Towards a Metatheory of Budgeting

Dan Williams
CUNY Bernard M Baruch College

Thad D. Calabrese
CUNY Bernard M Baruch College

Recommended Citation

How does access to this work benefit you? Let us know!
Follow this and additional works at: https://academicworks.cuny.edu/bb_pubs
Part of the Finance Commons, Public Administration Commons, and the Public Economics Commons
11. TOWARDS A METATHEORY OF BUDGETING

Daniel W. Williams
Associate Professor
daniel.williams@baruch.cuny.edu

Thad Calabrese
Assistant Professor
thad.calabrese@baruch.cuny.edu

Baruch College - City University of New York
School of Public Affairs
One Bernard Baruch Way, Box D-0901
New York, NY 10010

ABSTRACT

In this paper, we suggest that many budget theories actually are about appropriating and not about budgeting. We trace this development back to the classic budgeting question posed by V. O. Keys in 1940. To clarify the issue, we examine early normative theories of budgeting, and apply many contemporary theories about budgeting to the budgeting process advocated for in this early work. By analyzing current theories, we show that budget theories are, in many cases, simply focused on parts of the budget process or on the role of techniques in decision making. Our analyses suggest that rather than theories competing with each other, a larger metatheory of budgeting emerges that can accommodate these different approaches. Further, we identify important gaps in the literature that still needs to be addressed for a complete treatment of public budgeting theory.

11.1. INTRODUCTION

"Nearly every writer on American government has commented adversely on the fact that appropriations are made by congress each year without a budget." - Frederick A. Cleveland, Chairman – President’s Commission on Economy and Efficiency. 1912

In developing a metatheory of budgeting, the first and most basic question is: what is the point of a theory of budgeting? V. O. Key started the discussion by asking, "On what basis shall we decide to allocate x dollars to activity A instead of activity B?" He goes on to say, "If it is assumed that an agency is operating at maximum efficiency, the question remains whether the function is worth carrying out at all, or whether it should be carried out on a reduced or enlarged scale, with resulting transfers of funds to or from other activities of

1 V. O. Key, Jr., "The Lack of a Budgetary Theory," The American Political Science Review 34, no. 6 (1940): 1138.
greater or lesser social utility." This issue has guided much discussion of budget theory over the past seventy years. Here it is argued that the question itself is quite ambiguous. But an even larger concern is that it may be the wrong question. For, what is a budget? How is a budget distinguished from "mere appropriating?" Here it is argued that Key's question is not about budgeting. It is about appropriating, or, more specifically, that legislative action that predated budgeting and was intended to be replaced by the decision to budget. If Key has confused appropriating with budgeting, then much of the theory of budgeting itself is actually a theory of appropriating. Perhaps by framing budget theories not in terms of appropriation but instead as budgeting, we can more clearly see the relationship between many of the theories that have been propounded over the years and identify areas where there is no coherent theory at all.

<table>
<thead>
<tr>
<th>Year</th>
<th>Receipts</th>
<th>Expenditures</th>
<th>Surplus/Deficit</th>
<th>Surplus/Deficit as % of Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>0.46</td>
<td>0.38</td>
<td>0.08</td>
<td>21.05%</td>
</tr>
<tr>
<td>1891</td>
<td>0.46</td>
<td>0.44</td>
<td>0.02</td>
<td>4.55%</td>
</tr>
<tr>
<td>1892</td>
<td>0.42</td>
<td>0.4</td>
<td>0.02</td>
<td>5.00%</td>
</tr>
<tr>
<td>1893</td>
<td>0.46</td>
<td>0.46</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>1894</td>
<td>0.38</td>
<td>0.44</td>
<td>-0.06</td>
<td>-13.64%</td>
</tr>
<tr>
<td>1895</td>
<td>0.4</td>
<td>0.42</td>
<td>-0.02</td>
<td>-4.76%</td>
</tr>
<tr>
<td>1896</td>
<td>0.42</td>
<td>0.44</td>
<td>-0.02</td>
<td>-4.55%</td>
</tr>
<tr>
<td>1897</td>
<td>0.44</td>
<td>0.44</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>1898</td>
<td>0.5</td>
<td>0.54</td>
<td>-0.04</td>
<td>-7.41%</td>
</tr>
<tr>
<td>1899</td>
<td>0.62</td>
<td>0.7</td>
<td>-0.08</td>
<td>-11.43%</td>
</tr>
<tr>
<td>1900</td>
<td>0.66</td>
<td>0.62</td>
<td>0.04</td>
<td>6.45%</td>
</tr>
<tr>
<td>1901</td>
<td>0.7</td>
<td>0.64</td>
<td>0.06</td>
<td>9.37%</td>
</tr>
<tr>
<td>1902</td>
<td>0.68</td>
<td>0.6</td>
<td>0.08</td>
<td>13.33%</td>
</tr>
<tr>
<td>1903</td>
<td>0.7</td>
<td>0.66</td>
<td>0.04</td>
<td>6.06%</td>
</tr>
<tr>
<td>1904</td>
<td>0.68</td>
<td>0.72</td>
<td>-0.04</td>
<td>-5.56%</td>
</tr>
<tr>
<td>1905</td>
<td>0.7</td>
<td>0.72</td>
<td>-0.02</td>
<td>-2.78%</td>
</tr>
<tr>
<td>1906</td>
<td>0.76</td>
<td>0.74</td>
<td>0.02</td>
<td>2.70%</td>
</tr>
<tr>
<td>1907</td>
<td>0.84</td>
<td>0.76</td>
<td>0.08</td>
<td>10.53%</td>
</tr>
<tr>
<td>1908</td>
<td>0.8</td>
<td>0.86</td>
<td>-0.06</td>
<td>-6.98%</td>
</tr>
<tr>
<td>1909</td>
<td>0.82</td>
<td>0.9</td>
<td>-0.08</td>
<td>-8.89%</td>
</tr>
<tr>
<td>1910</td>
<td>0.9</td>
<td>0.92</td>
<td>-0.02</td>
<td>-2.17%</td>
</tr>
<tr>
<td>1911</td>
<td>0.94</td>
<td>0.92</td>
<td>0.02</td>
<td>2.17%</td>
</tr>
<tr>
<td>1912</td>
<td>0.94</td>
<td>0.94</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>1913</td>
<td>0.98</td>
<td>0.98</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>1914</td>
<td>1.02</td>
<td>1.02</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>1915</td>
<td>0.98</td>
<td>1.04</td>
<td>-0.06</td>
<td>-5.77%</td>
</tr>
<tr>
<td>1916</td>
<td>1.08</td>
<td>1.04</td>
<td>0.04</td>
<td>3.85%</td>
</tr>
</tbody>
</table>


\[2\] Ibid., 1139.
11.2. WHAT IS BUDGETING AND WHAT IS ITS PURPOSE?

In the late 19th and early 20th Centuries, the federal government had no public budgeting systems in place. Between 1890 and 1916 (the year in which the US entered World War I and significantly increased federal expenditures on this effort), the federal government essentially broke even financially. Within this breakeven period, however, annual surpluses or deficits were relatively pronounced and varied. For example while the government reported nearly a fourteen percent deficit in 1894, it showed a thirteen percent surplus in 1902.

On the other hand, state and local governments ran increasingly larger deficits. Through 1916, state and local governments ran operating deficits that averaged between three and eleven percent of annual spending. Furthermore, while the federal government’s share of spending relative to gross domestic product (GDP) was declining during this period of time, state and local government spending relative to GDP was actually increasing.

