Research Article

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An Engaging Opportunity:
The Promise of Enhanced Public Engagement for Priority-Based Budgeting

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Priority-based budgeting (PBB) has emerged as a strategic approach for local governments to allocate limited resources. Advocates of PBB highlight the objective nature of prioritizing organizational programs according to their alignment with overarching goals. Still, the acts of goal identification, goal alignment assessment, and resource allocation all involve subjective assessment based on public values. Since there are few legal requirements beyond standard public hearings to involve the public in this process, public engagement strategies vary. The purpose of this study is to determine the effect of public engagement on PBB reallocation outcomes. Specifically, this study analyzes the impact of various degrees of public engagement upon reallocation during different stages of the process for 32 municipalities. The data demonstrates that public engagement in the PBB process varied in degree and stage of application. The analyses indicate that enhanced public engagement during the prioritizing and allocating stages dramatically increased reallocation, but not during the early goal-setting stage. While enhanced public engagement generally increased budgetary reallocation, the distinct findings in different budgetary stages demonstrate that not all engagement is worth the same.

Keywords: Budgeting, Priority-Based Budgeting, Public Engagement

Priority-based budgeting (PBB) has emerged as a strategic approach for over 300 North American local governments to allocate limited resources across their various programs and projects, representing the latest alternative to the traditional incremental form of budgeting as it strives to align budgetary allocations with community goals. Advocates of PBB highlight the objective nature of scoring organizational programs according to their alignment with overarching goals. Still, the acts of goal identification, goal alignment assessment, and resource allocation all involve subjective assessment based on public values.

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Local policymakers have the legal authority to allocate budgetary resources and almost universally rely on public managers to advise them. However, there are few legal requirements beyond standard public hearings that involve the public in this process (Schafer, 2019). Public engagement in budgeting varies across a broad spectrum of approaches, ranging from merely informing the public about the budget to empowering the public to allocate budgetary resources (Godwin, 2021) formally. Given the variety of public engagement strategies available to local governments, there is a lack of knowledge about their efficacy in supporting strategic budgeting approaches, such as PBB. Ebdon and Franklin (2004) also highlight the importance of when engagement occurs during the budgetary process. We ask: Is enhanced public engagement in these PBB community conversations more effective in reallocating dollars toward community goals?

This study analyzes the impact of various degrees of public engagement upon reallocation during different stages of the PBB process for 32 early-adopting municipalities (2008-2017). The data demonstrates that public engagement in the PBB process did vary in both degree and stage of application, consistent with the literature. Beyond this, the analyses indicate that enhanced public engagement during the early goal-setting stage did not significantly improve budgetary reallocation, but dramatically increased reallocation when implemented in the latter prioritizing and allocating stages. The study reinforces that a higher degree of public engagement improves budgetary outcomes. It also highlights the distinct stages of budgetary public engagement and their varying impact on PBB reallocation, demonstrating that not all engagement is equal.

Public Engagement in Priority-Based Budgeting

Although incremental budgeting is a universally accepted practice in local government, it has been scrutinized for many years due to its inability to weather resource scarcity, growing complexity, strategic planning, and executive-driven public organizations (Mitchell & Thurmaier, 2016). Conversely, priority-based budgeting (PBB) is a strategic approach to allocating resources in a manner that aligns expenditures with the priorities of stakeholders such as residents, businesses, and policymakers (Kavanagh et al., 2011). This practice acknowledges that limited resources necessitate careful allocation to programs and services that address critical community needs while also achieving desired outcomes. In its purest form, PBB represents a participatory version of "budgeting for outcomes", "outcomes-based budgeting", and "price of government", which are all innovative budgetary approaches that reject line-item incremental budgeting in favor of reallocating resources in bulk toward high-priority programs (Osborne & Hutchinson, 2004).

Mitchell et al. (2022) outline a series of key steps for implementing PBB, including: 1) identify available resources, 2) inventory and cost operational programs, 3) establish community priorities, 4) score programs based on priority alignment, and 5) use scores to drive budgetary decisions. Stakeholder engagement plays a crucial role in understanding community preferences and needs. By soliciting input from residents, businesses, and policymakers, organizations can ensure that budgetary decisions accurately reflect the priorities of those they serve.

Empirical research regarding PBB efficacy is limited, but Mitchell et al. (2022) find that lower-priority departments in 32 early-adopting municipalities incurred a 2-3% budgetary reduction after PBB implementation. Additionally, Mitchell (2023) observes a differential effect

with PBB organizations, where the budgets for core services such as public safety and public works are largely left untouched, while discretionary services witnessed substantial reallocation toward higher-priority departments to the order of 5-13%. These studies indicate that PBB implementation is associated with some degree of budgetary reallocation; however, the extent differs by community and department, with the impact of public engagement on reallocation left largely unaddressed.

Role of Engagement in Public Budgeting

Zhang and Yang (2009, p. 289) define participatory budgeting as "a process of democratic policymaking in which the government invites citizen inputs during the budget process and allow their influence in budget allocations." Although public participation in public budgeting has long been championed for its democratic and educational value, empirical evidence of its substantive impact on budget outcomes remains inconclusive (Liou et al., 2025). Ebdon and Franklin (2006, p. 438) observed that "citizen participation in budgetary decision making is typically minimalist and yields few, if any, directly observable results", noting that cities often fall short of aligning the goals of engagement with the methods used—although participation may be more impactful in contexts of fiscal constraint (Jimenez, 2014). This gap between intent and implementation has led some scholars to view participation as symbolic, more about demonstrating openness than transferring decision-making power (Yang & Pandey, 2011). Still, participation is associated with important indirect benefits, such as enhancing fiscal literacy, improving transparency, increasing trust in government, and reducing public cynicism (Ebdon & Franklin, 2004).

