S&P 500 Index	1,643	1,938	2,086	2,173
Video Gambling				
Net machine Income (million $)	$383.773	$398.340	$413.015	$429.079
Oil and Gas				
Oil Price Per Barrel	$88.78	$80.34	$78.50	$84.63
Oil Production (millions bbl)	29.343	29.138	29.886	30.480
Effective Tax Rate	8.49%	8.76%	8.76%	8.77%
Natural Gas price per MCF	$4.30	$3.91	$3.84	$4.13
Natural Gas Production (thousands of MCF)	56.071	44.773	45.828	47.455
Effective Tax Rate	9.18%	9.20%	9.21%	9.21%
US Mineral Royalties				
Coal Royalty Income	$364.738	$389.416	$426.630	$422.167
Oil Royalty Income	$265.261	$245.477	$234.340	$263.618
Natural Gas Royalty Income	$53.963	$46.091	$42.194	$47.839
Other US Mineral Royalty Income (Rentals & B	$5.799	$5.716	$5.659	$5.622

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
Coal Severance Tax				
Tons Produced	35.73	37.42	37.36	37.40
Price Per Ton	16.68	17.04	17.30	17.05
Exemptions	151.75	175.79	178.21	175.82
Tax Rate	12.19%	12.82%	12.82%	12.81%
Metal Mines Tax				
Gross Value	$968.643	$990.546	$1,041.595	$1,044.668
Deductions	$85.458	$87.390	$91.894	$92.165
Average Tax Rate	1.58%	1.58%	1.58%	1.58%
Total Tax Revenue	13.943	14.258	14.993	15.037
Change Producer Price Index (PPI) metals	-2.6%	0.3%	0.92%	1.22%
Electrical Energy Producers Tax				
kWh (millions)	21,964.432	22,531.545	22,355.911	22,529.302
Wholesale Energy Tax				
Taxable kWh (million)	19,937.699	21,020.360	21,843.085	22,802.984
Coal Trust Fund				
Balance	$508.394	$501.521	$515.442	$543.098
Return	4.33%	4.10%	3.86%	3.68%
TCA				
Balance	$995.578	$942.982	$943.224	$902.313
Return	0.17%	0.18%	1.05%	2.86%
Liquor Excise and License Tax				
FY Pre-Tax Sales (millions)	$99.042	$103.725	$108.338	$110.487
FY Tribal Distributions (millions)	$0.376	$0.395	$0.412	$0.419
Liquor Profits				
FY Gross Liquor Sales (millions)	$124.278	$130.102	$135.834	$138.471
FY Cost of Goods Sold (millions)	$70.767	$73.520	$76.759	$78.249
FY Liquor Discounts and Commissions (millions	$15.564	$16.293	$17.147	$17.480
FY Liquor Operating Costs (millions)	$3.062	$3.165	$3.292	$3.423
Telecommunications Excise Tax				
ExciseTax	$19.636	$19.458	$19.320	$19.262
Audits, Penalties & Interest	$0.020	$0.060	$0.060	$0.060
Growth rate	-4.8%	-0.7%	-0.7%	-0.3%
Health Care Facility Utilization Fees				
FY Bed Days (millions)	1.639	1.603	1.567	1.532
FY Intermediate Care Expenditures (millions)	$15.309	$15.282	$15.282	$15.282

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
Beer Tax				
FY Beer Barrels (millions)	0.981	0.990	0.999	1.007
FY Tribal Distribution (millions)	$0.063	$0.064	$0.064	$0.064
FY Effective Tax Per Barrel ($)	$4.097	$4.076	$4.054	$4.033
Wine Tax				
FY Wine Liters (millions)	12.158	12.588	13.024	13.468
FY Tribal Distribution (millions)	0.046	0.047	0.049	0.050
Cigarette Tax				
FY Cigarette Packs (millions)	43.652	43.472	42.947	42.412
FY Effective Tax Rate per Pack (dollars)	$1.70	$1.70	$1.70	$1.70
FY Tribal Distribution (millions)	$4.083	$4.067	$4.017	$3.967
Tobacco Tax				
FY Value of Other Tobacco Products (millions)	$6.354	$6.212	$6.111	$6.010
FY Snuff Ounces (millions)	11.512	12.099	12.709	13.345
FY Tribal Distribution (millions)	$0.704	$0.722	$0.747	$0.774
Tobacco Settlement				
FY CPI Change (Percent Change)	3.00%	3.00%	3.00%	3.00%
FY Cumulative CPI Change (Percent Change)	59.05%	63.83%	68.74%	73.80%
Montana NPM Adjustment (millions)	-$0.741	-$2.143	-$1.534	-$1.367
Institutional Reimbursements				
Reimbursements - MDC (millions)	$7.443	$7.125	$7.022	$6.948
Reimbursements - MSH (millions)	$8.154	$8.528	$8.929	$9.397
Reimbursements - MMHNCC (millions)	$3.927	$4.043	$4.116	$4.201
Highway Patrol Fines				
Prior CY 2nd Quarter Gasoline Price (cents per	358.90	335.90	330.94	314.83
Investment License Permits				
Prior FY S&P 500 average	1,643	1,930	2,043	2,128
Drivers License Fees				
Age Adj. Average Fee	$32.66	$31.59	$31.90	$32.05
Basic Drivers licenses issued	127,015	119,723	123,923	126,453
Revenue by type (million $)				
Basic Driver's Licenses	$4.148	$3.782	$3.953	$4.053
Commercial Licenses	$0.425	$0.510	$0.533	$0.546
Motorcycle Endorsements	$0.040	$0.041	$0.043	$0.044
Replacement Licenses	$0.341	$0.306	$0.320	$0.328
Renewal Fee	$0.064	$0.059	$0.062	$0.063
License Revenue	$5.017	$4.699	$4.911	$5.035
Estimate of County retention	$0.009	$0.009	$0.009	$0.009

