Consensus Revenue Estimates:
Missouri Process and Common Practices

Executive Summary

Missouri's Constitution requires the legislature to not allocate more money than is received in revenue. Like the majority of states, Missouri uses a consensus approach for estimating the state's revenues in the upcoming fiscal year. This approach involves the governor and both chambers of the legislature agreeing to a common estimate of the state's revenue. Consensus estimating is one of five practices commonly used by states to create an accurate and widely accepted estimate. There are many factors that can lead to a difference between the revenue estimate and the actual revenue; one common factor is changes in income tax revenue (the largest single general revenue source).

Highlights

- Underestimating revenue can result in ineffectively using all of the funds available to the state, while overestimating can result in budget cuts partway through the fiscal year.
- The consensus revenue estimating process in Missouri is a norm not required by any statute, but has been used most years since 1987.
- Errors in Missouri's revenue estimates follow national trends and tend to be strongly correlated to changes in income tax revenue, which can be highly variable.
- Missouri does not make all revenue estimating meetings, or meeting notes, open to the public.

Limitations

- Researchers have not agreed if consensus approaches produce more accurate estimates. However, they have been shown to increase broad acceptance of estimates as opposed to a single branch of government deciding the estimate.

Research Background

Revenue Estimating for State Budgets

Revenue estimating is an essential part of the state budget process that is used to estimate how much money the state will collect in the next allocations cycle (some states create estimates for several years into the future[1]). This estimate in turn is used for budgeting how much money can be allocated to various state functions. Most states, including Missouri (Article 3, Section 37), have balanced budget provisions that do not allow legislatures to allocate more money than they receive in revenue. Underestimating revenue can result in underuse of the funds available

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to the state, while overestimates can result in unexpected budget cuts partway through the fiscal year.

There can be an incentive for legislators and term-limited governors to have more optimistic revenue estimates than non term-limited governors, particularly in the case of a unified party government. This is because there are political rewards for short-term expenditures while the consequences of over-allocating funds are more long-term and diffuse. Krause et al. (2013) found that independent commissions and consensus revenue forecasting groups tended to be more conservative in their revenue estimates than legislators.[2] Furthermore, it was found that term-limited legislators and lame-duck governors tended to be the most optimistic in their revenue estimates.

The Consensus Revenue Estimating Process in Missouri

Within 30 days of the start of the legislative session (Article 4, Section 24), the Missouri governor submits a budget proposal to the legislature that includes the estimated revenue for the next appropriation cycle (July 1st - June 30th). Revenue estimates are made in December or January and are based on a consensus from the governor's office, the Senate Appropriations committee, and the House Budget committee, with input from economists from the University of Missouri-Columbia. The consensus revenue forecasting process in Missouri is not required by any statute but has been used most years since 1987.[3]

In 2004, 2015, 2017, and 2021 the governor, House, and Senate did not reach a consensus on the original forecast. In cases of disagreement, the legislature can still allocate general revenue money how it sees fit. However, the governor can use line-item vetoes on budget items and restrict money throughout the cycle.

A revised revenue estimate is also made via consensus for the current appropriations cycle. The revised estimate includes half of the year's revenue data already and thus tends to be more accurate than the original estimate (Fig. 1). Since the governor is charged with maintaining a balanced budget by the legislature, if revenues appear to be coming in at a rate different than expected, new estimates are made by the governor's office throughout the year as well. If actual revenues are lower than what was projected, the governor may withhold appropriated funds, release reserve funds, or adjust the release timing of appropriated funds to maintain a balanced budget.

Revenue Sources and Estimate Errors

From fiscal years (FY) 2000 to 2020, Missouri's consensus revenue estimates have overestimated and underestimated the actual revenue an approximately equal number of times (Fig. 1). The error of the original revenue estimate is plus or minus 4.7% on average from the actual revenue, while the revised estimate's average error is plus or minus 2.4%. There are several categories of revenue that must be accounted for when estimating the state's revenue in an upcoming appropriations cycle, including general revenue, federal revenue, and other funds.