The lack of planning by governments became a concern for reformers during this time. Cities and states spent millions of dollars annually “with little or no thought as to where it was coming from or what they were getting for it” while the federal government was in its “heyday of ‘pork barrel’ era.” As noted by Cleveland, the “uncontrolled and uncontrollable increase in the cost of government” demanded that governments adopt budget processes to ensure democratic transparency. In other words, there was a growing sense that the lack of financial planning in government was leading to corruption that, in turn, was contributing significantly to these annual deficits. The process of budgeting – of systematically planning the finances of governments - was viewed as helping to eliminate these deficits and seemingly unethical behaviors of legislatures; in other words, implementing budgeting processes was expected to create better outcomes for governments. This notion of desired outcomes is at the core of the public budgeting tradition, or it should be.

In this same tradition. Goodnow argues that budgeting is not just a plan for how money is spent or appropriated. Rather, the first step in the budgeting process is a principal expressing a desired outcome to an agent. He suggests that the principal in this case is the legislature, duly elected by the population.

---

The budget process’s starting point, then, is fundamentally an expression of public goals to agency heads. But just as important is that the agent (public agency officials) must report back to the principal (the legislature) what was accomplished towards these public goals. Therefore, budgeting is not just about planning which activities of government are funded and by how much (how much is allocated to activity A instead of activity B), but also requires an accounting of whether public goals were met or not. Stated in more contemporary terms, budgeting requires some measure of performance by which public managers are evaluated. When agents fail to meet the established and agreed upon goals, the principals reduce the discretion of these agents. This might include reducing the funding of the agency, or it might mean shifting budgeting from goals (that is, performance) to line-item restrictions. In this understanding of budgeting, line-items remove budgetary discretion from the agent, rather than maintaining a lump sum performance-based budget. Agents have an incentive to meet established goals to avoid losing such discretion.

Goodnow’s description of budgeting – which predates Key by over three decades – is important because it suggests something that may be lost in the ambiguity of Key’s question. Budget theory should not just explain how money is distributed within government, but also why budgets should aid in meeting public plans and goals. In other words, budget theory ought to explain more than appropriation decisions; it should also explain what the established goals of a government are, how these goals are measured, and how the system controls operations to meet these goals.

In some respects, this reflects the writings of Cleveland as well. Budgeting and appropriating are different activities of government – or perhaps more correctly, budgeting involves appropriating, but not only appropriating. For budgeting certainly requires the appropriating of public moneys for specific activities (X versus Y); but barring a means to consider a plan for public activities, then government activities are not budgeted – they are simply financed and appropriated. Further, a budget requires reporting to account for the stewardship of public resources. In doing so, the budget provides a snapshot of the government’s financial condition. Goodnow and Cleveland are, in some respects, advocates for a rational model of budgeting, in which goals are set, resources are allocated to reach these goals, the legislature approves of the plan, and agency officials implement the budget plan; results are then compared to plan during the year. Adjustments are made (budget modifications), and these inform the formation of the subsequent budget. However, few would argue that the rational budget model explains or predicts public budgeting in the least. However, the importance of the theories of Goodnow and Cleveland rests not in the accuracy of the description of the budgeting process. but in-

---

stead as an expansion of Key's question regarding public budgeting. Stated another way, their theoretical contribution is that any theory of budgeting needs to explain not just appropriation decisions, but also how goals are set, measured, and achieved (or why not).

Table 11.2 summarizes the work of Buck, Cleveland, and Goodnow that describes who is involved in budget decisions, how goals are set, and how results are measured for determination of success or failure. Importantly, these theories present a normative theory of budgeting because they describe a complete budgetary process. Appropriating decisions are certainly part of these processes—described generally in row 3 of Table 2. However, the authors are quite clear that appropriations and budgeting are not synonymous terms—Buck calls them "separate and distinct documents, although they are often confounded"; 8 Cleveland notes that appropriations routinely occur without a budget; 9 and Goodnow infers that Congress appropriates for specific activities or objects of expenditures despite lacking budgets. Therefore, where Keys defines budgeting as appropriating, earlier theorists noted the distinction. Yet, for nearly a century, a normative theory of budgeting (as opposed to mere appropriating) has existed to guide further theoretical development.

11.3. POST-KEY BUDGET THEORIES

Two prominent budget theories emerged during the 1950s. First, there is the theory expounded by Verne Lewis: 10

1. Since resources are scarce in relation to demands, the basic economic test which must be applied is that the return from every expenditure must be worth its cost in terms of sacrificed alternatives. Budget analysis, therefore, is basically a comparison of the relative merits of alternative uses of funds.
2. Incremental analysis (that is, analysis of the additional values to be derived from an additional expenditure) is necessary because of the phenomenon of diminishing utility. Analysis of the incremental is necessary and useful only at or near the margin; this is the point of balance at which an additional expenditure for any purpose would yield the same return.
3. Comparison of relative merits can be made only in terms of relative effectiveness in achieving a common objective.

Lewis argues that agencies should produce alternative budgets that show the effect of marginal changes in the agency's expenditures—that is, budget for continuing at the same level and at slightly higher and lower levels—so

---

that decision makers can purchase the basket of goods that best reflects their preferences. Lewis’s theory can be classified as rational or even hyper-rational, relying on the maximum reasoning capacity of both the bureaucrat and the decision maker. Like the early theories of Buck, Cleveland, and Goodnow, Lewis’s theory is also normative, because it recommends a process for participants in the budget process to follow. Like the earlier normative theories, therefore, it is not intended to be a description of what actually happens during budgeting. Unlike the early theories discussed, however, Lewis does not explicitly consider the entire budgetary process of goal setting and performance measurement.

At the end of the fifties, Charles Lindblom\textsuperscript{14} proposes that policy decisions are made not through a means-ends reasoning process, but through an

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|}
\hline
\textbf{Buck\textsuperscript{11}} & \textbf{Cleveland\textsuperscript{12}} & \textbf{Goodnow\textsuperscript{13}} \\
\hline
\textbf{1 Responsible executive leadership} & Plan Must Be Made by a Responsible Executive-accountable for the management of the affairs of the whole government & It is believed that the demands of legislative control and of administrative efficiency will be reconciled if provision is made for the rendering to the budget making authority by administrative authorities of such detailed, comprehensive intelligible accounts of expenditures and of work done as will permit the budget making authority to reach an intelligent judgment both as to efficiency of administration and as to conformity by the administrative authorities to the expressed will of the budget making authority \\
\hline
\textbf{2 Staff assistance} & the estimates must be made by a great many persons. The estimate of needs must be made by persons who are familiar with the requirements of each kind of work to be done & \\
\hline
\textbf{3 Broad and accurate budget information} & Estimates of resources & \\
\hline
\textbf{4 Complete budget plan} & Estimates of needs & Character of activities [program] \\
\hline
\textbf{5 Building and improvement program} & means of enabling representatives to inquire into the requests for future grants & Object of expenditure [accounting code] \\
\hline
\textbf{6 Open procedure by responsible legislative body} & letting the people know what has been done and what is proposed and of getting controversies between a majority of representatives and the executive before the electorate for final decision & The question, therefore, presents itself how may the demands for an effective legislative control over executive action be satisfied without sacrificing administrative efficiency? It may be assumed that this control will be based on the power to make appropriations \\
\hline
\textbf{7 A financial calendar} & Budget Control by the Representative Body & \\
\hline
\textbf{8 Effective control over the execution of the budget plan} & means of enabling representatives to find out whether the executive has acted within his past authorizations and conducted the business efficiently & Suppose the budget making authority were not convinced that its mandates had been heeded or that the administration had been efficient ... [W]hat can the budget making authority do? There are practically only two things. These are, first, it may specify items of future appropriations in great detail. Or, second, it may [cut] down or [refuse] altogether appropriations for [unsatisfactory] services until those persons in charge have severed their connection with the government. \\
\hline
\end{tabular}
\caption{Normative Theory of a Budget 1912 to 1915}
\end{table}

\textsuperscript{11} Buck. “The Development of the Budget Idea in the United States.”

\textsuperscript{12} Cleveland. “Evolution of the Budget Idea in the United States.”

