

# **Participatory Budgeting Evaluation Report**

**January 2017**

## **Beyond Participation: Evaluating the Impacts of Participatory Budgeting for the City of Cambridge**

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## Executive Summary

In its third Participatory Budgeting cycle, the City of Cambridge is achieving most of its stated goals. Voters strongly associate the process with meaningful impact on the community and endeavor to select sustainable projects. Voters and volunteer participants report that they've learned more about their neighbors and the city overall through participatory budgeting. Youth participation is indisputably supported. While the City has successfully expanded the electorate pool to include youth and non-US citizens unlike traditional democratic processes in the US, they have not reached minority communities such as African Americans, Asians, and those of Hispanic heritage to a degree proportionate with local population demographics. Voter turnout remains a challenge. Outreach has not yet succeeded in targeting marginalized communities, reticent voters, or those with limited opportunities to engage in the political process. While the technologically advanced and flexible online voting process is highly accessible to most voters, for those without computer access or comfort using technology it can be limiting. Community member budget delegates invest significant time and energy as volunteers, which eliminates some populations from deliberative engagement. Though widely supported in this initiative, the City still has room for improvement. Central recommendations include extending efforts to involve minority and transient populations, expanding the funding and scope of eligible projects to effect systemic change, and enhancing outreach throughout the program cycle. Participatory Budgeting can be a powerful tool for community impact, but will require an increased effort to move the needle on large-scale democratic or social change.

### Key Outcomes:

- **4,730** residents voted in the Cambridge PB process this cycle, **3,769** online and another **961** via paper ballot, constituting a **13% increase in voter turnout over the prior year**.
- **548** project ideas were submitted to the City. **Seven projects won** in the final vote, totaling **\$706,000.00**.

### Key Impacts:

**Goal 1: Expand and Diversify Civic Engagement** – Data offers mixed reviews; while the process does engage some populations such as youth and immigrants more so than traditional democratic mechanisms in the United States, minority populations and the transient student population are underrepresented.

**Goal 2: Have Meaningful Social and Community Impact** – Yes, resident participants strongly believe in the potential of this process to have meaningful social and community impact and projects that make the cut rank highly on volunteer participant impact scores; however, residents feel the City should include initiatives focused on low-income residents and adjust the funding, eligibility criteria, and project development to emphasize city-wide initiatives or more comprehensive projects beyond one-time capital expenditures.

**Goal 3: Promote Sustainable Public Good** – Yes, participants agree that the process promotes long-term and sustainable advancement for the City of Cambridge.

**Goal 4: Create Easy and Seamless Civic Engagement** – Resident participants offer mixed reviews; the easy online voting process reinforced with mobile voting stations is commended, but increasing the number of online language options, availability of alternatives to technology-supported voting, and outreach is suggested for greater impact. Word of mouth continues to be the primary means of process promotion, indicating a “contagious” effect.

**Goal 5: Promote Civic Mindedness** – Yes, participants learned more about their community through participation in the process, and the inclusion of youth was indisputably celebrated in promoting civic education.

### Key Feedback:

**Continue...** investing in the process, easy online voting, strong organization by the City, engaging youth and the wider community in budgetary decision-making.

**Improve...** outreach, projects on the final ballot, former project updates, ballot accessibility and information.

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## Introduction

Participatory budgeting (PB) is a tool for participatory democracy, which was first implemented in Brazil in the late 1980s and has since spread to over 3,000 communities large and small throughout the world (Leighninger & Rinehard, 2016, pp. 1-2). It is defined by the World Bank as an “approach to budgeting (offering) citizens at large an opportunity to learn about government operations and to deliberate, debate, and influence the allocation of public resources (as a) tool for educating, engaging, and empowering citizens and strengthening demand for good governance” (Shah, 2007, 1). A large body of literature relates participatory budgeting to forms of direct self-representation (Warren & Jackson, 2010), deliberative democracy (Avritzer, 2012; Baiocchi, 2003), and devolved governance to the level of the citizen within a local community (Boulding & Wampler, 2010; Zamboni, 2007). Fourteen US cities have now implemented PB, often with multiple processes by ward or district (Hagelskamp et al., 2016b; Leighninger & Rinehard, 2016). Johnson & Gastil (2015) have classified US-based PB processes as a form of empowered deliberation in which the community steers public spending decisions and votes on projects, while the final approval for project design and implementation rests with government.

The City of Cambridge, MA was an early adopter of this innovative process in the United States beginning in 2014. Now in its third year of running a municipal participatory budgeting program, the City of Cambridge requested an external evaluation of the immediate outcomes and community impacts of the program. In past PB cycles, the systems of outreach, idea collection, proposal development, and voting have become embedded in the municipality’s annual calendar and act as a cornerstone of the City’s public engagement platform. However, it is unclear if the initiative is meeting its stated impact goals for the community. Prior evaluations of the first two years focused on participant demographics and feedback to improve the process. The third PB cycle presents a ideal opportunity to continue exploration of these themes and expand the analysis to include impact evaluation.

This evaluation employed a mixed methods research design that brought together quantitative surveys and qualitative interviews to answer the research question: has the City of Cambridge Participatory Budgeting program achieved its stated impact goals? Data was operationalized to explore if the process had achieved its five stated goals: 1) expand and diversify civic engagement, 2) have meaningful social and community impact, 3) promote sustainable public good, 4) create easy and seamless civic engagement, and 5) promote civic-mindedness.

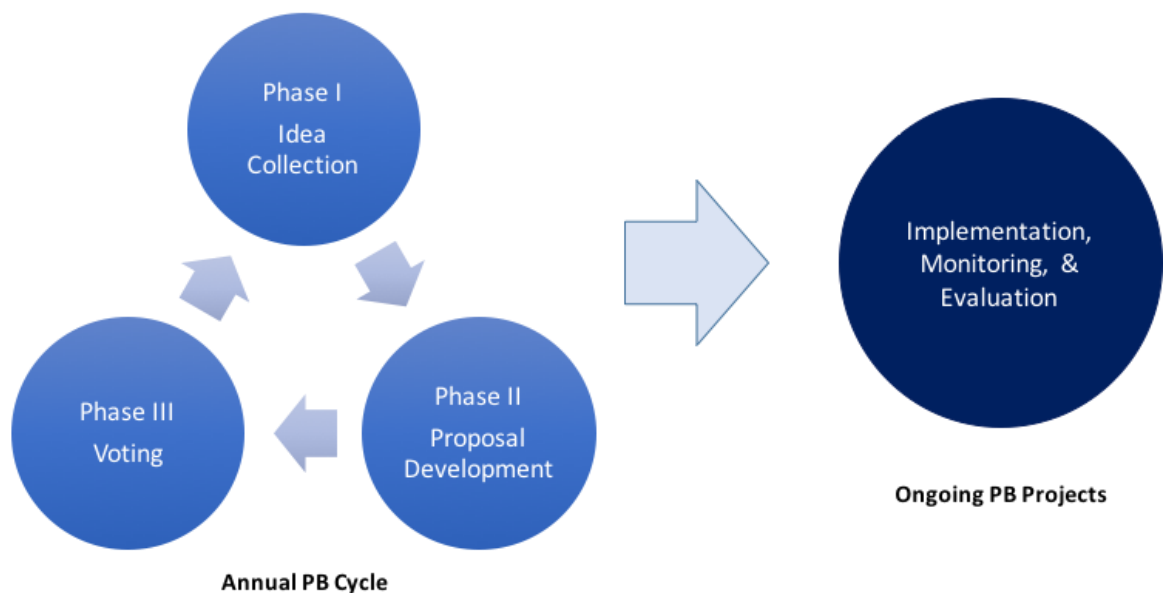
Findings suggest that while the City has successfully expanded the electorate pool to include youth and non-US citizens unlike traditional democratic processes in the US, PB has not reached minority communities such as African Americans, Asians, and those of Hispanic heritage to a degree proportionate with local population demographics. PB voters strongly associate the process with a meaningful impact on the community and endeavor to select projects with long-term benefit to residents. While the technologically advanced and flexible voting process is highly accessible to most voters, budget delegates at the center of the community engagement process invest significant time and energy into the process as volunteers thus limiting some from engagement in the deliberative portion of civic engagement. All groups involved in the process, whether as key players or passer-by voters coming across a voting booth on the periphery, report having learned more about their neighbors and the city overall through participatory budgeting.

The City has indeed achieved many of its stated goals for the PB process, but there is still room for improvement to extend outreach to traditionally marginalized populations, expand the funding and scope of eligible projects to effect systemic change, and enhance outreach throughout the program cycle. Implications of these findings for the case of the City of Cambridge suggest that PB can be a powerful tool for community impact, but will require an increased effort to move the needle on large-scale democratic or social change.

## Overview of the Cambridge Participatory Budgeting Process

The City of Cambridge, MA is in its third year of running a municipal participatory budgeting program. In line with other mechanisms of direct democracy, Cambridge PB allows eligible residents to submit and vote directly on projects proposed by fellow community members. As a deliberative process, residents are also voluntarily engaged in filtering and refining proposed project ideas. The program cycle follows three phases, including phase I- idea collection, phase II- proposal development, and phase III- voting. At each stage of the process, City officials collaborate with community volunteers in a process that will “directly involve residents in the budgeting and city-building process, foster civic engagement and community spirit, and help ensure that the City’s capital plan reflects the priorities of Cambridge residents and stakeholders” as outlined on the Cambridge PB website. After each cycle, the City enters into a period of project implementation and monitoring with progress tracked on its public webpage. Cambridge is an early adopter of this innovative process in the United States, having started the process as of 2014.

**Figure 1: Cambridge Participatory Budgeting Process**



Since its inaugural cycle, the systems of outreach, idea collection, proposal formation, and voting have become refined by City officials in the Budget Office as well as recurring volunteers and process facilitators. In its second cycle, the Cambridge PB Steering Committee outlined five goals: 1) expand and diversify civic engagement, 2) have meaningful social and community impact, 3) promote sustainable public good, 4) create easy and seamless civic engagement, and 5) promote civic-mindedness. Comparing Cambridge goals to those of other cities, one notes that Cambridge does not propose increased government legitimacy as a goal like other programs from Porto Alegre, Brazil to Vallejo, CA or Chicago, IL in the US. Cambridge goals focus heavily on the equity of participation, indirect outcomes such as the development of individuals’ civic mindset, and impacts of the process and projects themselves as both mission-driven and sustainable in the long-term.

In the third PB cycle in Cambridge, 57 individuals engaged as volunteers in the process with a voter response of over 4,700 community residents. A team of 19 *outreach committee members* were responsible for promoting participation in the process during the three PB cycle phases, *community members* submitted project ideas, volunteer *budget delegates* worked alongside compensated *process facilitators* to narrow down ideas submitted into feasible proposals, and *voters* selected the final projects to be included in the City’s capital budget. *Outreach committee members* became volunteer ambassadors for the City, engaging community members in the process.



*Budget delegates* and *process facilitators* spent a minimum of 15 evenings together sorting through and narrowing down the 548 project idea submissions collected from June through July of the cycle. *Community members* and *voters*, residents age 12 and older with no restrictions on citizenship, had a direct say in how \$700,000 of the City's capital budget will be allocated for fiscal year 2018. The majority of voters selected their preferred projects online, but the City and *outreach committee members* also organized 36 separate voting events or booths around Cambridge.

The stated goals of the Cambridge PB process differ from other PB processes both globally and nationally in two ways. First, the projected goals of Cambridge PB are fairly subjective; "meaningful" impact and "easy and seamless" engagement is largely a matter of participant opinion. Second, no other PB programs in the US have listed sustainability of their projects as an express goal. While impact evaluation methods used by the trail-blazing PBNYC evaluative team or recommended by Public Agenda can provide a template for process goals one and five, evaluation of the City's goals requires an innovative approach. Given that the Cambridge PB goals are fairly unique in both the US domestic and international context, this year's evaluation also opens up the possibility of associating new outcomes with PB processes. Alternatively, the results of this study may reveal the limitations of PB in the format thus far implemented in Cambridge and the US more broadly.

**Figure 2: Cambridge Participatory Budgeting Goals**

- 1. Expand and Diversify Civic Engagement:** Ensure that all community members have a voice in the development and improvement of their city, especially marginalized communities, reticent voters, and people with limited opportunities to engage in the political process.
- 2. Have Meaningful Social and Community Impact:** Use PB as a tool to effect meaningful social change in the community. PB in Cambridge should be mission-driven and results-oriented.
- 3. Promote Sustainable Public Good:** Make sustainable decisions that promote the long-term future and wellbeing of Cambridge residents.
- 4. Create Easy and Seamless Civic Engagement:** Enable the community to be involved without barriers or frictions. Create a welcoming space for residents to become engaged, fostering a "contagious" civic environment.
- 5. Promote Civic-mindedness:** Help residents imagine themselves as civic actors and educate each other about their needs and lives. Provide youth with the opportunity and experience to become life-long voters and community leaders.



## Questioning Impact

The primary research question for this year's Cambridge PB program is: has the City of Cambridge Participatory Budgeting program achieved its stated impact goals? Following directly from each of the goals outlined by the PB Steering Committee, the subordinate research questions are as outlined below. As written, the questions indicate the measure that will be used to assess each outcome.

