

**YEAR-TO-DATE GENERAL FUND
REVENUE COLLECTIONS
WITH
HIGHLIGHTS OF
2016 INDIVIDUAL & 2015 CORPORATION
INCOME TAX RETURN DATA**

A Report Prepared for the
Revenue & Transportation Interim Committee

By
Legislative Fiscal Division Staff

December 5, 2017



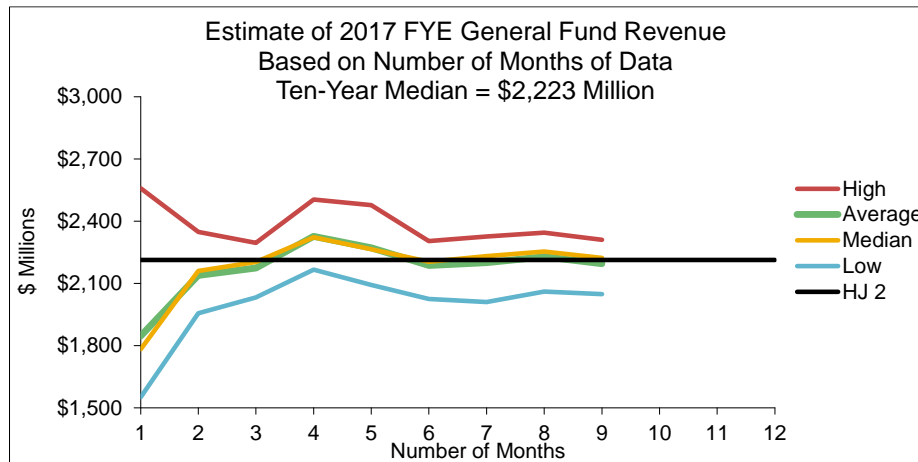
REPORT SUMMARY

This report provides year-to-date general fund revenue collection information through the first five months of FY 2018, with comparisons to anticipated revenue as contained in the official legislative revenue estimate, HJ 2. Note that HJ 2 has been adjusted to reflect the enacted legislation of the 2017 Special Session.

In addition, detailed individual income tax return data for 2016 and corporation income tax data for 2015 was recently provided by the Department of Revenue (DOR) to the Legislative Fiscal Division (LFD). Detailed analysis of FY 2017 forecasting error for both revenue sources is included in the report.

Year-to-Date Relative to Historical Collection Patterns: A New Approach

In past years, the LFD year-to-date revenue collections reports have provided a range of estimated year-end revenue collections based on the accruing months of data. A chart—similar to the one below, which was provided in the April 7, 2017 update—was typically included to illustrate the broad range of potential year-end collections and compare the amounts to the official revenue estimate.



Over time, LFD staff has noted the non-predictive nature of the year-to-date calculations and the broad range between high and low estimates. Other issues have arisen due to changes in tax return processing time and assessments of taxpayer timing, as well as the timing of large general fund transfers. Further, about one-third of general fund revenue is received after April 1st. The volatility of individual income tax April payments coupled with the relative lateness in the legislative session makes assessing the need for revenue estimate changes difficult, and complicates the process for adjusting the revenue estimate if necessary.

With the aim of providing a more accurate and understandable estimate of year-end revenue based on year-to-date collections, LFD staff has been developing a monthly cash-flow model with comparisons to the HJ 2 estimate. The model is a work in progress and will likely undergo a series of revisions over the next few years. A preliminary version is included in the appendix.

