Rose Institute
of State and Local Government
Claremont McKenna College

Numerical Politics:

State Revenue Estimating Processes and Lessons for California

Tim Plummer'17
Gavin Landgraf'14

February 12, 2015

850 Columbia Avenue
Kravis Center 436
Claremont, CA 91711-6420
P: (909) 621-8159
E: roseinstitute@cmc.edu

Developing California's annual budget is the most important set of decisions state government makes. The budget allocates limited resources to a vast number of programs and thereby establishes, in concrete terms, the state's priorities. Reaching agreement on the budget is an arduous process. After the governor submits his or her recommendations to the state legislature in early January, lawmakers have less than six months to answer two questions: how much money does the state have to spend? And, how will revenues be distributed among the state's many programs? Both the governor's Department of Finance (DOF) and the Legislative Analyst's Office (LAO) prepare independent revenue estimates, but neither figure is binding, so lawmakers have a range of options when projecting revenues. The final number has significant consequences: pursuant to the state's constitutional balanced budget requirements (see California Constitution Article 4), the legislature's revenue projections determine the amount of money it can appropriate. The stakes are high and political considerations often influence what otherwise would be a purely empirical determination.

During the 2013-2014 budgeting cycle, for example, Governor Brown and the legislature clashed over whether to use the more conservative Department of Finance projections or the more optimistic numbers from the Legislative Analyst's Office. After much negotiation, Brown convinced the legislature to accept the DOF numbers in exchange for reducing the amount of money he wanted to set aside to reduce outstanding debts.[1] Similar negotiations will likely occur in 2014 since the DOF's estimates for the state's 2014-2015 revenue are $2.5 billion lower than the LAO's.[2] Rating agencies have expressed concern about the politicization of revenue forecasting, and some scholars have suggested that California needs structural reforms to its budgeting process.[3] This paper examines state budgeting processes across the nation and considers California's various options for reforming its revenue forecasting.

Ultimately, this paper recommends that California adopt a consensus revenue system with a panel composed of representatives from the legislative branch and the executive branch, as well as people outside of government. Initially beginning as a non-binding agreement, it would allow for the structural problems in the current system to be mitigated, by moving the disagreement over revenue estimates outside the floors of the legislative chambers and into the hands of a qualified body. This paper begins, however, with an examination of the major players in the budget process, the executive and legislative branches.

Institutional Players in the Budget Process

Executive

In every state, the governor's most important responsibility is to propose a state budget. Typically drafted by the governor's budget office, this initial proposal lays out the executive's spending priorities. In every state, the executive has an independent office that makes fiscal projections.* The governor is able to use revenue estimates to pursue certain spending priorities. California witnessed this feature of the budget process in the 2013-2014 cycle, during which Jerry Brown pushed for lower revenue estimates as a way of keeping overall spending levels in check. The blueprint of the executive proposing a budget to the legislature is a common practice, even if the number of executive departments or composition of the executive budget office varies. Some states have several different departments to assist with revenue estimating, while others keep the job in the budget office. The executive's control over the process varies based on the relative strength of the legislature.

Legislature

The legislature has wide latitude to alter the governor's budget and enact its own spending priorities, limited mainly by the threat of an executive veto. The legislature's power to check the executive is bolstered by the independent estimates it can acquire on its own. This factor has led more than two-thirds of the states to set up a separate budget office that can independently assess the executive's numbers and otherwise analyze the governor's proposed budget. California has its own independent agency in the LAO. The legislature's ability to check the

*Some states adopt a 2-year budget cycle instead of an annual budget. In these states, there are frequent revisions to the budget estimates, and the legislature amends the budget accordingly, if necessary. Washington, for example, has quarterly estimates conducted by the Office of Financial Management, the governor's budget office.

executive's numbers is an enormous asset, especially when it comes to the revenue estimate. When the governor's numbers are not the only ones, the legislature can reject them and propose alternatives.[4]

Independent budget agencies can take many forms. First is the LAO model, whereby both houses of the legislature jointly oversee the agency, and is used by 32 states. The office serves both houses and is a nonpartisan voice on budgetary and other legislative matters. The agency's unity allows the legislature to speak with one voice, which helps to balance the governor's power. LAO analyses are taken quite seriously, the result of hard won independence.[5] Second is the model whereby each house in the legislature has its own budget agency; it is employed by 4 states. While this model allows for three separate estimates, it generally means the legislature will not speak with unity when it comes to budgetary matters. Under the third model, nonpartisan staffers are placed on relevant budget committees; it is used by 9 states. Though this model allows various committees to verify the estimates of the governor, it again lacks a definitive authority to make statements on proposals such as the governor's budget. States assign varying roles to these agencies in the budget process. Some, like Connecticut, have the legislative budget agency take the central role in developing revenue estimates, while other states such as Nevada have the agency play a smaller role in estimates. In any form, however, these agencies provide a second opinion on the executive's revenue estimates.

Revenue Estimating Processes Used by Other States

Consensus Forecasting

Twenty-eight states use some form of consensus forecasting to estimate revenues. In this process, a panel, whose composition and appointment varies by state, generates an estimate that both the executive and legislature must use when drafting and revising the budget. While some studies have shown this method is more accurate than others, recent studies have cast doubt on these conclusions.[*6,7] Regardless, consensus forecasting solves some of the political problems that normally stem from negotiations over revenue estimates. While elected officials are experts in making political and policy decisions, few have technical experience choosing between varying forecast models.[†] Therefore, debates over revenue estimates tend to be less technical than political; members of both the legislature and the executive may attempt to manipulate numbers to back spending priorities. Consensus forecasting is an attempt to reduce political considerations in the revenue estimating process.[‡]

The essential characteristics of consensus forecasting bodies are straightforward. They must include representatives from both the executive and the legislative branches, and may allow input from other sources as well.[§] To ensure a variety of perspectives and a broad knowledge base, consensus forecasting bodies often call on economic forecasting experts from outside of government. These bodies must work based on unanimity, not majority vote. Consensus forecasting is only successful if all parties can agree on the number and later employ it. Since continued agreement on the estimate is imperative, there must also be a mechanism for a member of the forecasting committee, if he or she believes that conditions have changed enough for the estimate to be invalid, to call for another estimate. Finally, the estimate must be binding so that the governor and the legislature are forced to use the consensus estimate. Without this requirement, the entire idea of a consensus estimate makes little sense.