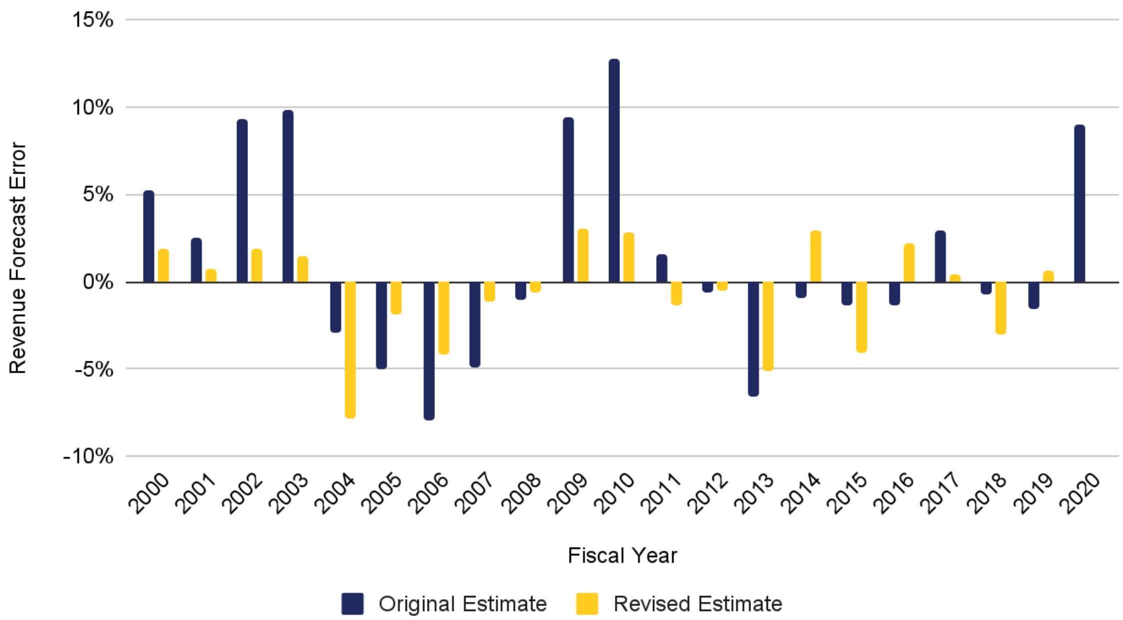

Figure 1. Missouri Consensus Revenue Estimate Accuracy. Deviations by percentage in the estimates and revised estimates from Missouri's actual revenue over 20 years. Bars above 0% correspond to over-estimates of the actual revenue and lines under 0% correspond to under-estimates.[AAA]

The largest single year sources of estimate error can be attributed to national-scale downturns. For example, following the 2001 dot-com bubble pop, the 2008 Great Recession, and the 2020 COVID-19 pandemic, there were large over-estimates in the Missouri revenue. During the first full year of the 2008-recession, 70% of states over-estimated their revenues by more than 5%.[4]

The majority of general revenue in Missouri comes from income taxes (70% in FY 2021) with the next largest source of revenue being sales taxes (19% in FY 2021). Because of this, events that cause people to lose their jobs or spend less will lower state revenue. Errors in Missouri's revenue estimate tend to be similar to those of other states and are strongly correlated with variability in income tax revenue.[4,5] States with smaller populations and states that depend on a few sectors of the economy (e.g., Alaska and the oil industry) tend to have larger estimate errors likely because their less diversified economies are more volatile.[6]

Changing conditions at the federal level can be hard to predict and thus lead to additional estimate inaccuracies. Since Missouri's income taxes are based on the federal adjusted gross income, changes to the federal tax code can result in changes to Missouri's revenue.[7] Additionally, large federal spending and stimulus bills (e.g., [American Rescue Plan]) can result in higher than predicted state revenues.

