Guess Who is Coming to the Table of Performance Budgeting:
The Power and Puzzle of a Participative Process

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Abstract

Active participation from all stakeholders in the budget process is one of the key issues to the integration of performance information with budgeting. While stakeholders’ participation is cited as important by various studies, how they participate relative to each other and work together is less known. Empirical studies on participation patterns and their impact on performance budgeting are scarce. This paper studies the extent and effect of a participative process in three folds. First, using the survey data from Georgia and cluster analysis, this paper first examines the participation pattern involving all potential major stakeholders. Second, the impacts of these participation patterns on performance management and budgeting were examined. Lastly, the participation patterns of the “higher performers” in performance budgeting were compared and contrasted with the average. The purpose is to provide a further understanding of the mechanism and structure of a participative process in performance budgeting.
Introduction

Performance budgeting is about bringing the performance information to the same table where resource allocations decisions are made (Lauth, 2004, in addition to personal conversations in 2005). The intent is to improve the quality of decision making via an infusion of program performance information. Over the past decade, significant research efforts have been undertaken to study the dynamics of the integration of performance information with budgetary and managerial decisions. Among various factors identified by the literature, the participation and commitment exhibited from key stakeholders emerged as an integral factor (deLancer Julnes, 2001; deLancer Julnes & Holzer, 2001; Radin, 2000; Wang, 2000; Yang & Hsieh, 2007). In addition, due to the multiplicity of stakeholders participating in the performance integration, research findings suggested the distinctiveness of different stakeholders, and identified respective factors that are important in soliciting participation from various key stakeholders (Ho & Coates, 2004; Lu, 2007; Willoughby & Melkers, 2000).

No doubt that individual stakeholders’ participation is important. However, how they participate relative to each other and work together is much less known. It is a question of participation pattern, which is defined as the orchestra of individual participations. It is important because performance budgeting cannot be successfully implemented when it is a “solo” play where only one or few stakeholders are interested in using performance information, or “square pegs in round holes” where there is a mismatch between the participation patterns and the purposes for which performance related activities are carried out. For instance, if improving the quality of the performance measurement is the goal,
who should participate in the process? What characteristics lead to agencies working closely with the central executive budget office versus, say, the citizens? And upon differing participation patterns, what are the implications for the use of performance information by key stakeholders? Questions like these are intriguing because knowing who to bring to the table of performance budgeting is a key to the performance integration. Yet, empirical studies on the participation patterns and their impact on performance budgeting are scarce.

In this study, participation is defined as the extent to which various stakeholders participate in the development of performance measures. I examined the extent and effect of a participative process using a set of recent survey data from the State of Georgia. The key research questions are:

1) What do the participation patterns of performance budgeting look like?
2) What agency characteristics distinguish participation patterns?
3) What are the impacts that the participation patterns have on a) the measurement quality, and b) the use of performance information?

The purpose is to provide a further understanding of the mechanism and the structure of a participative process in performance budgeting.

**Participation in Performance Budgeting**

Participation is one of the most enduring issues in the public sector. In general, the existing research identified three models in which participation affects the decision making: cognitive, affective and contingency (Miller & Monge, 1986). The cognitive model reasons that participation supports the decision making because it improves the flow of information, especially from frontline employees.
to the management. The affective model highlights the participants’ satisfaction with their “high-order needs,” such as self-realization, brought by engaging in decision making (McGregor, 1960). It focuses on the emotional gains from participation. Contrasting to the above two models that identify the positive effects of participation, the contingency model stresses the conditions for participation to work, including but not limited to, personalities and attitudes of participants, the nature of a decision, the organizational context, and the participation method (Connor, 1992; Sagie, 1994; Scully, Kirkpatrick, & Locke, 1995). In addition to these practical grounds for more participation, participation is also called for in the public sector on the grounds of civic engagement and democratic values. Overall, the literature suggests that while the direct and significant impact of participation is still debatable, the reasons to value participation are ample.