\textsuperscript{13} Goodnow, “The Limit of Budgetary Control.”
Towards a metatheory of budgeting

iterative experientially corrective process, which he labels successive limited comparison. He asserts that this is the preferable method of policy making because means-ends reasoning relies on theoretical reasoning, which, for him, means predicting the consequences of actions without the aid of experience and which, he asserts, people do quite poorly. Two other important components are that (1) the object of policy making is agreement and (2) both the methods and the ends of policies are selected in the process of seeking agreement. As proposed by Lindblom this is a theory of policy making, but Aaron Wildavsky and colleagues adopted it as a theory of budgeting. Lindblom's view is essentially an extension of Herbert Simon's theory of bounded rationality. Simon argues that decision makers have too few resources—particularly, they have too little time—to make comprehensive rational decisions as called for in classic economic theory. Lindblom adds that decision makers are not smart enough to make such decisions—that is, when they rely on theories about what happens without having experience to support the theories, they are likely to be wrong.

While Lindblom's account has a sharply normative flavor. Wildavsky and colleagues adopt the outlines of the theory for descriptive purposes. They assert that there is too much information to handle in a budget cycle, so decision makers must adopt simplification strategies for successful decision making. While adopting Simon-like reasoning with respect to the lack of resources, they more closely reflect Lindblom when they argue: "There is, however, little or no theory in most areas of policy which would enable practitioners to predict the consequences of alternative moves and the probability of their occurring." They adopt a variant of incrementalism, "Incremental calculations proceed from an existing base.... The widespread sharing of deeply held expectations concerning the organization's base provides a powerful (although informal) means of securing stability." They examine this form of incrementalism with regression models, finding confirmation of their descriptive model. As LeLoup documents, these regression models have since become discredited; as one example, the variables included in the analysis—such as agency

18 Ibid. 530
budgetary requests and final budgetary appropriations – are generally highly correlated, leading to the empirical support of the theory.

Incrementalism is about as sharply different from Lewis’s marginal utility model as two theories can be. Incrementalism is non-rational. Decisions do not depend on the reasoning capacity of the decision maker, but on steps taken to simplify the decision process and avoid hard decision making. Unlike Lindblom’s notion of incrementalism – in which incremental changes are recommended because of decision makers’ constraints - Wildavsky’s theory of incrementalism is inherently positive and describes observed phenomena. Budget theory suggests, therefore, that some authors make strong recommendations for future behavior (that is, normative theory) while others observe the budgetary process or actors and describe these observations (that is, positive theory). In both cases, however, we describe each as “budget theory” even though the goals of each type of theory is very distinct: the normative wishes to recommend good or best practices for part or all of the budgetary process, while the positive is interested in explaining what and why part or all of the budgetary process happens.

11.4. FROM NORMATIVE TO POSITIVE IN HISTORICAL CONTEXT

This shift from the early normative theories of Buck, Goodnow, and Cleveland to the positive theories post-Keys is unsurprising when placed in historical context. Budgeting was not formalized at the federal level until 1923, followed by states and municipalities en masse. The normative theories argued that budgeting was critical for democratic government and accountability. Following the social, economic, and political upheavals of the 1930s and 1940s, budget theorists were no longer advocating for budgeting, but were instead examining budgeting or parts of budgeting as it existed.

We categorize significant budget theories and theories related to budgetary issues into several distinct traditions in Table 3. Descriptions of included budget theories are found in Appendix A. First, the rows of Table 3 divide budgetary theories into the “Prescriptive” and the “Positive.” Prescriptive theories include those that have been described as normative. In addition, we include instrumental theories that reflect normative guides but also provide recommended methods to achieve the intended results. As an example, zero-based budgeting (ZBB) requires agencies to justify their existence (and spending) every budget cycle.\(^\text{20}\) In theory, this method requires principals (legislatures) to approve of public goals, determine how much should be appropriated to meet these goals, evaluate how agents are accomplishing these goals, and

\(^{20}\) (Lee and Johnson. 1998)
hold these agents accountable for their performance. It is normative in that recommends behavior, but also provides the method for attaining goals.

In contrast to these prescriptive theories are the positive theories. We distinguish between descriptive and explanatory positive theories. Whereas the descriptive merely notes what is observed, explanatory theories also show how or why some budgetary behavior occurs. For example, the greedy bureaucrat theory of Niskanen describes bureaucrats who seek to increase their level of spending: by increasing their discretionary budgets. these bureaucrats maximize their own utility (through larger staffs, increased pay, etc.) rather than that of the public. This theory seeks to not only describe what is observed (inefficient public spending). but also why this theory occurs in reality.

Existing budget theories are not merely prescriptive or positive. however. Table 8.3 also considers the role of budget execution in existing budget theory. We distinguish here between the hyper-rational, the rational, the quasi-rational, the non-rational. and the anti-rational. In the hyper-rational. the budgetary technique itself dictates the ultimate budgetary decision. Returning to the ZBB example, an agency unable to justify its existence is simply defunded and ceases to exist. The technique (budget justification) linearly determines the budgetary decision.

In contrast, the rational dimension largely relies on specific techniques (perhaps even recommended techniques); however. these techniques contribute information to the decision making process of budgeting. but do not make the determination itself. For example, line item budgeting provides information on how money is spent within departments. agencies, and organizations. Decision makers may decide to change these amounts. alter line items, or both to attain some particular goal. Unlike the hyper-rational. however, there are no built-in decision criteria and decision makers must determine such appropriations ultimately.

The quasi-rational is closely related to the rational dimension: whereas the rational contributes to budgetary decision making, quasi-rational provides information to inform the decision. The decision makers (legislature, executive. or both) may consider other information as well (that may even rely upon different techniques). For example. workforce size budgets involve agencies justifying the number of employees working for the agency. Rather than decision makers simply determining that a certain number of employees are required to meet some public goal. this workforce size budget informs the decision maker along with other information as well (such as cost effectiveness. as one example).

21 (1971)
<table>
<thead>
<tr>
<th>Table 11.3. Two Dimensions of Budget and Budget-Related Theories</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image of table with budget theories and dimensions]</td>
</tr>
</tbody>
</table>

- **Top-Down/Bottom-Up**
  - **Hyper-Rational**
    - Classic Economic Man Theory
    - Marginality Portfolio Theory
  - **Rational**
    - Early Budget Literature
      - Why A instead of B?
    - Keynesianism
      - Comprehensive Budgeting
      - Executive Budgeting
  - **Quasi-Rational**
    - Satisficing
      - Optimum Decisions
    - Mixed Scanning
    - Responsibility Budgeting
  - **Non-Rational**
    - Incrementalism
      - Lindblom
  - **Anti-Rational**
    - Incrementalism

- **Cost-Benefit Analysis**
  - **Normative**
    - ZBB
    - Cost-Benefit Analysis
    - ECB
  - **Prescriptive**
    - Line Item Budgeting
      - Hoover Perfor.
      - Budgeting
    - Program Budgeting
      - PPBS
    - MBO
    - TBB
    - PB, PBB
    - Best Practices
    - Process
    - Outcome Budgeting
  - **Instrumental**
    - BEA
      - Nonconventional Budgets
      - Workforce size
      - budgets
    - Gramm-Rudman-Hollings

- **M.E.**
  - **Descriptive**
    - Rational Policy Model
      - Empirical Norms
      - Macrobudgeting
        - Organizational Process
          - Authorization
          - Process
          - Principle-Agent
          - Economic Functions of Budget
          - Budget Strategies
          - Super Budgets
        - Incrementalism
          - Wildavsky
          - Punctuated Equilibrium
          - Rights Based Budgeting
          - Bureaucratic Politics
          - TCP
        - Ambiguity & Interpretive Budgets
      - Median Voter Theory
        - Interest Group Pluralism
        - Garbage Can Agendas
        - Real Time Budgeting
        - Greedy Bureaucrat
Towards a metatheory of budgeting

