

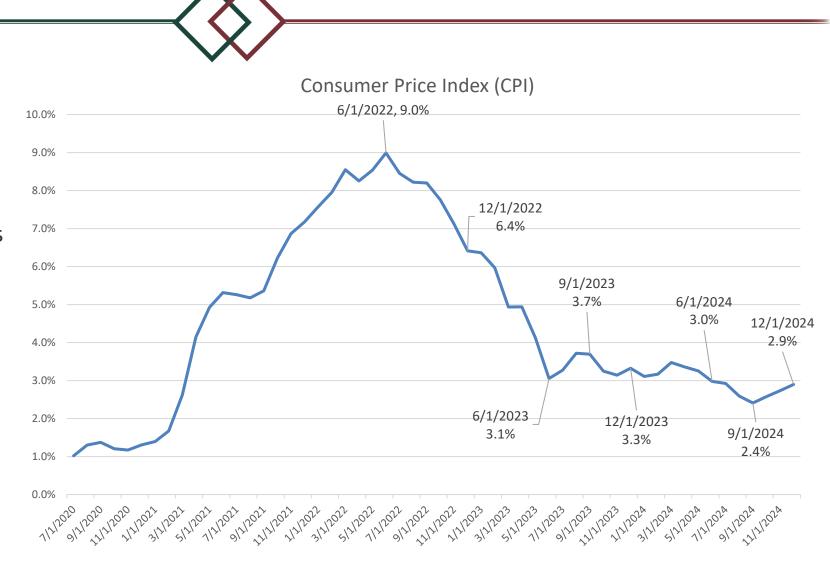
Revenue Forecast

JCA Presentation February 12, 2025



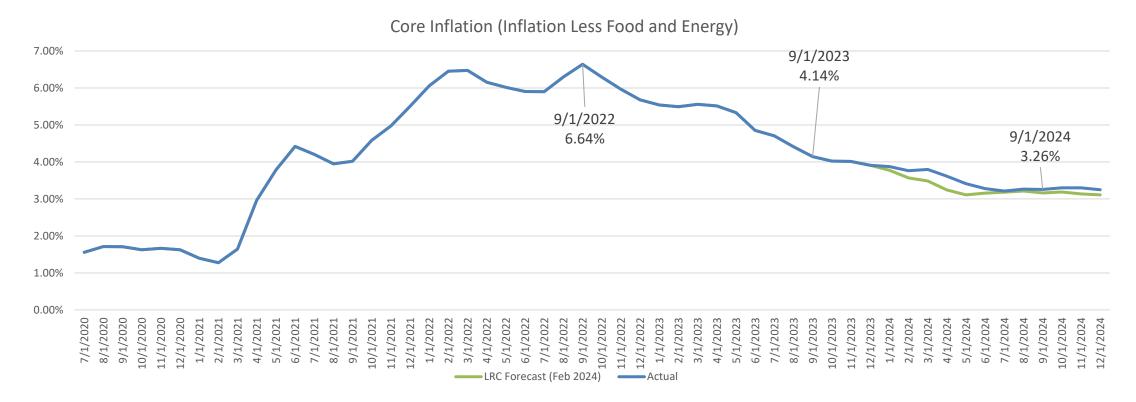
INFLATION

- Some inflation is good for sales tax revenues, however, higher inflation or persistent elevated inflation will reduce or produce meager growth in sales tax revenues.
- Headline inflation (CPI) remains around 3%, down slightly from a year ago.
- Core inflation will likely cause 3% CPI to be the floor with a good probability to increase.
- Food at Home remains elevated (2.7%) with some items like eggs seeing a large increase in price.



INFLATION

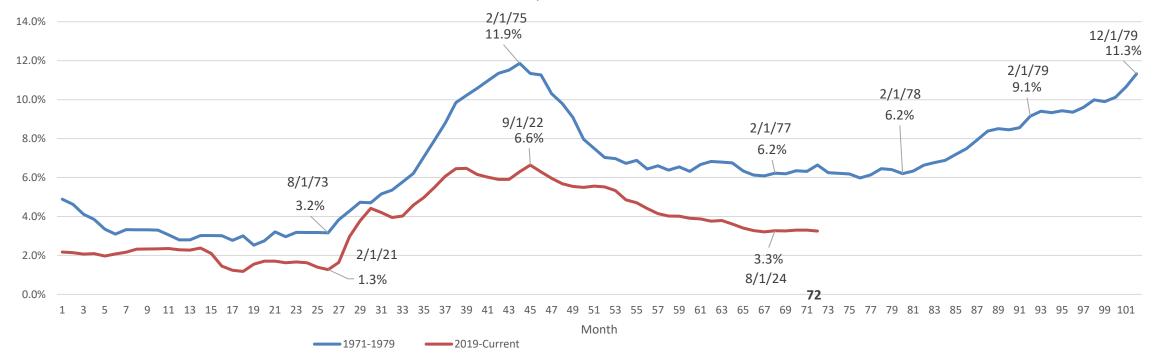
- Core inflation is the rise in all goods, excluding food and energy goods.
- Core inflation remaining elevated (3%+) will put pressure on consumption and could lead to lower sales tax revenue.
- Expect inflation to be higher for longer (2027) compared to the Fed's 2% target.



INFLATION

- Current core inflation trend is similar to the 1970's, just at a different level.
- Concern inflation could increase over the next 12-18 months.
- This would likely lead to reduced sales tax revenue as consumers reduce spending.

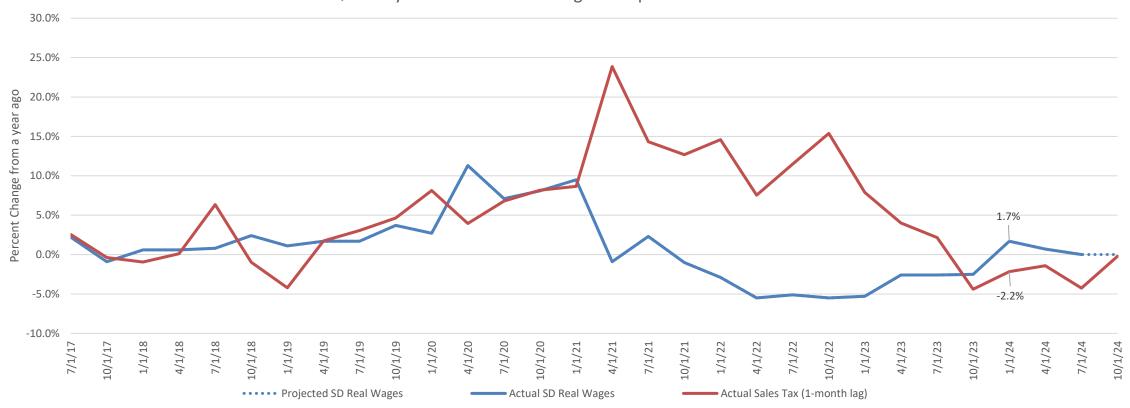




WAGES



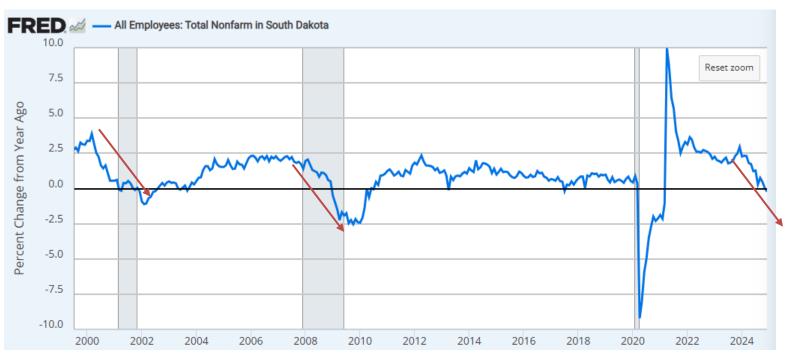
Quarterly Growth of SD Real Wages Compared to Sales Tax