Florida started informally using the consensus forecast in 1970. A senior budget officer, growing concerned over the amount of time he witnessed legislators debating the coming revenue estimates instead of policy, invited high-ranking staff members

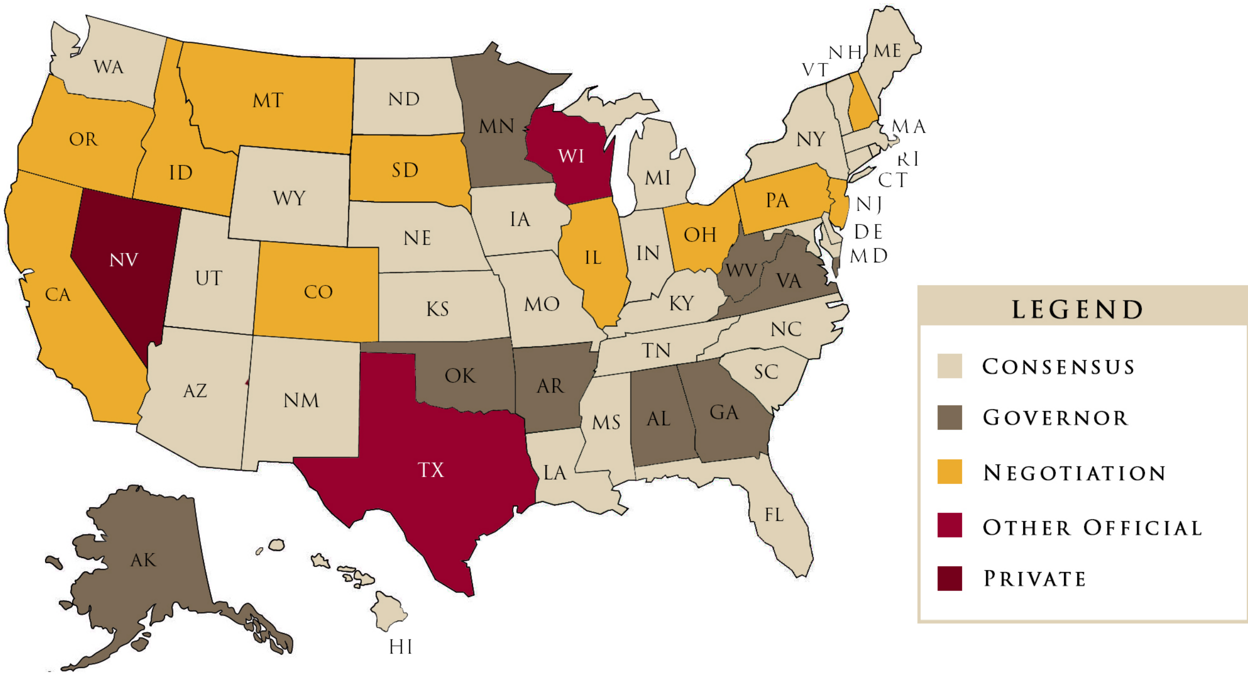
* See Appendix 1 for a table of every state and the structure of their revenue estimating process.

† Some have noted that a legislator's staff may have experience with revenue estimating. Even when this is the case, it fails to solve the structural and efficiency problems with which this paper is concerned.

‡ Some may argue that legislators should have responsibility for estimating revenues, but this view has two problems. First, legislators are typically less expert in deciding between competing revenue estimates than in debating about how much the state *should* be able to spend. Second, by fixating on revenue estimates, lawmakers have less time to discuss how best to distribute state funds that are actually available. .

§ This takes a wide variety of permutations, but the basic structure will typically include from the legislature either elected officials or, more common, budget analysts, and a member of the governor's budget team.

Forecast Processes in the States



Rose Institute of State and Local Government, Claremont McKenna College

Figure 1. Map of the various forecast methods used by the states.

from both the legislature and the governor's office to come together and forge a consensus estimate. By simply including the staffers relevant in the budget negotiations, the major stakeholders had representation, allowing the initial structure to succeed. For more than a decade, this informal arrangement worked and avoided time-consuming negotiations on the floor of the legislature. When budget tensions rose in the early 1980s, the legislature codified this process.[8] By beginning informally, the various players were able to develop their roles and responsibilities within the process, making the formal consensus process easier to establish. Some Florida officials have argued that the consensus process is partially responsible for their state's higher bond ratings.[9]

Put simply, a consensus forecast, calls for a panel of experts to meet and generate the requested forecast.[10] The panel's composition varies state by state, but at minimum includes representatives from the executive and legislative branches. These officials are the most important members of any forecasting committee, as they represent the institutions responsible for adopting the budget. Losing their support can result in a failure to reach consensus. Many states have also found it helpful to include the input of academics, consultants, or even private citizens.[11] The method of appointment varies by state, with some states granting appointment power to the governor and legislature leaders, while other states employ different processes.

The size of the forecasting bodies also varies by state, with some panels having as few as two to three members, and others more than a dozen. Arrangements range from quite simple to complex, and vary in the involvement of government officials.

For example, in Iowa, the voting members (also known as principals) are the governor (or designee), the director of the Legislative Services Agency (or designee), and a third member selected by the other two.[12] This simple format, while providing the ease of having only three voting participants, helps to ensure efficiency, but excludes other relevant parts of the state government and citizenry. Maine, on the other hand, employs "the State Budget Officer, the Associate Commissioner for Tax Policy, the State Economist, an economist on the faculty of the University of Maine System selected by the chancellor, the Director of the Office of Fiscal and Program Review and another member of the Legislature's nonpartisan staff."[13] Whatever model is chosen, the key factor is ensuring that the stakeholders in the budget process, the executive and the legislature, are represented and endorse the final estimate.