In line with the above general participation theories, the field of performance budgeting has consistently called for a participative approach to performance measurement (deLancer Julnes & Holzer, 2001; Ingraham, 1998; Joyce, 2003). Most of the literature coincides with the cognitive and affective models1, citing that participation 1) enables a diversity of experience and knowledge, 2) enhances the “buy-in” opportunities, 3) promotes goal congruence among participants, and 4) facilitates an organization-wide performance culture (Burke & Costello, 2005; deLancer Julnes, 2001; Lu, 2008; Yang & Hsieh, 2007). In terms of the key participants, the commitment and participation from the

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1 One exception is the research done by DeLancer Julnes (2001), which resembles the contingency model. This study found that a participative approach may work best under uncertainty.
agency management and government leaders is repeatedly cited as an integral factor to performance measurement (Coe, 1999; Forsythe, 2001; Lu, 2007; Wang, 2000). As Behn (2002, p. 19) forcefully argued, an energetic leadership for performance is the difference between “an active strategy” and a passive performance system, because leadership support nurtures behavioral changes. In addition, the legislature, while remains somewhat detached, captures more and more attention to analyze their role and participation in performance budgeting. After a series of careful studies, Bourdeaux (2006, 2008) concluded that the legislative participation is crucial, and that its participation could be facilitated via its committee staff and constituent position on performance budgeting. Furthermore, the role of citizens in performance budgeting is still in its exploratory stage. To Ho and Coates, citizen participation is a way to “legitimizing performance measurement as a decision tool” (2002, p. 8). Interestingly, while their studies stressed the importance of citizen engagement, they recommended the partnership among citizens, elected officials and government staff in performance measurement (Ho & Coates, 2002, 2004), a concept related to participation pattern. In sum, what we learn from the existing literature is that performance budgeting necessitates genuine participation from key stakeholders at each stage of the budget process and that the approaches to enhance participation among these potential participants vary.

Given the importance of participation mentioned above, it is intriguing to study the participation pattern, that is, how stakeholders participate relative to each other and the collective impact of differing participation patterns on
performance budgeting. However, empirical research on this topic so far is scarce. I stress the importance of studying the participation pattern in addition to the individual participation for the following reasons.

First, while individual participation is important, participation is not a discrete individual act. Instead, it is interactive and collective. Therefore, the pattern of participation is important. For instance, although the literature calls for enhancing both agency and legislative participation, there is not yet a theory on how the participation from one group might influence the participation from another. Both groups’ participation may increase if we hypothesize the diffusion of performance reform. Alternatively, agency’s participation may have no or negative impact on legislative engagement. Why? As Bourdeaux (2008, p.1) pointed out, agencies do not seem to be an “especially trusted source of information for legislators” to start with. Research has pointed out that participation by various participants is interdependent. As a long-time scholar on performance budgeting, Lauth (1985) observed that the use of performance information by one group of participants was influenced by the perception held by this group of the extent to which other participants utilize the measures in decision-making. Therefore, the interactive and collective nature of participation has to be recognized.

Second, the participation pattern is especially important for performance budgeting because numerous research has pointed out that performance budgeting has to have government-wide engagement, and missing links would not work well (Jones & McCaffery, 1997; Joyce, 2003; Willoughby & Melkers,
This feature indicates that the study of performance budgeting might benefit from looking at how each participant collaborates, instead of functioning on their own, to complete tasks related to performance budgeting. For instance, to ensure high quality measurement, who should be brought together to the development of performance measures? By studying participation pattern, the focus gears toward collaboration, instead of discretely how individual participants play a bigger or smaller role in performance budgeting.

In this study, the concept of participation pattern is redefined as the orchestras of individual participation. The purpose of this research is to study the extent and effect of a participative process.

**Research Design**

To address the three research questions laid out at the beginning of the study, I drew data from a survey conducted in the State of Georgia in 2005. The focus of the survey is about agencies’ experience with performance measurement, management and budgeting. The agency heads and fiscal/budget officers in all entities including large agencies, attached agencies, and authorities were invited to participate in the survey, for a total of 178 surveys sent. Given that most previous studies using survey instruments had the response rate around 30 percent, this research received a good response rate, 65.17%, for a total of 116 surveys received.

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2 Three waves of the survey were sent in 2005. The first wave was sent around mid-July, the second wave at the end of September, and the third wave around mid-December, 2005. Phone calls to non-respondents were made one month after the second wave was sent.

3 To assess how different the agency respondents are from their non-respondents, various aspects between these two groups were compared, including (1) attached agencies/authorities vs.
In addition to the questions regarding how agencies perceive the use of performance information by various stakeholders, especially valuable from the survey is a battery of questions regarding the relative participation of all key participants. Survey respondents were asked to rank the importance of the following participants in the development of performance measures on a scale of 1 through 10 (1=the least important, 10=the most important): elected officials, appropriation committees, House and Senate Budget Offices, the central executive budget office (the Office of Planning and Budget in Georgia-OPB), the state auditor office, the governor, agency head, agency and program staff, citizens, and external professionals.

