

**SUMMARY OF QUESTIONS POSED BY LANCE HAVER AND
PHILADELPHIA WATER DEPARTMENT RESPONSES**

SET B

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
1. Does Black & Veatch (B&V) do any consulting work for for-profit utilities?	Response: Yes. Black & Veatch Management Consulting, LLC (Black & Veatch) does provide consulting services to for-profit utilities.
2. Have any of the current PWD witnesses ever testified on behalf of American Water Company?	Response: No PWD witnesses. Ms. Bui of Black & Veatch has testified on behalf of California American Water in front of the CA PUC.
3. Has B&V ever recommended that a for profit utility purchase a publicly owned utility?	Response: Black & Veatch has been engaged by both buy-side and sell-side entities to assist with utility transactions. However, we do not recommend outcomes.
4. Has B&V ever recommended and/or helped a for profit utility purchase a publicly owned utility?	Response: See response for Q3.
5. Have any of the witnesses testifying on behalf of PWD ever worked with anyone at B&V who has recommended selling a municipal water utility?	Response: In absence of a period of time to frame Question 5, the witnesses identified below have supplied their respective responses for the years 2013 to 2021: <u>For PFM:</u> PFM has been engaged by municipal systems to analyze the benefits of privatization. PFM does not recommend an outcome, but rather work with the seller to implement a transaction if that option is approved. B&V may also be the engineer of record for the municipal water utility. <u>For Acacia:</u> No.

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
<p>6. Has anyone at B&V, of any of the witnesses testifying on behalf of PWD ever worked for any customer of the PWD including Aqua PA or any of the 10 suburban customers to which PWD provides wastewater service?</p>	<p>Response: In absence of a period of time to frame Question 6, the witnesses identified below have supplied their respective responses for the years 2013 to 2021:</p> <p><u>For PFM:</u></p> <p>No</p> <p><u>For Acacia:</u></p> <p>Acacia has served as municipal advisor to the Township of Cheltenham in connection with the issuances of general obligation debt.</p> <p><u>For B&V:</u></p> <p>No</p>
<p>7. As a percentage of billable hours, how much of B&V work is done for stockholder owned utilities and how much is done for publicly owned utilities?</p>	<p>Response: Black & Veatch’s management consulting practice works in the Water, Power, and Oil & Gas industries. In 2020, approximately 35% to 37% of our revenues come from non-municipal Water, Power, and Oil & Gas clients.</p>
<p>8. How do the hourly rates B&V charges to clients compare between publicly owned utilities and stockholder owned utilities?</p>	<p>Response: Black & Veatch’s hourly rates are dependent on the type of service provided. In the Water industry, the billing schedules are comparable.</p>
<p>9. As a percentage of B&V’s retained earnings and profit sharing, how much is derived from stockholder owned utilities and how much from publicly owned utilities.</p>	<p>Response: Black & Veatch is a privately held ESOP and this information is not available.</p>
<p>10. Was Ms. Bui a co-author of “How Much Is It Worth? An Overview of valuing Water Utilities”?</p>	<p>Response: Yes.</p>
<p>11. Did Ms. Bui write the article, in some part, to help stockholder owned utilities decide if they should purchase publicly owned utilities?</p>	<p>Response: No. The article provides an overview of how the utility valuation process has changed. Valuation can be used by utilities, not only in buy/sell transactions, but also as part of determining pricing for capacity fees, ROE, etc.</p>

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
12. Did Ms. Bui make a presentation to Bank of America Merrill Lynch Water Investors Conference, December 2019 on Municipal Water and Privatization?	Response: Yes.
13. Please produce a copy of the presentation and/or notes from the presentation.	Response: See Response Attachment LH-Set-B 13.
14. Please produce the testimony and/or note of testimony of any and all testimony before any and all regulatory bodies opposing allowing the sale of a publicly owned utility to a stock holder owned utility.	Response: A response could not be formulated to Question 14, as written. This question is too broad and vague. It does not specify witnesses, a timeframe or region.
15. On lines 6-8 page 7 of the direct testimony of B&V, it states that as a general proposition the cost of service analysis provides the basis for designing a rate structure that allow the utility to recover costs from its customers equitably. Please define what the word equitably means in this context, who defined it as such and if there are other possible definitions of equitable in this context.	Response: The word equitably in the context of the cost of service study is consistent with the definition recognized in water ratemaking industry. As stated in the 7 th edition of AWWA’s Manual M1, <i>Principles of Water Rates, Fee, and Charges</i> : Page 4: “Water rates are considered fair and equitable when each customer class pays the costs allocated to the class and, consequently, cross-class subsidies are avoided.” Page 5: “The functionalization, allocation, and distribution process of the base-extra capacity and commodity-demand methodologies are generally considered fair and equitable because both approaches result in the revenue requirements being distributed to each class in proportion to each class’s contribution to the system cost components.”
16. Why is it not practical to perform cost of services evaluations on an individual customer level? Isn't the burden of a rate hike felt on individuals not on an amorphous group?	Response: The practicality of performing a cost of service evaluation on an individual basis is a limitation that is recognized by the ratemaking industry. Note the following reference from the 7 th edition of AWWA’s Manual M1, <i>Principles of Water Rates, Fee, and Charges</i> : “The ideal solution to developing rates for water utility customers is to assign cost responsibility to each