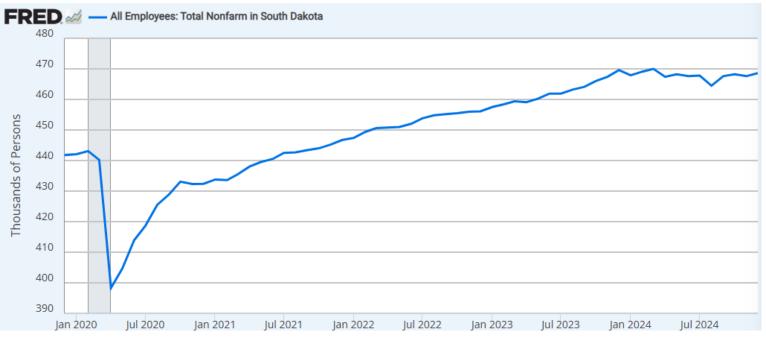


Source: Retail Trade wages and salaries in South Dakota; All Employees: Retail Trade in South Dakota; Personal Consumption Expenditures Excluding Food and Energy; Sales Tax Data

LABOR

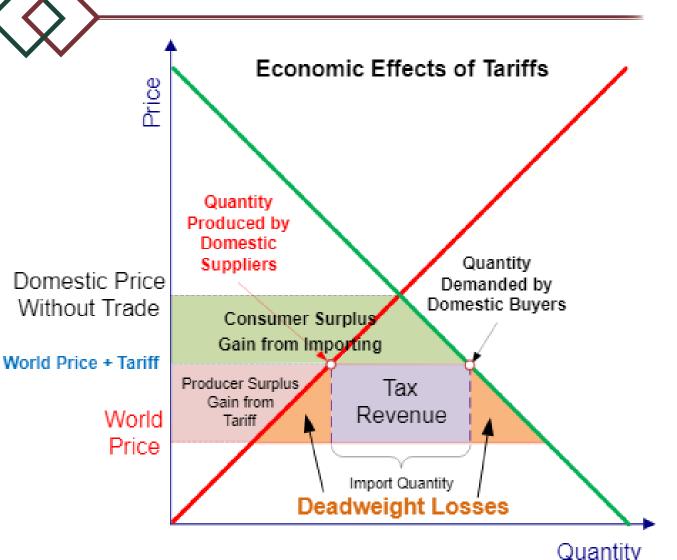
- Recent growth in nonfarm employment is concerning.
- Current trend likely indicates an emerging weakness in South Dakota economy.
- Growth in nonfarm employees has stalled.
- Would expect a recovery similar to past patterns in 12-18 months, if the trough has been reached.





TARIFFS

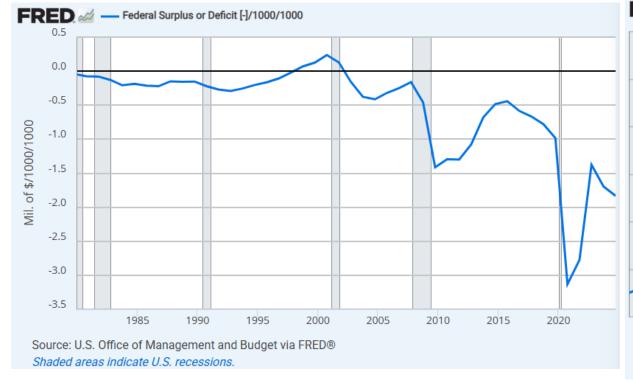
- Tariffs would impose additional costs when importing, which costs are typically passed along to the consumer.
- Tariffs on imported consumer goods feed directly into inflation.
- Tariffs on imported inputs increases production costs, which are based onto consumers.
- Consumer demand decreases with tariffs as the price is higher, which reduces spending because of higher costs.
- Domestic producers stand to gain the most from tariffs as they can increase price and have less competition.
- Tariffs can create a trade war by each side retaliating against the over.

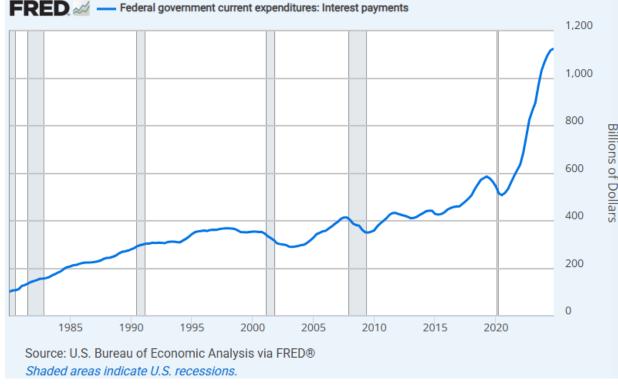


Federal Spending

- I was asked by this committee in July 2024, "What do you see as the boogeyman..."
 - I responded with, "Federal spending is not on a sustainable path..."
 - 2024 Federal deficit at \$1.83 trillion

- Q4:2024 Interest payments at \$1.124 trillion
- More than 2x what interest payments were in 2019.
- 17% of all federal spending in 2024 was for paying interest



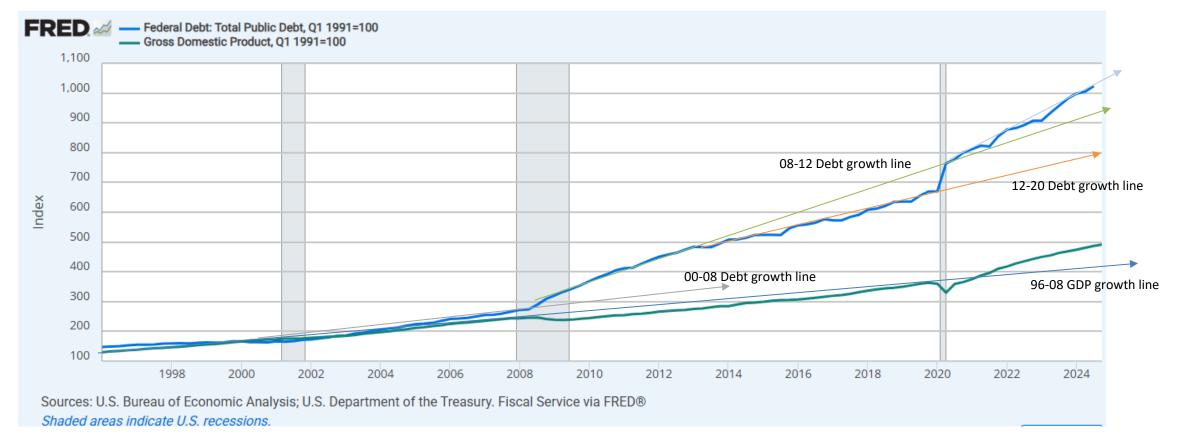


Federal Spending

The growth in federal debt is not longer aligned with growth in GDP

 The current growth line (20-24) aligns with the growth line from 2008-2012. In FY2024, South Dakota spent \$2.76 billion in federal funds.