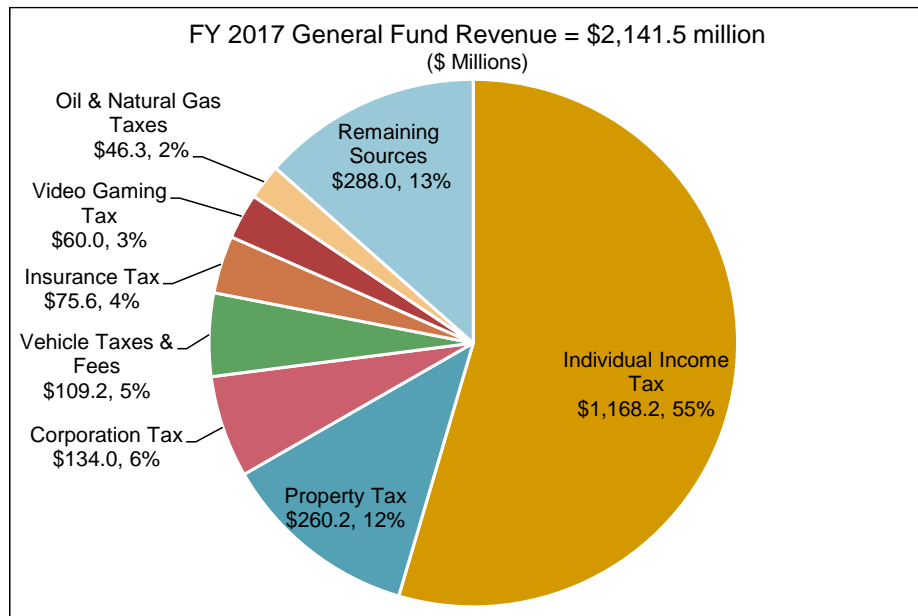
FY 2018 YEAR-TO-DATE REVENUE

FY 2018 general fund revenue through the end of November is \$92.6 million or 12.1% ahead of FY 2017 revenue through the same period; the increase is primarily due to legislatively authorized transfers of \$55.9 million currently posted to All Other Revenue. Without the transfers, YTD growth would be 4.8% compared to HJ 2 of 11.0%.

General Fund Revenue Monitoring Report (\$ Millions)							
Revenue Source	Actual FY 2017	HJ 2/SS FY 2018	HJ 2 Est. % Change	YTD FY 2017	YTD FY 2018	YTD Difference	YTD % Change
Largest Seven Sources							
Individual Income Tax	\$1,168.225	\$1,320.808	13.1%	\$563.045	\$590.980	\$27.935	5.0%
Property Tax	260.224	277.119	6.5%	9.459	10.062	0.604	6.4%
Corporation Tax	133.992	168.763	26.0%	45.865	45.260	(0.605)	-1.3%
Vehicle Taxes & Fees	109.197	112.956	3.4%	31.147	39.086	7.939	25.5%
Oil & Natural Gas Taxes	46.334	49.939	7.8%	-	-	-	
Insurance Tax	75.558	76.003	0.6%	17.962	15.413	(2.548)	-14.2%
Video Gaming Tax	59.956	61.904	3.2%	14.900	14.928	0.028	0.2%
Other Business Taxes							
Drivers License Fee	4.308	4.341	0.8%	1.231	1.805	0.575	46.7%
Investment Licenses	7.327	7.660	4.5%	0.694	0.721	0.027	3.8%
Lodging Facilities Sales Tax	21.780	23.399	7.4%	9.226	9.815	0.589	6.4%
Public Contractor's Tax	3.078	2.540	-17.5%	2.367	3.188	0.821	34.7%
Railroad Car Tax	3.790	3.642	-3.9%	2.130	2.555	0.425	19.9%
Rental Car Sales Tax	3.402	3.357	-1.3%	1.391	1.581	0.190	13.7%
Retail Telecom Excise Tax	15.603	15.570	-0.2%	3.818	3.531	(0.287)	-7.5%
Other Natural Resource Taxes							
Coal Severance Tax	13.799	13.811	0.1%	5.795	3.975	(1.819)	-31.4%
Electrical Energy Tax	4.314	4.439	2.9%	1.167	1.129	(0.038)	-3.3%
Metal Mines Tax	4.839	4.274	-11.7%	(0.103)	0.000	0.103	-100.0%
U.S. Mineral Leasing	17.322	20.497	18.3%	4.486	4.322	(0.164)	-3.7%
Wholesale Energy Trans Tax	3.464	3.505	1.2%	0.915	0.901	(0.014)	-1.5%
Other Interest Earnings							
Coal Trust Interest Earnings	19.799	19.829	0.1%	7.457	5.604	(1.853)	-24.9%
TCA Interest Earnings	5.692	7.577	33.1%	1.785	2.694	0.908	50.9%
Other Consumption Taxes							
Beer Tax	2.998	3.072	2.5%	1.071	1.091	0.020	1.9%
Cigarette Tax	30.558	30.652	0.3%	11.819	10.828	(0.991)	-8.4%
Liquor Excise Tax	20.366	22.265	9.3%	6.873	7.148	0.275	4.0%
Liquor Profits	11.750	14.614	24.4%	-	-	-	
Lottery Profits	9.624	12.365	28.5%	0.400	0.000	(0.400)	-99.9%
Tobacco Tax	6.247	6.815	9.1%	2.243	2.207	(0.037)	-1.6%
Wine Tax	2.429	2.584	6.4%	0.848	0.844	(0.004)	-0.5%
Other Sources							
All Other Revenue	49.336	112.865	128.8%	15.593	74.334	58.741	376.7%
Highway Patrol Fines	3.927	4.152	5.7%	1.351	1.143	(0.208)	-15.4%
Nursing Facilities Fee	4.635	4.305	-7.1%	1.124	1.238	0.114	10.2%
Public Institution Reimbursement:	14.264	15.718	10.2%	1.129	3.383	2.253	199.6%
Tobacco Settlement	3.343	2.622	-21.6%	0.010	0.006	(0.004)	-37.5%
Largest Seven Subtotal	1,853.485	2,067.491	11.5%	682.378	715.730	33.352	4.9%
Remaining Sources Subtotal	287.994	366.467	27.2%	84.821	144.043	59.222	69.8%
Grand Total	\$2,141.479	\$2,433.958	13.7%	\$767.198	\$859.773	\$92.575	12.1%