### ***Goal 1: Expand and Diversify Civic Engagement***

- Does participatory budgeting expand and diversify civic engagement as measured by the inclusion of historically underrepresented groups?

### ***Goal 2: Have Meaningful Social and Community Impact***

- Has participatory budgeting had a meaningful social impact as measured by voter and participant opinion?
- Has participatory budgeting had a community impact as measured by project proposal ratings assigned by community member budget delegates?

### ***Goal 3: Promote Sustainable Public Good***

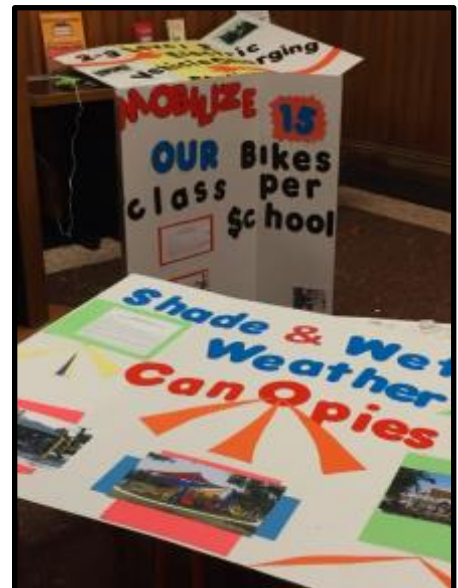
- Does participatory budgeting promote sustainable public good as measured by expressed voter criteria and project implementation progress of previous cycles?

### ***Goal 4: Create Easy and Seamless Civic Engagement***

- Does participatory budgeting provide a means for easy civic engagement as measured by voter and participant opinion?

### ***Goal 5: Promote Civic Mindedness***

- Does participatory budgeting promote civic-mindedness as measured by voter and participant opinion and recurring patterns of participation in political processes?



## Research Data and Methodology

The impact evaluation for the City of Cambridge PB program followed the principles of applied research methods as outlined by researchers such as Hedrick, Bickman, & Rog (1993). A mixed method approach including quantitative surveys and record analysis alongside qualitative interviews and meeting observations provided a rigorous review of the program's impacts both in numbers and interpretive participant and voter perspectives. Secondary and primary data from six sources was collected and analyzed by the researcher:

### Secondary and Background Data Sources:

- Population demographics from the American Community Survey 2010-2014
- Municipal voter turnout data for the year 2015 from the Cambridge Election Commission

### Primary Data Sources:

- Field notes and observations
- Administrative records (ballots and oaths)
- Voter and volunteer participant surveys
- Voter and volunteer participant interviews

### Primary Data Response Rate:

The researcher took part in eight field observations from August-December, 2016; she was not yet engaged during the idea collection phase. 2,710 voter and participant surveys were submitted, for a survey response rate of 57%. A total of 46 interviews were conducted with both voters and volunteer participants, 21 in person at voting booths or budget delegate events and the remaining 25 over the phone.

Throughout the third PB cycle from August-December 2016, the researcher attended a series of PB meetings including outreach committee meetings, at least one regular meeting per budget delegate committee, and collaborative trainings and events such as PB "speed consulting" and project poster-making night. Detailed memos were recorded both in the session and followed up with reflections within 48 hours of each observation. Administrative Records analyzed include the idea collection database both online and stored on Google Docs with notes from budget delegate meetings throughout proposal development and the final ballot tallies counted by the City. The City of Cambridge has an online submission system for PB ideas linked to a GIS map which plots each idea in its proposed City location via Shareabouts by Poe Public. Project submissions require a project title, description, justification of impact, and preferred location as appropriate. Idea submissions can be anonymous or linked to a community member. Budget delegates maintained notes related to each idea submission to assist City officials in tracking ideas and proposals through the revision and proposal development process. Meeting notes include project proposal rankings on impact, need, and feasibility for each idea submitted, including commentary from those researching project specifications with City departments and community stakeholders. Cambridge was one of the first cities in the US to implement an SMS voter verification technology and online/digital voting platform via the Stanford Crowdsourced Democracy Team.

Both voters and participants in the Cambridge PB process were asked to take part in both surveys and interviews after completing their role in the cycle. Voters were given the option of completing a survey after submitting their ballot. When voting online, the electronic voting system coordinated through the Stanford Crowdsourced Democracy Team immediately directed voters to the optional survey via Qualtrics. For individuals voting in person at a mobile vote station, a paper version was handed out with each ballot. Voters and participants were given a second opportunity to complete an extended version of the survey with additional feedback-related questions once winning projects were announced. All survey and interview data was collected during vote week from December 3-9, 2016 or within the month following release of the vote results on the week of December 12, 2016. Participation in surveys and interviews was both voluntary and confidential. City officials and outreach committee members assisted in survey distribution, collection, and collation.



The primary survey tool for voters included a total of 18 questions, 17 multiple-choice, and one open-ended question. Most of the questions were maintained from former years in order to ensure that the City would be able to compare data over time. Demographic questions were modeled after the 2010 US Census and the American Community Survey 2010-2015, although some questions such as gender or age were further disaggregated as relevant to the Cambridge population and cultural values specifically. One prior question was removed that was no longer relevant, and seven new questions were added to this year's survey as related to impact evaluation. The first additional question asked about the respondent's involvement in other City initiatives to see if the process did indeed expand typical levels of City engagement. The remaining six new questions asked respondents to rate their level of agreement with statements related to the PB process on a Likert-scale. All new questions were designed directly from the language of the PB goals.

Survey questions were evaluated according to the process proposed by Fowler (2014). A focus group of university students was consulted first in the design of the questions themselves. Initial questions were then drafted and submitted to the City of Cambridge Budget Office for review, selection, and revision. The researcher then completed a critical systematic review with an emphasis on terminology and length of each question through seven cognitive interviews with a cross-section of City staff, PB participants, and Cambridge residents including youth. These interviews asked respondents to answer two prompts in a "think aloud" format to gauge reliability and validity: 1) please say in your own words what you think the question is asking, and 2) please explain how you chose your particular answer (Fowler, 2014, p. 103). Notes were taken on each interview highlighting key words and associations raised with each question. Responses were compared across the respondent sample to ensure both comprehension and that the questions accurately addressed the issues identified in the extended version of the associated PB goals. The electronic survey instruments themselves were field tested by a two university students to debug any issues, set expectations for City staff on the time required for completion, and ensure a logical question flow.

Given the results of cognitive testing, it is clear that the goals outlined by the PB Steering Committee in Cambridge and thus also the survey questions designed to explore those goals are sufficiently broad, capturing a range of key term interpretations. As such, interview questions were designed with the explicit aim of taking a deeper dive into the trends identified in the survey results and to guide interpretation of the more subjective survey responses. In sum, quantitative results show overall trends in resident participants' opinions about the impact of PB while interviews explain the "why" underlying these trends. This is a typical means of pairing data in mixed methods research (Creswell & Plano Clark, 2011).

Voter interviews took place both in person at mobile voting booths throughout voting week and via phone for online voters. Participant interviews took place either in person the night winning projects were announced or via phone in the following weeks. Given the time and resource constraints of applied research, qualitative research followed conventions less stringent than long-term studies adhering to an interpretive epistemology. An alternative to verbatim transcription was applied for recording and analyzing interview results. Halcomb & Davidson's (2006) methodology involves the use of audiotaped interviewing, concurrent note taking, immediate memo reflections, and multiple audio reviews alongside content analysis. Qualitative data analysis used the framework analysis approach following five steps: 1) familiarization, 2) identification of a thematic framework, 3) indexing interview materials, 4) charting themes, and 5) mapping and interpretation of the emerging categorization (Srivastava & Thomson, 2009). Essential for an in-depth perspective on the impact of PB for individuals engaged in the process, interview results are reported as relevant to exploring quantitative data trends and feedback for process improvement.

## Evaluation Results

The subsequent sections of this report will be divided into three sections: outcomes, impact, and feedback on the process.

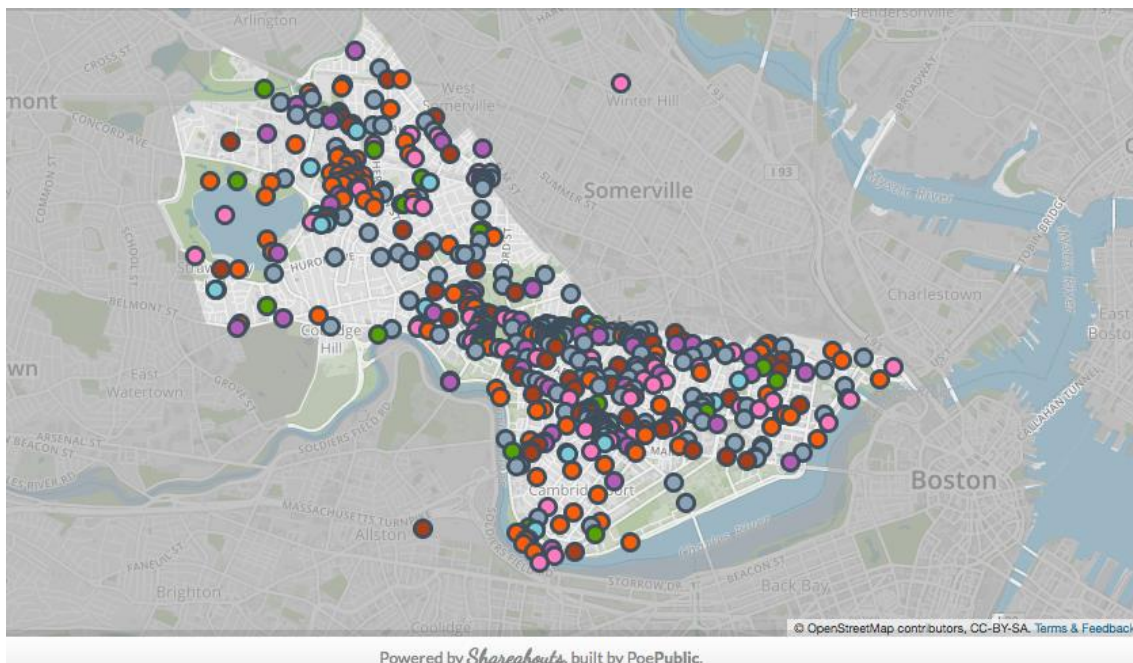
### Outcomes

Data collected throughout the third PB cycle in Cambridge has been compiled to examine if the City of Cambridge has achieved its stated program impact goals. 4,730 residents voted in the Cambridge PB process this cycle, 3,769 online and another 961 via paper ballot, constituting a 13% increase over the prior year. The most common ways residents learned about PB were online, word of mouth, social media, and signage in public venues. 24 ballots were disqualified as non-residents by zip code, and 11 paper ballots were disqualified due to selecting more than 5 project options. As compared to the first PB cycle, youth participation greatly increased. However, the process continues to attract more wealthy and highly educated Cambridge residents even more so than in prior years (Zhody, 2015).

548 ideas were submitted to the City in the 2016 cycle, most of which we submitted online although ideas could also be submitted to the city in person, via phone, or during events coordinated by City staff and outreach committee volunteers. Projects could be unclassified or bucketed under seven thematic categories, including:

- 1) Culture and Community
- 2) Education
- 3) Environment
- 4) Parks and Recreation
- 5) Public Health and Safety
- 6) Streets and Sidewalks
- 7) Transportation

The map below shows the proposed geographic location of all submitted ideas. 35 project proposals, many of which combined several idea submissions, were forwarded to the City by community budget delegates in November of 2016 for final review.



20 projects divided across thematic areas fairly evenly made it to the final ballot, filtered down by five budget delegate committees and numerous subcommittees therein. As in prior cycles, the projects with the highest number of votes were selected as the winners, up to (and slightly beyond) the funding limit. Seven final projects won in the third annual Cambridge PB cycle, with a total projected cost of \$706,000. This budget allocation is up nearly \$180,000 from the projected project cost of the inaugural year. Winning projects are listed in Table 1 below, and a description of each is included in subsequent pages.

**Table 1: Winning Projects by Number of Votes and Total Anticipated Expenditure**

#	Project	Total Votes	Project cost	Total cost
1	Solar Power Shines!	2,184	\$260,000	\$260,000
2	Safer Crosswalks For Busy Roads	1,967	\$104,000	\$364,000
3	Solar-Powered Real-Time Bus Tracker Displays	1,956	\$150,000	\$514,000
4	Kinetic Energy Tiles	1,901	\$50,000	\$564,000
5	Hydration Stations In Four Locations	1,470	\$37,000	\$601,000
6	Upgrade The Moore Youth Center	1,280	\$80,000	\$681,000
7	Cambridge Street Art Trail	1,233	\$25,000	\$706,000



The City announced seven winning projects on December 14, 2016.



## ***Winning Project #1: Solar Power Shines (\$260,000)***

Location: *Rooftop of Main Public Library*

Let's power the public library with clean, renewable energy! Adding solar panels to our main library will help Cambridge meet our climate goals by reducing emissions, saving money over time, and serving as an example for patrons.

As climate change poses an increasing threat to our planet, each of us has the responsibility to reduce fossil fuel emissions. The Library rooftop is well suited for solar panels and provides a unique opportunity to showcase our city's environmental commitment. Installing and highlighting the use of solar energy in this location will help educate residents on emissions reductions and increased renewable energy generation. In addition, the panels will lower the operating costs of the building. As the City engages residents and businesses to consider renewable energy, the City can demonstrate leadership in its own energy use.