A reduction in federal spending likely means a reduction in federal dollars to
 South Dakota and a reduction in South Dakota spending and consumption.



NO RECESSION?

- Real GDP growth remains positive at 2.5%.
- Business Inventories to Sales Ratio, steady and like Pre-COVID levels, indicating supply constraints have been resolved.
- Markets are seeing little recession risk.
- Private sector debt service ratio percent,
 15%, remains low, but has been rising.
- Personal savings rate at 3.8%, a lower-thannormal rate. An increasing rate would indicate a weakening economy.
- Personal Consumption Expenditures growth is 5% which is the same growth over the last year.
- Real Disposable Personal Income growth at 2.4% Y/Y but is down from 3.7% Y/Y in January 2024.

RECESSION?

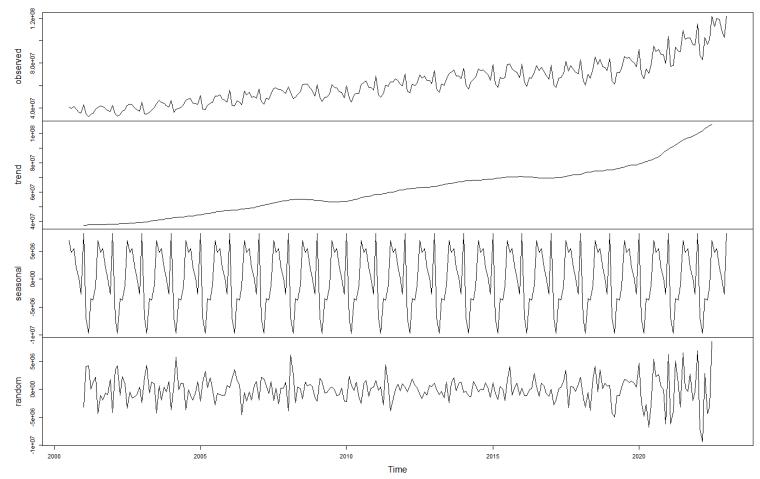
- Baltic Dry Index, which tracks the price of shipping commodities, is at a very low level, 753, like what was seen in 2008 and 2020, which could indicate a slow down in economic activity.
- Producer Price Index (PPI) is trending up likely indicating future inflation as producer costs to produce goods and services is rising.
- Yield curve shape suggests a higher likelihood of a recession over the next 12 months.
- Manufacturers' new orders data is flat to slightly negative. A growing negative trend here could indicate a weakening economy.
- Sahm Rule remains elevated, 0.4%, but below the 0.5% needed over three months to indicate weakening economy. This rule was triggered in late summer 2024.
- Net Farm Income is down.
- · Interest rates remain high.

Methodology: Holt-Winters



A triple exponential smoothing model, known as the Holt-Winters model, is a statistical forecasting model the Legislative Research Council (LRC) utilizes for estimating revenues. The model utilizes historical revenue data and smooths the data with three parameters value, trend, and seasonality and creates a model fitted to actuals based on historical data. The fitted model is then used to forecast future revenues. More recent values contribute to the forecast more than earlier values, meaning revenues in 2025 will be weighted more than revenues in 1999.