Practices for State Revenue Estimating

The two main goals of state revenue estimating processes are to create a revenue estimate that is based on reasonable assumptions and to have that figure accepted by the governor and the legislature. Five common practices are generally used by states (Fig. 2) and are referred to by

McNichol (2014) as "best practices" for creating accurate and widely accepted revenue estimates.[8] Of these five proposed practices, Missouri currently uses four.

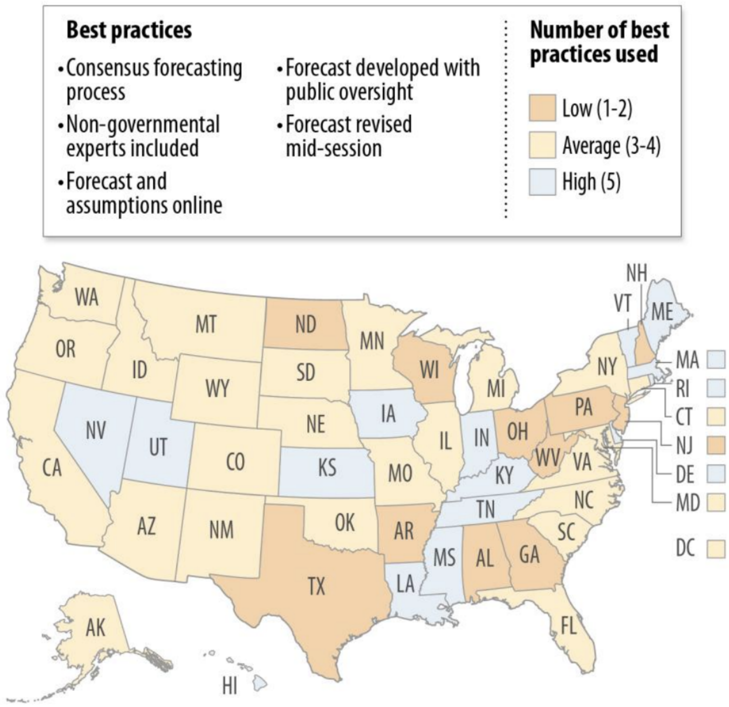

Figure 2. Five Proposed Revenue Estimating "Best Practices". The number of best practices for revenue estimates used by various states. Source: *National Conference of State Legislatures; CBPP survey of state revenue forecasting process.*[8]

(1) Consensus estimating group (governor and legislature)

- Twenty-eight states, including Missouri, use a consensus estimating approach where both the governor and both chambers of the legislature come to an agreement on the estimated budget.[3] While there isn't agreement by researchers that consensus estimates are more accurate than other methods, they have been shown to increase acceptance of the estimate by governors and legislators.[9] Without acceptance of estimates, the governor/legislature may take actions that are inconsistent with projected revenues.

(2) Outside experts included in forecasting group

- Economists from the University of Missouri - Columbia participate in the consensus revenue estimating group. Most states that use the consensus estimating approach have the original estimate created entirely by nonpoliticians.[10]

(3) Revenue forecast and assumptions used should be easily available

- The Missouri House of Representatives publishes a yearly report, called "Budget Fast Facts" on the upcoming fiscal year that includes data about revenue estimates and predicted growth.[11]

(4) Forecast updated throughout the year

- A revised budget estimate is produced by the consensus estimating group halfway through the appropriations cycle at the same time as the estimate for the upcoming cycle.

(5) Meetings about forecasting should be available to the public or notes made public

- This is the only "best practice" for revenue estimating not used in Missouri. Most states (30) make meetings or meeting notes available to the public. Some states, such as Florida and Michigan, hold revenue estimating conferences that are open to the public. Other states make thorough notes from revenue estimating meetings available to the public including assumptions used.

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