## ***Winning Project #2: Safer Crosswalks for Busy Roads (\$104,000)***

Location: *Specific locations citywide*

Install flashing light signs on six crosswalks that pedestrians can activate before crossing the street. These flashing signs make drivers more aware of crossing pedestrians to help prevent crashes, especially at night.

Between 2010 and June 2016, 516 pedestrians were struck by vehicles while crossing Cambridge streets. Many of these crashes occurred near intersections without traffic signals. Seven different participatory budgeting submissions from the community highlighted this danger in different areas of the city. These proposals recommended adding speed bumps to slow down cars on major roads like Cambridge Street and Mass Ave. However, these roads are also emergency vehicle routes. Fire trucks and ambulances need clear access on these roads to respond rapidly to incidents throughout the city. Because of this trade off, adding speed bumps would require a lengthy approval process without a guarantee of success, meaning Participatory Budgeting funds might not be allocated to the project.

Fortunately, there are other street crossing enhancements that mitigate pedestrian crossing risk without hampering emergency response effectiveness. One such enhancement is the rectangular rapid flashing beacon. These beacons resemble regular street crossing signs, but they incorporate a bright, flashing light to alert drivers that a pedestrian is crossing the street. The flashing light is triggered either by a button that the pedestrian can push, or by a motion

sensor. Flashing beacons are typically powered by integrated solar panels; as such they have no impact on the city's electricity consumption.

Rapid flashing beacons alert drivers to pedestrians attempting to cross the street. As a result, more drivers yield to pedestrians and avoid dangerous collisions. [A study of rapid flashing beacons in Florida](#) showed that rapid flashing beacons prompt more drivers to yield to pedestrians crossing the street.

This project would fund the installation of six rectangular rapid flashing beacons at high-risk crosswalks throughout the city. Four of these beacons would be placed on typical streets (\$15,000 each); the other two would be placed on crosswalks with a median (\$22,000 each). The potential locations below reflect high-priority crosswalks according to participatory budgeting proposals and multi-year crash data available on the Cambridge open data portal.

Please [click on this link](#) to see a video of rapid flashing beacons in Bellevue, Washington.

NOTE: The final location of the flashing beacons would be subject to feasibility constraints and would be decided by the Traffic, Parking and Transportation Department.

#### Potential rapid flashing beacon locations:

- Mass Ave at Edmunds St
- River St at Blackstone St
- Cambridge St at Prescott St
- Cambridge St at Irving
- Kirkland St at Irving St
- Kirkland St at Roberts St
- Hampshire St at Elm St
- Broadway St at Norfolk St
- Broadway St at Tremont St
- Broadway St at Prescott St
- Broadway St at crosswalk near CRLS
- Broadway St at Ellery St
- Sherman St by Cadbury Common
- By pedestrian incident severity:
  - Mass Ave at Dana St
  - Mass Ave at Temple St
  - Mass Ave at Pearl St
  - Mass Ave at Norfolk St



Map of proposed beacon locations





### ***Winning Project #3: Solar-Powered Real-Time Bus Trackers (\$150,000)***

*Location: High-use bus stops throughout Cambridge*

This project proposes installing solar-powered bus tracking displays with real-time arrival information at high-use bus stops throughout the City of Cambridge.

Unlike the MBTA's bus schedules and trip planners, real-time bus tracker displays inform transit riders when buses actually arrive. With that information, they can then decide to wait, know if a bus is late or has passed, or consider an alternative route at stops served by multiple lines. While waiting, riders might decide to patronize a nearby business, potentially increasing commercial foot traffic, and knowing their wait's duration can reduce the anxieties often associated with taking public transit. Improving riders' experiences in these ways could encourage increased bus ridership, as seen in a similar initiative by the Chicago Transit Authority. Increased ridership would, in turn, help address the city's traffic reduction needs.

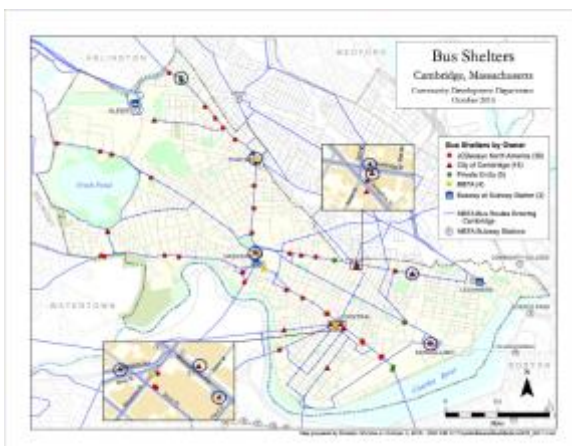
Widespread access to real-time bus arrival data is, like any transit information, a community asset, one which Cambridge currently lacks. Indoor transit display screens at select city locations, such as City Hall and the Central Library, reach too few residents and do not help riders make transit decisions where and when they need them.

Similar to an e-book reader, e-ink displays are black-and-white and reflect light like paper. This makes reading comfortable, including in direct sunlight. E-ink also allows for a large viewing angle, wider than most light-emitting displays, and new, high-contrast e-ink technologies are ADA compliant. Because they reflect light, e-ink displays also require little power and do not need to be wired to the city grid. Solar power charges a reserve battery, and the ruggedized displays operate at a wide temperature range and resist vandalism.

Smartphone transit apps inform riders of transit options, often in real time, but can be inconvenient to access in certain situations, and not all transit riders have smartphones. Even for those who do, offering various ways to access real-time arrival information would serve the full spectrum of transit customers.

Locating the displays at high-use bus stops in all city neighborhoods would serve the widest range of residents. The displays could be mounted near the city's existing bus shelters throughout Cambridge at the busiest bus stops, with priority given to environmental justice areas, near senior housing developments, hospitals, and other locations where access to real-time transit data is of particular benefit. (See the attached map for specific recommended installation locations.)

The City estimates \$15,000 per screen for a total cost of \$150,000.



## Winning Project #4: Kinetic Energy Tiles (\$50,000)

Location: *Harvard Square, CRLS*

Kinetic energy tiles are tiles that generate energy from your footsteps! We want to introduce these tiles into our city and get Cambridge residents involved with clean energy! These tiles can power streetlights, phones, or laptops.

### BROUGHT TO YOU BY CAMBRIDGE RINDGE AND LATIN STUDENTS

When force is applied to the kinetic energy tiles, whether it be footsteps, bikes, wheelchairs, etc., there is energy generated. Over the summer we did a lot of pedestrian counting with the Cambridge Community Development Department in order to see where the most amount of energy would be generated. The areas that would generate the most amount of energy include: Harvard, Kendall Square, and the public high school. A less acknowledged benefit of these tiles are their possible impacts on the Cambridge Rindge and Latin science classes, and how they can be implemented into existing curriculum for STEM classes. The science curriculum is currently being changed in the Cambridge Public Schools, which provides an opportune opening for a greater shift in how our curriculum teaches and promotes clean, alternative forms of energy. Students will also learn how clean energy works, and the physical mechanics of these tiles. The tiles also come with an energy display, which shows how much energy is being generated. This will visually show people that they are saving energy, and they will be more likely to save energy in the future.

These tiles are currently being used in other places around the world, such as a [soccer field in Brazil](#) made 100% out of these tiles. The electricity generated from the tiles is used to power the field's floodlights. Pavegen states that each pedestrian generates up to 7 watts at 12 volts DC, enough to run a LED street lamp for 30 seconds. With the amount of traffic and tourism in Harvard Square daily, local traffic can power Harvard Square street lights indefinitely. This Means less reliance on unclean forms of energy, as well as improving energy costs for the city in areas these tiles are implemented. The tiles can improve life in Cambridge, by providing clean and reusable energy. These tiles are a relatively new technology, and Cambridge has been trying to become more energy efficient. This solution experiments with using new sources of energy, and reducing overall nuclear and coal use. If these tiles are installed in Harvard or Kendall Square, then this will certainly increase tourism around the area. This idea can also put Cambridge in the spotlight as a more energy progressive city.

If this proposal is implemented, there's also the possibility of using these tiles at public events such as The City Dance. The tiles can be used as a public attraction as well as help generate energy for the city from a large amount of people, they can learn something about science and energy while having fun.

The City's cost estimate of \$50,000 includes \$35,000 to purchase approximately 280 square feet of tiles (about 17 tiles) and \$15,000 for installation.



## ***Winning Project #5: Hydration Stations in Four Locations! (\$37,000)***

Location: *Four locations throughout Cambridge*

Additional water fountains and bottle refill stations will help residents stay hydrated and reduce waste from plastic bottles! One of the new fountains will be designed to reflect Cambridge, like the artistic water fountain at Fresh Pond.

This project will install four fountains and/or water bottle refill stations (at \$8,000/station) at public places across the city to encourage people to drink more water and use fewer disposable plastic bottles. Suggested locations include Danehy Park in North Cambridge, Harvard Square (possibly Winthrop Park), Joan Lorentz Park (Main Library) and Hastings Square in Cambridgeport. This proposal also allocates funds (\$5,000) to incorporate public art into at least of these fountains. The nature-inspired drinking fountain at Fresh Pond is an excellent example of how these features can be functional and beautiful!

Water is the best and healthiest hydration option... so we need to encourage people to drink more! Public health research shows that sugary beverages are highly linked with obesity and diabetes, especially in children and young adults. Hydration also flushes out toxins and increases muscle efficiency. Behavior change isn't easy but additional drinking fountains will give our community a key tool for staying healthy and allow residents and visitors alike to enjoy Cambridge's beautiful parks and open spaces while staying hydrated. Folks wouldn't have to pay for bottled water, which is 2,000 times more expensive than tap water!

If we use more reusable water bottles, plastic bottles won't litter our streets, fill our public trash or end up in the Charles River, landfills or oceans. We will also save the water used in the production and filling of disposable plastic bottles and solidify Cambridge's commitment to environmental stewardship!





## ***Winning Project #6: Upgrade the Moore Youth Center (\$80,000)***

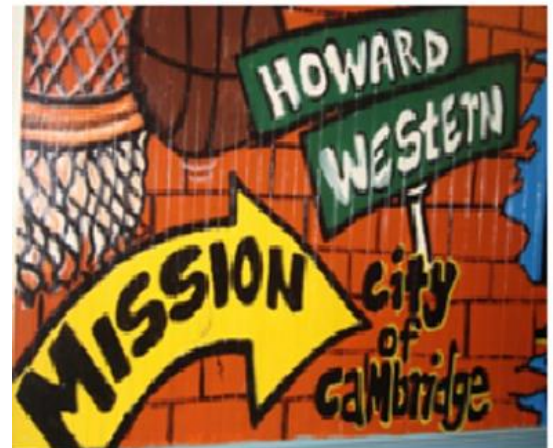
Location: Moore Youth Center

The Moore Youth Center is outdated compared to other youth centers. New furniture and equipment will help bring more youth to the center.

Redoing the Moore Youth Center would benefit a vital part of the Cambridge Community. This youth center provides food, shelter, and all the resources teenagers need to succeed throughout their high school lives. As Cambridge residents, we need to focus our time and energy on projects that have a permanent impact on the youth community.

Improving/upgrading the Moore Youth Center's furniture, printers, speakers, and purchasing a laminator will draw more attention and youth to the center. These improvements would also encourage teenagers to stay off the streets and come to the youth centers. Kids have a good time at the center playing basketball, doing their homework, watching TV, playing cards, and participating in center programs, but they need better equipment and furniture.

We are not asking for a new roof for the Moore Youth Center as part of this proposal, because we understand that Public Works is already aware that the roofs leaks and will fix it.



## ***Winning Project #7: Cambridge Street Art Trail (\$25,000)***

*Location: 8-10 highly visible community locations*

Commission local artists to create a series of murals and street art reflecting Cambridge's vibrancy and diversity. Increase space for publicly created street art (like that in "Graffiti Alley" in Central Square).

Cambridge is a city known worldwide for innovative talent, especially in the fields of science and technology. While the arts have a place in the Cambridge community, there is still much that can be done to transform the city into an artistic hub recognized for cultural creativity. One way to move the city forward with this is to increase the amount of city-sanctioned and commissioned street art with local talent at the helm. The Cambridge Street Art Trail (CSAT) will be a series of murals and traditional graffiti created by local artists throughout Cambridge on public walls and pathways. The city-approved street art will be a display of the vibrancy and diverse heritage of Cambridge, encourage community engagement, and provide art opportunities freely accessible to residents of all ages and backgrounds.

Graffiti and aerosol painted walls were once associated with dilapidated neighborhoods filled with crime and disorder. Many cities have since shed that reputation and street art is now widely seen to have a positive impact on neighborhoods. Local governments and public organizations of many global cities have embraced street art as part of their identities and there is increasing public support for it from government agencies. Street art now has cultural and socioeconomic value, and this is reflected in the burgeoning street art tourism scene that can be found in cities like Miami, New York, Los Angeles, London, Lisbon, and Berlin.

A few cities where street art has been publically funded and been a success include Toronto (StART – Street Art Toronto), Philadelphia (Mural Mile), and Lisbon (Galleria de Arte Urbana – a government division for street art). In these cities, public space served as the canvas for murals and other painted artworks commissioning mostly local artists within the city. There will be two parts to this project: one will be artworks commissioned by the city and the second will be a designated space where all artists may collaborate and contribute (similar to "Graffiti Alley" in Central Square).