Decomposition of additive time series



Methodology: ARIMA



Auto-Regressive Integrated Moving Average (ARIMA) Model

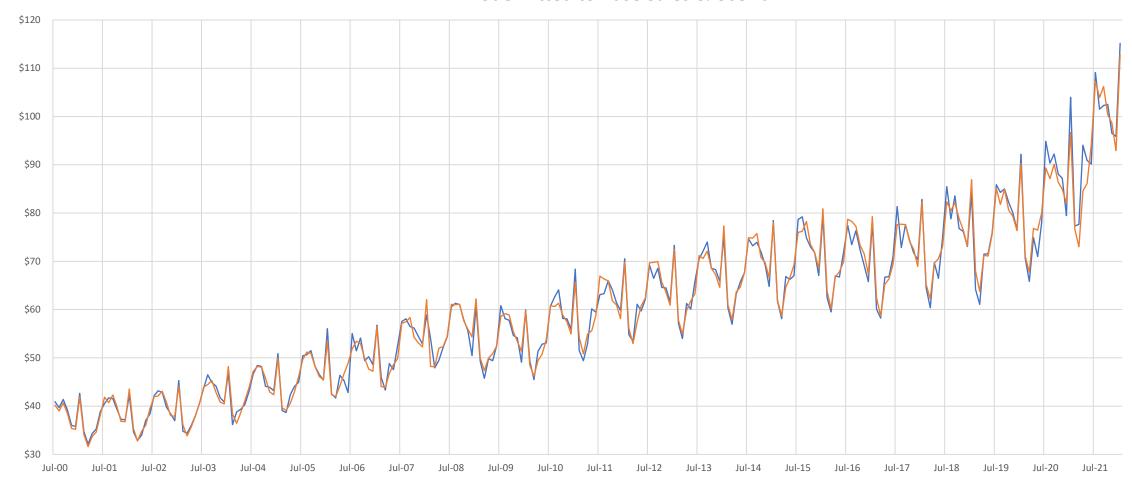
• The statistical forecasting model of ARIMA is one of the most used approaches to analyzing time series data. The LRC also utilizes this model to estimate revenues. ARIMA uses historical data to create a fitted model by adjusting the correlation, differential, and moving average components within the data. The fitted model is then used to forecast future revenues.

```
ARIMA(2,0,3)(0,1,0)[12] with drift
                                             : -854.9843
ARIMA(3,0,0)(0,1,0)[12]
                                             : -827.8151
ARIMA(3,0,0)(0,1,0)[12] with drift
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ARIMA(3,0,0)(0,1,1)[12]
                                             : Inf
ARIMA(3,0,0)(0,1,1)[12] with drift
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ARIMA(3,0,0)(0,1,2)[12]
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Best model: ARIMA(1,0,3)(0,1,1)[12] with drift

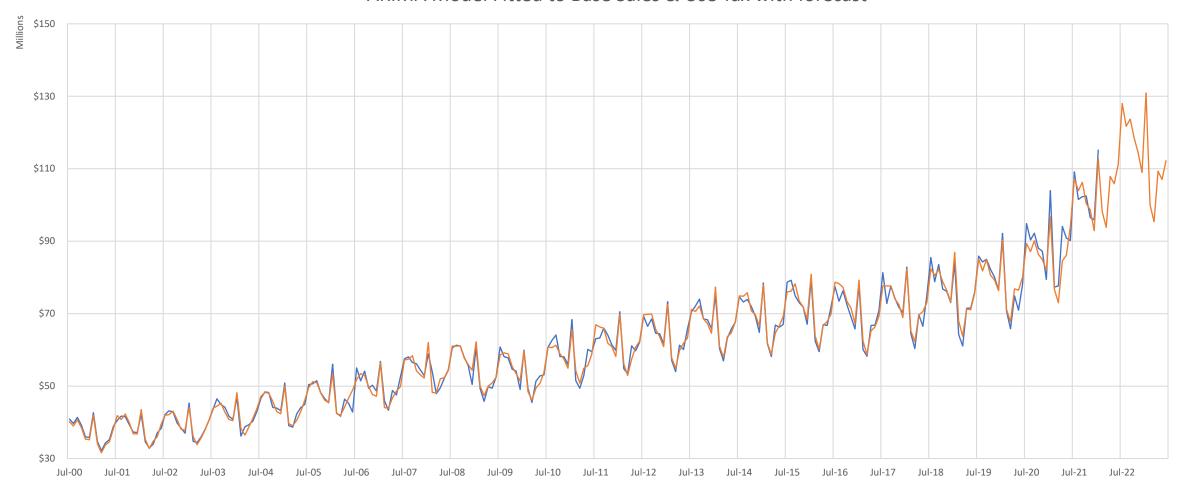
Methodology: GOAL

ARIMA Model Fitted to Base Sales & Use Tax



Methodology: OUTCOME

ARIMA Model Fitted to Base Sales & Use Tax with forecast



LRC Forecast History



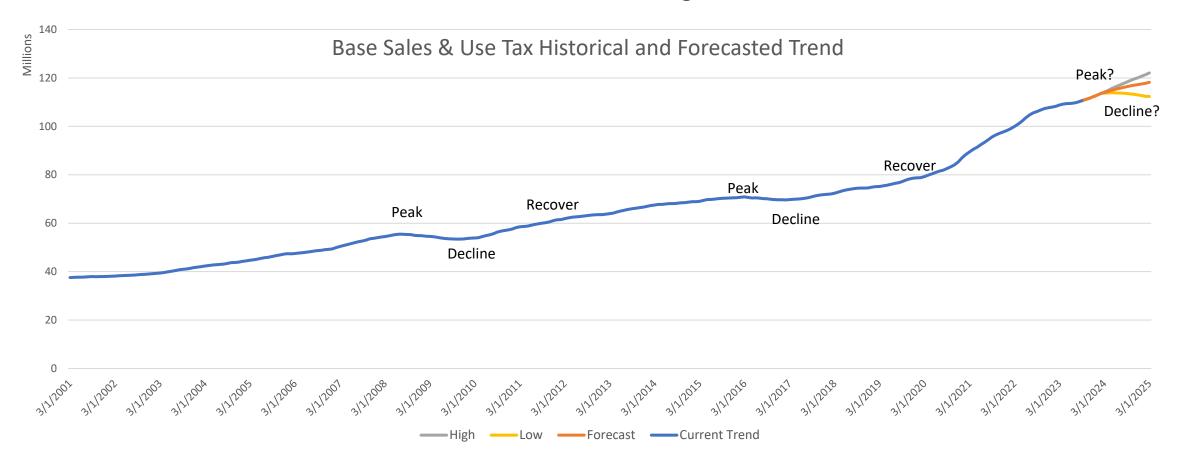
- The goal with forecasting revenues is to have the smallest deviation, difference as possible.
- A goal for the LRC is to be within 1% or less of actual.
- The original forecast projects
 17 months into the future
- The revised forecast projects
 5 months into the future.

	LRC History of Sales Tax Forecasts									
		LINCTIISC	ory or sales tax to							
Fiscal	Actual	Original	Revised	Original	Revised %	Original	Revised			
Year	Actual	Original	Nevised	% Diff	Diff	Over/Under	Over/Under			
2017	951,223,081	N/A	950,429,974		0.08%		Under			
2018	988,823,603	974,133,512	991,587,967	1.51%	-0.28%	Under	Over			
2019	1,025,401,209	1,027,794,058	1,037,885,891	-0.2%	-1.2%	Over	Over			
2020	1,072,830,649	1,085,218,900	1,087,729,168	-1.1%	-1.4%	Over	Over			
2021*	1,209,342,342	1,112,541,909	1,169,599,762	8.7%	3.4%	Under	Under			
2022*	1,356,844,793	1,195,848,512	1,342,307,262	13.5%	1.1%	Under	Under			
2023*	1,480,572,850	1,381,932,829	1,495,308,460	7.1%	-1.0%	Under	Over			
2024	1,453,998,297	1,494,282,725	1,469,664,809	-2.7%	-1.1%	Over	Over			
2025		1,502,578,812	1,437,237,899			Over				
2026		1,498,781,104								
:	*COVID Years		Average	3.8%	-0.04%					

	LRC History of Total Revenue Forecasts										
Fiscal Year	Actual	Original	Revised	Original R % Diff	evised % Diff	U	Revised Over/Under				
2017	1,540,793,974	N/A	1,544,563,714		-0.24%		Over				
2018	1,593,405,860	1,576,858,862	1,586,817,721	1.0%	0.42%	Under	Under				