Large Revenue Sources

In FY 2017, the largest seven revenue sources accounted for 87% of total general fund revenue. This section will highlight current trends with each source and further revenue detail if applicable.



Individual Income Tax: Below HJ 2, but Withholding Growth Strong

Individual income tax collections through the end of November are \$27.9 million or 5.0% above the year-to-date collections in FY 2017. Withholding posted strong growth in November, bringing year-to-date growth to 6.6%, up from last month's year-to-date growth of 3.7%. Monthly fluctuations are not unusual early in the fiscal year, and cumulative growth should stabilize as FY 2018 continues.

Individual Income Tax (\$ Millions)				
	YTD 2018	YTD 2017	\$ Difference	% Difference
Withholding	\$374.3	\$351.1	\$23.2	6.6%
Estimated Payments	101.9	98.7	3.3	3.3%
Current Year Payments	19.2	18.8	0.4	2.1%
Audit, P&I, Amended	12.1	11.5	0.6	4.9%
Refunds	(76.2)	(71.3)	(4.9)	6.8%
Refund Accrual Reversal	153.2	143.0	10.3	7.2%
Partnership Income Tax	4.3	3.4	0.9	27.2%
Mineral Royalties	2.1	7.9	(5.8)	-73.1%
Total	\$591.0	\$563.0	\$27.9	5.0%

FY 2017 Error Analysis Based on 2016 Tax Return Data

Individual income tax collections were \$70.3 million below the FY 2017 estimate contained in HJ 2. The difference between actual collections and HJ 2 is primarily explained by the following sources of error:

- Audit, penalty & interest, and amended income: (\$5.2 million)
- IHS economic variable forecast error: (\$10.4 million)
- Estimated CY 2016 growth rates for income and deduction items: (\$64.2 million)
- CY 2015 tax simulation model, \$12.0 million
- Remaining error: (\$2.5 million)

Audit, Penalty & Interest, and Amended Income: (\$5.2 million)

Audit, penalty and interest, and amended collections are forecast explicitly in HJ 2; combined collections in FY 2017 were anticipated to be below the unusually high FY 2016 amount, but came in even lower than expected by \$5.2 million.

IHS Forecast: (\$10.4 million)