At its core, effective engagement in PBB is about inclusion. Through robust engagement, stakeholders are not just spectators but active participants, contributing to every stage from priority setting to decision-making and implementation. Elected and bureaucratic officials are almost always involved in the prioritization process, but PBB relies on the assumption that the community participates in identifying community priorities as well (Kavanagh et al., 2011). This underscores the need for research that not only examines the presence of engagement but also considers its design, timing, and alignment with policymaking goals.

Public budgeting engagement efforts can take various forms, including surveys, town hall meetings, focus groups, online platforms, etc.—each tailored to reach different segments of the community (Hatcher, 2015). However, there is a growing call for local governments to adopt a more robust engagement structure that centers around more collaborative participation in the form of citizen task forces, boards, and commissions in which multiple stakeholders can participate in shaping policy and implementation procedures (Jäntti et al., 2023). PBB has followed a similar path, as Mitchell (2014) found that many early-implementing municipalities did not offer engagement opportunities beyond a required public hearing at the end of the budget process, leaving staff and elected officials as the primary PBB participants. Although PBB can democratize the budgeting process by breaking down barriers to participation and ensuring that the collective will of the community informs decisions, empirical findings indicate that PBB municipalities can and should do more to engage the public to reap the full potential from this budgetary approach.

Levels of Public Engagement

For years, scholars and practitioners have developed strategies and frameworks to conceptualize public engagement, not only to understand the extent to which participation shapes decision-making processes but also to incorporate the distinct needs and circumstances of diverse communities. One prominent framework, known as "Arnstein's Ladder*"* (Arnstein, 1969)*,* depicts eight distinct levels or "rungs" that range from *manipulation*, the lowest level of participation that seeks to "educate" the public on pre-approved decisions without input, to *citizen control*, the highest level of participation in which the public is directly responsible for the planning and implementation of policy. Building from this, the International Association for Public Participation (2025) developed a condensed "Spectrum of Public Participation" in 1999 that identifies five types of public participation, ranging from *inform* to *empower* in terms of their increasing impact on the decision. Later, Godwin (2021) applied the IAPP framework to public budgeting and categorized public engagement strategies in budgeting that align with each level, as follows, in order of escalating engagement:

- *Inform*: budget documents, performance budgeting, data portals, and fiscal dashboards;
- *Consult*: public hearings, town halls and workshops, community surveys, and interactive budget tools;
- *Involve*: strategic planning and priority-based budgeting;
- *Collaborate*: blue ribbon commissions, advisory commissions, and oversight commissions; and,
- *Empower*: ballot measures and participatory budgeting.

This creates the opportunity to develop a budget that reflects the values and aspirations of the community it serves. However, local government managers have lower support for empowerment than for other public engagement strategies (Godwin, 2014). These concerns may not be misplaced when considering the resources (e.g., staff, facilities, etc.) and challenges involved with multi-stage processes like participatory budgeting (Godwin, 2021).

Timing of Participation in Budget Process

Beyond the question of *how* the public can participate in the budget process is the matter of *when* such participation should occur. Neshkova and Guo (2012) note that while there is an abundance of literature detailing the importance of engagement, there is a lack of research on the timing of engagement and how it impacts the quality of feedback received. Drawing from Beckett and King's (2002) analysis, the public is more aware of the nuances of the budget when they are involved earlier in the process. However, based on the results of an ICMA survey that studied local government practices in budget development, Ebdon (2000) revealed that less than one-fifth of municipalities have meetings with the public *prior* to the budget development process. Indeed, the most traditional form of budgetary public engagement for local governments—the public hearing—is mandated in many states. Still, these laws often do not specify when they must occur or the minimum time required between issuing a notice and conducting the hearing (Berner, 2001).

Thus, when the public is only invited to respond to finalized or near-final budgets (especially in technical or adversarial formats), their input is likely to be symbolic rather than substantive. In contrast, front-end engagement—such as resident surveys, focus groups, or

deliberative panels—has the potential to shape priorities, not just react to them. This is particularly critical for communities of color, whose historical exclusion from civic processes makes early, accessible participation a matter of justice, not just efficiency.

Methods

Sampling and Data Collection

Engagement, prioritization, and allocation data are collected to determine the impact of public engagement on PBB reallocation. The Center for Priority-Based Budgeting (CPBB, now known as *ResourceX*) fulfilled the authors' request to provide departmental prioritization data for many of its initial municipal clients. CPBB previously assisted each implementing organization with a prioritization process that divided service-delivery programs into four quartiles of relative priority. These program prioritization data serve as the key research variable in this study, as they allow one to analyze whether budgetary reallocations are flowing away from the lowest-priority programs into higher priorities over time.

While study of budgetary allocation may focus on the raw amount of dollars received or how organizational funding is proportioned, any examination of reallocation must concern itself with budgetary change over time (Jones & Baumgartner, 2005). Reallocation implies a shift of a unit's resources among its subunits; since the study examines cities, one must determine the appropriate subunit to evaluate. At first glance, the program level appears most appropriate, as it is prioritized through PBB and the prioritization data are reported by program. However, further examination of the municipal budget documents indicates that program reporting either is not provided or does not match the program structure utilized for PBB prioritization. Due to these inherent limitations within the data, this study utilizes the department as its unit of analysis, aggregating program data. Municipal departments have been shown to have significant variation in PBB reallocation outcomes, making them useful for analysis (Mitchell, 2023).