2019	1,641,203,289	1,641,295,684	1,647,503,472	-0.01%	-0.38%	Over	Over				
2020	1,699,623,137	1,715,790,303	1,717,263,764	-0.94%	-1.03%	Over	Over				
2021*	1,936,198,459	1,756,660,260	1,863,586,824	10.2%	3.90%	Under	Under				
2022*	2,126,409,368	1,886,074,638	2,085,473,049	12.7%	1.96%	Under	Under				
2023*	2,308,844,888	2,136,859,288	2,316,618,071	8.0%	-0.34%	Under	Over				
2024	2,425,628,865	2,438,969,407	2,406,986,393	-0.5%	0.77%	Over	Under				
2025		2,432,716,412	2,393,772,441			Over					
2026		2,464,903,106									
	*COVID Years		Average	4.4%	0.63%	<u> </u>					

Sales and Use Tax

- Low Trend: FY25 sales tax revenue of \$1.414 billion, a (2.4%) decrease in revenue from FY24 revised.
- Forecast: FY25 sales tax revenue of \$1.485 billion, a 2.7% increase from FY24 revised.
- High Trend: FY25 sales tax revenue of \$1.533 billion, a 5.9% increase from FY24 revised.
- The low trend is (\$71.5) million less than forecast and the high trend is \$47.6 million more than forecast.



Sales Tax Growth: Components

- Sales tax growth is represented by 3 to 4 components:
 - Inflation: growth in the cost of goods and services.
 - Organic: growth in consumer spending.
 - Stimulus: growth in consumer spending because of fiscal policy.
 - Tax Change: change in state sales tax rate.

Tables represent examples of what the growth components could look like.

3.3%

Inflation

5.0%

4.5%

4.0%

3.5%

3.0%

2.5%

2.0%

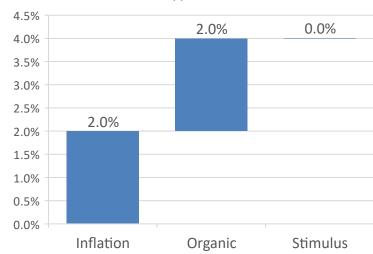
1.5%

1.0%

0.5%

0.0%

Estimated Sales Tax Growth by Component for Typical Year

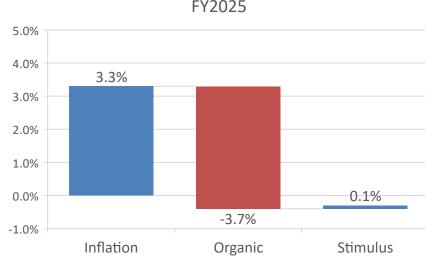


Note: The sales tax growth by component is example of what likely occurred. The data does not exist to specifically identify the growth of each component. The graph is for illustrative purposes.

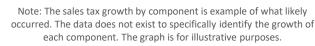
Increase Decrease Total

Increase Decrease Total

Estimated Sales Tax Growth by Component for FY2025



Note: The sales tax growth by component is example of what likely occurred. The data does not exist to specifically identify the growth of each component. The graph is for illustrative purposes.



Organic

Estimated Sales Tax Growth by Component for

FY2026

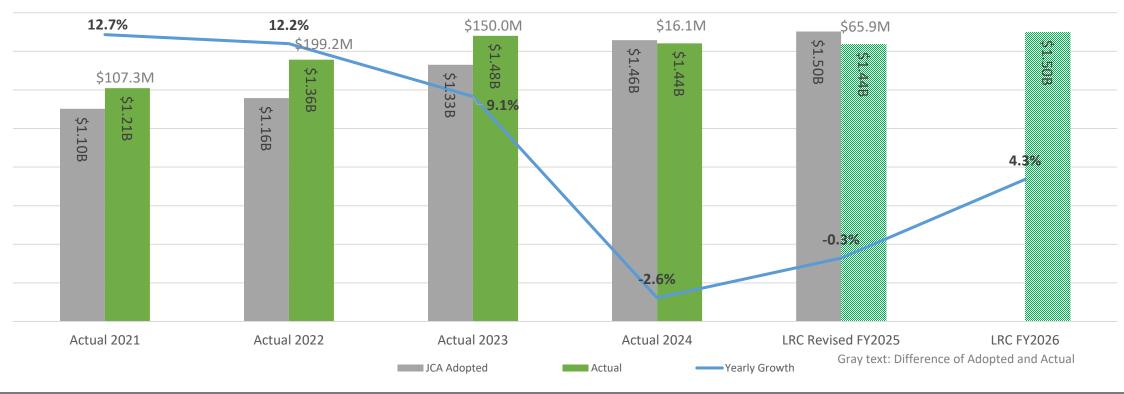
1.0%

0.0%

Stimulus



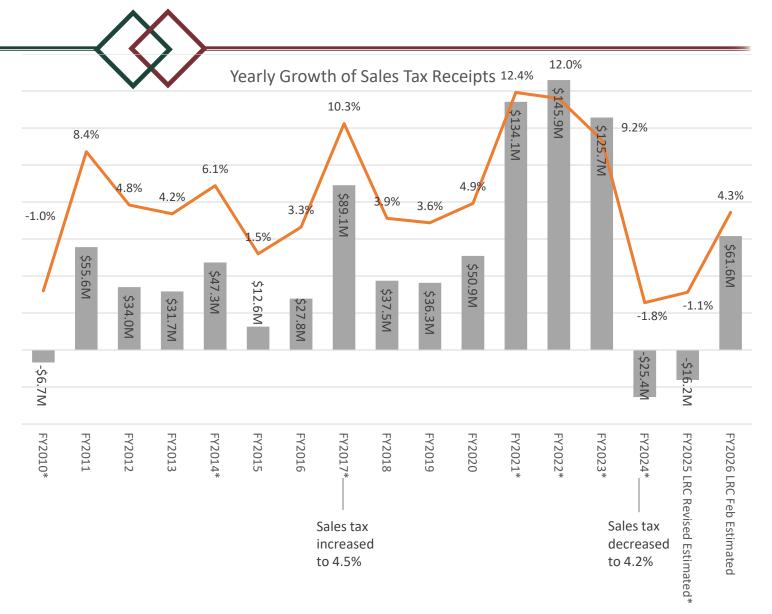
Sales and Use Tax



Sales Tax	Actual FY2021	Actual FY2022	Actual FY2023	Actual FY2024	JCA Adopted FY2025	LRC Revised FY2025	LRC FY2026
Total Revenues	1,209,342,342	1,356,844,793	1,480,572,850	1,441,678,770	1,457,750,000	1,437,237,899	1,498,781,104
Dollar Change	136,511,693	147,502,451	123,728,057	(38,894,080)	16,071,230	(4,440,871)	61,543,205
Percent Change	12.7%	12.2%	9.1%	-2.6%	1.1%	-0.3%	4.3%