Cluster analysis was conducted to tease out the participation patterns based on survey responses. As an exploratory analysis tool, cluster analysis organizes the cases into different groups based on the degree of association on various dimensions among cases. Applied to this research, the cluster analysis allows survey respondents to be grouped based on the ranking they provide regarding the participation of key stakeholders. By doing so, there emerge meaningful patterns of the data (i.e. participation patterns). The findings from the cluster analysis were reported to address the research question one.
To address the research question two, agency characteristics of each participation pattern is summarized and tabulated. This descriptive information enables us to see clearly the kinds of agencies that are identified with a particular participation pattern. This information is important because it could shed light on why the agencies perceive the participation patterns in a particular way and how the strategies could be tailored to assist different agencies in the performance measurement.

Knowing the participation patterns, however, is only the means to the end of understanding the impact of participation on performance budgeting and management. In addressing the research question three, the impact that each participation pattern has on the performance budgeting and management, defined as the extent to which performance information is used in various decisions, is compared and contrasted. In addition, the participation pattern of “higher performers” is analyzed. The “higher performers” here are defined as the agencies whose perception of the uses of performance information in decision making is high (the top 1/3 of all cases). The implications of participation patterns for performance budgeting and management were discussed.

**Research Findings**

Table 1 reports the findings regarding the importance of ten groups of participants in the development of performance measurement. Overall, survey respondents identified agency heads (mean=8.28, on the scale of 10) and program staff (mean=7.60) as the most important participants, followed by the governor (mean=7.58) and the OPB (mean=6.64). The state auditor office is
rated the least important. This pattern once again confirms that agencies on average play a key role in developing the performance measures. Specifically, it seems that there are three distinctive participation patterns among these key stakeholders. Cluster 1 represents a pattern where the agencies dominate the measurement process. Especially, the agency heads in this cluster seem to be hands-on in managing the process (mean=9.44). The governor and the executive budget office play an active role while the House and Senate Budget Offices participate to some extent. Another distinctive characteristic of this pattern is that the “external” participants (i.e. citizens and external professionals) are distant in designing performance measures. Cluster 2 demonstrates a different kind of partnership where the agencies work closely with the citizens and external professionals on the performance measurement. Within this pattern, unlike the cluster 1, agencies do not seem to dominate the measurement process (mean=8.45 close to the population average, 8.28). Instead, they share the responsibilities with the external participants outside the governments, especially citizens (Mean=8). Given that on average the citizens do not play a key role (mean=5.12), their participation within this cluster is significantly high (56% above the average). With regards to Cluster 3, the agencies no longer play a key role. It is now the governors and the executive budget offices that take the lead, and form collaboration with the appropriation committees, the elected officials and the legislative budget offices. Clearly, what distinguishes the Cluster 3 from the rest is the active participation by the legislative branch. Overall, judging from the extent to which the agencies play a role, these three patterns can be called: the hands-on model (cluster 1), the hands-off model (cluster 3) and the partnership-with-external-participants model (cluster 2).
This finding, while confirms the importance of the agencies, points to the existence of differing patterns. The answer to the important question, “Who is Coming to the Table of Performance Budgeting,” is really not clear-cut. It depends. The question of “depends on what?” warrants further study.

One way to examine why the agencies form three clusters is to study whether certain agencies characteristics might lead agencies to adopt a particular participation pattern. Table 2 reports the agency characteristics by cluster. The results show that the agencies that are bigger and with relatively higher performance measurement capacity tend to be hands-on on performance measurement. The agencies that believe the importance of measurement reliability and validity appear to work closely with citizens and external professionals. In contrast, the agencies that believe the importance of political acceptance and administrative feasibility, and that have relatively higher task difficulty (measured by the number of core business) tend to be hands-off and leave performance measurement matters to the executive budget office and the legislative branch.