The study sample does not include all 300-plus CPBB clients because the study design requires that at least three years have passed since PBB implementation to gauge reallocation outcomes appropriately. Since data collection occurred in 2021, the sample is limited to CPBB clients who completed implementation prior to 2017. In addition, only cities (not counties or special districts) are included to maximize consistency across the sampled units. Consequently, 32 cities that were among the earliest adopters of PBB comprise the study sample. Some cities completed implementation as early as 2010. Collectively, these 32 cities host a total of 361 departments, averaging 11.3 per city and ranging from a minimum of 6 departments to a maximum of 20. Budgetary allocation data were gathered from the cities' annual (or biennial) budget documents for the three years prior to PBB implementation and three years afterward. Data for the control variables were collected from 2008 to 2019, as available (see Table 1 for data collection details).

Operationalizing the Variables

PBB implementation serves as the government behavior under study, moderated by the research variables regarding departmental priority and public engagement strategies. The dependent and

Table 1. Summary of the Control Variables and their Measurement

Variable	Measurement Strategy
Population (socioeconomic)	Total population for city, as listed by the US Census Bureau in its American Community Survey.
Age (socioeconomic)	Mean community age, as calculated from the Bridged-Race Population Estimates conducted by the Centers for Disease Control and Prevention (2018 vintage).
Democratic Vote (political)	The percentage of total vote received by the Democratic candidate in presidential, senatorial, or gubernatorial elections during even years. 2009, 2011, 2013, 2015, and 2017 data were interpolated.
Household Income (economic)	Median household income for city, as listed by the US Census Bureau in its American Community Survey.
Total Revenue (fiscal)	Total revenues as listed in the Changes in Net Position schedule found in the city's annual comprehensive financial report.
Intergovernmental Revenue (fiscal)	Percentage of total revenue received from other governments as listed in the Changes in Net Position schedule found in the city's annual comprehensive financial report.
Year (time)	The fiscal year associated with the observation. The dataset includes three years prior to PBB implementation and three years after.

research variables are operationalized in the following sections, along with a summary of the control variables in Table 1.

Prosperity Change Score (Dependent Variable). The study relies upon Mitchell et al. (2022) to define the budgetary allocation and measure reallocation over time. They calculate a budgetary allocation as the sum of departmental appropriated allocations for personnel, contracting, and supplies (thus excluding capital, debt service, and transfer allocations). For reallocation, they utilize Natchez and Bupp's (1973) prosperity change score (PCS) as "a measure of how the budgetary allocations to programs change over time relative to changes in other programs" (Meyers, 1996, p. 9). PCS, therefore, represents a subunit's relative success (or failure) in an intra-organizational competition for budgetary resources (Gist, 1982).

As Ryu (2013) illustrates, PCS is calculated for a particular agency by first determining the agency's proportion of organizational budget for a fiscal year (e.g., \$50m/\$200m=0.25) and then dividing it into the agency's mean budgetary proportion over a series of fiscal years—producing a ratio that indicates the relative difference of an agency's particular budgetary allocation versus a typical year for that agency. In doing so, PCS standardizes budgetary allocation over time, allowing for comparison across agencies and fiscal years (Flink, 2014). In this study, the departmental budgetary allocation is divided into the organizational operating budget for each of the six fiscal years sampled to produce annual proportions, the results of which are then divided into the mean of these six proportions to determine the PCS value for each department in each sampled fiscal year. All PCS values are finally multiplied by 100 for ease of reference.

Departmental Priority Score (Research Variable). Although program priority can be measured in many different ways, CPBB utilizes PBB to identify desired organizational outcomes and then asks residents, elected officials, and/or staff to score the programs in terms of alignment with these designated outcomes. Since the study utilizes the city department as the

Table 2. Categorization, Distribution, and Examples of PBB Public Engagement Strategies

Degree of Engagement	Goal-Setting	Prioritizing	Allocating
Level 1 Inform	2 Staff-defined goals (no council or public involvement)	27 Staff only	0 PBB recommendations advisory for council consideration, no public input
Level 2 Consult	20 Council-defined goals(no direct public input)	3 Staff and council only	25 Required citizen input opportunity in final budget hearing
Level 3 Involve	10 Community forum, public participation outreach, social media engagement, surveys	1 Formal public input into council decision	4 Public invited to workshop(s) during budget development
Level 4 Collaborate	0 Formal public involvement in final decisions	1 Citizen/staff prioritization teams	3 Citizen budget advisory commission provides formal recommendations
Level 5 Empower	0 Citizen power to set goals for community	0 Citizen power to prioritize programs	0 Citizen power to allocate budgetary resources

unit of analysis, the program-level priority data requires transformation into a department-level measurement. CPBB also performs program-level budgeting with its clients and is therefore able to provide a cost estimate for each program, which could then be aggregated to determine an overall departmental cost estimate along with a subtotal of estimated costs for all departmental programs listed as fourth-quartile (lowest) priority. The fourth-quartile subtotal is then divided by the departmental total to calculate the percentage of departmental costs associated with fourth-quartile programs, creating a continuous variable to represent a relative level of priority for a department and its service-delivery programs.