Table 11.4. Applying Buck's Budget Theory to Current Normative Budgetary Theories

<table>
<thead>
<tr>
<th>Buck</th>
<th>C E M</th>
<th>M A R G</th>
<th>P T</th>
<th>E B L</th>
<th>A or B</th>
<th>K C B</th>
<th>E B</th>
<th>T D</th>
<th>B U</th>
<th>S A T</th>
<th>O D</th>
<th>M S</th>
<th>R B</th>
<th>I N C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Responsible executive leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Staff assistance</td>
<td>i</td>
<td>✔</td>
<td>i</td>
<td>i</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Broad and accurate budget information</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>4. Complete budget plan</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>5. Building and improvement program</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>6. Open procedure by responsible legislative body</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>7. A financial calendar</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>8. Effective control over the execution of the budget plan</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rationality</td>
<td>H</td>
<td>H</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>Q</td>
<td>Q</td>
<td>Q</td>
<td>Q</td>
<td>Q</td>
<td>Q</td>
<td>A</td>
</tr>
</tbody>
</table>

Table 11.4a. Symbols for Tables 4 through 7

✔ = present, called for in theory or very strongly implied
i = implied by the theory, but not strongly
*= denied by the theory
✓* = present, but with limitations, for row:
1. broad or accurate, not both,
4. the theory defines complete,
6. legislative process, but not necessarily open
? = Unclear, possibly
P = Partially true
Blank=Unaddressed
See Appendix A for column labels.
Labels in the bottom row are the first letter of column labels from Table 3

The non-rational essentially starts with a decision and is indifferent to the techniques used to get there. For example, in the 1990s, Gramm-Rudman-Hollings (GRH) was a federal effort to reduce deficit spending. If decision makers (Congress and the President) were unable to reduce budgetary deficits and eventually reach budget balance, then GRH would reduce or cancel certain budgetary expenditures. The goal (reduced deficit spending and eventually, a balanced budget) was primary for GRH; decision makers were viewed almost as incapable of reaching this goal. Hence, any technique was valid as long as the end result was in line with the goal.

Finally, the anti-rational dimension suggests that rational techniques and analysis are excluded from or even possibly rejected in the decision making
process. Returning to the greedy bureaucrat theory, rational techniques might suggest that an agency's approved spending be reduced to where the marginal benefit of output equals the marginal cost of that output. However, such rationality is rejected by not only the bureaucrat seeking increased funds, but decision makers who must ultimately approve these funds. Perhaps the budget is set where total benefits equals total cost (which leads to oversupply), or perhaps it is set to some other arbitrary number; the point is that rational analysis plays no role in the ultimate appropriation decision.

8.5. ARE EXISTING THEORIES REALLY ABOUT BUDGETING, OR JUST A PARTICULAR ASPECT OF BUDGETING?

As posited earlier in this paper, we contend that the confusion and lack of clarity in Key's seminal work on public budgeting has had the unfortunate result that current budget theories often focus on parts of budgeting rather than the entire process. If we use Buck's normative framework from Table 2 as a starting point, budget theory ought to examine more than appropriating decisions alone; rather, it should (at the least) incorporate elements of budget preparation as well as budget decision events. Table 4 examines the normative theories in light of Buck's normative budgetary framework. The first column represents Buck's eight budgetary steps; the top row includes all budget theories categorized in Table 8.3 as "normative." We then ascertain whether each current budgetary theory includes Buck's normative elements.

We then undertake a similar analysis for the current instrumental, descriptive, and explanatory theories in Tables 8.5-8.7, respectively. Considering Buck's normative framework for budgeting, Key's question appears ambiguous in several important aspects. What type of budgeting techniques is Key alluding to when he discusses the "basis" for decision making? Is it one in which the decision is made by the technique (the hyper-rational), merely informs the decision (the quasi-rational), or is the total spending level already determined and the basis merely supports the final predetermined decision (anti-rational)? Does "we" refer to the legislature, a specific chamber of the legislature, an executive, the agency staff, the electorate, or the committees involved in reconciling budgetary differences between legislative and executive proposals? When is the allocation, only at the appropriating moment or also in the pre-legislative executive preparation process and post-legislative implementation and rebudgeting process? When Key's discusses the act of "allocation," does he include how activity A and activity B are measured, and how goals are known to be attained? These ambiguities can lead to very different budgetary theories because they lead to very different conceptions as to what public budgeting is. In fact, when one examines Tables 4 through 8, it becomes quite clear that prescriptive theories of budgeting (that is, normative and
Table 11.5. Applying Buck's Budget Theory to Current Instrumental (Practices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Responsible executive leadership</td>
<td>i p i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
<td>i i i</td>
</tr>
<tr>
<td>2. Staff assistance</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>3. Broad and accurate budget information</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>4. Complete budget plan</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>5. Building and improvement program</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>6. Open procedure by responsible legislative body</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>7. A financial calendar</td>
<td>i i i</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>8. Effective control over the execution of the budget plan</td>
<td>i i</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rational</td>
<td>H H H R R R R R R R R Q Q Q Q</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11.6. Applying Buck's Budget Theory to Current Descriptive Budgetary Theories

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Responsible executive leadership</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>2. Staff assistance</td>
<td>✓ i</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>3. Broad and accurate budget information</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>4. Complete budget plan</td>
<td>i i</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>5. Building and improvement program</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>6. Open procedure by responsible legislative body</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>7. A financial calendar</td>
<td>?</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>8. Effective control over the execution of the budget plan</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rational</td>
<td>H R R Q Q Q Q Q Q N N N N N A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
instrumental theories) largely focus on the budget preparation phase of the budget process, while positive theories (that is, descriptive and explanatory theories) largely focus on the legislative appropriation event. In this respect, these seemingly competing categories of theories are really just concerned with different aspects of the same budget cycle.

<table>
<thead>
<tr>
<th>Table 11.7. Applying Buck’s Budget Theory to Current Explanatory Budgetary Theories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buck</strong></td>
</tr>
<tr>
<td><strong>V</strong></td>
</tr>
<tr>
<td>1. Responsible executive leadership</td>
</tr>
<tr>
<td>2. Staff assistance</td>
</tr>
<tr>
<td>3. Broad and accurate budget information</td>
</tr>
<tr>
<td>4. Complete budget plan</td>
</tr>
<tr>
<td>5. Building and improvement program</td>
</tr>
<tr>
<td>6. Open procedure by responsible legislative body</td>
</tr>
<tr>
<td>7. A financial calendar</td>
</tr>
<tr>
<td>8. Effective control over the execution of the budget plan</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Rational</td>
</tr>
</tbody>
</table>

By extension, the role of reason and planning (that is, how "rational" decision making is considered or fails to be considered) also seem relevant for differing parts of the entire budget process. Prescriptive theories are predominantly hyper-rational, rational, or quasi-rational. In these theories, techniques for decision making are important – even dominant in some cases (such as cost-benefit analysis, as one example). Because these theories are essentially recommendations, mild or otherwise, for future participants in the budgeting or appropriating process, these techniques then aid in maximizing social utility. On the other hand, positive theories – perhaps because they are concerned with describing or explaining what exists – are defined predominantly by the quasi-rational or non-rational. Whereas prescriptive theories essentially desire budgeting to take on an air of science, the positive reminds us that the role of interested parties renders budgeting inherently an imperfect science.

11.6. SOMETHING BORROWED, SOMETHING NEW

Another way to categorize competing budget theories focuses on whether the theory was developed specifically to analyze public budgeting ("native theories") or instead to analyze some other phenomena and later adapted to
public budgeting ("borrowed theories"). We categorize theories based on this aspect as well as by the "rationality" of the theory. These categorizations are presented in Tables 8.8a through 8.8d below.