These differing participation patterns and the agency characteristics associated with them have implications for measurement quality and the uses of performance information. Table 3 and 4 report the impact of individual participation and of participation patterns, respectively. Table 3 shows an intriguing pattern, that is, only 5 sets (out of 70) of individual participation have statistically significant impact on performance measurement and budgeting although most of the coefficients are in the positive direction. This finding
confirms that there are some positive gains from participation in general. Yet, it is one thing to have some gains; it is quite another thing to translate the participation gains into increased use of performance information in management and budgeting decisions. In addition, the information presented in table 3 once again speaks to the importance of leadership, as the existing literature stressed. The participation into the measurement process by the agency heads and the governor is significantly correlated in a positive way with measurement quality, and budgetary uses by agencies, by the governor and by the legislative budget offices. Furthermore, although citizens were ranked the sixth overall with regard to their role in performance measurement, interestingly, their participation facilitates the budgetary uses of performance information by agencies. In sum, the findings here are consistent with the literature. More importantly, it suggests that the substantive impact from participation is not direct but could be contingent. This present study examines one contingency, the participation pattern.

Table 4 reports the collective impacts of participation patterns by cluster. Cluster 1, characterized as the dominate role by the agencies, an active role by the executive budget, and some participation by the legislative budget offices, by far has the most positive impact on various dimensions (i.e. measurement quality, and the budgetary uses by the governor, by the executive budget office, the legislative budget offices, and the appropriation committees). This finding is consistent with the literature in that the agencies are at the front and center of the performance management and budgeting reform (Lu, 2007) and that the executive budget office is an important facilitator (Lu, 2008). The pattern exhibited in Cluster 2, characterized by the partnership between the agencies
and the external participants (i.e. citizens and external professionals) seem to improve managerial uses in agencies in addition to the measurement quality and their budgetary uses of performance information. Cluster 3, characterized by a strong representation of the governor, the executive budget office and the legislative branch in performance measurement, promotes the agencies to use performance information in their budgetary decisions. In sum, various participation patterns have differing impacts on the uses of performance information, with a particular participation pattern working better for a particular set of the uses of performance information. However, all uses considered, none of these three participation patterns show significant positive contribution; the average score for the use of performance information for each participation pattern (3.27, 3.24, and 3.25) hovers around the population mean (Population Mean=3.26). The next logic question is: what does the participation pattern of the “higher performers” in using performance information look like?

Table 5 shows the participation pattern of the “higher performers” in measurement quality and each type of the use of performance information. As mentioned above, the “high performers” here are defined as those whose score for the use of performance information is roughly within the top one-third range. Table 5 reveals several interesting findings. First, judging by the sign of the percentage of the difference between the respective participation score and the average score, 71 percent of the cells (50 cells out of 70) have the positive sign, which means that the participation from various key stakeholders above the average level is important for achieving a higher level of uses of performance information.
Second, while overall the participation from the agencies seems to serve as the foundation for the performance management and budgeting system, table 5 shows that depending on the task (i.e. improving measurement quality, facilitating managerial uses of performance information, and etc.), participation patterns vary. Specifically,

- The participation of the external professionals, the elected officials, and the appropriation committees → improved measurement quality.
- The participation of external professionals and citizens, and the less involvement by the state audit office → improved managerial uses by agencies.
- The participation of external professionals, elected officials, and the governor → improved budgetary uses by agencies.
- The participation of elected officials, appropriation committees and legislative budget offices → improved budgetary uses by the governor
- The participation of elected officials, legislative budget offices, and appropriation committees → improved budgetary uses by the executive budget office
- The participation of the legislative budget offices, appropriation committees and agency heads → improved budgetary uses by the legislative budget offices
- The participation of the elected officials, the appropriation committees and the legislative budget offices → improved budgetary uses by the appropriation committees.
These participation patterns by task is especially valuable in that they point to how to assemble people to work towards the ways in which performance information could be used in various decision making.

Third, when all uses of performance information are considered, the participation patterns among the “higher performers” in table 5 suggests that we in particular need to solicit participations from, in the descending order of the strength of the needs, the elected officials, external professionals, appropriation committees, legislative budget offices, and citizens. For instance, the participation score from the elected officials among the “higher performers” ranges from the average to 45 percent above the average. This finding should not be interpreted as that the other participants (such as agencies) are not important. Instead, it indicates whose participation needs to be strengthened given the task at hand. The findings in general suggest that we need to stress two things. One is to open the performance management and budgeting process a little bit more to involve the external participants (i.e. citizens and external professionals); another is to engage the legislative branch. Conversely, the state auditor’s office seems to play a less active role among the “higher performers.”