Public Engagement Strategies (Research Variable). Godwin's typology of public participation in budgeting provides the foundation for constructing and operationalizing a public engagement strategies variable. For priority-based budgeting, the authors reviewed the budget documents from the sampled organizations to compile a list of public engagement strategies for each of Godwin's categories. This approach is consistent with content analysis techniques that are appropriate when reviewing existing written documents (Singleton & Straits, 2010). Upon completing an initial review, the authors also recognized that PBB's multi-stage nature creates an additional dimension of engagement as organizations often vary their strategies throughout the process—specifically in the goal-setting, prioritizing, and allocating stages. Employing this inductive finding, the authors revisited the budget documents to identify the public engagement

strategies employed by each municipality in the goal-setting, prioritizing, and allocating stages. Table 2 depicts this categorization scheme, along with examples of strategies and the number of sampled organizations that employed such a strategy for each category.

This preliminary qualitative analysis provides a framework for operationalizing PBB public engagement strategies. Table 2 demonstrates that significant variation not only occurs in terms of the degree of public engagement but also between the stages of engagement. Thus, this study eschews the use of a single reductive public engagement variable, opting instead for three—one for each of the engagement stages. For each stage, public engagement is measured by the degree of engagement.

Control Variables. Theories of budgetary reallocation drive resource decision-making within local governments, but this occurs within the bounds established by fiscal and community characteristics. Maser (1985; 1998) establishes that external political, economic, and socioeconomic attributes often spur local government action. McDonald (2015) utilizes fiscal policy space literature to add governmental behavior to this list of determinants in his model of county fiscal health. Since a substantial amount of theory and empirical evidence suggests that fiscal health is a primary determinant regarding municipal budgetary reallocation (Levine, 1978), the model utilized in this study explains departmental annual budgetary change with not only political, economic, and socioeconomic variables as its controls, but also fiscal ones.

Difference in Differences (DiD) Analysis

A DiD approach best addresses a number of unique methodological challenges found in this study. DiD serves as a form of quasi-experimental analysis, comparing two groups over time when one has received a treatment and the other has not (Card & Krueger, 1994). The analysis assumes and identifies a difference between the two groups prior to the treatment, then tests whether a significant "difference in differences" occurs post-treatment. Thus, it is well-suited to test the various levels of budgetary reallocations occurring in municipal departments following PBB implementation. The DiD approach also allows for the inclusion of additional control variables into the model so that exogenous forces are stripped away, allowing for a true comparison between the groups. The standard DiD model is adapted for this study to account for organizational fixed effects since each local government contains multiple departments. Additionally, the year for each observation is included as an independent variable in the model to account for budgetary trends that occur generally across the nation year-to-year.

The study analyzes nine DiD models, including a base model that includes all sampled departments. For each of the PBB stages (goal-setting, prioritizing, and allocating), a regression model representing the organizations that use standard public engagement strategies (modal value or less, unshaded in Table 2) is compared to one representing those with enhanced engagement (beyond the modal category, shaded in gray in Table 2)—resulting in six additional models. The final two models compare organizations that utilize an enhanced engagement strategy in either the prioritizing or allocating stages.

In each DiD model, departmental budgetary allocations are compared both 1) pre-and post-PBB implementation and 2) between high- and low-priority departments.[1,2] These scenarios are depicted in the top three rows of Table 4, each compared to the budgetary allocation proportional growth of high-priority departments prior to PBB implementation. For example, the coefficient in the second row of the overall model (0.82) represents an increase in PCS (i.e., budgetary allocation proportion) for high-priority departments of 0.82 after PBB implementation.

More simply, one can interpret this as a 0.82% proportional change in budgetary allocation trends for high-priority departments after PBB implementation. Extending this, the table shows that low-priority departments endured a 6.65% decrease in their average budgetary allocation trend after PBB implementation (the difference between 2.74 and -3.92).

Parallel Trends Assumption

One of the main assumptions underlying DiD estimation is the parallel trends assumption, that in the absence of the treatment, the average outcome of the treatment and control groups follow parallel trends over time (Abadie, 2005). The parallel trends assumption is vital to DiD analysis, as it establishes the counterfactual by which the treatment group is compared (O'Neill et al., 2016).

In the present study, testing for violations of the parallel trends assumption was done by analyzing the regression coefficient for the low-priority departments prior to PBB implementation. Where statistically significant, this indicates a violation of the parallel trends assumption since it represents a significant difference in the slope of its regression line when compared to high-priority departments prior to PBB implementation. In Table 4, the low-priority/pre-implementation coefficient is significant in all nine models—requiring an alternative approach.

O'Neill et al. (2016) explored three alternatives to traditional DiD analysis for scenarios when the parallel trends assumption does not hold: 1) a lagged dependent variable regression approach, 2) the synthetic control method, and 3) matching on past outcomes. They found using Monte Carlo simulation that while traditional DiD analysis does produce unbiased estimates when the parallel trend holds, the alternative approaches provide minimally biased, but still useful estimates of treatment effects when the parallel trends assumption is violated. Of the three approaches tested, the lagged dependent variable regression approach provides the most efficient and least biased estimates. The lagged dependent variable allows for the approximation of the unobserved component, in this case, the causes of the violation of the parallel trends assumption, using a vector of pre-treatment outcomes. Therefore, given the violation of the parallel trends assumption, a lagged dependent variable approach was taken for all nine models to obtain estimates of the average effect of treatment.