For the commissioned street art, a committee overseen by the Cambridge Arts Council will determine spaces for CSAT, and potential spaces will consist of blank walls and pathways of property owned by the City. This committee will then put out a call for artists to submit a portfolio of their artwork and also ideas for murals or other types of street art with themes consistent with the Cambridge identity, and content will be reviewed and vetted by the committee.

Funding for this project will be allocated to supplies for the artists, DPW checking that structures are safe and ready to be painted on, and possibly building a simple structure for graffiti art. This project will help foster and bring recognition to budding artists who normally would not have the resources to launch or pursue a more traditional art career and engage the city in cultural growth. Street art also provides a platform to share ideas, beliefs, and display the character of a community and presents a valuable opportunity to revitalize and engage residents to support their public spaces.



Designated Graffiti Walls in Lisbon



Art from Toronto's START Program  
in Public Parking Lot



Mural Mile in Philadelphia



## Impacts

In the following sections, each goal will be examined against relevant data to determine: has the City of Cambridge Participatory Budgeting program achieved its stated impact goals? The following is a summary of the impact findings:

***Goal 1: Expand and Diversify Civic Engagement*** – Data offers mixed reviews; while the process does engage some populations such as youth and immigrants more so than traditional democratic mechanisms in the United States, minority populations and the transient student population are underrepresented.

***Goal 2: Have Meaningful Social and Community Impact*** – Yes, resident participants strongly believe in the potential of this process to have meaningful social and community impact and projects that make the cut rank highly on volunteer participant impact scores; however, residents feel the City should include initiatives focused on low-income residents and adjust the funding, eligibility criteria, and project development to emphasize city-wide initiatives or more comprehensive projects beyond one-time capital expenditures.

***Goal 3: Promote Sustainable Public Good*** – Yes, participants agree that the process promotes long-term and sustainable advancement for the City of Cambridge.

***Goal 4: Create Easy and Seamless Civic Engagement*** – Resident participants offer mixed reviews; the easy online voting process reinforced with mobile voting stations is commended, but increasing the number of online language options, availability of alternatives to technology-supported voting, and outreach is suggested for greater impact. Word of mouth continues to be the primary means of process promotion, indicating a “contagious” effect.

***Goal 5: Promote Civic Mindedness*** – Yes, participants learned more about their community through participation in the process, and the inclusion of youth was indisputably celebrated as promoting civic education.



## *Goal 1: Expand and Diversify Civic Engagement*

The first goal of the Cambridge PB process is to expand and diversify civic engagement. There are many ways to conceptualize what this goal aims to achieve. In long-form, the Cambridge PB Steering Committee expressed an interest in giving voice to “marginalized communities, reticent voters, and people with limited opportunities to engage in the political process.” Williams (1998) has developed a loose definition of marginalized or disadvantaged groups in which members “share the experience of cultural and structural obstacles that nonmembers do not face, including the experience of group-based stereotypes” (p. 18). In the United States, marginalized communities are frequently considered to be persons or groups such as women, cultural and religious minorities, individuals with disabilities, and members of the LGBTQ community (Johnson et. al, 2007, p. 123). For the purposes of this evaluation, demographic data will be used to compare the composition of Cambridge City residents to that of PB voters with an emphasis on the inclusion of minority populations. Before getting into the data, however, it is important to outline how the PB voter eligibility differs from the general election.

In the inaugural year of PB in Cambridge, the community-led Steering Committee established two criteria for voter eligibility as outlined in the PB rulebook online: that voters be at least 12 years old and that they live in Cambridge (City of Cambridge, 2016). Rather than registering to vote in advance like many voting processes in the US, PB voters must sign an affidavit stating that they are residents of Cambridge at the time of voting. Also unlike typical elections in the United States, voting for PB can be completed either online or in person. The voting window for the third PB cycle was from December 3-9, 2016. In addition to 24-hour voting online, City officials and volunteers set-up 35 PB voting events at key community locations across the city, including venues such as the mall, libraries, youth and senior centers, Cambridge Housing Authority complexes, various workforce programs, and recreation centers. The Budget Office staff was also substantially conscious of the City’s international contingent. As one voter contributes, “You guys have 7 languages – which is great. Cambridge is diverse and that can be a barrier.”

The Cambridge municipal election turnout in 2015 was 17,959 registered voters, 28% of the voting population. Though voter data from the PB voting process indicates a much lower turnout overall, it is possible that the PB process is still achieving the finer points expressed by this goal. Voters indicated that 41% were newcomers to the PB process this year. 90 (5.4%) voters responding to the survey reported as non-US citizens, and 160 (9.2%) PB voters reported that they are under the age of 18. Participatory budgeting in Cambridge is the only municipal civic engagement program that allows these two demographic groups to participate fully in a City-run democratic process. 84.8% of all survey respondents report that they are not involved in other City of Cambridge initiatives, suggesting that the third cycle of PB may be reaching a new and expanded participant base. However, it is necessary to go deeper into the data to confirm.





## Qualitative Snap-Shot 1: A Mixed Review of Goal 1 Achievement

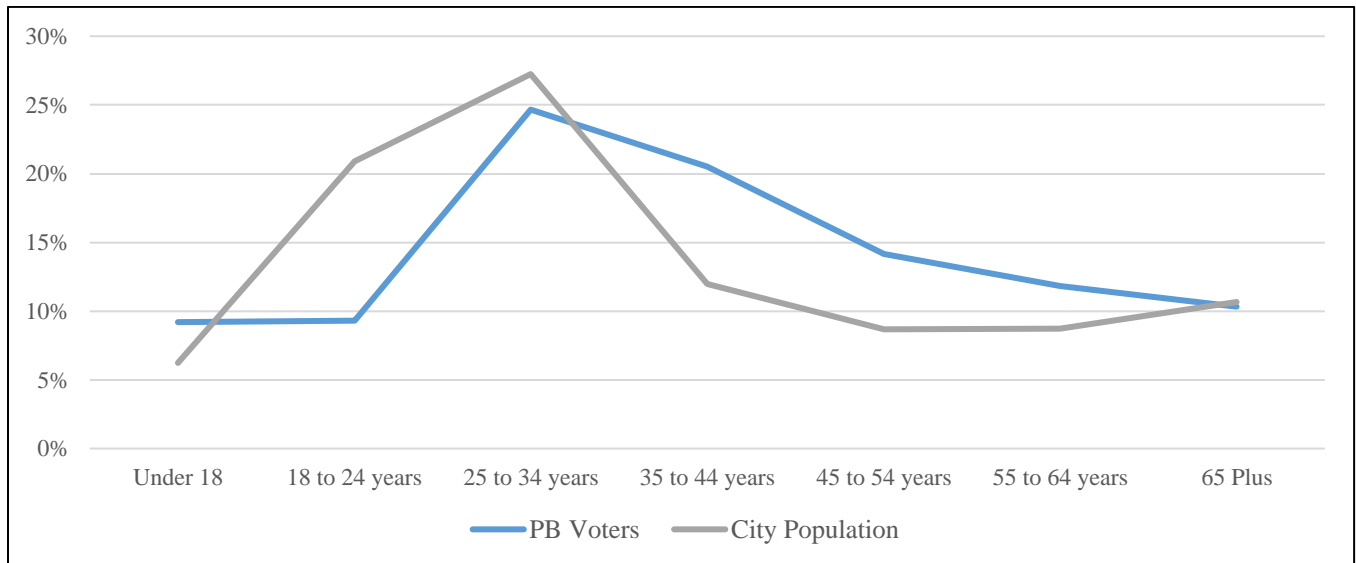
Yes	Yes, but...	No
<p>"Absolutely, they are achieving this. The reasons I would say that, first and foremost, you don't have to go anywhere to participate physically, you can do it online. I thought it was amazing how it was done. It felt to me it was done reasonably securely. The second thing is, the minimum age was like 12-years-old; that's a fantastic way to involve people. Another reason is that you don't have to be a citizen, you just have to be a resident. Those are like three things that probably got a lot more people involved."</p>	<p>"I think most people don't get very involved, it they vote at all [...] It's just getting off the ground, so I would not say that it's not worth continuing. But I think that it doesn't yet reach a lot of people and because of the gatekeeper responsibilities that volunteers have - I'm sure we favor some projects, I'm sure I favor some projects from what someone else would and maybe that's unavoidable - even if the community at large gets to submit ideas, we the gate keepers ultimately decide what gets on the ballot."</p>	<p>"Year one was VERY representative of total diversity. Year two didn't seem problematic to me, this year seems clearly disproportionately wealthy. Even the form at the beginning where we are required to give all of our data. This can be off-putting to some people. Why does the City truly need our name, address and phone number? If I am homeless, this will make me feel like my vote is not allowed (which it is). If I am a person who is undocumented, I will not share that information and I will not vote (my vote, however, would be welcomed and allowed)."</p>
<p>"I think it's really cool that people who aren't born here and non-citizens can vote, and kids can vote too."</p>	<p>"Thank you for bringing PB to Cambridge. We hope it can expand to be more inclusive, both in who is served and, especially, who participates as budget delegates."</p>	<p>"I think there's still a long way to go. [...] There is only so much you can do without access to all email, so the trend is great but they've got a long way to go. No, but I'm optimistic that they can figure out a way to increase participation."</p>
<p>"Oh yeah definitely, they are open to all of the communities in Cambridge, and people have their input. It's just so diverse. It's not just from Cambridge or one demographic, it's all these different communities that have needs that are being represented here. That's what I like about it."</p>	<p>"From my end, I think they are by trying to engage the citizens in our community to actually have an active part in investing in community. But I would also say that I am not someone who is part of a community that is underrepresented or disadvantaged, so it's probably not a particularly accurate reflection on that."</p>	<p>"I was surprised to see no projects geared to minorities, immigrants, or low-income adults and families and in fact no category for this type of project. I seem to recall some projects like that the first year [...] I'm wondering if this has to do with the fact that the volunteers did not come and were not engaged with this population."</p>

## Tables 2-5: Comparing City Population Demographics with PB Voter Turnout

### Cambridge Participatory Budgeting Cycle 3 Voter Turnout Compared with City Population by Age

AGE	PB Voter Survey		ACS 2010-2015	
Total Number of Survey Respondents/Population	1740		107,916	
Under 18*	160	9.20%	6,726	6.23%
18 to 24 years	162	9.31%	22,546	20.89%
25 to 34 years	429	24.66%	29,402	27.25%
35 to 44 years	357	20.52%	12,938	11.99%
45 to 54 years	246	14.14%	9,381	8.69%
55 to 64 years	206	11.84%	9,393	8.70%
65 Plus	180	10.34%	11,504	10.66%

Note: \*Age data for this population does not align between Cambridge voting age youth and US Census or ACS data. ACS age range bands have been divided in equal intervals by year and then summed to estimate the youth population between the ages of 12-18 in Cambridge.

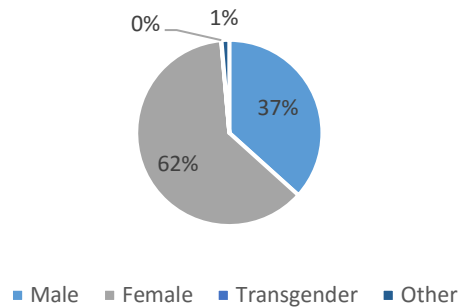




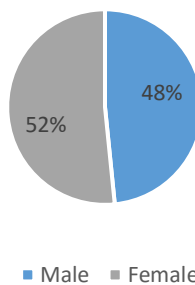
**Cambridge Participatory Budgeting Cycle 3 Voter Turnout**  
**Compared with City Population by Gender**

GENDER	PB Voter Survey		ACS 2010-2015	
Total Number of Survey Respondents/Population	1707		107,916	
Male	626	36.67%	52,208	48.40%
Female	1057	61.92%	55,708	51.60%
Transgender	1	0.06%	Not reported	Not reported
Other	23	1.35%	Not reported	Not reported