Discussion: Participation in Performance Budgeting Revisited

A key characteristic of a successful integration of performance information with management and budgeting is the participation from all key stakeholders (Joyce, 2003; Melkers & Willoughby, 2005; Wang, 2000). Yet, how to participate relative to each other in a collaborative way is far from resolved. The findings from this study seem to suggest that there are more to the concept of
participation in performance budgeting than stressing the importance of individual participations from key stakeholders.

First, the study shows that participation patterns matter. Taking the individual participation into consideration, this study redefined the participation in performance budgeting as participation patterns, that is, the participation of individual stakeholders relative to each other. The findings suggest that participation pattern is a different construct than individual participation. The impact of participation on performance budgeting is contingent upon other factors, including participation pattern as demonstrated in this study. Specifically, it means that the policy recommendations calling for increased participation from one group needs to be made with the awareness of the implications for the participation from other groups. In addition, the participation has rippling effects. The participation by one key stakeholder has influence on another key stakeholder. For instance, the participation by elected officials improves budgetary uses of performance information by agencies, while the participation of agency heads has positive impact on budgetary uses by the legislative budget offices. It implies that some participation may seemingly not have direct impact on the participants themselves, but could have indirect impact on other participants in the process. Furthermore, the underlining context for forming a particular participation pattern is as important as the impact of the pattern. Certain contextual factors, such as agency characteristics, may both enable the occurrence of a particular participation pattern and limit how it impacts performance budgeting. Therefore, the awareness of the context in which participation patterns develop increases the
chances of developing tailored strategies to facilitate effective participation. In short, participation needs to be understood and modeled interactively to include groups of participants. In other words, the interaction and partnership among participants is the key.

Second, the participation patterns highlight a shared responsibility among key participants. Consistent with the literature, the participation from the agencies was overall ranked first and seemed to serve as the foundation for the performance management and budgeting system. However, the agencies may not want to dominate the process. An agency-dominated participation pattern (as demonstrated in cluster 1 only achieves an average score in terms of the extent to which performance information is used in decisions. Most of the “higher performers” have an average level of agency participation. So, who should share the responsibility? The findings here call for a participation pattern that is open (to citizens and external professionals) and reaching across the branch line (especially, involving the legislative branch). By doing so, the responsibility is shared among the executive and legislative branches, and the public.

Third, the participation patterns vary by task. In general, the task of using performance information for budgetary purposes is more responsive to the participation by the legislative branch. The task of improving measurement quality is associated with higher level of external professionals’ participation. The task of agency managerial uses of performance information needs the involvement of external professionals and citizens. This finding once again
confirms that we might need different strategies to improve participation (Willoughby & Melkers, 2000) based on the task that the participants aim to carry out and the institutional roles of key participants.

Fourth, more participation does not necessarily mean better outcome in the integration of performance information, and management and budgeting. It depends on the makeup of the participation pattern and the task at hand. For instance, although some literature found that state auditors’ lack of interest negatively impacts performance measurement utility (Garsombke & Schrad, 1999), the findings here seem to suggest that the role of auditors in performance management and budgeting needs redefining since the “higher performers” group has less auditors’ involvement. Another example, as mentioned above, is that agencies need to play active yet not dominate role in performance measurement to achieve better outcome in the performance integration.

**Conclusion**

This study proposes to look at the participation pattern in performance budgeting, that is, the participation of key stakeholders relative to each other. By doing so, it aims to blend the knowledge about individual key stakeholders’ participation in performance budgeting into a dynamic understanding of participation pattern. This present study found that participation patterns matter and that the patterns that are open, interactive, with shared responsibility, and tailored to various tasks are more likely to be effective in integrating performance information with management and budgeting. The
preliminary findings presented in this study calls for further research. Future efforts may study the contingency of participation pattern formed by various key stakeholders and further identify the characteristics associated with various participation patterns, so that the strategies to improve the integration of performance information with budgeting could be tailored to the weakness and strength of each participation pattern.
Table 1: Participation Patterns
(1=the least important, 10=the most important)