Total Sales Tax Revenue

History of Astual Salas Tax	\$ Y/Y	0/ V/V
History of Actual Sales Tax		% Y/Y
Receipts by Fiscal Year	Growth	Growth
FY2010*	(6.7)	-1.0%
FY2011	55.6	8.4%
FY2012	34.0	4.8%
FY2013	31.7	4.2%
FY2014*	47.3	6.1%
FY2015	12.6	1.5%
FY2016	27.8	3.3%
FY2017*	89.1	10.3%
FY2018	37.5	3.9%
FY2019	36.3	3.6%
FY2020	50.9	4.9%
FY2021*	134.1	12.4%
FY2022*	145.9	12.0%
FY2023*	125.7	9.2%
FY2024*	(25.4)	-1.8%
10 year avg.	63.5	5.9%
Average w/o Outliers	35.8	4.3%
FY2024 Tax Adjusted	72.2	4.8%
FY2025 Adopted Target	49.1	3.4%
FY2025 LRC Revised Estimated*	(16.2)	-1.1%
FY2026 LRC Feb Estimated	61.6	4.3%

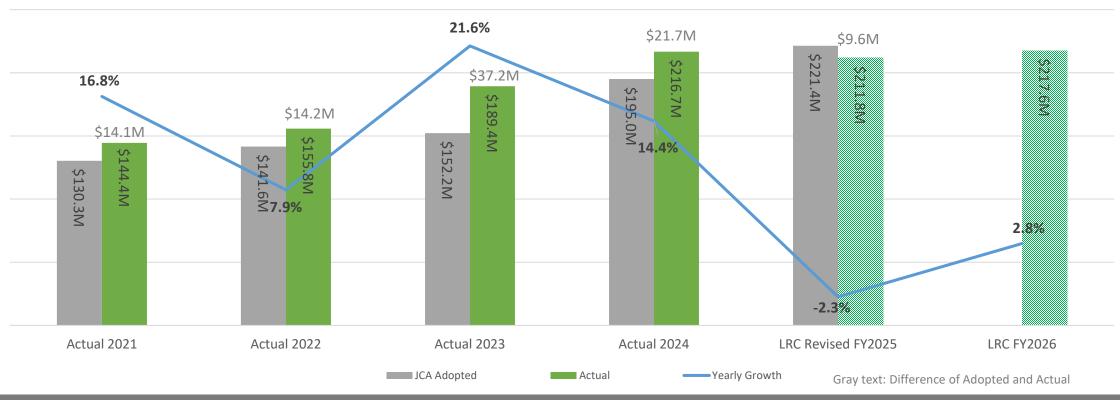


Amounts not adjusted for inflation

Does not include cost of administration

^{*}Outlier year

Contractor's Excise Tax



Contractor's Excise Tax	Actual FY2021	Actual FY2022	Actual FY2023	Actual FY2024	JCA Adopted FY2025	LRC Revised FY2025	LRC FY2026
Total Revenues	144,448,267	155,823,772	189,407,586	216,712,589	221,365,672	211,758,188	217,648,277
Dollar Change	20,724,748	11,375,505	33,583,814	27,305,003	4,653,083	(4,954,401)	5,890,089
Percent Change	16.8%	7.9%	21.6%	14.4%	2.1%	-2.3%	2.8%

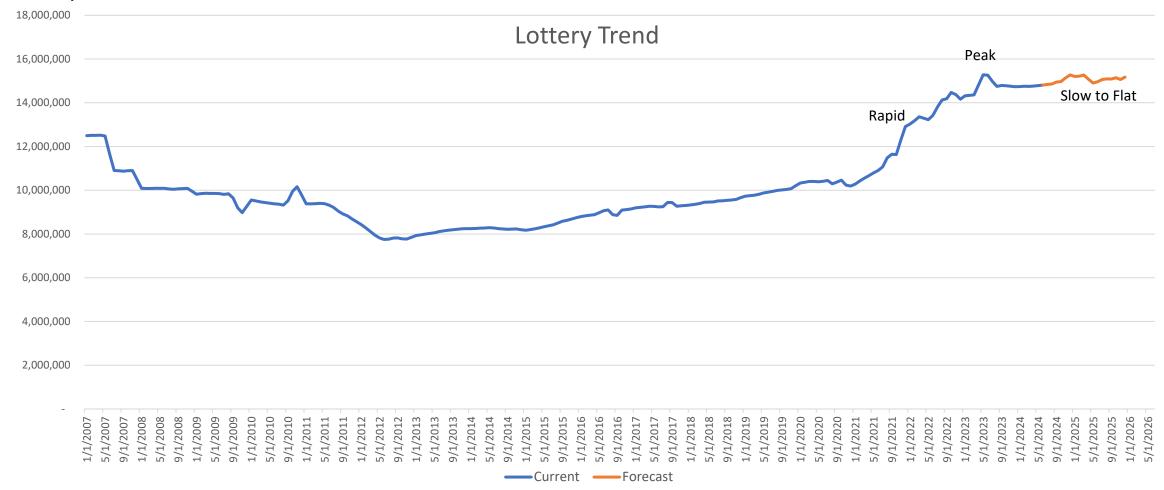
Lottery



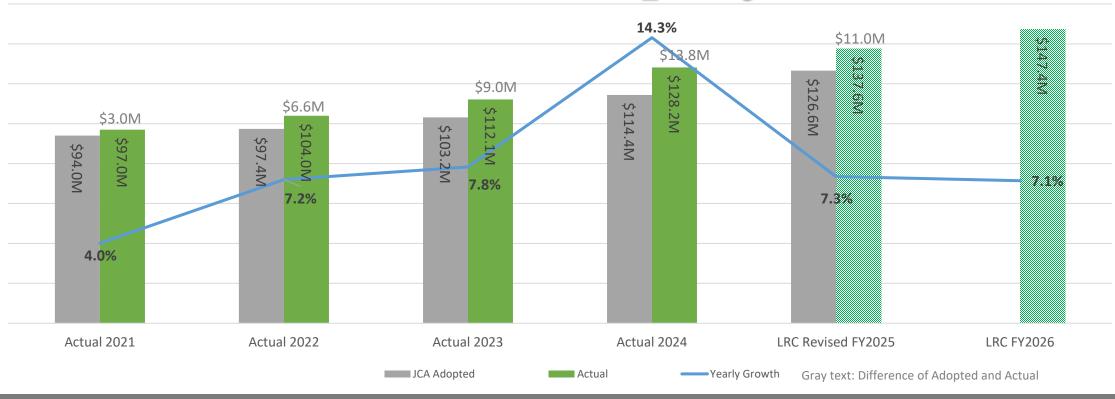
Lottery	Actual FY2021	Actual FY2022	Actual FY2023	Actual FY2024	JCA Adopted FY2025	LRC Revised FY2025	LRC FY2026
Total Revenues	155,527,049	171,609,682	176,663,767	179,328,773	183,126,656	182,915,118	183,950,614
Dollar Change	33,038,048	16,082,633	5,054,085	2,665,006	3,797,883	3,586,345	1,035,496
Percent Change	27.0%	10.3%	2.9%	1.5%	2.1%	2.0%	0.6%

Lottery

- Steady growth from 2013 to 2019
- Post-COVID growth from late 2020 to 2023 driven by stimulus payments and wage growth.
- Slope of the trend has flattened but hasn't started to decline.

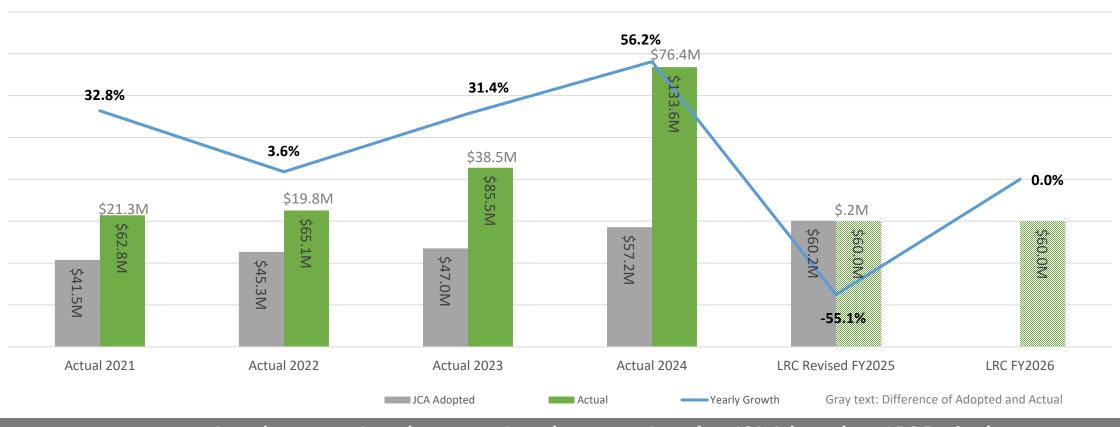


Insurance Company Tax



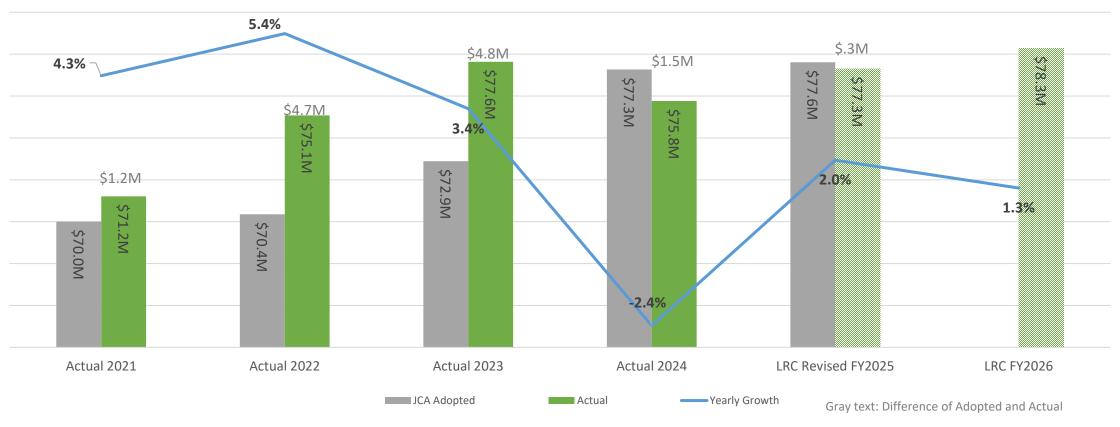
Insurance	Actual FY2021	Actual FY2022	Actual FY2023	Actual FY2024	JCA Adopted FY2025	LRC Revised FY2025	LRC FY2026
Total Revenues	97,010,439	103,995,420	112,141,293	128,189,481	125,089,820	137,609,050	147,441,324
Dollar Change	3,739,327	6,984,981	8,145,873	16,048,188	12,948,527	25,467,757	9,832,274
Percent Change	4.0%	7.2%	7.8%	14.3%	-2.4%	7.3%	7.1%

Unclaimed Property



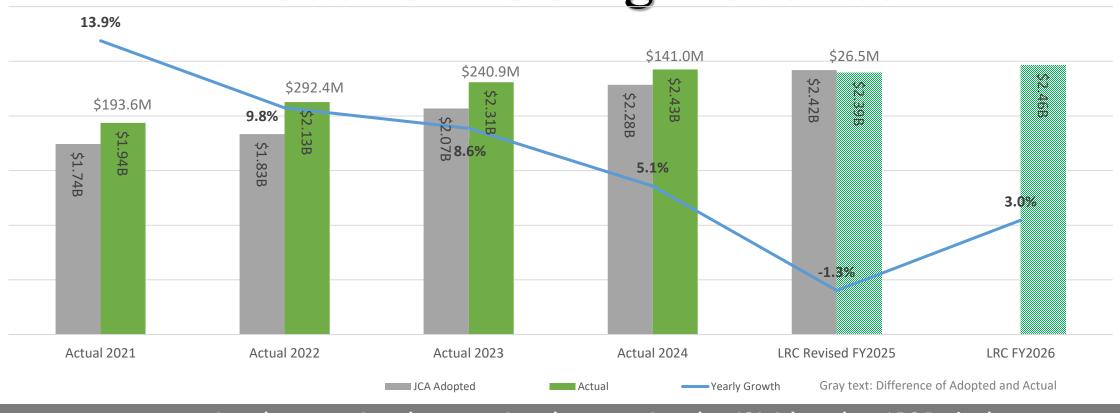
Unclaimed	Actual	Actual	Actual	Actual	JCA Adopted	LRC Revised	LRC FY2026
Property	FY2021	FY2022	FY2023	FY2024	FY2025	FY2025	LIC 1 12020
Total Revenues	62,809,930	65,097,628	85,536,039	133,617,777	57,185,445	60,000,000	60,000,000
Dollar Change	15,501,458	2,287,698	20,438,411	48,081,738	(76,432,332)	(73,617,777)	-
Percent Change	32.8%	3.6%	31.4%	56.2%	-57.2%	-55.1%	0.0%

Licenses, Permits, Fees