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
	<p>individual customer served and to develop rates that reflect that cost. Unfortunately, it is neither economically practical nor often possible to determine the cost responsibility and applicable rates for each individual customer served. However, the cost of providing service can be reasonably determined for groups or classes of customers that have similar water-use characteristics and for special customers having unusual or unique water-use or service requirements. Rate-making endeavors to assign costs to classes of customers in a nondiscriminatory, cost-responsive manner so that rates can be designed to closely meet the cost of providing service to such customer classes.”</p>
<p>17. On lines 21- 23, page 7 the testimony says “When the revenues generated from existing user rates and charges and other sources of revenue are insufficient to cover operating and capital costs, the utility may require one or more revenue adjustments as part of the revenue requirements analysis”. Are there other options than adjusting revenues? If so, which other options did B&V consider? Please provide the work products which show the analysis of other considerations.</p>	<p>Response: Black & Veatch’s cost of service study did include a review of the Department’s miscellaneous charges. The miscellaneous charge revenues are reflected in the cost of service study and the net revenue requirement reflected in the analyses reflect the projected miscellaneous revenues.</p>
<p>18. Is one of the options to consider when revenues are insufficient to cover operating costs, lowering costs through innovations?</p>	<p>Response: The Department continually evaluates and implements innovations to lower costs. Please refer to the Management Initiatives section included in the Water and Wastewater Revenue and Revenue Refunding Bonds Series 2020A and Series 2020B official statement.</p>
<p>19. If the answer to LH-B-18 is yes, please provide a list of the innovations B&V considered and rejected, the reasons for the rejections in B&V determination of the need for the proposed rate increase.</p>	<p>Response: B&V’s scope of work for the cost of service study does not include the identification and evaluation of innovations. The cost of service study does not reflect any additional innovations beyond those already included in the Department’s FY 2021 budget or any additional reductions in spending as provided by PWD staff.</p>

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
<p>20. Has there ever been a time, that any of B&V’s witnesses are aware of, that bond holders have agreed to accept a lower return and/or allowed an entity to enter a technical default. Are any of PWD’s experts familiar with Sinclair Broadcast Group’s request that bond holders accept 40% loss? Please list the members of B&V’s employees who are familiar with Sinclair Broadcast Group’s request for bond holders to accept losses.</p>	<p>Response: No member of the Black & Veatch team is familiar with the Sinclair Broadcast Group matter. The only time that we have been aware of bond holders agreeing to accept a lower rate of return is in the case of bankruptcies, such as Johnson County (AL) and PREPA.</p>
<p>21. Does B&V recommend the City of Philadelphia using some of the Stimulus money to cover the uncollected bills? If so, please provide the work sheets showing the estimates of how that would affect the requested rate hike? If not, please explain why B&V recommends rejecting using COVID stimulus money to cover unpaid bills.</p>	<p>Response: Please refer to PWD Rebuttal Statement No. 1 for discussion of stimulus funding and associated customer relief.</p>
<p>22. Why does B&V categorize the TAP program as a loss of revenue, when without TAP, there would be less revenue to the PWD?</p>	<p>Response: Only the discounts provided to TAP customers are considered as a lost revenue. The discount represents the difference between the TAP customer’s bill based upon the current rates and their income-based bill.</p>
<p>23. Does B&V believe there are any consumers who do not have a surplus of income to pay the proposed increase? If so, what does B&V recommend those consumers do?</p>	<p>Response: PWD has discount programs, including TAP, for customers who require utility payment assistance. Black & Veatch encourages all customers who require assistance to contact PWD.</p>
<p>24. Please provide any and all studies B&V did to understand the burden the proposed rate increase would have on a modal family in Philadelphia showing how the additional cost in water/sewer can be met.</p>	<p>Response: B&V’s scope of work for the cost of service study does not include the economic impact analysis to evaluate the burden of the proposed rate increase would have on a model family in Philadelphia.</p>

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<p>25. Please list all cost saving programs B&V evaluated and rejected, provide work product for all ideas listed.</p>	<p>Response: The following cost saving programs and policies implemented by the Department management are reflected in the cost of service analysis:</p> <ul style="list-style-type: none"> • PWD management initiatives and cost-saving strategies: <ul style="list-style-type: none"> - FY 2021 Budget reduced by about \$25.0 million. - Withdrawal of FY 2021 and FY 2022 rate increase. - Utilization of Reserves to meet FY 2021 obligations. • Reduced financial metrics to manage customer bill impacts: <ul style="list-style-type: none"> - Setting rates to meet the minimum senior debt service coverage requirement of 1.20x, instead of the target 1.30 set forth under the 2018 Rate Determination; - Not funding the Rate Stabilization Fund to the \$135 million target under the 2018 Rate Determination; and - Deferring the 20% cash funding target for capital projects. <p>B&V's scope of work for the cost of service study does not include an evaluation and identification of cost saving programs.</p>
<p>26. Page 26, lines 18-20 state that debt service is estimated at a 5.0% and 5.25% interest rate. Please explain how those interest rates were projected. Please explain the projected interest rates after comparing the projected interest rates at Bloomberg for Muni bonds</p>	<p>Response: Interest rates are based upon prior issuances. Please see PWD Statement 7A, Schedule BV-6: WP-1. Please also refer to previously provided response to PA-ADV-10.</p>
<p>27. Where does the PWD keep it reserve funds?</p>	<p>Response: Please see previously provided response to LH-A-6. The City of Philadelphia Treasurer's office</p>