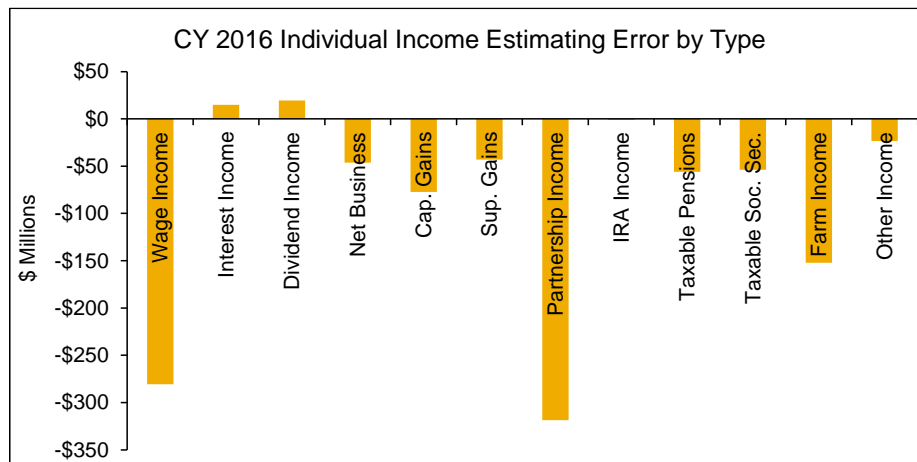
IHS data is used to model each of the income types, and several of the additions, reductions and itemized deductions. Changes in the data—whether historical revisions or updated estimates—automatically result in changes to the forecast income. In addition, the federal and state income tax brackets are forecast based on changes in the Consumer Price Index (CPI). Even small changes in the CPI can impact the overall revenue estimate. HJ 2 was based on the March 2017 release of the IHS forecast; changes in the economic forecast since then suggests that (\$10.4 million) of the FY 2017 discrepancy is due to IHS forecast changes.

Growth Rates: (\$64.2 million)

Growth rates for each type of income, addition, reduction and itemized deduction are developed using the historical return data and various economic indicators. Estimate error can result from unusual historical data, use of incorrect economic indicators, and the inaccurate forecast growth of economic indicators. Using all actual CY 2016 growth rates in the HJ 2 income tax model suggests the differences in growth rates resulted in (\$64.2 million) error with respect to FY 2017 collections.

The adjacent table compares the income levels forecast in HJ 2 with actual CY 2016 data from tax returns. Most income types were overestimated in HJ 2, with the differences concentrated in wages, partnership income, and farm income. The chart below illustrates the estimating error shown in the table.

CY 2016 Income Levels				
(\$ Millions)				
	Actual	HJ 2	\$ Diff	% Diff
Wage Income	\$16,792	\$17,073	(\$281)	-1.6%
Interest Income	296	281	15	5.3%
Dividend Income	690	671	20	2.9%
Net Business	863	909	(46)	-5.1%
Cap. Gains	1,617	1,694	(77)	-4.6%
Sup. Gains	80	123	(43)	-35.0%
Partnership Income	2,651	2,969	(319)	-10.7%
IRA Income	783	784	(1)	-0.1%
Taxable Pensions	2,216	2,272	(56)	-2.5%
Taxable Soc. Sec.	982	1,035	(54)	-5.2%
Farm Income	(303)	(151)	(152)	101.0%
Other Income	(322)	(299)	(23)	7.8%
Total	\$26,343	\$27,361	(\$1,018)	-3.7%