2017 Biennium Executive Budget Revenue Assumptions

General Fund Assumption Item	Actual 2014	Forecast 2015	2016	2017
	(Fiscal year unless otherwise stated)			
Rail Car Tax				
Total Montana Allocated (market) Value (millior	$129.492	$206.975	$216.208	$225.853
Class 12 Tax Rate	3.28%	3.25%	3.23%	3.20%
Taxable Value (million $)	$4.247	$6.736	$6.982	$7.236
Commercial & Industrial Mill Levy	537.52	536.28	542.36	548.51
Non-General Fund Assumption Item				
University Mills and Revenue				
Property Tax				
University 6 Mill Levy TV (millions)	2,507.758	2,555.105	2,525.131	2,621.243
University 6 Mil levy revenue (million $)	$15.05	$15.33	$15.15	$15.73
University 6 mill non-levy revenue				
Coal Gross Proceeds (estimated)	$0.910	$0.952	$0.976	$0.986
Other Non-Levy Revenue	$0.033	$0.033	$0.033	$0.033
Protested University Mills	$0.213	$0.010	($0.022)	($0.030)
Total Non-Levy (million $)	$1.155	$0.995	$0.986	$0.988
Total 6 mill (million $)	$16.20	$16.33	$16.14	$16.72

GOVERNOR
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STATE OF MONTANA

INDEX

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GOVERNOR'S OFFICE OF
BUDGET AND PROGRAM PLANNING

INDEX

Accommodations Tax 8-3
Allocation of Accommodations Tax 8-4
Beer Tax 6-5
Big Sky Economic Development Fund 10-10
Cigarette Tax 7-1
Coal Severance Tax 4-19
Coal Severance Tax Permanent Fund 10-8
Coal Trust Interest Earnings 5-4
Contractor's Gross Receipts Tax 9-9
Corporation License Tax 3-29
Driver's License Fees 9-11
Economic Overview 1-1
Electrical Energy Producer's License Tax 4-25
General Fund Revenue Summary 2-1
Health Care Facility Utilization Fees 8-7
Highway Patrol Fines 9-5
Individual Income Tax 3-1
Institutional Reimbursement 8-5
Insurance Premiums Tax 3-34
Interest Rates Introduction 5-1
Introduction to Coal Trust Interests 10-6
Investment Licenses and Permits 9-7
Liquor Excise and License Tax 6-1
Liquor Profits 6-3
Lottery Profits 9-1
Metalliferous Mines License Tax 4-22
Mineral Royalties 4-15
Motor Vehicle Taxes and Fees 3-24
Natural Gas Production Tax 4-1
Oil and Natural Gas Severance Taxes 4-1
Other Revenue 9-17
Property Tax 3-12
Public Contractors' Gross Receipts Tax 9-9
Rail Car Tax 9-15
Regional Water System Fund Interest 10-9
Rental Car Sales Tax 8-9
Resource Indemnity Tax 10-11
Resource Indemnity Trust Interest 10-14
Retail Telecommunications Excise Tax 8-1
School Trust Land Interest and Income 10-1
Short Term Investment Pool (STIP) 5-2
Summary of General Fund Revenue 2-1
Telecommunications Excise Tax 8-1
Tobacco Products Tax 7-3

Tobacco Settlement 7-5
Tobacco Settlement Trust Interest 10-4
Treasure State Endowment Fund 10-8
Treasure State Endowment Regional Water System Fund 10-9
Treasury Cash Account (TCA) Interest 5-7
Trust Fund Bond Pool (TFBP) 5-3
US Mineral Royalties 4-15
Vehicle Taxes and Fees 3-24
Video Gambling Tax 3-38
Wholesale Energy Transaction Tax 4-27
Wine Tax 6-7