Cambridge Participatory Budgeting  
Cycle 3 Voters

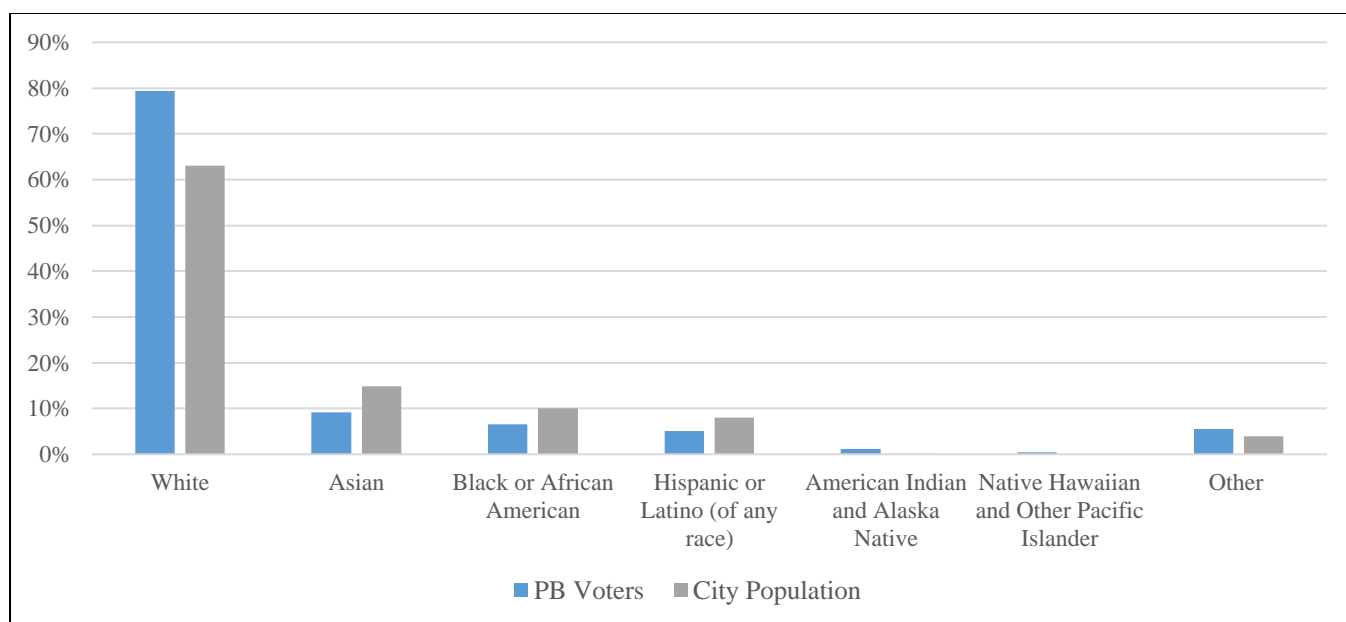


City of Cambridge  
Population



**Cambridge Participatory Budgeting Cycle 3 Voter Turnout**  
**Compared with City Population by Race**

RACE/ETHNICITY	PB Voter Survey		ACS 2010-2015	
<b>Total Number of Survey Respondents/Population</b>	1,626		107,916	
<b>White</b>	1,291	79.40%	67,973	63.0%
<b>Asian</b>	149	9.16%	16,118	14.9%
<b>Black or African American</b>	106	6.52%	10,825	10.0%
<b>Hispanic or Latino (of any race)</b>	82	5.04%	8,670	8.0%
<b>American Indian and Alaska Native</b>	18	1.11%	129	0.1%
<b>Native Hawaiian and Other Pacific Islander</b>	6	0.37%	42	0.0%
<b>Other</b>	90	5.54%	4159	3.90%



The City of Cambridge has a highly transient resident population due to the large number of university students in the city attending institutions such as MIT, Harvard, Cambridge College, or Lesley University. According to the American Community Survey 2010-2015, the city's overall population is 107,916. The city's median age is 30.5 years old with 48.1% of all residents between the ages of 18 to 34 years old. 51.6% of the population identifies as female. The largest group by race or ethnicity in the city is White at 63% of the population followed by Asian (14.9%), Black or African American (10.0%), and Hispanic or Latino of any race (8.0%). In this year's cycle, White and female residents are overrepresented in PB voter turnout per the voter survey. While youth and middle aged individuals turned out to vote in disproportionately high numbers, the transient university-aged population is substantially underrepresented. Black, Hispanic, and Asian populations are also underrepresented among survey respondents alongside males in general. One voter laments, as if in premonition of the findings, "People in housing developments or people that are poor somehow need to be included more. [...] People need to know their voice matters and see accomplishments." Outreach committee members interviewed agreed that certain neighborhoods, such as North Cambridge, were not engaged fully in the process. Tables 1-3 above compare the aforementioned demographics of the city to the demographics of voter survey respondents.

The American Community Survey 2010-2015 reports that 25.28% of the Cambridge population earns an income of less than \$34,999. Of voter survey respondents, only 12.1% report earnings less than \$34,000 annually. PB voter turnout in cycle 3 is skewed toward the more wealthy Cambridge residents. While only a quarter of the population earns over \$142,000 annually, nearly one third of PB voters reported earnings at this level. One voter survey respondent submits, "This year's process is less inclusive than prior years. [...] I can tell by the submission types that more wealthy and resourced people are responding to the call for ideas. It is important to me that this process represent fully our diverse constituents, and that, if it favors anyone, it favor the poor, the immigrants, and the people with less resources." A similar measure of socio-economic status is educational attainment. Participation this year is skewed toward more educated of Cambridge residents. 64.6% of PB voter respondents over the age of 25 have a graduate or professional degree, as compared to 46.3% of the total population over age 25 in the city. Meanwhile only 5.9% of residents educated below a bachelor's level voted in PB although 24.9% of the population falls into this demographic in the city's over 25 population. Participant volunteers agree with voters on the need to reach more disadvantaged populations, "I believe Participatory Budgeting is valuable, and that access to voting could be improved." Tables 4-5 below compares socio-economic demographics of the city to demographics of voter survey respondents.

"It's a broader challenge, of course, in how to get more people involved [...] We are close to like 35-40% of residents that are non-citizens due to huge student populations in two large universities and two smallish institutions being here."

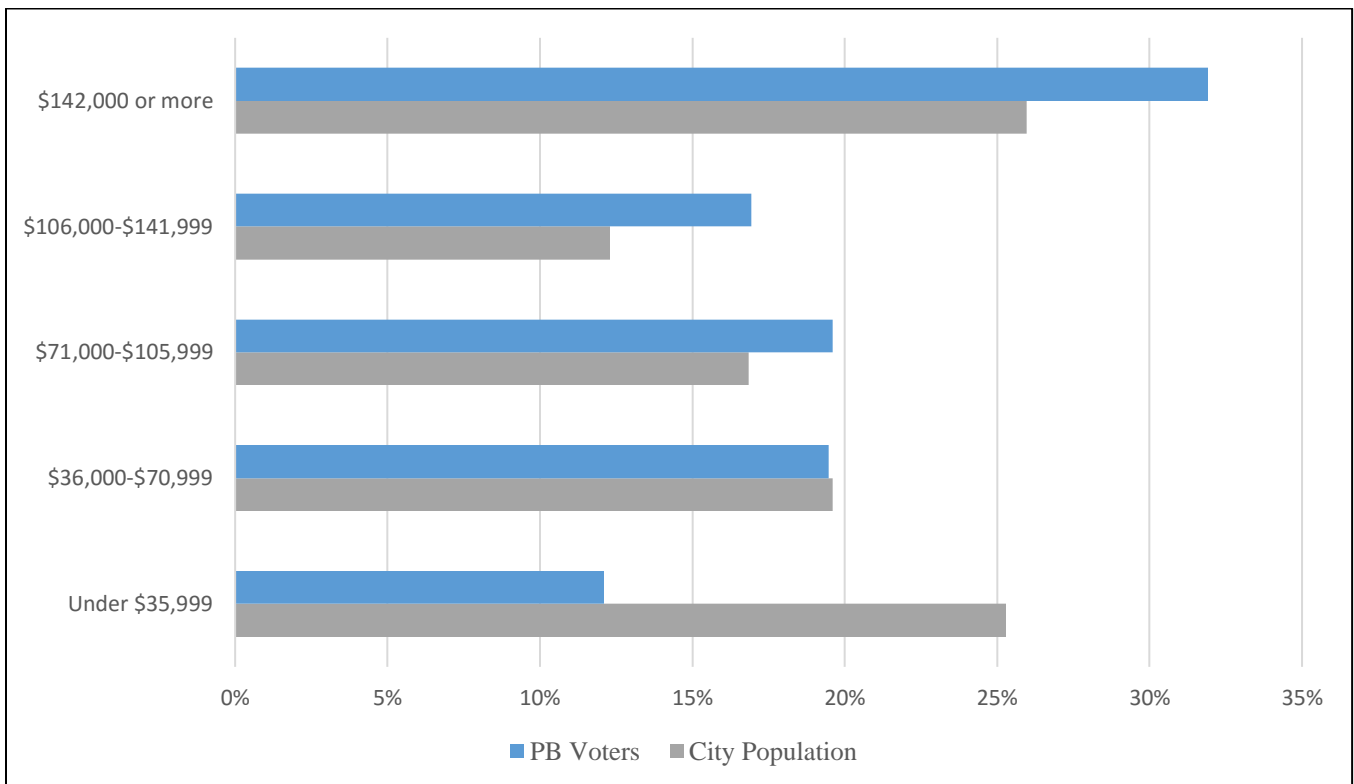
"Encouraging ideas that benefit low income households should be a priority."



## Tables 6-7: Comparing City Socio-Economic Demographics with PB Voter Turnout

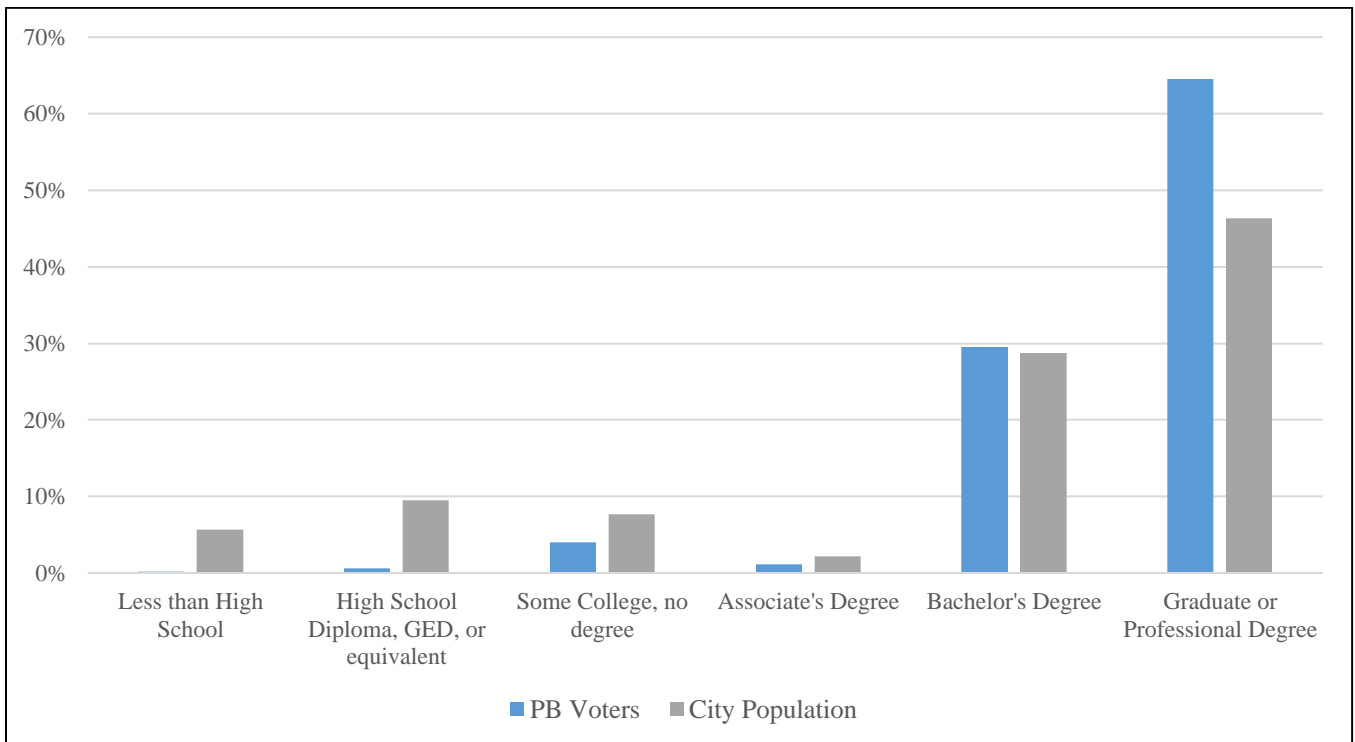
### Cambridge Participatory Budgeting Cycle 3 Voter Turnout Compared with City Population by Household Income Level

INCOME LEVEL	PB Voter Survey		ACS 2010-2015	
Total Number of Survey Respondents/Population	1,495		43,801	
Under \$35,999	181	12.11%	11075	25.28%
\$36,000-\$70,999	291	19.46%	8583	19.60%
\$71,000-\$105,999	293	19.60%	7380	16.85%
\$106,000-\$141,999	253	16.92%	5385	12.29%
\$142,000 or more	477	31.91%	11377	25.97%



**Cambridge Participatory Budgeting Cycle 3 Voter Turnout  
Compared with City Population by Educational Attainment**

EDUCATIONAL ATTAINMENT	PB Voter Survey		ACS 2010-2015	
Total Number of Survey Respondents/Population	1,399		72,618	
Less than High School	2	0.14%	4113	5.66%
High School Diploma, GED, or equivalent	9	0.64%	6,874	9.47%
Some College, no degree	56	4.00%	5,559	7.66%
Associate's Degree	16	1.14%	1,561	2.15%
Bachelor's Degree	413	29.52%	20,872	28.74%
Graduate or Professional Degree	903	64.55%	33,639	46.32%





## Goal 2: Have Meaningful Social and Community Impact

The second goal of the Cambridge Participatory Budgeting process is to have meaningful social and community impact. Given that “meaningful” is a highly subjective term, developing a survey tool with a reliable response rate was a challenging academic exercise. Improved by cognitive interviews conducted prior to distributing the voter and participant surveys, the survey statement selected to measure voter opinion on this matter was “PB is a tool for meaningful social change” ranked on a five-point Likert scale from 1-“Strongly Disagree” to 5-“Strongly Agree.” Respondents indicated a wide variety of reasons why underlying their answers, but all associated this question with either a positive or negative connotation. 80.7% of voters replying to this opinion-oriented survey question fall on the positive “Agree” side of the spectrum. Several interviews with voters revealed that the types of projects on the ballot gave the process meaning for them. As one voter remarked, “The questions that you guys are asking on the ballot here, it shows that you guys are thinking about important things about the city. [...] The renovation for Moore Youth Center, I play basketball there on the weekends, so it definitely needs some work, and I can tell you guys noticed.” Furthermore, 89.8% of voters “Agree” with a second Likert-type measure in response to the statement “PB has a positive impact on the Cambridge community.” Nearly half of all voters “Strongly Agree” with this statement of impact. As another voter shared, “I think the choices that I voted for, if they get implemented, are. [...] I feel like they would have a direct impact on the community and on the lives of community members. So, assuming things get implemented, then yeah.”