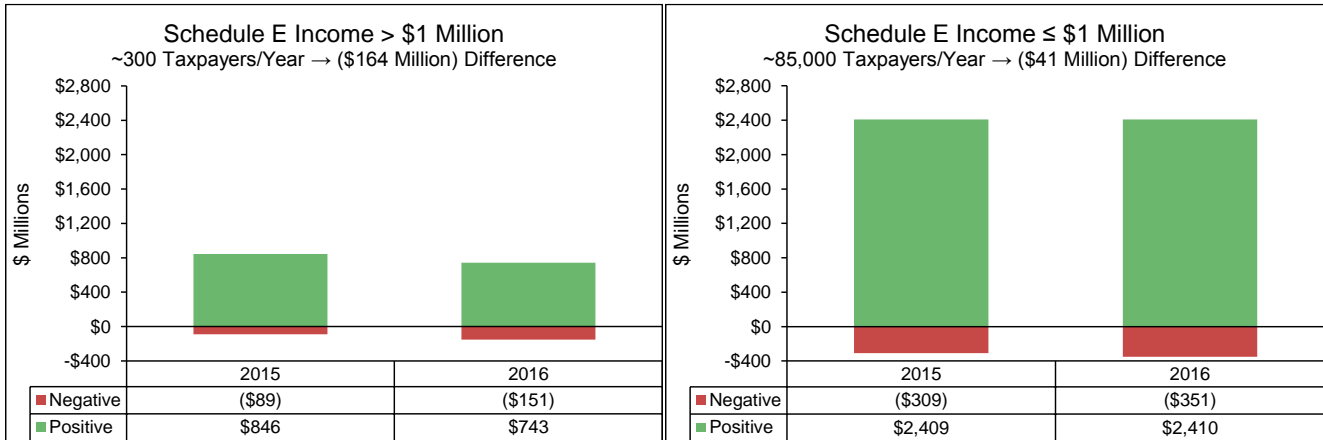
Wage Income

Wage income grew 1.6% over CY 2015, which was below the anticipated growth of 3.3% in HJ 2, and lower than other economic indicators suggested. Based on the accounting level data for withholding, it appears there may have been some shifting in wage income between December 2016 and January 2017. A possible explanation is that a higher share of end-of-year bonus payments were made in January rather than December when compared to previous years. The amount of the shift is

estimated to be about \$120 million; if this amount were added to the CY 2016 wage income, growth from CY 2015 would be 2.4%, and more in line with other measures of wage growth.

Partnership Income

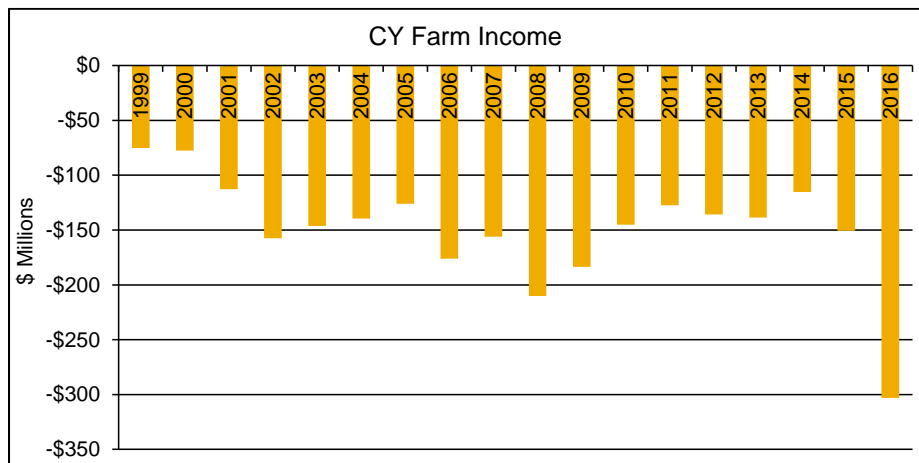
Rent, royalty & partnership (schedule E) income declined 7.2% from CY 2015; HJ 2 anticipated a growth of 4%. About 80% of the CY 2016 decline was concentrated in the taxpayers with schedule E income or loss in excess of \$1 million, as illustrated in the two charts below.



Schedule E income often exhibits strong year-over-year growth, so a return to the HJ 2 anticipated level of income in CY 2017 is possible.

Farm Income

Farm income as declared on the individual income tax has historically been negative in total, and typically fluctuates around (\$150 million), as shown in the chart below. HJ 2 anticipated farm income would remain in line with the previous level, but the CY 2016 amount ended up being significantly lower. Further research showed that the change was concentrated in a group of 10 taxpayers with the largest negative farm incomes. Research is ongoing with the Department of Revenue to assess whether the change may be one-time or ongoing.



Tax Simulation Model: \$12.0 million

The tax simulation model forecasts calendar year full-year resident tax liability by applying the growth rates discussed above to each resident taxpayer’s income and deduction items. The model makes various determinations on income type, income level and filing status. These assumptions are used to assign tax rates and applicable deductions, and ultimately the amount of tax liability. The model

aggregates all the individual taxpayer information for each income line to produce an estimate of full-year resident calendar year tax liability.

Combining the most recent IHS forecast with the known CY 2016 growth rates in the HJ 2 income tax model produces results that suggest the simulation model is responsible for an underestimate of about \$12 million.

Remaining Error: (\$2.5 million)

The fiscal year conversion takes the calendar year full-year resident liability output of the tax simulation model and adjusts for non-full-year resident liability to produce a total calendar year liability. Fiscal year total collections, excluding audit and penalty and interest collections, were modeled in HJ 2 on total prior calendar year tax liability to produce estimated fiscal year collections before audits and other adjustments. Finally, estimated audit, penalty, and interest collections, as well as any other adjustments are added to produce the final estimate. The conversion process appears to account for the remaining error of (\$2.5 million).