<table>
<thead>
<tr>
<th>Cluster</th>
<th># of obs</th>
<th>Agency Head</th>
<th>Agency and Program Staff</th>
<th>Governor</th>
<th>OPB</th>
<th>Appropriation Committees</th>
<th>Citizens</th>
<th>House &amp; Senate Budget Offices</th>
<th>Elected Officials</th>
<th>External Professionals</th>
<th>State Auditor Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>9.44</td>
<td>8.76</td>
<td>7.79</td>
<td>7.21</td>
<td>4.79</td>
<td>2.76</td>
<td>5.41</td>
<td>3.00</td>
<td>2.24</td>
<td>3.76</td>
</tr>
<tr>
<td>2</td>
<td>29</td>
<td>8.45</td>
<td>8.31</td>
<td>6.34</td>
<td>5.21</td>
<td>4.07</td>
<td>8.00</td>
<td>3.66</td>
<td>3.41</td>
<td>4.62</td>
<td>2.34</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>6.35</td>
<td>5.00</td>
<td>8.83</td>
<td>7.61</td>
<td>7.39</td>
<td>4.96</td>
<td>6.43</td>
<td>6.78</td>
<td>3.26</td>
<td>3.78</td>
</tr>
<tr>
<td>Overall</td>
<td>86</td>
<td>8.28</td>
<td>7.60</td>
<td>7.58</td>
<td>6.64</td>
<td>5.24</td>
<td>5.12</td>
<td>5.09</td>
<td>4.15</td>
<td>3.31</td>
<td>3.29</td>
</tr>
</tbody>
</table>

Note: the ranks that are above the average are shown in bold.
### Table 2: Agency Characteristics of Each Participation Pattern

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Importance of Political Acceptance*</th>
<th>Importance of Administrative Feasibility*</th>
<th>Importance of Reliability and Validity*</th>
<th>Agencies’ Capacity Readiness**</th>
<th>Total Budget (2005)</th>
<th># of Core Business***</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Hands-on</td>
<td>2.64</td>
<td>2.82</td>
<td>4.09</td>
<td>3.23</td>
<td>813 M</td>
<td>2.29</td>
</tr>
<tr>
<td>2: Partnership</td>
<td>2.17</td>
<td>2.93</td>
<td>4.52</td>
<td>3.10</td>
<td>341 M</td>
<td>2.35</td>
</tr>
<tr>
<td>3: Hands-off</td>
<td>2.87</td>
<td>3.00</td>
<td>3.76</td>
<td>3.10</td>
<td>141 M</td>
<td>2.56</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2.54</td>
<td>2.91</td>
<td>4.16</td>
<td>3.15</td>
<td>467 M</td>
<td>2.37</td>
</tr>
</tbody>
</table>

Note: the highest score of each column is in bold.

* The rankings of the political acceptance, administrative feasibility, and measurement reliability and validity, in terms of their importance in determining which measures are to be used. (5=the most important; 1=the least important).

** The agency capacity readiness is defined as the average score of the extent to which the respondents agree with the following three survey statements. (1) There are financial resources to develop performance measures, (2) The accounting and financial system is capable of performance monitoring; and (3) We have staff experienced in handling the development of performance indicators. (1=strongly disagree, 5=strongly agree)

*** The number of agencies’ core businesses listed in the Governor’s budget report.
### Table 3: The Relationship of Individual Participation with Performance Management and Budgeting
(Spearman Correlation Coefficients)

<table>
<thead>
<tr>
<th>Impact on:</th>
<th>Agency Head</th>
<th>Agency and Program Staff</th>
<th>Governor</th>
<th>OPB</th>
<th>House &amp; Senate Budget Offices</th>
<th>Appropriation Committees</th>
<th>Citizens</th>
<th>Elected Officials</th>
<th>External Professionals</th>
<th>State Auditor Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Quality</td>
<td>0.07</td>
<td>-0.02</td>
<td>0.20*</td>
<td>-0.01</td>
<td>-0.08</td>
<td>0.10</td>
<td>0.03</td>
<td>-0.03</td>
<td>0.10</td>
<td>-0.09</td>
</tr>
<tr>
<td>Managerial Uses by Agencies</td>
<td>0.05</td>
<td>-0.05</td>
<td>0.15</td>
<td>-0.06</td>
<td>-0.16</td>
<td>-0.07</td>
<td>0.17</td>
<td>-0.01</td>
<td>0.13</td>
<td>-0.05</td>
</tr>
<tr>
<td>Budgetary Uses by Agencies</td>
<td>-0.04</td>
<td>-0.10</td>
<td>0.28**</td>
<td>-0.01</td>
<td>-0.16</td>
<td>-0.05</td>
<td>0.18*</td>
<td>0.03</td>
<td>0.02</td>
<td>-0.04</td>
</tr>
<tr>
<td>Budgetary Uses by the Governor</td>
<td><strong>0.19</strong></td>
<td>-0.02</td>
<td>0.15</td>
<td>0.05</td>
<td>0.03</td>
<td>0.04</td>
<td>0.01</td>
<td>0.06</td>
<td>-0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Budgetary Uses by the OPB</td>
<td>0.15</td>
<td>0.00</td>
<td>0.14</td>
<td>0.11</td>
<td>0.09</td>
<td>0.05</td>
<td>0.02</td>
<td>0.04</td>
<td>-0.07</td>
<td>0.00</td>
</tr>
<tr>
<td>Budgetary Uses by House and Senate Budget Offices</td>
<td><strong>0.18</strong></td>
<td>0.02</td>
<td>0.02</td>
<td>0.00</td>
<td>0.03</td>
<td>0.01</td>
<td>0.07</td>
<td>-0.03</td>
<td>-0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Budgetary Uses by Appropriation Committees</td>
<td>0.11</td>
<td>-0.07</td>
<td>0.09</td>
<td>0.01</td>
<td>0.03</td>
<td>0.04</td>
<td>0.05</td>
<td>0.00</td>
<td>-0.06</td>
<td>0.11</td>
</tr>
</tbody>
</table>