Another way of evaluating the City’s progress toward this goal is to consider the types of projects that have been eliminated and advanced through the process from the idea submission stage through to community voting. As explained in the process overview section, volunteer budget delegates from the community were responsible for reviewing each idea submitted and moving it from its original level of abstraction to a complete project proposal with an estimated cost per capital expense. While many idea submissions are eliminated each year due to failure to meet the criteria of a “capital project” funded by the City, the remaining projects are researched, scoped, and rated on the basis of need, community impact, and feasibility. The budget delegates and committee facilitators take substantial notes throughout this process and the history of each idea is maintained in shared files online. While not all submitted ideas make it to the stage of project rating, the average of all eligible and committee rated projects is 2.44/4 in the category of community impact. Projects advanced to the ballot after making a short-list submission to the City for extended review and cost analysis have an average community impact rating of 3.17/4. Average budget delegate committee ratings demonstrate that the projects advanced through the process are indeed viewed as impactful by those evaluating and developing proposals. That said, the project ranking criteria of feasibility frequently outweighs need or impact when advancing projects through the process, with an average rating of 3.19/4 for projects that make it to the final ballot and 3.63/4 for winning projects. Table 6 below shows the average score in the areas of need, impact, and feasibility of all rated projects at each stage of the idea filtration process undertaken by volunteer city residents acting as budget delegates.

**Table 6: Assessing Project Need, Impact, and Feasibility from Idea Submission to the Ballot**

Average project ratings at each phase of idea filtration, on a scale of 1-4	Ranking A: How much <u>need</u> is there for this project?	Ranking B: How much <u>impact</u> would this project have on the community?	Ranking C: How <u>feasible</u> is this project?
All ranked project ideas	2.59	2.44	2.72
Projects making first cut for city approval	3.17	3.17	3.75
Projects making the ballot	3.19	3.19	3.69
Winning Projects	3.50	3.63	3.88

## Qualitative Snap-Shot 2: Point and Counter-point on Goal 2

Yes	No
<p>"It helps Cambridge to remain on the forefront of the movement for diverse, creative, compassionate and sustainable cities."</p>	<p>"I thought my god, we are toying with kinetic tiles when we've got hungry kids. Made me feel a little ashamed of my town, as if there are many people quite clueless about a completely different segment of Cambridge that doesn't dream of solar energy at night but who might be going to bed hungry."</p>
<p>"The ballot made me feel like I had a voice to make changes."</p>	<p>"I guess this is the trade off with a small budget, but many of the projects seem like one-off improvements, and not comprehensive. And because they seem like one-offs, I don't really feel like I'm influencing much (and I sort of feel like this is throwing me a bone). Of course, I could choose to become more involved..."</p>
<p>"The one thing I would like to see is more funding. I think residents can do even more, because there is only so much that the City can do. So if there is funding that can go toward existing projects, it's a collaborative effort that can be done, but we need to work together. It has to do with getting the word out there, you'd be amazed how many people will come out. It's the fact that people believe in it, or at least I do."</p>	<p>"The projects for the most part seem too small scale to effect meaningful social and community change. [...] So small scale, I remember one of the projects that got funded was putting solar panels on library, larger scale would be putting solar panels on all public buildings in city or putting in place a program to make installation of solar panels significantly cheaper for all Cambridge residents, something that impacts more people."</p>
<p>"Definitely results oriented. You know, like the focus on having concrete project that are feasible, it's really making sure it's going to have an impact. I do wonder about equity of impact; are we making sure that all different neighborhoods are positively benefited through participatory budgeting? I think there's some more to do on that front but overall yes, it's having a positive impact."</p>	<p>"(It's) kind of a meaningless feel-good exercise: all the real power and money is still controlled by the city manager."</p>
<p>"I think that um, so mission-driven is very subjective. Um, and I know that the way that the projects are chosen there are different categories to ensure representations, you know, of parks or like arts or like landmarks is another category so that's good. But when I look at the projects that were selected, not just the winning seven but the 20, there seems to be a wide range of those I would personally consider benefiting the community as a whole."</p>	<p>"Who's mission is this talking about? My sense from reading through all the projects is that they are a lot of different people's different missions as opposed to one coherent mission that would be aligned with a larger vision for the city. [...] It's driven by individual missions and individual's perceptions of how to improve the city."</p>

### Goal 3: Promote Sustainable Public Good

All projects advanced through the Cambridge PB process must be public benefit capital projects, at a one-time cost of \$700,000 or less, implemented on City property. While the budget delegates take great strides to ensure that projects are sustainable through the vetting and project proposal crafting process, it's the final vote that matters most. As one voter states, "The actual effect of (PB) is dependent on which proposals win." As a participatory process where decision-making is devolved to the general public, the Steering Committee has set an ambitious goal of collective decision-making that "promote(s) the long-term future and well-being of Cambridge residents." To gauge the accomplishment of this goal through a public voting process, voter survey respondents were asked to rate their level of agreement with the statement "long-term impact of each project was a factor in my vote" on a five-point Likert scale. 85.3% of survey respondents either "Agree" or "Strongly Agree" with this statement. Referring to voter interviews for insight into how sustainability enters voter decision-making, one voter discussed the value of project formulation towards achieving this goal: "The projects seem to be doing that. [...] Like helping power the library, putting kinetic stuff on things, on sidewalks, and also fixing the crosswalks. I think all are good for the long-term future of Cambridge."

As voiced in a voter interview when asked about the long-term impact of PB decisions, there is more to long-term impact than making sustainable choices. She states, "I have seen some of these projects get funded, and come to fruition, and they are of benefit. [...] They are not just talking about it, they are getting funded." A key measure as to whether or not Cambridge is achieving the third PB goal depends on implementation and follow-through on the part of the City. Over the past two PB cycles in Cambridge, 13 projects were voted on by Cambridge residents. Of those, three have been completed and five more are at least partially installed. The rest of the projects remain at various stages of implementation. Figures 2 and 3 below show the progress the City has made toward projects in its first and second cycles as of December 2016.

**Figure 4: PB Project Implementation Cycle 1**

Winning PB projects	Planning/Design	Procurement of Supplies/ Equipment	Installation	Testing	Complete!
100 healthy trees for a healthy Cambridge	✓	✓	Public Works has installed 98 of the PB trees in as of December 2016		
20 laptops for the Community Learning Center (CLC)	✓	✓	✓	✓	21 laptops were delivered to CLC classrooms in November 2015
Bilingual books for children learning English	✓	✓	✓	✓	500 bilingual books in 12 languages were circulated to Cambridge families in 2015/2016
Central Square public toilet	Public Works has identified a preferred location and is testing for underground conflicts				
8 bike repair stations	✓	✓	CDD has installed 6 of the 8 bike repair stations! The last two are planned for Spring 2017		
Free public WiFi in 6 outdoor locations	✓	✓	✓	✓	All 6 outdoor WiFi units are up and running as of September 2016

**Figure 5: PB Project Implementation Cycle 2**

Winning PB projects	Planning/Design	Procurement of Supplies/ Equipment	Installation	Testing	Complete!
Cambridge prepared food rescue freezer van	✓	Human Services is preparing a bid for the freezer van			
Separate bike lanes from traffic	✓	Traffic is contracting with a consultant for Mass. Ave. (Mt. Auburn - Quincy)			
Five water bottle fill stations	Public Works is exploring locations and expects installation to take place in spring 2017				
Make Mass. Ave. safer for bikers (signage & sharrows)	✓	Traffic is contracting with a consultant and plans on spring implementation			
Shape up our squares (paint bike lanes green)	✓	✓	Green bike lanes were painted in Inman Square; supplies have been received for Central		
Faster, better #1 bus (transit signal priority)	✓	✓	Wireless equipment was installed; Traffic will test software and new TSP-compatible cabinets/controllers		
New chairs for Cambridge Public Schools	✓	✓	School Dept has purchased new chairs for the Amigos School with part of the funds		

One of the primary challenges associated with this goal, and strongly supported by interviews, is that capital projects may be lasting physically, as they often fund infrastructure updates, but may lack the long-term systemic impact Cambridge residents need and seek through participatory budgeting. One voter makes this case poignantly, “How do these work in a systemic way as opposed to one-off projects that look really good when they happen but then...? Infrastructure is not the total solution, it's only part of the solution. Budget, throwing money at the problem is never the total solution, so how is PB and this money being combined with other initiatives to promote the overall culture and not just one-off solutions?” The interviewee went on to speak to the challenge of overcoming low literacy rates by addressing the problem of book deserts with little free libraries without going into the schools to ensure quality education. Several voters interviewed expressed an interest in both expanding the money allocated for PB and opening up the project criteria beyond solely capital projects. Others questioned why PB funds were necessary, “All of the projects incorporate good improvements about which no one would object. None of them address ongoing concerns save the pedestrian-operated crossings. That project is subject to the approval of the traffic department. I consider PB a distraction from the real issues confronting Cambridge. I would prefer that PB be eliminated.” However, this perspective was expressed by a minority as compared to those residents proud to have PB in their city as a positive step toward inclusive decision-making.

“This is an opportunity for the community and citizens that are concerned about general sustainability and building resiliency in cities, to have direct impact on that and give direct feedback on what their concerns were. [...] Part of the discussion we had in our committee is that the PB process is a way to pilot new ideas without a major slap or backlash from community because it's just a pilot project.”



#### ***Goal 4: Create Easy and Seamless Civic Engagement***

The City of Cambridge offers many ways to participate in PB unlike typical democratic processes. Innovators and voters can engage with the process online by submitting ideas and selecting final projects. Budget delegates have several opportunities to directly speak with City officials about project proposal development, the cost of community development, and the challenge of installing infrastructure that crosses over various departmental boundaries. However, collaborative processes and direct democracy can be quite time consuming the closer one is to the process. Budget delegates spend over three months meeting weekly to narrow down idea submissions and compile research to create strong project proposals. Outreach volunteers are called upon before launching any new stage of the cycle to plan and staff events or pass out flyers and door hangers. Even voters frequently spend more than 10 minutes selecting projects just to complete the ballot.

Despite the time investment required for participation, 68.3% of survey respondents either “Agree” or “Strongly Agree” with the statement “PB makes it easy for me to work with city government.” In voter interviews, nearly all individuals voting at in-person booths posted around the city during the voting window were pleasantly surprised to find City officials and outreach volunteers in high-traffic locales. However, many voters expressed concern that they’d not heard about voting earlier via alternative channels. One voter sums up both of these perspectives well: “I didn’t know you’d be here- both times you just appeared here. Last year at the library, I didn’t know when or where, I just ran into it. I’m glad I did. I wish I knew, though. Say I didn’t come here today. I could have gone elsewhere.” Reflecting on the process overall, another voter states, “This seems accessible [...] had I had an idea of something Cambridge needed it would be easy to access. I imagine that people who have passions, or pet projects, this feels more accessible than starting to write your town hall or starting a letter writing campaign, easier than classic legislation, easier than town hall.”

Extending beyond the baseline goal of easy access, the PB Steering Committee hoped to “foster a ‘contagious’ civic environment” through the process. Of the 32 voter interviews conducted, six voters expressed an interest in getting more involved in the future. “It is nice for me to, like, come here and read the proposals. Even though it is hard to choose the top five, I do feel like I’m participating but I wish I could participate more in community decisions or in the community government, like kinda ask the question- how can I get more involved,” one voter remarked. Survey takers responding to the prompt “PB has encouraged me to do more for my community” indicated agreement at a level of 53.8%. Referring back to cognitive interviews on this survey question, some interviewees felt voting alone was a step in the right direction while others were indeed inspired to expand community engagement through PB and other community-based projects.

#### **Qualitative Snap-Shot 3: A Mixed Review of Goal 4 Achievement**

Yes	Yes, but...	No
“Probably best ease of access, anyone can participate and they are actively encouraged. It’s inclusive and everyone can participate.”	“I think they do an okay job at this. [...] I can definitely see that people that are really busy with low income jobs can’t make this commitment to come to the meeting. When we started and talked about norms and expectations like - no food, must arrive on time - not having food at 7pm and when people are hungry is a deterrent.”	“While participatory budgeting sounds great in theory, in practice the City of Cambridge has yet to understand that there’s more to community involvement than going on a website.”
“Hopefully it will create a contagious environment [...] It did for me by involving my daughter.”	“The process has been really open, but you need to be clued in.”	“I missed voting this year because I couldn’t get through to you guys, I actually had to contact you all to get some kind of number that I needed.”