Property Tax: Know More by End of January

Property tax collections are below last year by \$0.6 million or 6.4% above collections last year at this time. This source was expected to grow by 6.5% in HJ 2. Fall property tax payments are due by the end of November, and are remitted to the state in December and January; the report at the end of January will be able to give more clarity to the year-to-date position of property tax revenue.

Corporation Income Tax: Below Estimate but Strong Estimated Payments

Corporation income tax collections through the end of November are \$0.6 million or 1.3% below the year-to-date collections in FY 2017. The collections by account type are shown in the following table:

Corporation Income Tax (\$ Millions)				
Account	YTD 2018	YTD 2017	\$ Difference	% Difference
Corporation Tax	\$6.1	\$10.1	(\$4.1)	-40.1%
Estimated Payments	39.7	31.1	8.6	27.7%
Refunds	(5.2)	(4.8)	(0.4)	9.1%
Refund Accrual Reversal	3.3	3.8	(0.4)	-11.3%
Audit, P&I, Amended	1.4	5.7	(4.3)	-75.4%
Total	\$45.3	\$45.9	(\$0.6)	-1.3%

Year-to-date growth of 27.7% in corporate estimated payments has been offset by decreases in the corporation tax account (holding account for audits and current year payments), as well as audits. Estimated payments typically account for approximately 80% of final corporation income tax revenues. As a result, if the strong early growth continues in estimated payments, final collections could end up near HJ 2. Refunds have been on par with FY 2017 through the first five months of FY 2018.

FY 2017 Error Analysis Based on 2015 Tax Return Data

Corporation income tax collections were \$6.0 million below the FY 2017 estimate contained in HJ 2. This source is historically volatile across all of its accounts. The difference between actual collections and HJ 2 is primarily explained by the following sources of error:

- Audit revenue: \$0.9 million (8.0% above HJ 2)
- Refunds: \$5.5 million (17.6% above HJ 2)
- Estimated FY 2017 tax liability: (\$12.4 million) (8.4% below HJ 2)

Note that the corporation tax liability data is lagged by two years. Therefore, the first estimated year in the modeling process was CY 2015 and followed by a CY 2016 estimate. This is in turn converted to a FY 2017 estimate using historical trends. Since the data are lagged, an error analysis comparing the CY 2015 tax liability to FY 2017 final collections cannot be explicitly calculated. In November, actual CY 2015 corporation tax liability numbers were available and are shown in the table below.

Compared to HJ 2, the calendar year 2015 corporation tax liability was \$8.8 million or 6.9% higher than expected. Decreases compared to HJ 2 in the financial and agriculture sectors were offset by increases in the manufacturing and information sectors. These sector-by-sector offsets have proven to be common, and this feature drives the rationale for the sector-driven modeling process. Note the relatively small error of 6.9% for a historically extremely volatile source.

CY2015 Tax Liability				
(\$ Millions)				
Sector	Actual	HJ 2	\$ Diff	% Diff
Agriculture	\$4.3	\$6.3	(\$1.9)	-30.7%
Mining	2.0	2.6	(0.6)	-23.9%
Utilities	0.8	1.1	(0.3)	-26.9%
Construction	2.1	3.1	(1.0)	-31.7%
Manufacturing	28.9	20.0	8.9	44.8%
Wholesale & Retail Trade	25.6	23.6	2.1	8.7%
Transportation	18.1	17.3	0.8	4.5%
Information	8.7	4.4	4.3	98.7%
Professional	9.4	10.3	(1.0)	-9.5%
Large Banks & Holding Companies	29.8	34.4	(4.6)	-13.3%
Social	4.3	3.2	1.1	33.3%
Unknown	1.2	0.2	0.9	404.3%
Total	\$135.2	\$126.4	\$8.8	6.9%