Findings

The descriptive statistics (see Table 3) provide a glimpse of how PCS is altered by PBB implementation in these 32 cities. Overall, the mean PCS score is 99.99, as expected. Within a DiD analysis, descriptive statistics can be calculated for the dependent variable in all four contexts for a first look at how PBB implementation affects these differently situated departments. Indeed, the mean PCS value for low-priority departments prior to PBB implementation is 100.49, but reduces to 99.21 following implementation, indicating that low-priority departments are losing their proportion of the organizational budget once PBB has been performed. Conversely, high-priority departments have a mean PCS value of 98.62 prior to PBB implementation and 101.67 thereafter. Collectively, these statistics indicate that the proportion of organizational budget allocated to low-priority departments shrank after PBB implementation,

Table 3. Descriptive Statistics

Variable	Mean	Std. Dev.	Min.	Max
Prosperity Change Score	99.99	9.39	64.60	171.27
Pre Impl. – Low Priority	100.49	9.54	72.01	149.57
Pre Impl. – High Priority	98.62	8.76	66.02	142.38
Post Impl. – Low Priority	99.21	8.68	64.60	142.29
Post Impl. – High Priority	101.67	10.24	70.37	171.27
Departmental Priority Score	10.4	14.3	0.0	100.0
Population*	122,827	114,218	10,567	494,324
Age	38.15	2.36	33.34	47.00
Democratic Vote	50.40	13.27	18.50	75.5
Household Income*	58,877	21,131	31,893	137,188
Total Revenue*	251,698,813	246,363,562	15,198,237	980,541,000
Intergovernmental Revenue	17.83	9.34	1.00	43.10
Year	2014.92	2.59	2008	2020

while high-priority departments received a greater proportion. The range of PCS values from 64.60 to 171.27 also indicates sufficient variation within the sample.

The control variables paint a portrait of the local governments and communities included in the study sample. The average total annual revenue for these cities is just over $250 million. The portion of revenues from intergovernmental sources averages 17.83%. The sample includes cities averaging 122,827 in population. Just over half of these cities' voters selected Democratic candidates. The median income for these cities is $58,877, and the mean age is 38.15. Therefore, the average city in our sample is moderate politically, slightly older than the median age of U.S. cities in the 2010 Census (37.2 years old), and slightly poorer than the 2018 median household income in the U.S. of $64,324.

Table 4 presents the results of the nine DiD estimations, each of which reports the change in PCS value after PBB implementation for low-priority departments (top row) and high-priority departments (second row)—demonstrating the degree to which priority affects budgetary allocation once PBB is implemented. In all models, the average post-implementation effect on low-priority departments is negative and statistically significant, while the impact on higher-priority departments is not statistically significant. Additionally, the low-priority departments witnessed statistically significant budgetary increases in the years immediately preceding PBB implementation. All of the models meet the standard thresholds for regression model assumptions.

The first model reflects the PBB reallocation effect for all departments, establishing a baseline to which subsequent models may be compared. In general, low-priority departments saw their budgets reduced on average by approximately 3.9% after PBB implementation. In comparison, higher-priority departments received a 0.8% average increase, resulting in a 4.7% spread in post-PBB implementation allocation outcomes.

For the first comparison of departmental subsets, the departments from municipalities employing standard engagement strategies (Levels 1 and 2) in the goal-setting stage are compared to those utilizing enhanced strategies (Levels 3, 4, and 5). The average allocation for the low-priority standard departments dropped by 3.4% while higher-priority departments increased on average by 0.7% (a 4.1% spread), but the average spread was greater (4.8%) for

Table 4. Regression Results

	Overall	Goal-Setting Engagement		Prioritizing Engagement		Allocation Engagement		Enhanced Prioritizing or Allocation	
		Standard	Enhanced	Standard	Enhanced	Standard	Enhanced	No	Yes
Low Priority Department * **Post** PBB Implementation	-3.906*** (0.916)	-3.440*** (1.186)	-4.654*** (1.462)	-2.889*** (0.993)	-9.190*** (2.340)	-3.167*** (1.006)	-6.144*** (2.108)	-2.361** (1.042)	-6.822*** (1.768)
High Priority Department * **Post** PBB Implementation	0.827 (1.029)	0.732 (1.377)	0.180 (1.687)	0.147 (1.115)	2.632 (3.192)	-0.099 (1.139)	3.152 (3.133)	-0.703 (1.179)	3.123 (2.282)
Low Priority Department * **Pre** PBB Implementation	2.742*** (0.697)	2.048** (0.882)	4.068*** (1.146)	2.001*** (0.760)	6.257*** (1.718)	2.014*** (0.763)	4.965*** (1.613)	1.380* (0.800)	5.210*** (2.282)
Population (in 1,000s)	(-)	(-)*	(+)	(-)	(-)	(-)	(-)	(-)*	(-)
Age (in years)	(+)	(+)**	(-)	(-)	(+)	(+)	(+)	(-)	(+)**
Democratic Vote (%)	(-)	(-)	(-)	(-)	(+)	(-)	(-)	(-)	(-)
Median Income ($ in 1,000s)	(+)	(-)	(+)	(-)	(-)	(+)	(-)	(+)	(-)
Total Revenue ($ in billions)	(-)*	(+)	(-)**	(-)	(-)	(-)	(-)	(-)	(-)
Intergovernmental Revenue (%)	(+)***	(+)***	(+)	(+)***	(+)	(+)**	(+)	(+)**	(+)
n	1506	959	547	1216	290	1125	381	979	527
F	1.686***	1.639**	1.594*	1.428***	1.994**	1.808***	0.955	1.681**	1.589**

****p<0.01, **p<0.05, *p<0.10*

enhanced departments. This indicates the PBB reallocation effect was greater with enhanced public engagement in the goal-setting stage, but not to a substantial degree.