Tables 8.8a-8.8d suggest that native theories tend towards the rational, while borrowed theories tend towards the quasi-rational or non-rational. Similarly, the native theories are generally focused on the budget preparation stage, while the borrowed theories are generally focused on the budget decision event.

<table>
<thead>
<tr>
<th>Table 11.8a, Normative</th>
<th>Table 11.8b, Instrumental</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrowed</strong></td>
<td><strong>Native</strong></td>
</tr>
<tr>
<td><strong>Hyper-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Classic Economic Man Marginality Portfolio Theory</td>
<td></td>
</tr>
<tr>
<td><strong>Rational</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Quasi-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Satisficing Optimum Decisions Mixed Scanning</td>
<td>Responsibility Budgeting</td>
</tr>
<tr>
<td><strong>Anti-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Incrementalism</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 8c, Descriptive</th>
<th>Table 8d, Explanatory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrowed</strong></td>
<td><strong>Native</strong></td>
</tr>
<tr>
<td><strong>Hyper-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Rational Policy Model</td>
<td></td>
</tr>
<tr>
<td><strong>Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Macro Budgeting Empirical Norms</td>
<td></td>
</tr>
<tr>
<td><strong>Quasi-Rational</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Anti-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Incrementalism RBB</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Incrementalism RBB</td>
<td></td>
</tr>
<tr>
<td><strong>Anti-Rational</strong></td>
<td></td>
</tr>
<tr>
<td>Interpretive</td>
<td></td>
</tr>
</tbody>
</table>

The preceding analyses also suggests that all budget theories in general – including the early normative work of Buck, Cleveland, and Goodnow – large-
ly treat budget execution as an afterthought at best. Rebudgeting, dynamic re-adjustments (such as mid-year budget modifications to incorporate changing economic assumptions), and legacy promises that are difficult or impossible to alter significantly (for example, retirement benefits) have no clear place in budget theory. Yet, these issues of execution are critical for successful budget management. For example, if legacy promises comprise a significant share of a budget, then decision makers are largely unable to influence a significant share the current budget. The notion of “who” decides which activities to fund, therefore, seems to include not just current decision makers, but also may include intertemporal considerations as well.

Further, budget theories tend to ignore the nested budgeting occurring within governmental organizations. Instead, they focus almost entirely on budgeting at the top level – by legislatures and/or executives. Most of the actual budgetary decisions, tradeoffs, and analyses, however, depend upon these nested budgeting levels. That is, not only do top level actors make decisions, but agency heads and staff are involved in what proposals are made, how they are costed, how much effort will go into them, etc. This involvement and effort of staff is described, for example, in Thurmaier & Willoughby.22 The reality of the nested nature of public budgeting further reveals the ambiguity of “who” is making the decision in Key’s question.

8.7. CONCLUSION

In a well-known tale, a group of blindfolded men touch an elephant to discover what it is. Each is able to touch only a single part, and the men compare their experiences afterwards. All believe they have described different animals and disagreement ensues. In reality, they have all touched and described the same elephant, although the differences between the experiences suggest to them that they are completely different. In a similar vein, budget theory has suffered from different groups “touching” different aspects of the budgeting process.

In analyzing existing budget theories, we begin to show how these different budget theories can be grouped into taxonomies based on rationality and also the techniques used or proscribed. In doing so, we do not claim to have developed a new budget theory: instead, we propose that these seemingly contradictory and incomplete budget theories in fact fit together. In laying out prescriptive theories or analyzing positive theories, these various authors are not so much disproving each other’s work as building the whole “elephant.” We trace much of this confusion to the ambiguity of Key’s classic statement about budgeting in several of the important concepts in his declaration (“On what basis shall we decide to allocate $x$ dollars to activity $A$ instead of activity $B$?”).

22 (2001b, p. 51-52)
Towards a metatheory of budgeting

Also, we note that appropriation and budgeting are frequently used synonymously in budget theories. Yet, as shown by early normative authors, appropriation can easily occur even without budgeting.

This theory of existing theories—a metatheory of budgeting—is useful because it allows us to assess where existing gaps remain and future work can be most helpful. Indeed, important issues in contemporary budgeting are completely unaddressed by existing theories. For example, all theories currently assume that appropriations or budgets will be approved and implemented; the federal government, as well as several important states (such as New York), have long histories of budget stalemates where budgets may not exist for months at a time. Also, budget theories generally treat all spending as equal. In reality, certain program areas—such as funding for war or national defense—are frequently given preferential budgetary treatment by decision makers. Such funding is rarely reduced and frequently increased. Yet no existing theory can adequately explain this reality of “sacred cow” budgeting. On a related note, public budgeting has become a battleground for broader ideological disagreements over the proper role of government in society. Issues that may be economically insignificant for the budget as a whole (such as funding for the arts, earmarks, mass transit, as examples at the federal level) serve as stand-ins for this battle. This “symbolic” budgeting is certainly driven by different beliefs about the goals of government and budgeting. Yet we know little about this important development. Also, we know little about how “patronage” budgeting—in which public money is steered towards specific goals, agencies, vendors, and localities (inside and outside government)—operates. Such patronage is especially relevant at the subnational level where public contracts are often steered towards politically connected groups. For example, in New York City, one council member was forced to resign and serve jail time after admitting to steering public money to a not-for-profit group operated by family members; at the state level, a prominent Assembly member has fought accusations for decades that his not-for-profit group—the recipient of significant public largesse—is simply a personal slush fund. The greedy bureaucrat theory seems somehow relevant to explaining these, yet Niskanen’s theory focuses only on the internal agency bureaucrat and does not seem able to explain how external agents and elected politicians can also engage in such behavior. All in all, this beginning of a metatheory suggests that despite the progress we have made in understanding budgeting, this policy arena continues to develop, requiring theory to continually develop with it.
APPENDIX A

BRIEF DESCRIPTIONS OF BUDGET THEORIES IN TABLE 3

NORMATIVE THEORIES

Classic Economic Man (CEM) – “Economic man has a complete and consistent system of preferences that allows him always to choose among the alternatives open to him; he is always completely aware of what these alternatives are: there are no limits on the complexity of the computations he can perform in order to determine which alternatives are best; probability calculations are neither frightening nor mysterious to him.”

Marginality (MARG) – The use of “incremental analysis” as discussed by Verne Lewis to compare programs or other budget elements at their margins to provide the capacity to increase the total utility of the budget.

Portfolio Theory (PT) – The use of the private sector device known as portfolio theory to increase the “expected return” of the activities of government. “Expected return” is operationalized in terms of quantities of desired outcome units. The goal is to maximize utility by achieving the maximum achievable joint return in all programs within existing constraints.

Early Budget Literature (EBL) – The view of Goodnow, Cleveland and Buck as discussed in the main text. See the eight essential characteristics in Table 1.

Why A instead of B? (A or B) – V. O. Key asks, “On what basis shall we decide to allocate x dollars to activity A instead of activity B?” He goes on to say, “If it is assumed that an agency is operating at maximum efficiency, the question remains whether the function is worth carrying out at all, or whether it should be carried out on a reduced or enlarged scale, with resulting transfers of funds to or from other activities of greater or lesser social utility.” While this is a demand for a theory, it is also a rudimentary theory, one that suggests that budgeting is a problem of economic allocation.

---

34 Lewis, “Toward a Theory of Budgeting.”
36 Key, "The Lack of a Budgetary Theory." 1138.
37 Ibid. 1139.
Towards a metatheory of budgeting

Keynesianism – John Maynard Keynes\(^2\) argues that the jurisdiction-wide economy is subject to cyclical behavior that must be balanced by governmental fiscal behavior. When the economy is underperforming, the government – as buyer of last resort – should borrow as necessary to create demand and increase economic performance, primarily through increasing employment. The point of this is to soften the trough of economic cycles. The role of the budget ceases to be to fund the operations of government, except secondarily. Its primary purpose is as a fiscal device to modulate the economy.