## Goal 5: Promote Civic Mindedness

As a process open to Cambridge residents young and old, PB in Cambridge aims to “help residents imagine themselves as civic actors and educate each other about their needs and lives.” 79.8% of voter survey respondents either “Agree” or “Strongly Agree” with the statement “PB helps me learn about the Cambridge community” on a five-point Likert scale. With regards to community learning generated through PB, one voter shared, “It creates discussion, which is always good. Every time there is a discussion taking place between members of community it's furthering the goals of the community which is to help everyone live healthier, happier lives. And it is creating actual changes, not just discussion, it doesn't just end there. So yeah, I think it definitely makes people really think more about the future and, like, the impacts they directly can have on it.”

The learning outcomes are especially strong for youth participants in the process who can vote if they are at least 12 years old and can participate in the outreach and budget delegate committees if they are at least 14 years old. One budget delegate committee was comprised entirely of youth while other young people served alongside adults scattered across the remaining committees. In online surveys and interviews, youth expressed a high level of excitement about the process. One young lady, for example, had memorized the voting dates when asked to vote at an in-person voting booth – the PB vote was already on her calendar. Three young interviewees were thrilled to have a voice: “I really wanted to vote because it's not fair that people over 18, that's the only people who can vote,” said one. “I wanted to vote because I could put a statement out there,” reiterated another. Parents in both interviews and open-answer survey questions expressed strong praise and active engagement in getting their children involved in the process. As one parent voter shared, “My kids really enjoyed reading through the proposals and we all discussed our votes together. It was a nice concrete way to introduce them to some of the core ideas of democratic governance, like voting, compromise, setting priorities, and the trade-offs involved in choosing one expenditure over another.”

One of the primary reasons cited in support of PB as a process advancing civic mindedness revolved around the collaboration and discussion generated through the process. “Opportunities like PB absolutely help toward that goal. My one question would be, is um, I wonder was there community meetings and presentations leading up to budgeting being open? Like that sort of talk about projects and engaging folks in that way? [...] For something like this, having an actual convening place beforehand would be helpful. There's definitely value in having actual booths that people can go to for accessibility, but also because if I had time I would come out and do this to meet others in the community to create change.” Those that did not fully support the City's achievement of this goal largely spoke about the missed opportunity of deliberation and collaboration when most people engage via the internet. As one voter aptly puts, “Probably not [promoting civic mindedness], for me. As a one-time voter, it's easy to be a one-time voter and not do much else. There's not really follow-up or connection to get involved as just a voter.”

“PB is such a unique way to get community input - I think it's fantastic. I'm a bit of a PB evangelist - every time we're about to have another round, I contact my co-workers who live in Cambridge and send them a link for it. I also think it's wonderful that you allow kids as young as 12 to vote; my teenaged son thinks it's great and has voted in every round and even submitted a couple of ideas. What a great way to cultivate interest in voting and democracy. Thanks for trusting your citizens enough to do this project.”

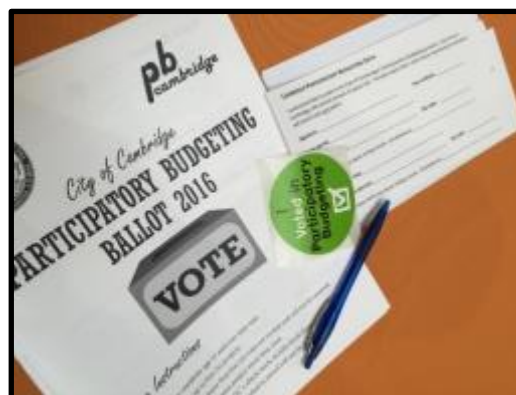
“I don't think anybody would do this unless they already had an inclination to do some kind of city engagement [...] submitting ideas maybe is sort of a gateway drug to community engagement. Anyone can submit an idea, and we have, and within an order of magnitude we got over 500 projects and under 5000 votes. Maybe the way civic engagement is initiated is with submitting an idea. And that's good. Whether or not it's completely effective, it's a worthwhile idea.”

## Feedback

Cambridge resident participants had more positive feedback for the City than negative at a ratio of four positive statements to every one negative comment. While there are certainly a handful of individuals that do not wish to see the process continue next year, the overwhelming majority of survey and interview respondents felt the process should be maintained if not expanded. The largest concerns about the process were related to money not being well-spent or questioning why some projects appearing on the PB ballot were not already incorporated in the regular City budget.

Voters and volunteer participants, whether for or against the process overall, had many suggestions for future participatory budgeting cycles:

The City should continue...	Participant comments and ideas for implementation...
✓ Online voting and accessible website communications	I like how it is so easy to submit ideas and vote. The website is easy, even for non-techies. Whoever is in charge makes it easy to get help if you want to vote, but are confused. This is a very well-run and well-organized process. These people in charge need to be commended for their attention to detail including outreach, website creation, level of enthusiasm generated, and being able to keep everything to deadline. Their dedication shines through.
✓ Strong communication and follow-up with volunteers and former participants	For people on the email list, they are good about sending follow-up. Emails throughout the process both way back when soliciting ideas through selecting twenty through this last chance to vote. Once someone is in the system of notifications via email, the city is good at keeping people informed.
✓ Engaging youth	I love that the city is intentionally engaging youth in proposing ideas, vetting proposed ideas, and voting! Keep up the great work!
✓ Encouraging resident participation	I appreciate the opportunity to express what I think would most benefit our community.
✓ Placing well-developed proposals on the ballot	The selections this time make much more sense and appear to be suggestions for practical solutions for all the citizens.



The City should improve...	Participant comments and ideas for implementation...
✓ Outreach regularly across various neighborhoods and demographics	<p>Have a good strategy for both offline and online communication. Go to where people are, be it schools, shops, or social media.</p> <p>---</p> <p>Would love periodic open forums throughout the year to discuss ideas for PB so that submissions are more developed and more actionable. Would hope this would also increase community engagement and serve voices not usually heard.</p>
✓ Fix technology glitches and provide alternative voting options	<p>It oughtn't be necessary to use the computer, especially as a number of the proposals have to do with the fact that many people actually don't have that sort of access. [...] I don't see why you couldn't vote by phone.</p>
✓ Adjust timing of the process	<p>I wish the idea development/submission phase coincided with the school year (rather than the summer when many are away). That way school communities could be actively involved and then the voting could take place in the spring. Since many schools are polling sites, it would be cool to have voting take place there. Families could come and vote together. It would be a great civics lesson and would encourage more participation.</p> <p>---</p> <p>It seems like coordinating PB more with regular voting would help increase turnout. Perhaps it could be completed earlier so that in-person voting can happen at polling locations, or something of the like. I was disappointed with the level of participation in voting, and feel like that is a huge area to be improved on.</p>
✓ Provide more project information on the ballot	<p>I don't want to have everyone's ideas shot down... it just strikes me that everything has something from proponents and nothing from the opponents. I guess maybe some more like, kinda independent assessment of projects as opposed to just proponents would be good. [...] I would be interested in seeing a little bit more neutral presentation, without undercutting proponents as well.</p> <p>---</p> <p>I wish some of the project descriptions were more specific, I was wary of voting for ones that sounded too vague.</p>
✓ Keep projects specific	<p>I liked part of one of the proposals, which had three or four parts to it, but not the rest of it. In the future, it would be best to unbundle proposals.</p>
✓ Expand the budget and/or eligibility criteria	<p>\$750,000 is a drop in the bucket of the City budget. I appreciate this figure as a start, but I think this is the 3rd round. It's time to dramatically increase that figure. Why not ask in a manner similar to PB how we would like to raise funds for vastly expanding PB?</p> <p>---</p> <p>I would also love to see us test other types of participatory planning, and to eventually have this program extend to other parts of the city budget.</p>
✓ Promote the comprehensiveness of the projects that make the ballot	<p>I would rather see really substantial public commitments to things that need doing--like switching to renewables or dealing with the homeless problem in Central Square (and the city at large). Hydration stations, LED lights--all of these (projects) seem rarefied compared to what really needs to be done here.</p>
✓ Follow-up widely on project completion	<p>I'll mention it again, the completion of projects should be better publicized. I'm still eagerly awaiting the 200k public toilet in Central Square. Is that done yet?</p>



Budget delegates and outreach committee members, having invested significant time (ranging from 2-15 hours per week) and energy into this year's cycle, shared additional recommendations based on their unique experience of the process:

The City should continue...	Participant comments and ideas for implementation...
✓ High level of collaboration between delegates	I really enjoyed attending meetings, discussion with committee members, and very different backgrounds. Especially in the context of the national election, it was reassuring to see a very active community and have a welcome connection.
✓ Consulting sessions with City staff	Speed dating really good and helpful.
✓ Structured meetings	Being clear for outreach committee what they needed from us was awesome. --- Definite timeframe and process, this is what you are doing and this is what happens at the end.
✓ Subcommittee divisions	[I liked] breaking down ideas into smaller groups but then still being accountable to a consensus process.
✓ Approachable staff support of the process	Communication with budget office was awesome. I loved having Al from the budget office in most meetings - he was an incredibly valuable resource, and it also made him approachable outside of meetings.

The City should improve...	Participant comments and ideas for implementation...
✓ Delegate diversity	More diverse budget delegate representation (child care? small stipends?); The budget delegates have an enormous role to play in refining/eliminating project ideas and I think it's important to make sure they represent the city as a whole.
✓ Level of guidance from City organizers	It was great to have autonomy, but lots of times we didn't know what we were doing. --- Maybe weekly emails or handouts before each meeting with what we'd work on, maybe if like after meetings when they asked when we are frustrated if they ask "what do you need now?" --- Make the structure of the first subcommittee meeting clearer. It was a bit muddled in our meeting but I don't think it needed to be!
✓ Transparency and resources around narrowing down idea submissions	I found the submission and selection process overwhelming. That map was basically unusable. --- Explain better at the beginning that delegates' main job is to help eliminate most proposals. Which seems unfair; let voters do it. --- We are going to get invested, but it's not about you, it's about ideas and proposals and making sure what committee sends out is what the city needs.
✓ Poster making workload	More help w/ the posters. Clarification at the outset on work needed to be done by each individual when the sub-committees are set up.
✓ Removing conflicts of interest	If you are proposing something with a conflict of interest it should be in the proposal as statement. If they propose an idea, then maybe they can't serve on that committee.

\*Note: The skill-set of each facilitator varied widely, thus receiving mixed reviews from delegates. Some delegates suggested further training and regular reference to the established group agreement as best practice.

## Recommendations

While the City of Cambridge has achieved many of its stated goals for the PB process, there is still room for improvement. Many minor technological and process oriented suggestions have been listed above in a review of participant feedback. However, there are three more substantive recommendations stemming from both data analysis and participant feedback that deserve additional attention. In particular, the City should:

- 1) extend efforts to reach traditionally marginalized populations and reticent voters,**
- 2) consider expanding the budget and scope of eligible projects to produce systemic change,**
- 3) enhance outreach throughout the program cycle from ideation through to project implementation.**

Although evaluations of PB processes across the United States typically report over representation of Black and African American residents, youth, women, and lower-income households in PB voter turnout (Hagelskamp et al., 2016a), the City of Cambridge did not engage minority or low-income populations at a rate commensurate with the proportion of the city's overall population in these demographic groups. Though eligible to vote as residents of the city, Cambridge's early-20s university student population was also disproportionately underrepresented in the PB voter turnout this year as in past cycles. To increase engagement, the City of Cambridge should consider partnership with businesses and nonprofit organizations that are already embedded in minority communities with the legitimacy and motivation to garner greater participation of underrepresented populations. Local universities should also be approached for partnership to improve college-aged voter turnout. Time and again, interviewees stressed the importance of "going to where the people are." Building upon partnerships with local institutions can help. The partnership approach has been effective in New York (Kasden et al., 2014) and comes at the recommendation of leading organizations in the PB space such as the Participatory Budgeting Project and Public Agenda.

Cambridge residents both via survey open-response and interviews regularly requested both increasing the total budget allocated for PB and the scope of eligible projects. Some residents called for the increase outright, "I would like all tax revenue to be participatorally allocated. In a democracy, there should be no spending that we do not get a say in. But, baby steps. Please keep allocating as much as possible, and try to increase it every year." Others took a more negative tone, relating the process to tokenism. As one voter indicated via survey open-response, "(PB is) kind of a meaningless feel-good exercise: all the real power and money is still controlled by the city manager." Increased funding allocation has been positively correlated with higher voter turnout, according to Hagelskamp et al. (2016b) at Public Agenda. Thus, this recommendation by city residents may increase overall voter turnout as well as the diversity of the voting electorate. Though certainly not a common practice for PB across the United States, about 12% of PB processes in North America allow program and service projects in addition to capital projects (Hagelskamp et al., 2016b, p. 21). Both during field observations and in interviews, City of Cambridge officials noted that most capital projects do actually require continued operational funds after the initial PB-funded investment. As such, the expansion may not introduce an element all that foreign to the current structure of PB in Cambridge. The City of Vallejo in California has funded "people projects" since its process inception, and these projects often receive a higher number of votes than infrastructure programs (PB Vallejo, 2016, p. 20).