In the prioritizing stage, the PBB reallocation is much greater. The standard (Level 1) low-priority departments received 2.9% less on average in budgetary allocations, while higher-priority departments saw average increases of just 0.1%, resulting in a 3% spread. However, those low-priority departments with enhanced engagement (Level 2 and higher) received 9.2% less on average versus a 2.6% average increase for higher-priority departments—resulting in a substantially higher spread of 11.8%.

The allocating stage produces similar results to the prioritizing stage. The standard (Levels 1 and 2) low-priority departments received 3.2% less on average in budgetary allocations, while higher-priority departments actually decreased on average by 0.1%, resulting in a 3.1% spread. However, those low-priority departments with enhanced engagement (Levels 3, 4, and 5) received 6.1% less on average versus a 3.2% average increase for higher-priority departments—resulting in a higher spread of 9.3%. It should be noted, however, that the latter model was not statistically significant as a whole.

Since the allocating and prioritizing stages both produced impressive results, a subsequent pair of models is included in the analysis to determine the effect of an organization employing enhanced strategies in at least one of these stages. An equally strong effect here could indicate that municipalities need only to implement enhanced engagement strategies in either the allocating or prioritizing stages, not both—providing practitioners with more flexibility and less need for investment when selecting PBB engagement strategies. The analysis supports this proposition as low-priority departments in organizations employing standard strategies within the prioritizing and allocating stages only endure 2.4% budgetary cuts on average. In comparison, the allocations for higher-priority departments also decline by an average of 0.7%, a meager 1.7% spread. However, in organizations that deploy enhanced public engagement strategies in just one of the prioritizing or allocating stages, the low-priority departments are cut by 6.8% on average. In comparison, the higher-priority departments receive average budgetary increases of 3.1%, resulting in a 9.9% spread.

Table 5 summarizes the findings of the regression analyses by reporting the allocation spreads (as listed above) for those departments with standard public engagement strategies versus those with enhanced strategies, for each of the three stages, as well as a prioritizing/allocating hybrid. The gap in spread for each stage can be described as the engagement impact, as it represents the greater degree of budgetary reallocation that occurs when enhanced public engagement strategies are deployed within each stage. The engagement impact ranges from a low of 0.70 in the goal-setting stage to a high of 8.78 in the prioritizing stage. The prioritizing/allocation hybrid is almost as powerful, with an engagement impact of 8.29. The table also reports the percentage of departments that employ enhanced public engagement strategies in each category. Interestingly, the goal-setting stage hosted the most strategies to engage the public, but these efforts produced the least amount of budgetary reallocation. In contrast, the prioritizing stage was the most powerful in terms of budgetary reallocation but witnessed the least amount of enhanced engagement strategies.

Its limitations should temper the study findings. First, although the sample includes over 350 municipal departments, they hail from only 32 cities, severely limiting generalizability and analytic power. Second, the static nature of program quartile designation proved difficult to incorporate into time-series analysis, restricting analytical options that may have produced more robust findings. Third, the retrospective nature of evaluative research substantially reduced the

Table 5. Summary of Regression Results

Engagement Stage	% Depts w/ Enhanced Engagement	PBB Impact – Standard Engagement	PBB Impact – Enhanced Engagement	Engagement Impact
Goal-Setting	36%	4.13	4.83	0.70
Prioritizing	19%	3.04	11.82	8.78
Allocation	25%	3.07	9.30^	6.23
Prioritizing/Allocation	35%	1.66	9.95	8.29

^model is not statistically significant

number of cities and more contemporary implementation efforts available for study, again limiting generalizability and analytic power. Fourth, the limited nature of the years measured before and after implementation prevents the inclusion of more robust lags within the analysis. Fifth, for reasons discussed in the research design, the study only examines interdepartmental budgetary reallocation—potentially ignoring significant intradepartmental reallocation occurring between programs. Finally, the qualitative coding of public engagement strategies is inherently subjective, no matter how rigorous the categorization framework, so care must be taken when considering the identification of these strategies and how they are categorized.

Study Implications

Priority-based budgeting unfolds in three stages: 1) setting community goals, 2) prioritizing operational programs based on their alignment with the community goals, and 3) allocating budgetary resources toward higher-priority programs and away from lower-priority ones. Each stage is distinct from the others and offers a unique opportunity to engage the public in the process. One might, therefore, conceive of PBB public engagement in a multi-faceted manner; however, this has not taken place in scholarship nor practice to any meaningful degree. Indeed, the question is often posed, "Does public engagement improve PBB outcomes?" The findings of this study point toward a more nuanced inquiry: "In what contexts do public engagement strategies improve PBB outcomes? Which strategies work best in those contexts?"

At the most fundamental level, this study contributes to public budgeting scholarship by answering the former question in the affirmative. In every comparison, enhanced public engagement increased PBB reallocation to a greater degree than that generated by standard engagement approaches. However, this straightforward conclusion obscures deeper, more nuanced aspects of the PBB-public engagement relationship. The initial qualitative examination identified 16 unique engagement strategies, spanning across two-thirds of the categories defined in Table 2. Table 4 not only demonstrates the variety of strategies applied by the sampled organizations, but also that many have a differential impact upon PBB reallocation. Simply put, PBB public engagement is multi-faceted and should be studied that way.