Licenses, Permits, Fees	Actual FY2021	Actual FY2022	Actual FY2023	Actual FY2024	JCA Adopted FY2025	LRC Revised FY2025	LRC FY2026
Total Revenues	71,212,896	75,077,171	77,636,494	75,761,844	77,267,444	77,298,509	78,286,319
Dollar Change	2,934,057	3,864,275	2,559,323	(1,874,650)	(369,050)	1,536,665	987,810
Percent Change	4.3%	5.4%	3.4%	-2.4%	-0.5%	2.0%	1.3%

Total On-Going Revenue



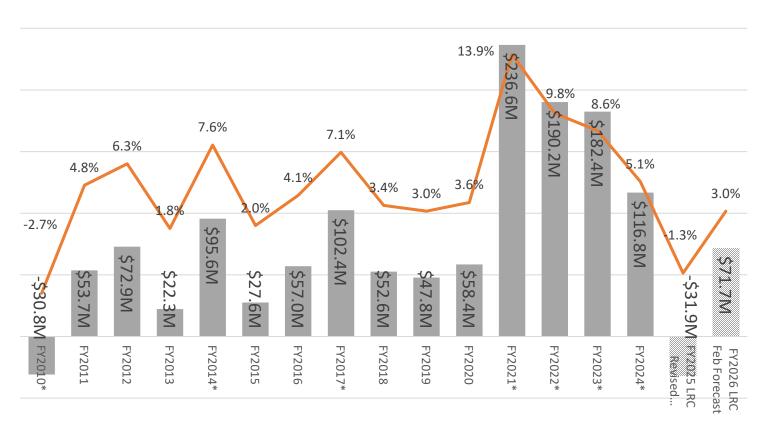
On-going Total	Actual FY2021	Actual FY2022	Actual FY2023	Actual FY2024	JCA Adopted FY2025	LRC Revised FY2025	LRC FY2026
Total Revenues	1,936,198,459	2,126,409,366	2,308,844,888	2,425,628,865	2,419,492,537	2,393,772,441	2,464,903,106
Dollar Change	236,575,322	190,210,907	182,435,522	116,783,977	(6,136,328)	(31,856,424)	71,130,665
Percent Change	13.9%	9.8%	8.6%	5.1%	-0.3%	-1.3%	3.0%

Total On-Going Revenue

History of Actual On-going	\$ Y/Y Growth	% Y/Y
General Fund Receipts	(20.0)	Growth
FY2010*	(30.8)	-2.7%
FY2011	53.7	4.8%
FY2012	72.9	6.3%
FY2013	22.3	1.8%
FY2014*	95.6	7.6%
FY2015	27.6	2.0%
FY2016	57.0	4.1%
FY2017*	102.4	7.1%
FY2018	52.6	3.4%
FY2019	47.8	3.0%
FY2020	58.4	3.6%
FY2021*	236.6	13.9%
FY2022*	190.2	9.8%
FY2023*	182.4	8.6%
FY2024*	116.8	5.1%
10 year avg.	107.2	6.1%
Average w/o Outliers	49.0	3.6%
FY2025 JCA Adopted	(5.4)	-0.2%
FY2025 LRC Revised Forecast	(31.9)	-1.3%
FY2026 LRC Feb Forecast	71.7	3.0%



Yearly Growth of On-going General Fund Receipts



FY2025 General Fund Revenues

February 12, 2025

		ŀ	ebruary 12, 2025				
	LRC Original FY25	Legislature	Governor's Dec.	LRC Revised FY25	\$ Change from Governor's	\$ Change from Legislature	% Growth over FY24
On-going Receipts	2/14/2024	Adopted FY25	Revised FY25		Revised	Adopted FY24	Actual
Sales & Use Tax	1,502,578,812	1,503,099,599	1,447,481,493	1,437,237,899	(10,243,594)	(65,861,700)	-0.3%
Lottery	184,563,334	183,126,656	180,371,432	182,915,118	2,543,686	(211,538)	2.0%
Contractor's Excise Tax	227,602,205	221,365,672	210,476,413	211,758,188	1,281,775	(9,607,484)	-2.3%
Insurance Company Tax	114,960,388	125,089,820	137,869,952	137,609,050	(260,902)	12,519,230	7.3%
Unclaimed Property	70,382,500	61,013,556	61,013,556	60,000,000	(1,013,556)	(1,013,556)	-55.1%
Licenses, Permits, and Fees	77,468,939	77,611,286	74,354,008	77,298,509	2,944,501	(312,777)	2.0%
Tobacco Taxes	42,110,603	42,537,115	42,022,292	40,952,063	(1,070,229)	(1,585,052)	-5.8%
Trust Funds	50,267,500	50,387,330	50,329,002	50,434,557	105,555	47,227	4.3%
Net Transfers In	25,023,919	25,348,873	27,213,839	27,686,641	472,802	2,337,768	-4.2%
Alcohol Beverage Tax	9,005,594	9,148,840	8,993,932	8,742,884	(251,048)	(405,956)	-2.5%
Bank Franchise Tax	18,462,823	17,715,124	26,038,817	29,326,620	3,287,803	11,611,496	2.3%
Charges for Goods & Services	13,895,177	13,497,285	12,818,059	13,416,642	598,583	(80,643)	-5.9%