As with any model, there is a risk that a consensus forecast model might fail. Therefore, a backup is essential to eliminating political gridlock. While this can take many forms, one possible method that certain states have adopted is to have an official isolated from the drafting of the budget make a determination on revenue estimates. Even in states with well-functioning forecast systems, the lack of a formalized consensus forecast can be detrimental. The budget saga in Connecticut in 2009 provides an example of the necessity of having both a consensus forecast and an independent party to serve as the backup. Prior to 2009, Connecticut worked off a system where the legislature chose between competing estimates from the executive and legislative budget agencies.[14] From 1999 to 2008, the average gap between the estimates of the Office of Fiscal Analysis (OFA) and the governor's office were only 0.75%, but in 2009 this gap grew to 9.3%.[15] Governor M. Jodi Rell originally announced that the budget would produce an $8 billion deficit, while the nonpartisan OFA projected an $8.7 billion deficit. The discrepancy was the result of differing assumptions and technical details used in calculating the revenue estimate. Adding to the confusion, Governor Rell released a revised budget that estimated the deficit to be only $6 billion. After critics accused the governor of changing revenue estimates to avoid some painful spending cuts, a conference was convened between representatives from the OFA, the Office of Personnel and Management, and the Comptroller's Office. When this effort to resolve differences failed, legislative leaders spent weeks disputing the revenue estimate with the governor, instead of dealing with substantive policy issues.[16] In response to this fiasco, the legislature passed a law that made a consensus forecast mandatory, with the state comptroller's estimate the official estimate if the governor and legislature did not agree. The following year, the revenue estimating process went much more smoothly.[17] Consensus estimates, more than other methods, balance the interests of involved parties while also limiting the politicization of the budget figures.

Private Citizens Separate from Government

One state, Nevada, has attempted to depoliticize the process by preventing any elected member of the legislature, public employee, or employee of an institution that receives public funding from voting in the Economic Forum, the state's forecasting committee. Appointments to the committee are made by the executive and the legislative branches; the governor makes three appointments, while the Senate Majority Leader and the Speaker of the Assembly make one each. The Technical Advisory Committee on Future State Revenues was established to provide technical support for the forecasting group; it consists entirely of public employees and a representative of the higher education system. This body has representatives from several departments and areas throughout the state government.[18]

When making the actual forecast, Nevada's Economic Forum looks to several different forecasts prepared by the following groups: various state government staff, Fiscal Analysis Division staff, Budget Division staff, and staff from the agencies responsible for collecting certain revenues. Outside of government, the state contracts with Global Insight, a national forecasting firm, to provide independent forecasts. After reviewing the forecasts presented, the five voting members of the forum agree to a number that the state uses for the budget. This procedure's main benefit is that elected officials are separated from the process of selecting the estimate. This brings in another layer of expertise to the estimating process. The five individuals currently serving on the forum include a CPA, a CFO and treasurer of a Fortune 500 company, and a managing director of a consulting firm. All appointees to the commission have extensive expertise with financial and tax planning, giving them greater credibility to choose between different forecasts. While the governor and heads of the legislative chambers can exert some influence on the process through their appointments to the commission, their influence is limited by the variety of estimates and the experience of the members of the forum.

Official Disconnected from the Budget Process

Texas has established a process whereby the state comptroller, an official who is not directly involved in drafting the budget, establishes the revenue estimate. Separately elected by the voters, the comptroller has the sole responsibility for the Biennial Revenue Estimate (BRE). This arrangement, while avoiding drawn out negotiations over the revenue the state will see in the coming budget cycle, simultaneously gives the comptroller a major role in the budget fight. Susan Combs, the current comptroller, has influenced the budget process through her official estimates and her ability to certify that the state budget is balanced.

As former Texas Comptroller John Sharp once said, "the legislature can't spend more than you say it can."[19] Naturally, this means that the state comptroller cannot be completely neutral in the budget process; everything she does will influence the budget negotiations. For example, in the 2011 estimate, Combs drastically underestimated revenue, which resulted in large cuts to social services throughout the state. In a March 2013 interview, she noted how she tries to be conservative because she does not "want to let people think there's a lot of money and then find that there's not."[20] As a result, Texas's spending levels are likely to be set at a more conservative estimate precisely because the comptroller systematically uses conservative numbers or methodology when estimating revenue. Although the legislature can override the estimate with a four-fifths majority, that has never happened.[21] Therefore, the spending level set out by the comptroller is the spending level of the state. Combined with a constitutional mandate to certify that budget does not exceed estimated revenues, the Texas Comptroller is able to play a large role in the budget process. Though structurally disconnected from the process, the elected comptroller still has a large role in budget negotiations.

Like Texas, Wisconsin also selects a person to make an estimate but has opted to choose someone more cleanly divorced from the budget process. While Texas has assigned revenue estimating responsibility to an elected official, Wisconsin given the task to the director of the Legislative Fiscal Bureau, the legislature's budget agency. Though not codified in law, the tradition is for the budget to employ the Bureau's numbers.[22] This arrangement dispenses with the inherent political nature of having an elected official make the decision, while also avoiding a political impasse over the numbers.[*] A single person or department making the decision still presents some problems. First, it does not allow for the inclusion of different methods as consensus forecasting allows. Second, there is the risk that other sections of government could reject the estimate. In Wisconsin, it is entirely possible that the governor could completely reject the estimate put forward by the Bureau. Texas has solved this problem by adding an extremely tough override, but Wisconsin has no such override since using the Bureau's estimate is not mandated by statute. A consensus forecast is successful because it is accepted by the major players in the budget process; not including them in the process risks losing their approval, thus opening to door to political battles over the estimate.

Executive Office

Seven legislatures (Alabama, Arkansas, Georgia, Minnesota, Oklahoma, Virginia, and West Virginia) use the executive branch's estimate. Five of these states do not have a unified, independent budget agency to give an alternative, independent assessment of the revenue forecast. The other two, Arkansas and Alabama, do have an independent forecasting body, but use the governor's estimate anyway. Granting the governor sole power to estimate revenues increases efficiency; the legislature will not invest time debating revenue estimates because

* The Wisconsin Department of Revenue also makes an estimate for the governor's proposed budget, which is used in the initial governor's budget. This number, however, is typically abandoned in favor of the Legislative Fiscal Bureau's number.

the governor has sole authority to set the number. Nevertheless, the risk of an executive manipulating revenue estimates to reach desired spending levels is real. For California, this approach would make the governor's estimate binding and would undermine the legislature's budget authority.

Possibilities for California

California should consider adopting a consensus revenue forecast system. More than any other system, this method allows for the inclusion of major players in the budget negotiations, namely the legislature and the governor. In other models, one or both of these essential players is marginalized, which potentially compromises the forecast's legitimacy. Moreover, by adopting the consensus forecast, California can limit the debates within the halls of the legislature over how much money the state will have over the course of the next year. Instead, the legislature and governor can focus their expertise of making substantive policy decisions.