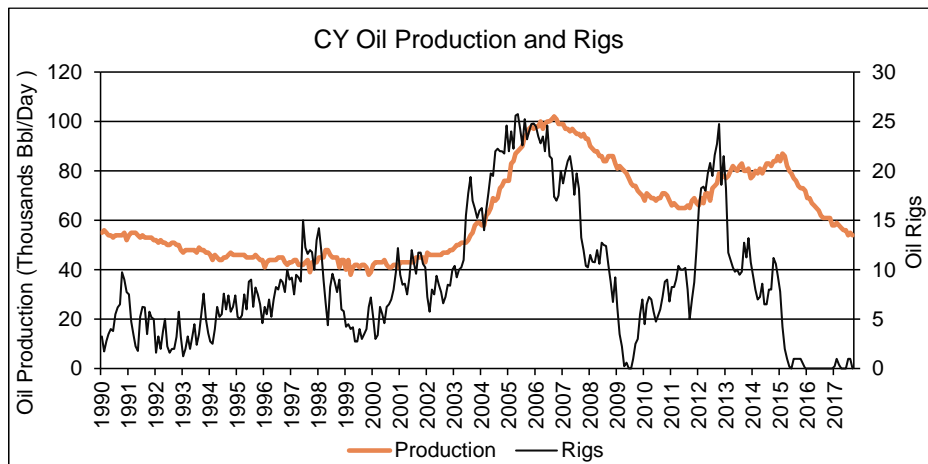
This is the most readily available detailed tax liability data and is used as the base year for forecasting purposes.

Vehicle Taxes & Fees: Currently Above HJ 2 Due to Timing

Five months into FY 2018, vehicle taxes and fees are 25.5% or \$7.9 million above collections last year at this time. The year-over-year increase is due to timing, as most of the November revenues in FY 2017 appear to have been booked in December.

Oil & Natural Gas Severance Tax: No Data, But Likely Close to HJ 2

Oil and natural gas production tax collections show \$0 through November. This is expected due to the statutory requirement of when taxes are due and the time allowed for DOR to determine the distribution of taxes to local governments.



Known price data through the first five months of FY 2018 are approximately 6% higher than the first five months of FY 2017. However, this growth may be offset by a decrease in production. As a result, when collections are posted, it is expected that they will be similar or slightly above collections last year at this time. The chart above shows production and rigs by calendar year.

Insurance Tax: Currently Below Estimate, Primarily Due to Timing

Current insurance tax collections are 14.2% or \$2.5 million below FY 2017, and below the 0.6% growth anticipated in HJ 2. Most of the difference—\$1.7 million—is due to one-time fire marshal tax collections at the beginning of FY 2017 due to a rule change; the remainder of the difference is due to lower insurance premiums tax collections. Insurance premiums tax accounts for over 80% of total insurance tax, and will be monitored closely in the months ahead.

Video Gambling Tax: Below Estimate

Revenue from video gambling is currently \$0.0 million or 0.2% below collections from last year. This source was expected to grow by 3.2% in HJ 2.

Other Key Differences

Coal Severance Tax: Likely Near Estimate

Revenue from coal severance taxes are currently \$1.9 million or 31.4% below collections from last year. This is due to a large audit that occurred in early FY 2017. This source was expected to remain flat in HJ 2, and year-to-date data on production and price suggest that this source should end up near the HJ 2 estimate, as the increased price and production may offset the large audit from FY 2017.

Coal Trust Interest Earnings: Below Estimate

Revenues from the coal trust interest is \$1.9 million or 24.9% below collections from this time last year. The year-over-year decrease is due to uncharacteristically large collections in July of FY 2017, a result of a timing issue. Ultimately the FY 2017 June collections were lower than they typically are so the large July payment was offset. This source was expected to remain flat in FY 2018.