While most survey responses in "comments on the PB process" were quite positive and thankful to the City for organizing PB, the overwhelming majority of constructive suggestions and criticism related to outreach and transparency. Voters frequently questioned where ideas came from, how submitted ideas were being selected for the ballot, why PB funds were being used for projects versus City operating funds, and how to get involved at various stages of the process. Though to be expected with a process still fairly new to the Cambridge community, the number of questions about the process suggest that the City could be doing more to increase transparency about the process. This was particularly true of the idea collection phase. As one participant that attended an idea collection event shared, "I heard that there was a need for people to go to a meeting to discuss what they liked and thought could be better about how Cambridge was functioning as a city. I thought, well I am happy to talk about that, there are all kinds of things you know, problems with sidewalks, whatever and whatever. I went to the

meeting, it was held at the citywide senior center. The meeting was chaired by a person that did not know what the purpose of the meeting was. She knew the questions to ask and she knew they had to be recorded in some way and to have everybody speak they had to limit time, but she didn't know how to draw out and how to encourage people who don't usually talk. [...] It was heavily slanted toward the middle-class and professional people who would have had that going for them anyway." Several voter interviewees wished to know more about how to get involved next year, particularly how they too might submit an idea.

When asked in the voter survey about how participants learned about PB, the most common responses were online, word of mouth, social media, and signage in public venues such as the large banner hanging over Massachusetts Avenue in front of City Hall. The City's PB website, hosted on a separate URL from the City of Cambridge official website, does contain the answers to many resident questions. In fact, some voters even commented on the ease of finding information via this avenue, "Outstanding web design. Really simple and functional." However, it is clear that not many voters make it to the PB website to learn more about the process. Participants offering ideas for outreach suggest more targeted outreach, partnerships with community based organizations, advertising in frequented locations such as the train, getting on organizational listservs, mailers, and community television announcements. Despite an already strong effort in the area of outreach, further attempts to hold additional idea collection events throughout the year, share information about how ideas make it to the ballot, promote public debates or information sessions on semi-finalist projects, and encourage engagement from those less likely to seek out the means of participation is suggested. As one interviewee shared, "Having been where I have been, we say participate, and participate but they don't [...] but what that means to me is that you gotta' help them over and over and over again, to say come on and come on, and finally they'll start doing it. If this is just here, I don't know it's here and have no idea. You have to come get me by the hand."

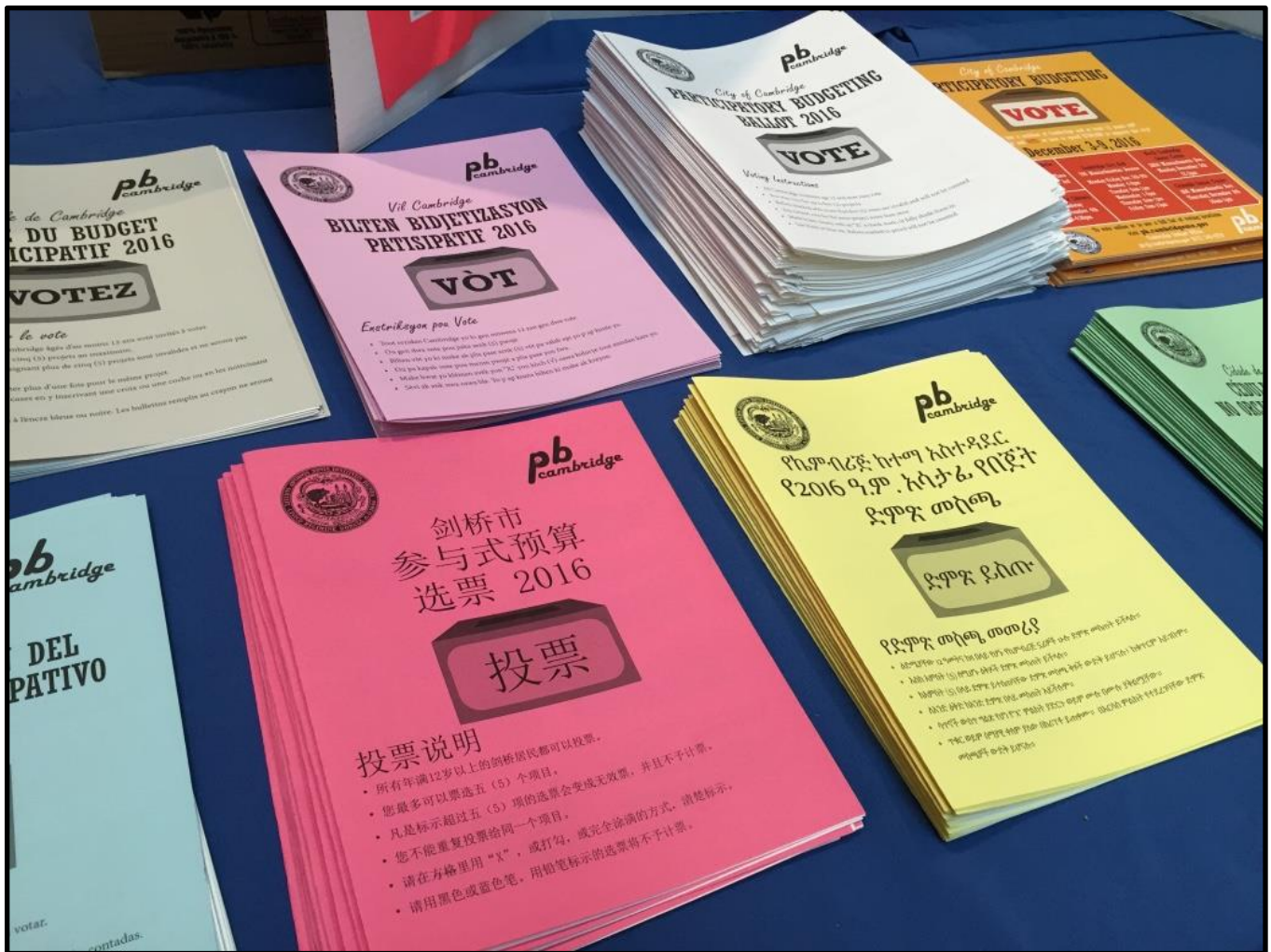
## **Limitations**

As with any evaluation of a large-scale social or public policy process, the results of this evaluation are limited by environmental context and the innate deficiencies of mixed method, case study research design. Evaluating the impact of participatory budgeting on the City of Cambridge community represents an attempt to understand a complex social phenomenon with a real-world, applied research perspective. The survey and interview tools were designed to parse out intervening factors such as a respondent's participation in other City initiatives that may impact individual perceptions and experience with PB. However, some contemporary and intervening phenomenon could not be included or anticipated in the research design. During PB voting week, for instance, several residential buildings in a working-class neighborhood in central Cambridge were destroyed in a 10-alarm fire, including an affordable-housing complex. City officials' energy and focus was therefore diverted from PB to the relief effort, including suspension of all PB-related email blasts and advertisements via the City website and social media outlets. This may have decreased the number of individuals engaging with the process overall and certainly redirected the attention of many low-income families that might have otherwise participated. December itself is a challenging month to study social phenomenon due to holiday stress and the time constraints of voters and participants alike.

Regarding the mixed methods case study design of this study, the data is only as good as the number and diversity of those that chose to partake in both the process and the evaluation. While the research design of this evaluation is in line with other PB processes across the United States (Public Agenda, 2015) and was careful to introduce triangulation through multiple data sources (Yin, 2009), one drawback of this research design and evaluative projects generally is that survey respondents and interview participants are limited to those individuals that took part. However, the City's goals related to this process go beyond the individual impacts of those directly involved in PB. The degree to which PB has had "meaningful community impact," for example, may be perceived quite differently by those that have opted not to participate or simply did not know about PB. Survey and interview results should be interpreted given this significant limitation as the process may not be as highly rated by the eligible resident electorate that did not vote. Similarly, not all participants took the survey, and limited interviews were possible given volunteer evaluator capacity. As such, the views and feedback garnered may not be fully representative of the voter population, less the boarder Cambridge community.

## Conclusion

Participatory budgeting has the potential to create short-term and long-term change in communities through the introduction of a direct, deliberative democratic process at the local level. PB has been associated with improved government legitimacy and increased civic participation; more equitable spending on underserved populations; enhanced information and resource sharing across communities; and improved empowerment, social well-being, and understanding of political and budgetary decision-making for participants. Community goals associated with PB processes depend on the local context, but frequently include increasing the diversity of engaged citizens, educating constituencies, and enhancing the value and legitimacy of City spending. The City of Cambridge has set goals that both align and diverge with these historically tested outcomes. While achieving most of their stated impact goals, inclusivity, project scope, and outreach can still be improved to maximize PB impact toward achieving the local Steering Committee's aims.





## Resource and References

- Avritzer, L. (2012). Democracy beyond aggregation: The participatory dimension of public deliberation. *Journal of Public Deliberation*, 8(2).
- Baiocchi, G. (2003). Emergent public spheres: Talking politics in participatory governance. *American Sociological Review*, 52-74.
- Boulding, C., & Wampler, B. (2010). Voice, votes, and resources: Evaluating the effect of participatory democracy on well-being. *World Development*, 38(1), 125-135.
- City of Cambridge Participatory Budgeting. (2016). FAQs. Retrieved from: <http://pb.cambridgema.gov/faqs>.
- Creswell, J.W. & Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research*, 2<sup>nd</sup> Edition. New York, NY: Sage Publications, Inc.
- Fowler, F. J. (2014). *Survey Research Methods*, 5<sup>th</sup> Edition. New York, NY: Sage Publications, Inc.
- Hagelskamp, C., Rinehart, C., Siliman, R., & Schleifer, D. (2016a). Public Spending by the People: Participatory Budgeting in the United States and Canada in 2014-2015. A report from Public Agenda. Retrieved from <http://www.publicagenda.org/pages/public-spending-by-the-people>
- Hagelskamp, C., Rinehart, C., Siliman, R., & Schleifer, D. (2016b). A Process of Growth: The Expansion of Participatory Budgeting in the United States and Canada in 2015-16. A report from Public Agenda. Retrieved from <http://www.publicagenda.org/media/a-process-of-growth>
- Halcomb, E. J. & Davidson, P. M. (2006). Is verbatim transcription of interview data always necessary? *Applied Nursing Research*, 19(1), 38-42.
- Hedrick, T. E., Bickman, L., & Rog, D. J. (1993). *Applied Research Design: A Practical Guide*. Thousand Oaks, CA: SAGE Publications.
- Johnson, C. & Gastil, J. (2015). Variations of Institutional Design for Empowered Deliberation. *Journal of Public Deliberation*, 11(2).
- Kasdan, A., & Cattell, L. (2012). *A people's budget a research and evaluation report on the pilot year of participatory budgeting in New York City*. New York, NY: Community Development Project at the Urban Justice Center.
- Kasdan, A., Cattell, L., & Convey, P. (2013). *A people's budget: Year 2 a research and evaluation report on participatory budgeting in New York City*. New York, NY: Community Development Project at the Urban Justice Center with the PBNYC Research Team.
- Kasdan, A., Markman, E., & Convey, P. (2014). *A people's budget: Cycle 3 A research and evaluation report on participatory budgeting in New York City*. (). New York, NY: Community Development Project at the Urban Justice Center with the PBNYC Research Team.
- Leighninger, M. & Rinehard, C. (2016). Power to the People! (And Settings for Using it Wisely?): Balancing Direct and Deliberative Democracy in Participatory Budgeting. A report from Public Agenda. Retrieved from [http://www.publicagenda.org/files/PowertothePeople\\_PublicAgenda\\_2016.pdf](http://www.publicagenda.org/files/PowertothePeople_PublicAgenda_2016.pdf)
- Participatory Budgeting Project. (2016) *What is PB?* Retrieved from <http://www.participatorybudgeting.org/about-participatory-budgeting/what-is-pb/>
- Participatory Budgeting Vallejo. (2016). Participatory Budgeting in Vallejo: Finding the Balance between Innovation and Risk, A Summary of Cycle 3 2015. Retrieved from [http://www.ci.vallejo.ca.us/city\\_hall/departments\\_\\_divisions/city\\_manager/participatory\\_budgeting/cycles/cycle\\_3\\_\\_2015\\_/](http://www.ci.vallejo.ca.us/city_hall/departments__divisions/city_manager/participatory_budgeting/cycles/cycle_3__2015_/)

Public Agenda. (2015, November 10). 15 Key Metrics for Evaluating Participatory Budgeting. Retrieved from <http://www.publicagenda.org/pages/15-key-metrics-for-evaluating-participatory-budgeting>

Shah, A. (2007). *Participatory budgeting*. Washington, DC: World Bank Publications.

Srivastava, A. & Thomson, S. B. (2009). Framework Analysis: A Qualitative Methodology for Applied Policy Research. *Journal of Administration and Governance*, 4(1), 72-79.

Yin, R. K. (2009). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications.

Zhody, Nada. (2015). Evaluating the Inaugural Participatory Budgeting Process in the City of Cambridge: 2014-2015. Cambridge, MA: Participatory Budgeting Project and the City of Cambridge.