* Significant at .1 level; ** Significant at .05 level
### Table 4: The Impact of Participation Patterns on Performance Management and Budgeting

(Means of the Uses of Performance Information by Cluster in Comparison with the Average)

(1=Never, 2=<25% of decisions, 3=25%-50% of decisions, 4=50%-70% of decisions, and 5=>75% of decisions)

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Measurement Quality</th>
<th>Managerial Uses by Agencies</th>
<th>Budgetary Uses by Agencies</th>
<th>Budgetary Uses by the Governor</th>
<th>Budgetary Uses by the OPB</th>
<th>Budgetary Uses by House and Senate Budget Offices</th>
<th>Budgetary Uses by Appropriation Committees</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Hands-On</td>
<td>3.74</td>
<td>3.47</td>
<td>3.18</td>
<td>3.26</td>
<td>3.47</td>
<td>2.88</td>
<td>2.59</td>
<td>3.27</td>
</tr>
<tr>
<td>2: Partnership</td>
<td>3.72</td>
<td>3.69</td>
<td>3.34</td>
<td>2.79</td>
<td>2.86</td>
<td>2.62</td>
<td>2.38</td>
<td>3.24</td>
</tr>
<tr>
<td>3: Hands-off</td>
<td>3.61</td>
<td>3.57</td>
<td>3.35</td>
<td>3.13</td>
<td>3.13</td>
<td>2.57</td>
<td>2.48</td>
<td>3.25</td>
</tr>
<tr>
<td>Average</td>
<td>3.70</td>
<td>3.57</td>
<td>3.28</td>
<td>3.07</td>
<td>3.17</td>
<td>2.71</td>
<td>2.49</td>
<td>3.26</td>
</tr>
</tbody>
</table>

Note: The highest score in each column in comparison with the average is highlighted in bold.
Table 5: The Participation Patterns of the “Higher Performers” (In Comparison with the Average)