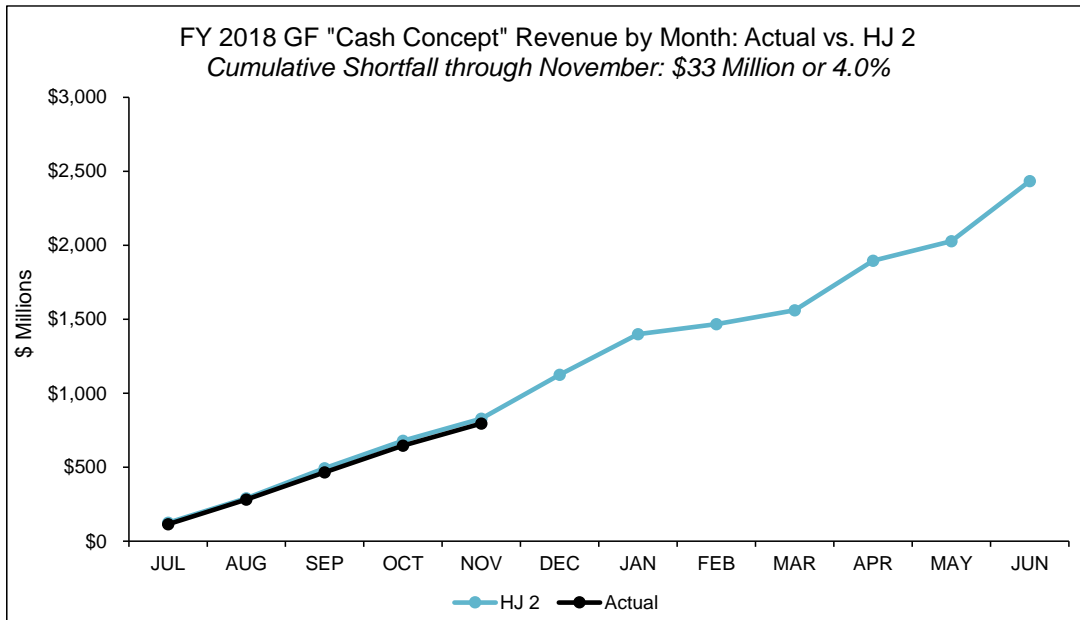
All Other Revenue: Above Estimate due to Transfers

All other revenue is currently \$58.7 million or 376.7% above collections at this time in FY 2017. Legislatively authorized transfers contained in [SB 261 \(2017 Session\)](#) and [HB 6 \(2017 Special Session\)](#) account for most of the \$55.9 million of the difference that is due to unusual transfers.

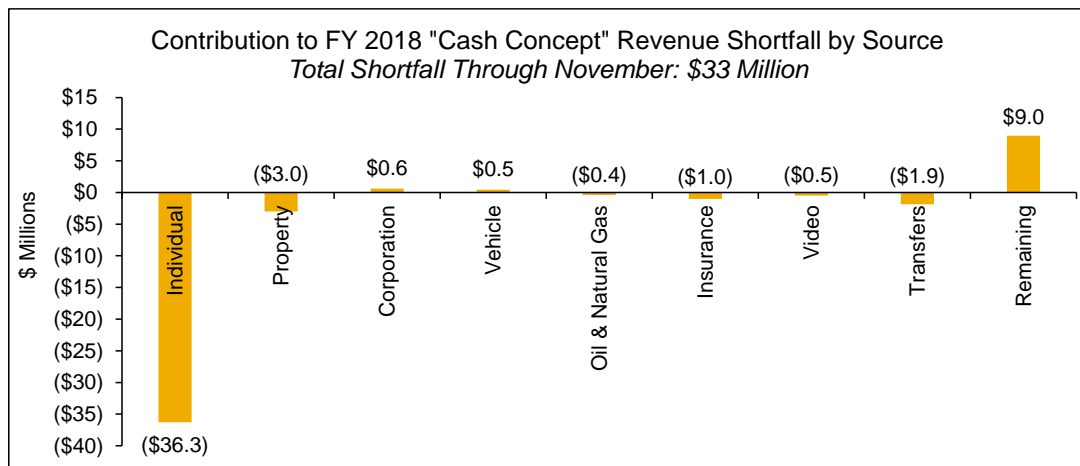
APPENDIX

The monthly cash flow model is based on state accounting (SABHRS) revenue data by month from FY 2002 to FY 2017, with accruals and subsequent accrual reversals removed. The top seven revenue sources and general fund transfers are modeled separately, with the remaining sources estimated as a group.

The chart below shows modeled cumulative HJ 2 (adjusted for the enacted legislation of the 2017 regular and special sessions) by month with the blue line, and actual collections with the black line. Through November, the cash concept model suggests general fund revenue is below what would be expected based on the official revenue estimate by \$33.0 million or 4.0%. If revenue continues to be below HJ 2 by 4.0% through FY 2018, final collections could be \$97.4 million lower than expected.



Individual income tax has the largest difference with respect to the estimate in HJ 2; based on the cash flow model, individual income tax through November is \$36.3 million below the HJ 2 estimate.



Further analysis is needed to produce a calculation of year-end revenue based on year-to-date collections. Other potentially useful comparisons will be provided to the legislature—likely in an appendix to standard reports. Legislative feedback on the new approach is encouraged.