We propose the following format for consensus forecasting in California. The arrangement should be a three-person panel with the following participants: the director of the DOF (or designee), the director of the LAO (or designee), and a mutually agreed upon third party, preferably outside of government. The directors of the DOF and LAO are essential for the committee because they and their staffs understand the budget better than perhaps anyone else in state government. This knowledge can be applied to offer the most sensible estimates possible. The third member should be someone who has an understanding of either California politics (even if he or she operates outside of it) or economic forecasting. One such possible person could be an economist from the publicly funded UC system, similar to how Kansas uses economists from its public universities. With highly qualified participants and small size, the committee could reach an accurate estimate in a short period, allowing the governor to use this number in his initial proposal. This panel would meet, at minimum, twice a year: first, for the Governor's initial budget and, second, for the May Revision of the revenue estimate. In this sense, it would simply substitute the current estimates given by both the LAO and the DOF.

Because the panel we envision has a simple structure, the governor and legislature could try using it on an experimental, non-binding basis. Naturally, this would require the blessing of both leaders of the legislature and governor to be effective. Florida had success trying consensus forecasting in this informal way and, when the time came to codify the process into law, experience had smoothed over the kinks in the process.[23] On the other hand, establishing a binding procedure would ensure that the process commences immediately, avoiding the risk of additional years of haggling over revenue estimates.

We believe that a backup procedure is necessary in the event that the consensus body cannot agree. That backup must be an individual who is not party to the initial process, yet is familiar with state finances and revenue sources. The state controller is well qualified on both of these counts. Relying on the elected controller is not a perfect solution as the position is subject to partisan influence and could thus provide incentives for the panel to deadlock, but the system requires *someone* to have the last word on revenue estimates, and the controller seems to us to be the best available option.

To become effective, the consensus revenue forecast system has to be binding. If it lacks the force to be used in both the governor's and legislature's budget plans, then it has no force at all, and the new process of identifying a revenue estimate will not be any more efficient than it is now. While some states have provisions in place to revise the estimate in circumstances where the members of the committee believe that state's revenue outlook has changed drastically, this seems unnecessary given California's use of the May Revision. The panel's estimates would be on the same schedule as the DOF and LAO, and therefore give estimates. This would allow the projections to follow changes in the state's fiscal outlook.

California's revenue estimating process has been broken for years. It leads to inefficiencies in the budget process and risks bringing party politics into an area where the most accurate numbers are essential. A consensus forecasting system, though no silver bullet, would be a welcome change in this process, and balance the needs for inclusion by involved parties and the need for efficiency in the broader budget process.

ENDNOTES

[1] David Siders, "Ratings Agency: California Finances Better, but Debt Issues Linger," *Sacramento Bee*, July 1, 2013, accessed February 28, 2014, http://blogs.sacbee.com/capitolalertlatest/2013/07/ratings-agency-california-finances-better-but-with-long-term-questions-abou.html.
[2] "The 2014-15 Budget: Overview of the May Revision," Legislative Analyst's Office, May 16, 2014, accessed July 18, 2014.
[3] Gabriel Petek and David Hitchcock, *Revenues Take Center Stage in California's 2013-2014 Budget Drama* (Standard & Poor's, July 1, 2013), accessed January 10, 2014, https://www.globalcreditportal.com/ratingsdirect/renderArticle.do?articleId=1154992&SctArtId=165905&from=CM&nsl_code=LIME.
[4] Ibid.
[5] David Lawrence, *California: The Politics of Diversity*, 7th ed. (Cengage Learning, 2011), 1, accessed February 28, 2014, 139.
[6] Yuhua Qiao, "Use of Consensus Forecasting in U.S. State Governments," in *Government Budget Forecasting: Theory and Practice*, ed. Jinping Sun and Thomas D. Lynch. (USA: Auerbach Publications, 2008), 402-408.
[7] "States' Revenue Estimating: Cracks in the Crystal Ball," Pew Center on the States and the Nelson A. Rockefeller of Government Studies, 2011, accessed January 10, 2014.
[8] Klay and Vonasek, "Consensus Forecasting for Budgeting in Theory and Practice," 388.
[9] "States' Revenue Estimating: Cracks in the Crystal Ball."
[10] Katherine G. Willoughby and Hai Guo, "The State of the Art: Revenue Forecasting in U.S. State Governments," in *Government Budget Forecasting: Theory and Practice*, ed. Jinping Sun and Thomas D. Lynch. (USA: Auerbach Publications, 2008), 31.
[11] John L. Mickesell, "State Revenue Forecasting in the State of Indiana: A Consensus System in a Politically Divided State, " in *Government Budget Forecasting: Theory and Practice*, ed. Jinping Sun and Thomas D. Lynch. (USA: Auerbach Publications, 2008), 418.
[12] "Budget Process in Iowa," The Iowa Legislature, January 13, 2014, accessed January 18, 2014,https://www.legis.iowa.gov/docs/resources/IowaBudgetProcess.pdf.
[13] "The Budget Process," January 18, 2014, accessed January 18, 2014, http://www.maine.gov/legis/ofpr/other_publications/budget_process/budget_process.htm#revenue_forecasting.
[14] Yael Shavit, "Revenue Forecasting Processes in New England," New England Public Policy Center, January 18, 2014, accessed January 18, 2014, https://www.bostonfed.org/economic/neppc/briefs/2009/briefs904.pdf.
[15] Jeffrey Tebbs, "Addressing Misperceptions Regarding S.b. 1162, a Bill to Implement Consensus Revenue Forecasting in Connecticut," Connecticut Voices for Children, April 5, 2014, accessed April 5, 2014, http://www.ctvoices.org/sites/default/files/bud09consensusrevenueforecast.pdf.
[16] Jeffrey Tebbs, "Breaking the Stalemate: A Proposal for a Consensus Revenue Forecasting Process," Connecticut Voices, February 28, 2014, accessed February 28, 2014,http://www.ctvoices.org/sites/default/files/bud09revenueforecasting.pdf.
[17] "States' Revenue Estimating: Cracks in the Crystal Ball"
[18] "Background On the Economic Forum," January 18, 2014, Nevada Legislature: The People's Branch of Government.
[19] John Sharp, "Dear Carole: Your Next Four Years As State Comptroller Are Going To Be Taxing. I Should Know," *Texas Monthly*, June 1999.
[20] Silverstein, Jake. 2013. "Money Makes the World Go Round." *Texas Monthly* 41, no. 3: 64-75. *Academic Search Premier*, EBSCO*host* (accessed March 1, 2014).
[21] "Executive Branch: Comptroller of Public Accounts," Texas Politics, March 1, 2014, accessed March 1, 2014,http://texaspolitics.laits.utexas.edu/1_9_4.html.
[22] "State Budget Process," Wisconsin Legislative Fiscal Bureau, January, 2013, accessed February 10, 2014. http://legis.wisconsin.gov/lfb/publications/informational-papers/documents/2013/74_state%20budget%20process.pdf
[23] Klay and Vonasek, "Consensus Forecasting for Budgeting in Theory and Practice," 388.