<table>
<thead>
<tr>
<th>Participation Pattern by:</th>
<th>Agency Head</th>
<th>Agency Staff</th>
<th>Governor</th>
<th>OPB</th>
<th>Appropriation Committees</th>
<th>Citizens</th>
<th>Legislative Budget Offices</th>
<th>Elected Officials</th>
<th>External Professionals</th>
<th>State Auditor Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Quality</td>
<td>8.33</td>
<td>7.33</td>
<td>8.46</td>
<td>6.50</td>
<td>6.04</td>
<td>5.18</td>
<td>5.46</td>
<td>4.88</td>
<td>4.05</td>
<td>2.91</td>
</tr>
<tr>
<td></td>
<td>(0.60%)</td>
<td>(-3.50%)</td>
<td>(11.60%)</td>
<td>(-2.10%)</td>
<td>*(15.30%)</td>
<td>(1.20%)</td>
<td>(7.20%)</td>
<td>**(17.50%)</td>
<td>***(22.20%)</td>
<td>(-11.60%)</td>
</tr>
<tr>
<td>Managerial Uses by Agencies</td>
<td>8.18</td>
<td>7.57</td>
<td>7.86</td>
<td>6.18</td>
<td>5.07</td>
<td>5.86</td>
<td>4.61</td>
<td>4.14</td>
<td>4.29</td>
<td>2.96</td>
</tr>
<tr>
<td></td>
<td>(-1.20%)</td>
<td>(-0.40%)</td>
<td>(3.70%)</td>
<td>(-6.90%)</td>
<td>(-3.20%)</td>
<td>**(14.40%)</td>
<td>(-9.50%)</td>
<td>(-0.20%)</td>
<td>***(29.50%)</td>
<td>*(9.90%)</td>
</tr>
<tr>
<td>Budgetary Uses by Agencies</td>
<td>8.59</td>
<td>7.81</td>
<td>8.56</td>
<td>6.70</td>
<td>5.41</td>
<td>5.72</td>
<td>5.22</td>
<td>4.70</td>
<td>3.80</td>
<td>3.08</td>
</tr>
<tr>
<td></td>
<td>(3.80%)</td>
<td>(2.80%)</td>
<td>*(12.90%)</td>
<td>(1.00%)</td>
<td>(3.20%)</td>
<td>(11.70%)</td>
<td>(2.60%)</td>
<td>**(13.30%)</td>
<td>***(14.80%)</td>
<td>(-6.40%)</td>
</tr>
<tr>
<td>Budgetary Uses by the Governor</td>
<td>8.21</td>
<td>7.11</td>
<td>8.32</td>
<td>6.79</td>
<td>6.47</td>
<td>4.35</td>
<td>6.05</td>
<td>6.00</td>
<td>3.53</td>
<td>3.35</td>
</tr>
<tr>
<td></td>
<td>(-0.80%)</td>
<td>(-6.50%)</td>
<td>(9.70%)</td>
<td>(2.30%)</td>
<td>**(23.50%)</td>
<td>(-15.00%)</td>
<td>*(18.90%)</td>
<td>***(44.60%)</td>
<td>(6.60%)</td>
<td>(1.90%)</td>
</tr>
<tr>
<td>Budgetary Uses by the OPB</td>
<td>8.88</td>
<td>8.06</td>
<td>8.47</td>
<td>7.18</td>
<td>6.53</td>
<td>4.00</td>
<td>6.41</td>
<td>5.76</td>
<td>3.33</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>(7.30%)</td>
<td>(6.00%)</td>
<td>(11.70%)</td>
<td>(8.10%)</td>
<td>*(24.60%)</td>
<td>(-21.90%)</td>
<td>**(26.00%)</td>
<td>***(38.90%)</td>
<td>(0.70%)</td>
<td>(5.40%)</td>
</tr>
<tr>
<td>Budgetary Uses by Legislative Budget Offices</td>
<td>8.88</td>
<td>7.96</td>
<td>7.71</td>
<td>6.83</td>
<td>5.79</td>
<td>5.45</td>
<td>5.67</td>
<td>4.42</td>
<td>3.27</td>
<td>3.14</td>
</tr>
<tr>
<td></td>
<td>*(7.20%)</td>
<td>(4.70%)</td>
<td>(1.70%)</td>
<td>(2.90%)</td>
<td>**(10.50%)</td>
<td>(6.50%)</td>
<td>***(11.30%)</td>
<td>(6.40%)</td>
<td>(-1.10%)</td>
<td>(-4.70%)</td>
</tr>
<tr>
<td>Budgetary Uses by Appropriation Committees</td>
<td>8.65</td>
<td>7.55</td>
<td>7.95</td>
<td>6.95</td>
<td>6.15</td>
<td>5.72</td>
<td>5.90</td>
<td>5.05</td>
<td>2.94</td>
<td>3.06</td>
</tr>
<tr>
<td></td>
<td>(4.50%)</td>
<td>(-0.70%)</td>
<td>(4.90%)</td>
<td>(4.70%)</td>
<td>**(17.40%)</td>
<td>(11.80%)</td>
<td>*(15.90%)</td>
<td>***(21.70%)</td>
<td>(-11.00%)</td>
<td>(-7.10%)</td>
</tr>
<tr>
<td>Average Participation Pattern</td>
<td>8.28</td>
<td>7.6</td>
<td>7.58</td>
<td>6.64</td>
<td>5.24</td>
<td>5.12</td>
<td>5.09</td>
<td>4.15</td>
<td>3.31</td>
<td>3.29</td>
</tr>
</tbody>
</table>

Note: *** the largest difference from the average, ** the second largest difference from the average, * the third largest difference from the average. The percentage of the difference is reported in brackets.
Reference