PBB public engagement is not only varied but also occurs throughout the various stages of the process. Although there are a number of steps to implementing PBB, the public engagement component has been conceptualized in a relatively unitary manner. Indeed, the authors were surprised to find that many of the sampled organizations discuss multiple efforts to engage the public in multiple settings within the PBB process. The identification and definition

of three distinct PBB public engagement stages—goal-setting, prioritizing, and allocating—allow for a more nuanced examination of PBB-public engagement relationships. These three stages may also help evaluate other aspects of the PBB process, contributing to the broader public budgeting scholarship.

From an empirical perspective, the study provides substantial evidence that enhanced public engagement is associated with greater PBB reallocation. Although this relationship is strongest in the prioritizing and allocating stages, it is still visible in the goal-setting stage as well. The largest impact occurs during prioritization, but pursuing enhanced public engagement during either prioritization or allocation appears to be just as effective. Although enhanced public engagement occurs most in the goal-setting stage, these efforts are not nearly as beneficial as in the other realms. Conversely, the analysis indicates that enhanced public engagement is most effective during prioritization, yet it is utilized the least in this stage. In this regard, conventional wisdom may not be correct—more municipalities should be pursuing enhanced public engagement in the prioritizing and allocating stages instead of only during goal-setting.

While broad theoretical propositions are useful, public budgeting scholarship should also provide direct, simple guidance to practitioners whenever possible. This study offers a number of practical suggestions for managers and policymakers as they move through PBB implementation. First and foremost, practitioners should recognize that there are multiple stages within the PBB process, and each provides an opportunity to engage the public. Likewise, not all public engagement is created the same, as it ranges from merely informing the public to empowering it to make decisions for the municipality. Beyond this, PBB works best when municipalities engage the public beyond standard practices such as council-led goal-setting, basic strategic planning, staff prioritization of programs, and a required budget hearing—most notably in the prioritizing and allocating stages of PBB. Given the varying degrees of engagement and different stages for deploying engagement strategies, as well as the shortage of resources or political will to maximize engagement across all stages, managers and policymakers must make choices about how much engagement to pursue and when. This study indicates that the best value proposition is engaging the public in prioritization and allocation, contrary to the conventional wisdom that public engagement works best during goal-setting.

While this study offers promising initial guidance, more research is needed to confirm these findings and gain a deeper understanding of PBB public engagement, which has additional impacts beyond departmental resource allocations. Indeed, while PBB seeks to improve the budget process via community engagement, significant equity issues can arise as participants tend to be more affluent, Caucasian, and politically engaged (Schafer, 2019). This participation bias not only threatens the legitimacy of budgetary decisions but also provokes concerns related to distributive justice. Therefore, the findings of this research must be interpreted carefully: the efficacy of public participation may depend not simply on timing and process, but on whose voices are represented and acted upon.

This study only offers a first glimpse into the nuances of PBB public engagement and their contextual impact on PBB reallocation—much more scholarship is necessary to grasp the dynamics at play fully. As Godwin illustrates, PBB is not only the vehicle to drive public engagement in municipal budgeting; further research should be conducted to determine if the same relationships observed in this study translate to other similar budgetary approaches like "budgeting for outcomes". Ultimately, public engagement is an important yet misunderstood PBB component; typical engagement strategies often are not very effective. Local governments

that enhance public engagement through more empowering strategies and at multiple stages of the process are more likely to reap the reallocative benefits sought from PBB implementation.

Endnotes

[1] High- and low-priority departments are determined by those with a departmental priority score below and above the mean value of 10.4%, respectively.

[2] Since PBB implementation and departmental priority score are used to subset the departments, they do not appear in the regression models.

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References

Abadie, A. (2005). Semiparametric difference-in-differences estimators. *Review of Economic Studies, 72*(6), 1-19. https://doi.org/10.1111/0034-6527.00321

Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, *35*(4), 216-224. https://doi.org/10.1080/01944366908977225

Beckett, J., & King, C. S. (2002). The challenge to improve citizen participation in public budgeting: A discussion. *Journal of Public Budgeting, Accounting & Financial Management*, *14*(3), 463-485. https://doi.org/10.1108/JPBAFM-14-03-2002-B007

Berner, M. (2001). Citizen participation in local government budgeting. *Popular Government*, *66*(3), 23-30.

Card, D., & Krueger, A.B. (1994). Minimum wages and employment: A case study of the fast-food industry in New Jersey and Pennsylvania. *American Economic Review 84*(4), 772-793. https://doi.org/10.1257/aer.90.5.1397

Ebdon, C. (2000). The relationship between citizen involvement in the budget process and city structure and culture. *Public Productivity & Management Review*, *23*(3), 383-393. https://doi.org/10.2307/3380726

Ebdon, C., & Franklin, A. (2004). Searching for a role for citizens in the budget process. *Public Budgeting & Finance*, *24*(1), 32-49. https://doi.org/10.1111/j.0275-1100.2004.02401002.x

Ebdon, C. & Franklin, A. (2006). Citizen participation in budgeting theory. *Public Administration Review, 66*(3), 437-447. https://doi.org/10.1111/j.1540-6210.2006.00600.x

Flink, C. M. (2014). *Punctuated equilibrium theory: Methodological and theoretical extensions* (Publication No. 3667527) [Doctoral dissertation, Texas A&M University]. ProQuest Dissertations & Theses Global.