Appendix 1

State	Forecasting Method	Forecast in State Budget	Notes
AL	Governor	Governor	Executive Budget Office staff works in conjunction with an economist from the Center for Government and Public Affairs at Auburn University at Montgomery and agencies responsible for the collection of revenues.
AK	Governor	Governor	Department of Revenue is responsible for estimating revenues.
AZ	Governor and Legislature	Consensus	The Joint Legislative Budget Committee and the Governor's Office of Strategic Planning and Budgeting each independently produce nonbinding estimates. Policymakers typically request that the two staffs come together on a consensus estimate, which usually involves averaging the two numbers.
AR	Governor	Governor	The Director of the Department of Finance and Administration is responsible for estimating revenues.
CA	Governor and Legislature	Negotiation	Both the Department of Finance and the Legislative Analyst's Office release revenue estimates, with the governor and legislature negotiating over what the final revenue estimate will be.
CO	Governor and Legislature	Negotiation	The legislature decides between the independent forecasts of the Office of State Planning and Budgeting and the Colorado Legislative Council through a joint resolution.
CT	Consensus	Consensus	The directors of the Office of Personnel Management and the Office of Fiscal Analysis meet to decide a revenue estimate. In the event that they cannot reach a consensus, the independently elected state comptroller chooses the revenue estimate.
DE	Consensus	Consensus	The Delaware Economic and Financial Advisory Council, comprised of dozens of business leaders and academics, is responsible for estimating revenues.

FL	Consensus	Consensus	Consensus forecasts are established by representatives from the governor's office, the Senate, the House, and the Coordinator of the Legislative Office of Economic and Demographic Research.
GA	Governor	Governor	The Office of Planning and Budget sets the revenue estimate.
HI	Consensus	Consensus	The Council on Revenues, comprised of seven members appointed by the governor and leaders of both legislative chambers, is responsible for estimating revenues.
ID	Governor and Legislature	Negotiation	The governor establishes his own revenue estimate, then the Economic Outlook and Revenue Assessment Committee, an 18-member bipartisan body, makes its own estimate (or decides that the governor's estimate is reasonable). This is then sent to the Joint Financial Appropriations Committee, which then has the option of using its own number.
IL	Governor and Legislature	Negotiation	The governor sends his own revenue estimate, but the legislature is able to pass its own revenue estimate for use in the final budget.
IN	Consensus	Consensus	Two committees are involved, the Indiana Economic Forum and the Revenue Forecast Technical Committee. The Economic Forum, comprised of people outside of government, focuses just on economic forecasting. The Technical Committee, representative of the legislative and executive branches, uses the Economic Forum's forecast to come up with state revenue estimates.
IA	Consensus	Consensus	The Revenue Estimating Conference consists of three members: the Governor (or Governor's designee), the Director of Legislative Services Agency (or designee), and a third member agreed to by the other two.
KS	Consensus	Consensus	A consensus revenue estimate is agreed upon by representatives from Division of the Budget, Legislative Research Department, the Department of Revenue, and one consulting economist each from Kansas, Kansas State, and Wichita State universities.

KY	Consensus	Consensus	The revenue estimate is prepared by the Consensus Revenue Forecast, a group jointly appointed by the State Budget Director and the Legislative Research Council (LRC). While the LRC provides staff, either the State Budget Director or the LRC can request a revision of the original estimate.
LA	Consensus	Consensus	Louisiana's Revenue Estimating Conference consists of the governor, the president of the senate, the speaker of the house, or their respective designees, and a faculty member of a university in Louisiana with expertise in revenue forecasting.
ME	Consensus	Consensus	The Revenue Forecasting Committee consists of the State Budget Officer, the Associate Commissioner for Tax Policy, the State Economist, an economist on the faculty of the University of Maine System, the Director of the Office of Fiscal and Program Review, and another member of the Legislature's nonpartisan staff. The committee must use the economic assumptions and forecasts of the Consensus Economic Forecasting Commission.
MD	Consensus	Consensus	The Consensus Revenue Forecasting and Monitoring Group, consisting of representatives from executive departments and the legislative budget agency, sends to the governor a recommendation for the coming revenue estimate. Although this is not binding, if the proposed budget exceeds the number of the Board, the governor must explain why in his budget message.
MA	Consensus	Consensus	The Secretary of Administration and Finance meets with the chairs of the House and Senate Ways and Means Committees to establish a revenue estimate.
MI	Consensus	Consensus	The voting members in Michigan's revenue estimating conference are the State Budget Director and the Directors of the Senate and House Fiscal Agencies or their respective designees. The governor and senior officials from the Department of Treasury may also participate.

MN	Governor	Governor	Minnesota Management and Budget prepares the estimates for use in the state budget.
MS	Consensus	Consensus	The Revenue Estimating Conference consists of the State Economist, the State Fiscal Officer, the State Treasurer, the Chairman of the State Tax Commission, and the Director of the Legislative Budget Office. Although the revenue forecast is not binding, it is nearly always accepted.
MO	Consensus	Consensus	Revenue estimate made by House and Senate appropriations staffs, Division of Budget and Planning, and staff from University of Missouri.
MT	Negotiation	Negotiation	The Budget Office and the Legislative Fiscal Division both independently calculate revenue estimates and then compare forecasts and work together toward the best forecast.
NE	Consensus	Consensus	Revenue estimate is made by the Economic Forecasting Board, which is composed of five legislative appointees and four gubernatorial appointees, but no representative from the Legislative Fiscal Office.
NV	Private	Private	The state's Economic Forecasting Group, which is composed of five economic and taxation experts from the private sector, provides a binding revenue estimate.
NH	Governor	Negotiation	The governor relies on an initial revenue estimate by the head of Administrative Services, though the legislature passes its own revenue estimate by a majority vote.
NJ	Governor	Negotiation	The legislature conducts a review of the governor's budget, and following several months of revenue collection, establishes the final revenue estimate.
NM	Consensus	Consensus	Economists from the Department of Finance and Administration, Taxation and Revenue Department, and the Legislative Finance Committee develop the estimate.
NY	Consensus	Consensus	Since 2007, the legislature and the executive are required to create a consensus estimate. In the event that no consensus is reached, the independently elected state comptroller chooses the revenue estimate.