Telecommunications Tax	2,234,612	2,196,234	2,062,768	2,151,035	88,267	(45,199)	1.7%
Mineral Severance Taxes	10,281,064	9,881,951	12,742,661	14,917,313	2,174,652	5,035,362	36.4%
Interest Income & Interest	80,790,374	74,319,000	96,173,690	96,179,516	5,826	21,860,516	95.0%
Alcohol Bev. 2% Wholesale Tax	3,088,568	3,154,196	3,148,244	3,146,407	(1,837)	(7,789)	2.7%
Subtotal On-going Receipts	2,432,716,412	2,419,492,537	2,393,110,158	2,393,772,441	662,283	(25,720,096)	-0.81%
One-Time Receipts							
Unclaimed Property Receipts			167,664,409	166,396,864	(1,267,545)		
Obligated Cash Carried Forward			80,735,092	80,735,092	(1,207,343)		
Bank Franchise Tax Prior Year Rever	NIE		54,690	1,665,697	1,611,007		
Unexpended Carryovers & Specials			3-7,030	1,000,007			
Chenpenaea carryovers & specials							

248,454,191

2,641,564,349

248,797,653

2,642,570,095

343,462

223,077,558

1,005,746

Subtotal One-Time Receipts

2,432,716,412

2,419,492,537

GRAND TOTAL

FY2026 General Fund Revenues

February 12, 2025

		•				
On-going Receipts	Governor's Dec. FY26	LRC Revised FY25	LRC FY26 Estimate	\$ Change from Governor's Rec.	\$ Change from LRC Revised FY25	% Change fron LRC Revised FY25
Sales & Use Tax	1,508,719,758	1,437,237,899	1,498,781,104	(9,938,654)	61,543,205	4.3%
Lottery	182,417,534	182,915,118	183,950,614	1,533,080	1,035,496	0.6%
Contractor's Excise Tax	215,914,398	211,758,188	217,648,277	1,733,879	5,890,089	2.8%
Insurance Company Tax	145,772,725	137,609,050	147,441,324	1,668,599	9,832,274	7.1%
Unclaimed Property	62,293,327	60,000,000	60,000,000	(2,293,327)	-	0.0%
Licenses, Permits, and Fees	74,590,338	77,298,509	78,286,319	3,695,981	987,810	1.3%
Tobacco Taxes	40,533,077	40,952,063	38,973,908	(1,559,169)	(1,978,155)	-4.8%
Trust Funds	52,860,366	50,434,557	52,915,505	55,139	2,480,948	4.9%
Net Transfers In	27,059,380	27,686,641	27,933,655	874,275	247,015	0.9%
Alcohol Beverage Tax	9,106,692	8,742,884	8,846,769	(259,923)	103,885	1.2%
Bank Franchise Tax	26,222,175	29,326,620	29,644,026	3,421,851	317,406	1.1%
Charges for Goods & Services	12,882,837	13,416,642	13,580,555	697,718	163,913	1.2%
Telecommunications Tax	2,007,797	2,151,035	2,139,763	131,966	(11,272)	-0.5%
Mineral Severance Taxes	13,158,489	14,917,313	16,839,475	3,680,986	1,922,162	12.9%
Interest Income & Interest	77,147,167	96,179,516	84,747,702	7,600,535	(11,431,814)	-11.9%
Alcohol Bev. 2% Wholesale Tax	3,234,179	3,146,407	3,174,110	(60,069)	27,703	0.9%
Subtotal On-going Receipt	ts 2,453,920,239	2,393,772,441	2,464,903,106	10,982,867	71,130,665	2.97%
Ono Timo Posoints						
One-Time Receipts Unclaimed Property Receipts	_	166,396,864	28,034,440	28,034,440		
GRAND TOTAL	2,453,920,239	2,560,169,305	2,492,937,546	39,017,307	(67,231,759)	-2.6%