Comprehensive Budgeting (CB) – The word "comprehensive" appears most frequently in budget discussion as an adjective without definition. There are four ways in which a budget can be comprehensive: (1) Budgets can completely address all aspects of financial resources by avoiding "off budget" devices. In this respect, the federal budget of the United States and the budget of the City of New York are not comprehensive as they have devices for spending money that are not subject to budgetary review. (2) Budgets can provide all the types of information that budget users or budget academics think should be in a budget. Presumably, a comprehensive information budget would have old-style performance data, new-style outcomes data, program data, some marginal effect data, and, of course, financial data, plus explanatory text. (3) Budgets can comprehensively address the entire budget period: the last completed period: the current, incomplete period; the budget year: and one or two outlook years. (4) Budgets can address all the potentially scarce resources of the jurisdiction: money, staffing levels, space, and anything else that might be scarce. In addition to these four dimensions of comprehensiveness, comprehensive budgets may also make extensive use of analysis.

Executive Budget (EB) – A progressive era view that has developed and expanded throughout the twentieth and into the twenty-first century; modeled on the corporation, the CEO is in charge of the government and the legislature serves as the corporate board. According to this plan, the executive prepares a budget and presents it to the legislature who then acts on it. In differing versions across the United States this legislative action can range from rubber stamping, to modest reduction with no authority to increase expenditures, to latent or actual capacity to completely revamp the budgetary proposal before making the appropriation.\(^9\)


Top-Down/Bottom-Up Budgeting—Top-down (TD) budgeting is dominated by top members of the executive branch and the legislative branch. Decisions made by these top ranked actors include such matters as targets for programs or departments. Lower ranked decisions are sharply constrained by these top down decisions. Bottom-up (BU) budgeting builds the case for funding from the lower functional levels of the organizations and aggregates up to the total budget. Top-down budgeting may seek to prevent unwanted proposals and require desired proposals in bottom-up submissions.

Satisficing (SAT) — Because the administrator is limited in his ability to perform and his ability to make correct decisions by such things as limiting dispositions, limited values, and limited resources for decision making, the administrator should perform analysis and examine options sufficiently to make a good enough decision. Once a decision seems good enough, further effort is ineffective. Herbert Simon labels the decision makers' limitations "bounded rationality," and the consequential realistic decision procedure, "satisficing."

Incrementalism (INC) — Charles Lindblom proposes that policy decisions are made not through a means-ends reasoning process but through an iterative experientially corrective process, which he labels successive limited comparison. He asserts that this is the preferable method of policy making because means-ends reasoning relies on theoretical reasoning, which, for him, means predicting the consequences of actions without the aid of experience and which, he asserts, people do quite poorly. Two other important components are that (1) the object of policy making is agreement and (2) both the methods and the ends of policies (not the methods alone) are selected in the process of seeking agreement. As proposed by Lindblom this is a theory of policy making, but Aaron Wildavsky and colleagues adopted it as a theory of budgeting.

Optimum Decisions (OD) — Yehezkel Dror says:

- Some clarification of values, objectives, and decision-criteria.

---
31 Simon. Administrative behavior: a study of decision-making processes in administrative organization.
32 Lindblom, "The Science of "Muddling Through".
Towards a metatheory of budgeting

- Identification of alternatives, accompanied by a conscious effort to consider new alternatives (through survey of comparative literature, experience and available theories) and to stimulate creative alternative innovation.
- Preliminary estimation of expected pay-off of various alternatives and decisions whether a strategy of minimal risk or a strategy of innovation is preferable.
- If the first, the "successive limited comparison" model should be followed. If the latter, the next element is establishment of a cut-off for considering possible results of alternative policies and identification of main expected results, relying on available knowledge and intuition.
- The test of the optimum policy is that it is agreed upon by the various analysts after full and frank discussion of stages 1 to 4.
- A conscious effort is made to decide whether the problem is important enough to make analysis more comprehensive.
- Theory and experience, rationality and extrarationality all are relied upon. the composition of the mix depending upon their availability and the nature of the problem.
- Explicit arrangements are made to improve the quality of policy making through systematic learning from experience, stimulation of initiative and creativity, staff development and encouragement of intellectual effort.

Mixed Scanning (MS) – For lesser decisions, problems that are not severe, or minor corrections of direction, follow an approach that resembles or is incrementalism. For more significant decision-making, pursue a strategy that resembles comprehensive rationality.35

Responsibility Budgeting – L. R. Jones and Fred Thompson following Robert Anthony say:36

Classify all administrative units as either mission or support centers. Charge all costs accrued by support centers ...to the mission centers they serve. Fund mission centers to cover their expected expenses – including support center charges. Establish a working capital fund to provide short-term financing for support units. Establish a capital asset fund. ...

Based on this description, responsibility budgeting is a form of program budgeting where only cost centers that serve the purpose of the organization are funded directly. Support services must "earn" their funds by providing support. Jones and Thompson also describe this form of budgeting as not engaging in detailed budgeting at the responsibility center level, instead managers at that level have both responsibility and discretion to achieve purposes with funds provided.

INSTRUMENTAL THEORIES

Zero Base Budgeting (ZBB) – In the public sector, ZBB is generally thought to follow the concepts of marginality promoted by Verne Lewis. To accomplish this, a budget for a function, division, or other component of government is delivered at several levels: one below the current funding level, one equal to the current funding level, and one or more above the current funding level. With each, the packet shows what the component can accomplish with its funds. The decision maker is then able to select a package that increases total utility over the prior year’s utility.37

Cost-Benefit Analysis (CBA) – Also called Benefit-Cost Analysis, refers to computing all costs and all benefits of a program and subtracting benefits from costs (net) or representing the two as a ratio with benefits shown as the numerator and values above one showing a gain.38 Variations include:

- Net Present Value (NPV), which brings all costs and benefits to the present period by applying an appropriate discount rate before calculating the net value.39
- Cost Effectiveness Analysis (CEA), which compares two or more proposals that are taken to have the same benefit solely on their costs.40
- Life Cycle Costing (LCC), which is a form of cost effectiveness analysis that assures that purchasing decisions consider not only capital costs, but also costs of operation.41 LCC has been extended to many other uses and could be considered to be comprehensive NPV.

39 Ibid.
40 Ibid.
Towards a metatheory of budgeting

- Regulatory Impact Analysis (RIA). which applies CBA or NPV to the evaluation of regulations.\textsuperscript{42}

Expenditure Control Budgeting (ECB) – "ECB has five general operating elements. First, ECB uses a 'base' budget to determine the appropriation for the next fiscal year. The base budget is annually adjusted for population growth and changes in the cost of living. Second, ECB assumes existing service levels and requires the city manager and city council to approve any changes in service levels. It also permits the city manager to transfer allocations among departments within the overall appropriations level to correct minor imbalances in funding. Third, department directors are responsible for costs of future increases in programming as well as for increases in service levels. Retained savings generated by the department provide the funds used for such service expansions. Fourth, each year's under expenditures are carried forward to the next year. Fifth, departments are required to budget administratively at the line-item level."\textsuperscript{43}

Line Item Budgeting (LIB) – This theory of budgeting, or more strictly, of appropriating, predated early twentieth century budget reforms and was, in part, what some of those reformers intended to replace.\textsuperscript{44} The appropriating authority funds expenditures in extreme detail focused on the resources to be purchased by government, which are now known as objects of expenditure. Employees may be funded by name or position in the appropriation.