NC	Consensus	Consensus	The Fiscal Research Division and the Office of State Management and Budget come together to create a joint, non-binding forecast.
ND	Consensus	Consensus	Under an informal arrangement, North Dakota achieves a consensus forecast through a conference with tax and finance legislators, the legislative fiscal officer, the Director of Office of Management and Budget (OMB), and OMB analysts.
OH	Negotiation	Negotiation	The Office of Budget and Management works with the Department of Taxation to create a revenue forecast. This is eventually compared with the estimate given by the Legislative Service Commission, and then a final revenue estimate is agreed upon.
OK	Governor	Governor	The State Board of Equalization, consisting of the Governor, Lieutenant Governor, Attorney General, State Treasurer, State Auditor and Inspector, State Superintendent of Public Instruction, and President of the Board of Agriculture, certifies estimated sources of revenue for the following year, which then caps the legislature's spending.
OR	Governor	Negotiation	The governor makes his own estimates, which are then reviewed by the Ways and Means committee and the Legislative Fiscal Office, which makes further recommendations to the Ways and Means committee.
PA	Governor and Legislature	Negotiation	The Secretary of Revenue and the Secretary of the Budget establish the revenue estimate. The legislature may amend the estimate, however.
RI	Consensus	Consensus	Twice a year, a public Revenue Conference is held with the principals being the Budget Officer, Senate Fiscal Advisor, and House Fiscal Advisor. These principals can call for another conference if they feel the fiscal situation has changed enough to warrant another estimate.

SC	Consensus	Consensus	The Board of Economic Advisors consists of the following: one member appointed by the Governor to serve as chairman, a member appointed by the chairman of the Senate Finance Committee, one member appointed by the Chairman of the House Ways and Means Committee, and a representative of the Department of Revenue who serves ex officio as a non-voting member. All of the members have a working knowledge in revenue forecasting and the state budget process. The staff is supplemented by an official from the offices of the Governor, Senate Finance Committee, House Ways and Means Committee, Department of Revenue, and State Budget Office.
SD	Governor and Legislature	Negotiation	Both the Bureau of Finance and Management and the Legislative Research Council prepare estimates. The legislature's Revenue Subcommittee references these estimates when choosing their own estimate.
TN	Consensus	Consensus	The State Funding Board meets and makes a range of revenue estimates for the governor to choose from.
TX	Comptroller	Other official	The comptroller makes the Biennial Revenue Estimate, but this can be overridden by a four-fifths vote in the legislature (though this has never happened).
UT	Consensus	Consensus	After making independent forecasts, the Legislative Fiscal Analysts, governor's office, and Tax Commission come together and agree on a unified estimate.
VT	Consensus	Consensus	Consensus forecast is established by the Emergency Board, which is made up of the governor and the chairs of the House Committee on Appropriations, the House Committee on Ways and Means, the Senate Committee on Finance, and the Senate Committee on Appropriations. Prior to the Board meeting, consulting economists attempt to reach a consensus recommendation. When one is not reached, the Board determines the estimate.

VA	Governor	Governor	Virginia uses a two-step process. The Board of Economists reviews the revenue estimate, and then it is reviewed by business leaders.
WA	Consensus	Consensus	An independent agency, the Economic and Revenue Forecast Council is composed of two members appointed by the Governor and four members from the Legislature. Legislative members are appointed by the chairman of each of the two largest political caucuses in each legislative chamber. The council's chair is selected from among the legislative appointees, is held by the majority party, and alternates between each chamber.
WV	Governor	Governor	The Department of Revenue, overseen by the governor's office, has the sole authority to establish the revenue estimate.
WI	Governor And Legislature	Other official	Although the governor's budget originally uses revenue estimates from the Department of Revenue, the Legislative Fiscal Bureau's number are typically incorporated into the governor's budget upon their release.
WY	Consensus	Consensus	The Consensus Revenue Estimating Group is responsible for the state's revenue estimate. The Group is co-chaired by the Legislative Service Office and Fiscal Manager and is composed of staff representing both the executive and legislative branch.