Gist, J. R. (1982). 'Stability' and 'competition' in budgetary theory. *American Political Science Review, 76*(4), 859-872. https://doi.org/10.2307/1962977

Godwin, M. L. (2014). Civic engagement and fiscal stress in American cities: Insights from the great recession. *State and Local Government Review, 46*(4), 249-259. https://doi.org/10.1177/0160323X14562965
Godwin, M. L. (2021). Collaboration in public budgeting. In J. W. Meek (Ed.), *Handbook of collaborative public management* (pp. 213-227). Edward Elgar Publishing.
Hatcher, W. (2015). The efficacy of public participation in municipal budgeting: An exploratory survey of officials in Government Finance Officers Association's award-winning cities. *Public Administration Quarterly*, *39*(4), 645-663. https://doi.org/10.1177/073491491503900404
International Association for Public Participation. (2025). *IAP2 spectrum evolution*. https://www.iap2.org/page/SpectrumEvolution.
Jäntti, A., Paananen, H., Kork, A., & Kurkela, K. (2023). Towards interactive governance: Embedding citizen participation in local government. *Administration & Society*, *55*(8), 1529-1554. https://doi.org/10.1177/00953997231177220
Jimenez, B. S. (2014). Raise taxes, cut services, or lay off staff: Citizens in the fiscal retrenchment process. *Journal of Public Administration Research and Theory*, *24*(4), 923-953. https://doi.org/10.1093/jopart/mut018
Jones, B. D., & Baumgartner, F. R. (2005). *The politics of attention: How government prioritizes problems*. University of Chicago Press.
Kavanagh, S. C., Johnson, J., & Fabian, C. (2011). *Anatomy of priority-driven budget process.* Government Finance Officers Association. https://www.gfoa.org/materials/anatomy-of-a-priority-driven-budget-process
Levine, C. H. (1978). Organizational decline and cutback management. *Public Administration Review, 38*(4), 316-325. https://doi.org/10.2307/975813
Liao, W. J., Chuang, S. H., Maher, C. S., & Song, X. (2025). Examining the Relationship Between Citizen Participation and Municipal Fiscal Conditions. *Public Performance & Management Review*. https://doi.org/10.1080/15309576.2025.2503787
Maser, S. M. (1985). Demographic factors affecting constitutional decisions: The case of municipal charters. *Public Choice, 47*(1), 121-162. https://doi.org/10.1007/BF00119355
Maser, S. M. (1998). Constitutions as relational contracts: Explaining procedural safeguards in municipal charters. *Journal of Public Administration Research and Theory, 8*(4), 527-564. https://doi.org/10.1093/oxfordjournals.jpart.a024395
McDonald, B. D. (2015). Does the charter form improve the fiscal health of counties? *Public Administration Review, 75*(4), 609-618. https://doi.org/10.1111/puar.12389
Meyers, R. T. (1996). *Strategic budgeting*. University of Michigan Press.
Mitchell, D. (2023). Priority-based budgeting: An honest broker among municipal functions? *Public Budgeting & Finance*, *43*(1), 21-37. https://doi.org/10.1111/pbaf.12331
Mitchell, D., Larson, S. E., Henley, T., Spranger, A., & Myser, S. (2022). A reflection of changing priorities? The reallocative impact of priority-based budgeting in U.S. municipalities. *Public Budgeting & Finance*, *42*(3), 3-22. https://doi.org/10.1111/pbaf.12310
Mitchell, D., & Thurmaier, K. (2016). Currents and undercurrents in budgeting theory: Exploring the swirls, heading upstream. In J. C. N. Raadschelders & R. J. Stillman (Eds.), *Foundations of public administration* (pp. 192-211). Melvin & Leigh Publishers.
Mitchell, S. W. (2014). *An exploratory study of priority based budgeting: Identification of public values and public priorities through citizen engagement in government budgeting*

decisions. (Publication No. 3622158) [Doctoral dissertation, Lawrence Technological University]. ProQuest Dissertations & These Global.
Natchez, P. B., & Bupp, I. C. (1973). Policy and priority in the budgetary process. *American Political Science Review*, *67*(3), 951-963. https://doi.org/10.2307/1958637
Neshkova, M. I., & Guo, H. (2012). Public participation and organizational performance: Evidence from state agencies. *Journal of Public Administration Research and Theory*, *22*(2), 267-288. https://doi.org/10.1093/jopart/mur038
O'Neill, S., Kreif, N., Grieve, R., Sutton, M., & Sekhon, J. S. (2016). Estimating causal effects: Considering three alternatives to difference-in-differences estimation. *Health Services and Outcomes Research Methodology, 16*(1), 1-21. https://doi.org/10.1007/s10742-016-0146-8
Osborne, D., & Hutchinson, P. (2004). *The price of government: Getting the results we need in an age of permanent fiscal crisis*. Basic Books.
Ryu, J. E. (2013). Performance-based budgeting (PBB), allocative efficiency, and budget changes: The case of the U.S. Department of Commerce. *Public Finance and Management, 13*(4), 335-360. https://doi.org/10.1177/152397211301300404
Schafer, J. G. (2019). A systematic review of the public administration literature to identify how to increase public engagement and participation with local governance. *Journal of Public Affairs*, *19*(2), e1873. https://doi.org/10.1002/pa.1873
Singelton, R. A., & Straits, B. C. (2010). *Approaches to social research* (5th ed). Oxford University Press.
Yang, K., & Pandey, S. K. (2011). Further dissecting the black box of citizen participation: When does citizen involvement lead to good outcomes? *Public Administration Review*, *71*(6), 880-892. https://doi.org/10.1111/j.1540-6210.2011.02417.x
Zhang, Y., & Yang, K. (2009). Citizen participation in the budget process: The effect of city managers. *Journal of Public Budgeting, Accounting & Financial Management*, *21*(2), 289-317. https://doi.org/10.1108/JPBAFM-21-02-2009-B006

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