Hoover Performance Budgeting (HPB) – Performance is demonstrated through cost effectiveness, which means that budget documents contain extensive cost-per-unit data at the homogenous work activity level. Homogenous work activities are quite detailed much more so than programs. A Hoover performance budget addresses the question whether government is getting the most for its money in terms of price for work produced.\textsuperscript{45} This form of budget requires accurate and extensive cost accounting information. Performance Budgeting is implicitly associated with the systems model, which transferred from engineering to operations research/management science at approximately the same time.\textsuperscript{46}

\textsuperscript{42} Capone and Williams, "The History of Evaluation through Regulatory Impact Analysis: a Path from Accounting to Accountability."
\textsuperscript{44} Goodnow, "The Limit of Budgetary Control."
Input $\rightarrow$ Throughput $\rightarrow$ Output $\rightarrow$ Outcome

This model has many variations related to feedback loops and external environmental impact (open systems). It is, itself, a sophistication of the simple input/output concepts of Frederick Taylor. It is implicated in a number of instrumental theories.

Program Budgeting (PROG) – A program budget is a system wide examination of the purposes of government with technical evaluation of the utility-cost of program results considering alternatives to achieve results. Programs are broader than departments and can be cross-cutting, that is, found in part in different departments. (In practice, programs are found within departments or are departments.) Part of the point of program budgeting is to allow economic evaluation of means of achieving goals between different programs that may be found in different sectors.

Planning, Programming and Budgeting Systems (PPBS) – PPBS, sometimes just PPB, refers to the integration of techniques such as cost benefit analysis, policy analysis, performance budgeting, program budgeting, etc., to produce a comprehensive approach to budgeting. PPBS is closely associated with Program Budgeting (see). This approach was considered successful at the Department of Defense during the 1960s. It is generally thought that when the federal government expanded this approach government-wide, it failed. Sometimes it is asserted that various elements of PPBS remain scattered across government.

Management by Objectives (MBO) – MBO is a management theory, but it is called a budget related theory by Irene Rubin among others. In the budget context, it calls for a practice of setting objectives, setting priorities, then allocating resources according to those objectives and priorities. A variant la-

Towards a metatheory of budgeting

beled results based budgeting may be associated with the systems model. see the entry for Hoover Performance Budgeting.53

Target Base Budgeting – TBB is a variant of ZBB that is less information intensive. A base with appropriate adjustments is set at the beginning of the budget submission process. Departments are generally prohibited from asking for more funds than in the target base, but are given (some) discretion to propose reallocation of funds within their own discretionary activities. Thus, marginal tradeoffs are made by the department heads while preparing their budget submission. Final approval passes through the executive and legislative processes.54

1990s Performance Budgeting- PB, also called Performance Based Budgeting (PBB, not to be confused with PPB), comes in three forms: presentational, where performance information is included in the text of the budget proposal: performance informed, where future resources are linked to future performance targets or results: and direct performance budgeting, where “the allocation of resources directly and explicitly to units of performance, generally outputs.”55 PB relies on the systems model; see the entry for Hoover Performance Budgeting.

Best Practices (BP) – Roy Meyers recommends:56

A budget process should be:
1. Comprehensive - includes all uses of the government's financial resources:
2. Honest - based on unbiased projections;
3. Perceptive - considers the long-term as well as the near-term;
4. Constrained - limits the amount of money that need be acquired by the government:
5. Judgmental- seeks ways of obtaining the most effects for the least costs:
6. Cooperative - does not dominate other important decision processes:
7. Timely - completes regular tasks when expected,
8. Transparent - is understandable without intensive effort:
9. Legitimate - reserves important decisions to legally-appropriate authorities.
10. Responsive - adopts policies that match public preferences

Outcome Budgeting (OB) – A variant of MBO or performance budgeting that asks the top decision maker to pay for what is desired, that is outcomes, rather than resources needed (line-item budgeting), detailed managerial costs

Budgeting for Outcomes (Huang Performance Budgeting), or planning (program budgeting). Outcomes budgeting is another theory that relies on the systems model of budgeting, see the entry for Hoover Performance Budgeting.57

Budget Enforcement Act of 1990 (BEA) – BEA (a US federal law) is a reform to Gramm-Rudman-Hollings (see). “BEA has three sets of rules: adjustable deficit targets, caps on discretionary spending, and pay-as-you-go (PAYGO) rules for revenues and direct spending.”58 The deficit targets are set in law, but can be adjusted during the annual budget process. PAYGO refers to the process of requiring appropriating committees to self-fund new expenditures, generally by reducing other expenditures within their domain. Thus, BEA is a variant of program budgeting, but also see Rights Based Budgeting.

Nonconventional budgets (NON) – Gerald Miller says, “In governments across the world, we find not only the traditional call for a separate capital budget but also calls for a tax expenditure budget, a mandate budget, a regulatory budget, a credit budget, and an insurance budget.”59 Miller links this idea to super- (in the sense of comprehensive) budgets. He suggests the purpose of these sorts of budgets is control, which he says have five elements: focus, attention from decision makers; estimation, determining the cost of the resource for requested projects in a budget period; scarcity, setting a ceiling for the availability of the budgeted resource; criteria, determining rules or permissible justifications for selection among projects that demand the resource; and a device for reaching decisions.

Workforce Size Budgets (WORK) – A version of nonconventional budgeting (see) that may be more common than many is the workforce size budget. In the federal government, workforce size budgeting consists of agencies justifying their staffing level to OMB.60 Anecdotal information known to the authors shows that some state and local governments specify maximum workforce size in their respective appropriations, but this practice is not well represented in the literature. A sophisticated version of this practice calculates workforce size at annualized full time equivalency. A widely known method of evading this type of budget constraint is the hiring consultants from temp

agencies, where these consultants function like regular employees but are not on the regular payroll.

Gramm-Rudman-Hollings (GRH) — The Balance Budget and Emergency Deficit Control Act of 1985, better known as Gramm-Rudman-Hollings, called for the progressive reduction in the deficit in each fiscal year from 1986 through 1990 and for a balanced budget in 1991. It also provided for the cancellation of budget resources if the projected deficit exceeded the target by more than an allowed amount. This device treated decision-makers as incapable of reaching satisfactory decisions, thus, automatic devices would be used to force appropriates in the satisfactory level in the budget implementation stage.

DESCRIPTIVE THEORIES

Rational Policy Model (RPM) — Graham Allison describes three approaches to decision making. The rational policy model assumes that the decisions are rational. Initially goals and objectives are determined. Options are identified. The consequence of each option is thoroughly evaluated. Based on these options the value-maximizing option is selected. The Rational Policy Model is a descriptive version of Classic Economic Man (see). Allison's two alternatives are Organization Process (see) and Bureaucratic Politics (see).

Macrobudgeting (MAC) — At the macrolevel, budgeting is comprehensive top-down budgeting aimed at controlling system wide controllable expenditures. Key participants are the executive and the top committee members. that is. the most powerful members of both the executive and legislative branches of government. The process is centralized. There is increased use of multi-year decisions. Formalized devices such as BEA and GRH are used. The legislative decision process is transparent.

Empirical Norms (NORM) — Budgets allocate funds to categories of service. By examining numerous communities one can determine reasonable expectations for per unit expenditure for typical services delivered by communities. The selection of unit depends on the type of service.

---

Organizational Process (OP) – Governments are a loose coalition of organizations in factional debate with parochial concerns. Decisions are constrained by organizational norms of acceptable action. Problems are addressed sequentially. Organizations use standard operating procedures (SOPs) and clusters of SOPs to resolve problems. They seek to avoid uncertainty by controlling their environment. For non-routine problems, they search for ways to apply their existing capacities and they generally do not change over time except under extreme conditions. The loose coalition of organizations creates a conflict between decentralized action and centralized coordination. Organizations tend towards incremental change. 65 Mark Green and Fred Thompson use the organizational process concept to discuss budget process as an understanding of Simon, Lindblom and Wildavsky. 66 Following John Crecine 67 they discuss the role of institutional players such as the mayor, who form parts of what Allison called a loose coalition, and the routines followed in budgeting (SOPs and clusters of SOPs). Efforts to reduce complexity parallel the objective of controlling uncertainty.