Citations for Appendix 1

ST	Citation
AL	"The Budget Process," Alabama Department of Finance - Executive Budget Office, accessed January 18, 2014, http://budget.alabama.gov/pages/budproc.aspx.
AK	"Office of Management and Budget," accessed January 18, 2014, http://omb.alaska.gov/.
AZ	"Arizona's Budget Process," Arizona Legislature, accessed January 10, 2014, http://www.azleg.gov/jlbc/budgetprocess.pdf.; "JLBC Staff Revenue Forecast Development," Arizona Legislature, accessed January 10, 2014, http://www.azleg.gov/jlbc/revfordev.pdf.
AR	Richard Weiss, "Official General Revenue Forecast for Fiscal Year 2015," Arkansas House, January 14, 2014, accessed February 28, 2014, http://www.arkansashouse.org/public/userfiles/files/2015%20Forecast.pdf.
CA	"LAO Facts: Role of the LAO," Legislative Analyst's Office, accessed January 18, 2014, http://www.lao.ca.gov/LAOFacts.; Scott Graves, "Dollars and Democracy: A Guide to the State Budget Project," California Budget Project, December, 2013, accessed January 18, 2014, http://www.cbp.org/pdfs/2013/131213_DollarsAndDemocracyGuide.pdf.
CO	"Legislative Council of the Colorado General Assembly," Colorado Legislative Council, accessed January 18, 2014, http://www.colorado.gov/cs/Satellite/CGA-LegislativeCouncil/CLC/1200536135363.; Arturo Perez, "State Revenue Forecasting: A Summary," accessed January 18, 2014, http://www.ncsl.org/documents/fiscal/fls10perez.pdf.
CT	"Consensus Revenue," Office of Policy and Management, January 15, 2014, accessed January 18, 2014, http://www.ct.gov/opm/cwp/view.asp?a=2965&Q=459726&PM=1.
DE	Cate Long, "Talking to Delaware's Governor about Spending," Reuters, November 11, 2013, accessed February 28, 2014, http://blogs.reuters.com/muniland/2013/11/11/talking-to-delawares-governor-about-spending/.; "Office of the Controller General," State of Delaware, accessed January 18, 2014, http://legis.delaware.gov/legislature.nsf/Lookup/Controller_General.
FL	"Consensus Estimating Conference Process," Office of Economic and Demographic Research, accessed January 18, 2014, http://edr.state.fl.us/Content/conferences/confprocess.pdf.; "Consensus Estimating Conferences," Office of Economic and Demographic Research, accessed February 28, 2014, http://edr.state.fl.us/Content/conferences/index.cfm.
GA	"The Budget Process in Georgia," Georgia Library Media Association, accessed February 28, 2014, http://www.glma-inc.org/wp-content/files/advocacy/BudgetProcessinGeorgia.pdf.
HI	"Moody's Assigns Aa2 Rating to Approximately $821m State of Hawaii G.o. Bonds of 2013; Stable Outlook," Moody's Investors Service, October 10, 2013, accessed February 28, 2014, https://www.moodys.com/research/Moodys-assigns-Aa2-rating-to-approximately-821M-State-of-Hawaii--PR_284246.; "Council On Revenues," State of Hawaii Department of Taxation, accessed February 28, 2014, http://tax.hawaii.gov/useful/a9_1cor/.

ID	Molly Messick, "The Road to Idaho's Revenue Estimate," NPR, January 24, 2012, accessed February 28, 2014, http://stateimpact.npr.org/idaho/2012/01/24/the-road-to-idahos-revenue-estimate/.; Emilie Ritter Saunders, "Idaho's Budget Process Isn't a Hard Science," NPR, January 23, 2012, accessed February 28, 2014, http://stateimpact.npr.org/idaho/2012/01/23/idahos-budget-process-isnt-a-hard-science/.
IL	"Illinois Lacks an Executive-Legislative Consensus On Revenue Estimates," Institute for Illinois' Fiscal Sustainability, April 24, 2013, accessed April 23, 2014, http://www.civicfed.org/iifs/blog/illinois-lacks-executive-legislative-consensus-revenue-estimates.
IN	"State of Indiana Budget Process," Indiana State Budget Agency, accessed February 28, 2014, http://www.in.gov/sba/2372.htm.; "Summary of the Legislative Services Agency's Functions," Indiana General Assembly, accessed February 28, 2014, http://www.in.gov/legislative/pdf/services/LSAbackground.pdf.
IA	"Budget Process in Iowa," Legislative Services Agency, January 13, 2014, accessed February 28, 2014, https://www.legis.iowa.gov/docs/resources/IowaBudgetProcess.pdf.
KS	"State Finance," Kansas Legislative Research Department, 2012, accessed February 28, 2014, http://skyways.lib.ks.us/ksleg/KLRD/Publications/2012Briefs/W-1-BudgetOverview.pdf.
KY	"Legislative Role in the State Budget Process," Kentucky Legislative Research Commission, accessed February 28, 2014, http://www.lrc.ky.gov/budget/process.htm.
LA	"Louisiana Budget Basics: A Guide to the Louisiana State Budget," Louisiana Budget Project, accessed February 28, 2014, http://www.thetowntalk.com/assets/pdf/DK12558316.PDF.; "Constitution Section 10," Louisiana State Legislature, accessed February 28, 2014, http://www.legis.state.la.us/lss/lss.asp?doc=206526.
ME	"The Budget Process," Office of Fiscal and Program Review, accessed February 28, 2014, http://www.maine.gov/legis/ofpr/other_publications/budget_process/budget_process.htm#revenue_forecasting.
MD	"Comptroller of Maryland," Maryland State Archives, accessed February 28, 2014, http://msa.maryland.gov/msa/mdmanual/08conoff/html/03compf.html.; "Maryland's Budget Process," Maryland Department of Legislative Services, accessed February 28, 2014, http://dlslibrary.state.md.us/publications/OPA/H/2010_4.pdf.
MA	"Shor, Dempsey, Brewer Announce Consensus On Fiscal Year 2014 Revenue Forecast," Executive Office for Administration and Finance, January 14, 2013, accessed January 18, 2014, http://www.mass.gov/anf/press-releases/fy2013/consensus-on-fy-2014-revenue-forecast-announced.html.
MI	"Budget Process," State Budget Office, accessed February 28, 2014, http://www.michigan.gov/budget/0,4538,7-157-11462-34950--,00.html.
MN	"Economic Forecasts," Minnesota Management and Budget, accessed February 28, 2014, http://www.mmb.state.mn.us/fore-info.; "Fiscal Analysis Department," Minnesota House of Representatives, accessed February 28, 2014, http://www.house.leg.state.mn.us/fiscal/fahome.asp.