Authorization Process (AP) – Authorizing committees interact with and sometimes compete with appropriating committees. Appropriating committees may take roles of authorizing committees when authorizing committees are moving too slowly for the appropriations calendar. Where the activities to be authorized are controversial, the encroachment may be in the opposite direction. 68

Principle-Agent (PA) – The budget reflects a principle-agent relationship, which has the characteristics of hierarchy, goal conflict, and information asymmetry. Principals make demands on resources of agents, who ration their resources for principals—that is, principals make demands that agents comply with only to the degree that they must. 69 Under all three principal-agent conditions one can expect “agency dominance,” (see Greedy Bureaucrat ). Alternative understandings reflect “legislative dominance,” where the legislature does

Towards a meta theory of budgeting

not fully reveal its preferences, thus gaining the upper hand in negotiations; “executive dominance,” largely reflecting the preclearance budget submission process through an executive central budget office that centralizes, coordinates, and officially submits the budget to the legislature; and “issue networks,” where members of the legislature and members of interest groups join together to control aspects of decision making.

Economic functions of budgeting (ECO) – There are three basic economic functions of budgeting: allocation, the governmental budget can allocate goods when markets fail due to the existence of public or collective consumption goods, externalities, natural monopolies, or consumer ignorance; distribution, the governmental budget can serve to redistribute goods where market conditions create extreme economic inequality; and stabilization, the government budget can reduce the effect of economic cycles (see Keynesianism).

Budget Strategies (BS) – Agencies are more successful in their budgeting when they consider the public support for their programs. Under four levels of support there are differing optimal internal strategies (proposals) and external strategies (legislative politics): Broad weak support for outcomes leads to incremental proposals and transparent cooperative legislative strategies. Narrow intense support leads to claims for equity and reliance on the clientele in the political process. Moderate resistance to financing targeted strategies, such as cutting waste or sharp focus on mission, and to confidence building in the political environment. High resistance to outcomes leads to analytic or other strong approaches, such as cost benefit analysis, and to external strategies focused on dividing power.

Super Budgets (SB) – “Super-budgets are conceived less as documents or even as autonomous processes than as systems, interacting with other systems. At their core lies the fundamental revenue mobilization and expenditure function, but they are also an integral part of other systems, include the intergovernmental system, the economic system, and the political-bureaucratic system.”

Punctuated Equilibrium (PE) – Budgets are generally stable following the construct of incrementalism or, in any case, not changing radically in most pe-

---

periods. However, aperiodically stability is disturbed. This disturbance may be consistent with the Agendas theory (see) or with Mixed Scanning (see). Evidence exists for such aperiodic budgeting.  

Rights Based Budgeting (RBB) – The existence of large transfer payment programs that the courts have interpreted as entitlements and the engagement of the courts in requiring the expenditure of funds to fulfill court determined rights has narrowed the executive-legislative discretion over the budget creating a rigid obligation to expend funds. One method of managing budgets is to take a long-term look at entitlements.

Bureaucratic Politics (BUR) – The government comprises individuals who are players in the decision-making process. Players are focused on parochial priorities and they seek to protect their own interests and maintain their own power. Strategic decisions are replaced by focus on matters demanding immediate attention. There are routine “channels” for determining who decides and how to proceed. Decisions are not analytic or calculated, they are the part of the uncertainty, pace and chaotic nature of decision making. Decision outcomes are the aggregate of multiple individual decisions. Group actions may not reflect any particular person’s intentions. Participants’ roles affect their judgment.

Transaction Cost Politics (TCP) – John Bartle and Jun Ma explore TCP theories related to budgeting. Following Patashnik they view budgets as contracts and see three transaction cost claims:

(1) The costs of negating and enforcing budget contracts shape the budgetary process, and through it, the budgetary outcome;
(2) Political actors deliberately craft institutional safeguards to add durability to their commitments; and

75 Allison. "Conceptual Models and the Cuban Missile Crisis." Allison, Essence of decision; explaining the Cuban missile crisis.
78 Bartle and Ma, "Applying Transaction Cost Theory to Public Budgeting and Finance." 162.
(3) Budget reforms are unlikely to succeed if they fail to take into account both the potential for opportunistic political behavior and the inherent need of complex transactions for contractual safeguards.

They also examine TCP related to budget execution, tax policy and fiscal policy. They propose treating budgets as contracts where participants have the attributes of bounded rationality, opportunism, and lack of risk neutrality. The transactions occur under conditions of uncertainty, bilateral information asymmetry, and asset specificity (commitment to program continuity).

Ambiguity & Interpretive Budgets (AMB) – Organizations are loosely coupled and decisions are outcomes of multiple independent streams (see Garbage Can). Budgets involve rituals and symbols to construct fiscal reality. The language of analytic choice is merely metaphorical, helping to construct the perception of order out of anarchy.79

---

EXPLANATORY THEORIES

Median Voter Theory (MVT) - Voting is a method of giving a decision making proxy to representatives. To obtain that proxy, the representative must convince a majority of voters to select him. The majority consists of 50% plus one, or the median. Assuming that the voters have single peaked preferences, the candidate need only learn and act upon the preferences of the median voter to become elected and reelected. For budgeting, this means finding the tax and service package that satisfies the median voter.80

Interest Group Pluralism (IGP) – Interest groups take a direct role in influencing legislation that affects their interests.81 Interest groups are a type of descendent of factions as discussed in the Federalist Papers.82 The dominance of any particular faction would be ruinous for a republic, but the competition of relatively equal factions is how democracy works. This competition and agreement over budgetary shares works in tandem with incrementalist theories.83

Garbage Can (GC) – An organized anarchy has ill-defined uncertain preferences. unclear technology and fluid participation. A decision is an outcome of independent streams: Problems arise inside and outside the organization and can have almost any nexus with the organization. Solutions are someone’s product looking for a question. Participants and their “energy level” are temporarily associated with the organization. And, choice opportunities are occasions that call for a decision. In the garbage can, there are streams of each of these with decision opportunities possibly being demarked as discrete moments in time. Decisions occur when there are confluences of all of these streams at a decision point.84

Agendas (AGEN) – John Kingdon reformulates the Garbage Can theory (see) finding three critical streams: problem recognition, policy development,
and politics. They work independently and must achieve confluence to open a policy window (an opportunity for decision making).

Real Time Budgeting (RTB) – Budgeting involves five “linked clusters: revenues, process, expenditures, balance, and implementation.” These semi-independent streams interact in complex ways that strongly affect the ability to make decisions and the content of the decisions themselves. There are information dependencies between the streams which constrain decisions. Micro-issues (the cost of the operation of government) and macro-issues (fiscal policy) constrain each other. Consequently, there must be constant real-time adjustment within the semi-independent streams.

Greedy Bureaucrat (GREED) – The most dominant budget theory from the public choice, literature, the Greedy Bureaucrat theory holds that (top ranked) bureaucrats are utility-maximizing individuals using their public roles for the purpose of achieving their utility maximization purpose. Bureaucrats have the advantage of asymmetric information with regard to how much resource is needed to achieve the outcomes desired by political decision makers and they are monopoly sellers of their service, so they are in an excellent position to overcharge. Their only difficulty is that the overcharge cannot be realized in the form of profit, so instead it is realized in the form of prerequisites of office, generally higher salary, status and benefits associated with larger, that is more expensive, organizations.

BIBLIOGRAPHY


Towards a metatheory of budgeting


———. "Nonconventional Budgets: Interpreting Budgets and Budgeting Interpretations." In Budget Theory in the Public Sector, edited by Aman Kahn


Towards a metatheory of budgeting


—. Shop Management. Harper & Brothers. 1911.