MS	"Putting the Pieces Together: A Taxpayer's Guide to the Mississippi Budget," Mississippi Economic Policy Center, accessed February 28, 2014, http://mepconline.org/images/admin/spotedit/attach/0/MS_Budget_and_Tax_Guide.pdf.
MO	"The State Budget Process and More," Southeast Missourian, June 1, 2012, accessed February 28, 2014, http://www.semissourian.com/blogs/lichtenegger/entry/47992/.; Jinping Sun and Thomas D. Lynch, Budget Forecasting: Theory and Practice (Boca Raton, FL: Auerbach Publications, 2008).
MT	Legislative Fiscal Division. "Understanding State Finances and the Budgeting Process." 2009. Accessed February 28, 2014. http://leg.mt.gov/content/Publications/fiscal/leg_reference/Understanding_State_Finances.pdf.
NE	Jinping Sun and Thomas D. Lynch, Budget Forecasting: Theory and Practice (Boca Raton, FL: Auerbach Publications, 2008).
NV	"Economic Forum," Nevada Legislature, accessed February 28, 2014, http://www.leg.state.nv.us/Division/Fiscal/Economic%20Forum/.
NH	Yael Shavit, "Revenue Forecasting Processes in New England," New England Public Policy Center at the Federal Reserve Bank of Boston, 2009, accessed February 28, 2014, https://www.bostonfed.org/economic/neppc/briefs/2009/briefs904.pdf.; "About the Budget Division," Office of Legislative Budget Assistant, accessed February 28, 2014, http://gencourt.state.nh.us/LBA/budget/about_division.aspx.
NJ	"The State Budget Process," Office of Management and Budget, accessed February 28, 2014, http://www.state.nj.us/treasury/omb/ReadersGuide/budgetprocess.shtml.
NM	"Legislative Finance Committee," New Mexico Legislature, 2013, accessed January 18, 2014, http://www.nmlegis.gov/lcs/lfc/lfcdocs/BROCHURE.pdf.
NY	"The Budget Process," New York State Division of the Budget, accessed February 28, 2014, http://www.budget.ny.gov/citizen/process/process_legislature.html.
NC	"About Economic Analysis," Office of State Budget and Management, accessed February 28, 2014, http://www.osbm.state.nc.us/ncosbm/economic_analysis/about_eco.shtm.; Barry Boardman and Nathan Knuffman, "Forecast Summary," North Carolina General Assembly, February 11, 2013, accessed February 28, 2014, http://www.ncga.state.nc.us/fiscalresearch/generalfund_outlook_pdfs/2013%20Outlooks/Consensus%20Revenue%20Report%20February%202013.pdf.
ND	"Legislative Council," Legislature of North Dakota, accessed February 28, 2014, http://www.legis.nd.gov/legislative-council.; "North Dakota's Budgeting Process," Legislature of North Dakota, December 7, 2012, accessed February 28, 2014, http://www.legis.nd.gov/files/fiscal/docs/budgetprocess.pdf?20140119022038.

OH	"Introduction to the Executive Budget," 2010, accessed February 28, 2014, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=0CDsQFjAD&url=http%3A%2F%2Fobm.ohio.gov%2Fdocument.aspx%3Fid%3D8593c9ac-1464-4ae8-9968-d9644b9cad8e&ei=Co7bUuL7O467oQTXqoGYBw&usg=AFQjCNGGZu1NUwZJy715sQMhqO_B9ubMjg&sig2=8xrvlqzaBmo7ebI57.
OK	"Appropriations Process: An Overview of Appropriations, Budget and Revenue Processes," Oklahoma House of Representatives, December, 2012, accessed February 28, 2014, http://www.okhouse.gov/fiscal/01-Appropiations%20Process.pdf.; "Senate Fiscal Staff," Oklahoma Senate, accessed February 28, 2014, http://www.oksenate.gov/staff/divfiscal.htm.
OR	Ken Rocco and Daron Hill, "Overview of Oregon's Budget Process," Oregon Legislature, 2011, accessed January 18, 2014, https://www.oregonlegislature.gov/lfo/Documents/2011-4%20Oregon's%20Budget%20Process.pdf.
PA	"Chapter 41 - Independent Fiscal Office," Pennsylvania State Legislature, accessed February 28, 2014, http://www.legis.state.pa.us/WU01/LI/LI/CT/HTM/71/00.041.HTM.; "The Budget Process in Pennsylvania," Office of the Budget, accessed February 28, 2014, http://www.portal.state.pa.us/portal/server.pt/document/1089182/budgetprocess_pdf.
RI	"State of Rhode Island Revenue Estimating Process," State of Rhode Island Budget Office, accessed January 18, 2014, http://www.budget.ri.gov/revenues/RevenueEstimatingConferenceOverview.php.
SC	"Budget and Control Board - Board of Economic Advisors," South Carolina Budget and Control Bord, accessed April 23, 2014, http://www.bea.sc.gov/BCB/bea/BCB-bea-index.phtm.
SD	Joy Smolnisky, "Legislative Deadlines Are Looming for the Budget," South Dakota Budget & Policy Project, March 3, 2011, accessed February 28, 2014, http://www.sdbudgetandpolicyproject.org/legislative-deadlines-are-looming-for-the-budget.
TN	David Thurman, "State Revenues," Department of Finance and Administration, accessed January 18, 2014, http://www.tn.gov/finance/bud/Revenues.shtml. "Tennessee State Revenues Lower Than Budget for November," Chattanoogan, December 10, 2013, accessed January 18, 2014, http://www.chattanoogan.com/2013/12/10/265281/Tennessee-State-Revenues-Lower-Than.aspx.
TX	"The Budget Process in Texas," University of Texas, accessed January 18, 2014, http://www.laits.utexas.edu/txp_media/html/pec/features/0403_01/slide3.html.
UT	"Bills, Budgets, and Fiscal Notes," Utah Legislative Fiscal Analyst, accessed January 18, 2014, http://www.le.state.ut.us/lfa/reports/toolbox.pdf.; "Office of the Legislative Fiscal Analyst - Background," Utah State Legislature, accessed January 18, 2014, http://www.le.state.ut.us/lfa/lfabkgd.htm.
VT	Yael Shavit, "Revenue Forecasting Processes in New England," New England Public Policy Center at the Federal Reserve Bank of Boston, 2009, accessed February 28, 2014, https://www.bostonfed.org/economic/neppc/briefs/2009/briefs904.pdf.

VA	"Executive Budget Process," House Appropriations Committee, accessed January 18, 2014, http://hac.virginia.gov/executive.htm.
WA	"About Us," Washington Economic and Revenue Forecast Council, accessed January 18, 2014, http://www.erfc.wa.gov/about/index.shtml.
WV	"Accountability and Transparency in the West Virginia Budget Process," The West Virginia Center on Budget and Policy, 2010, accessed February 28, 2014, http://wvpolicy.org/downloads/BudgetTransparency091010.pdf.
WI	"State Budget Process," Wisconsin Legislative Fiscal Bureau, January, 2013, accessed February 28, 2014, http://legis.wisconsin.gov/lfb/publications/informational-papers/documents/2013/74_state%20budget%20process.pdf.; "The Wisconsin Legislative Fiscal Bureau,", accessed February 28, 2014, http://legis.wisconsin.gov/lfb/bureau/Documents/lfbduty.pdf.
WY	"Budget and Fiscal Section," Wyoming Legislature, accessed January 18, 2014, http://legisweb.state.wy.us/LSOWeb/BudgetFiscal/BudgetSection.aspx.