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
	determines the bank which holds the Rate Stabilization Fund.
<p>28. Is it B&V’s contention that Philadelphians living with the effects of the COVID restrictions are not worth consideration? If that is not the case, and the economic condition of Philadelphians was considered as a factor but rejected and a modifier for a rate increase, please provide all work product showing why the decision was made to reject the economic conditions of Philadelphians as an additional factor to be taken into account.</p>	<p>Response: No that is not Black & Veatch’s contention. PWD Statements 2 and 7A clearly outline the steps taken by the City to recognize the impact of COVID and the economic downturn. Note the cost saving considerations reflected in the cost of service analysis identified in response to question 25.</p> <p>In addition, the Department provides assistance programs for low income customers as well as other customers facing financial difficulties during the pandemic. See, PWD Statement 5.</p>
<p>29. For the last 5 years, listed year by year, program by program, provide the amount PWD spent on advertising PWD programs.</p>	<p>Response: See Response Attachment LH-Set-B 29.</p>
<p>30. Please provide the analysis of the success and/or failure of PWD’s marketing campaigns, based on each program.</p>	<p>Response: See Response Attachment LH-Set-B 30A and Response Attachment LH-Set-B 30B.</p>
<p>31. Please provide the amount PWD spent advertising the public hearings for this proposed rate increase.</p>	<p>Response:</p> <ol style="list-style-type: none"> 1. <u>Paid Newspaper Advertisements appeared in the following newspapers:</u> <ul style="list-style-type: none"> • \$4,060.20 - Philadelphia Tribune, 3/9/21 • \$14,220.00 - Philadelphia Inquirer, 3/10/21 • \$4,770.00 - Philadelphia Daily News, 3/10/21 • \$1,500.00 - Philadelphia Metro, 3/10/21 • <u>\$5,000.00</u> - Al Dia published, 3/10/21 <p>\$29,550.20</p> 2. <u>Published Press Release on 3/9/21:</u> <ul style="list-style-type: none"> • Mayor’s Office of Communications issued a press release announcing the dates and times of the virtual public input hearings and how residents can participate.

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	<p>3. <u>Email Outreach to Partners</u> – PWD created a social media/email toolkit and distributed to City Council members (3/9/21) and partner organizations (3/10/21) to encourage outreach to constituents about the date/times of public input hearings and how to participate:</p> <ul style="list-style-type: none"> • All City Council members • Registered Community Organizations (RCOs) – spreadsheet of 282 organizations • Southeast Asian Mutual Assistance Association Coalition (SEAMAAC) • Energy Coordinating Agency (ECA) • Utility Emergency Services Fund (UESF) • Community Legal Services, Inc. (CLS) • The Homeowners Association of Philadelphia (HAPCO) <p>4. <u>Email Outreach to PWD’s residential list:</u></p> <ul style="list-style-type: none"> • Information about the dates/times of public input hearings and how to participate went out to 18,024 customers on PWD’s residential email and SMS/mobile phone list on 3/9/21. • A second email was sent to a list of 152 community organizations serving residents on 03/11/21. <p>5. <u>PWD Social Media channels:</u> (weeks of 3/8/21 and 3/16/21):</p> <ul style="list-style-type: none"> • Facebook • Instagram • Twitter • Nextdoor
<p>32. If any advertisements to announce the public hearings for this proposed rate increase were place, please list where they were placed and the amount spent at each place where the advertisements were aired, appeared and/or televised.</p>	<p>Response: Please see response to Q31.</p>

Questions Posed by Mr. Haver	Philadelphia Water Department Responses
33. Please list the number of consumers enrolled in PWD low income plan(s) on a yearly basis over the last 5 years.	Response: See Response Attachment LH-Set-B 33.
34. Please list the number of consumers enrolled in PGW's low income plan(s).	Response: The Department does not have the information for PGW. Please contact PGW.
35. Provide all correspondence with PGW regarding joint marketing of PGW and PWD's low income plans.	Response: After reasonable investigation, no correspondence responsive to this question was found.
36. Provide on yearly basis, over the last 5 years, the amount of money, including overhead PWD has spent on advertising its low income plan(s).	Response: See Response Attachment LH-Set-B 29.



Municipal Water & Privatization

Ann Bui
Managing Director

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About Black & Veatch



Employee-owned, global leader in building Critical Human Infrastructure in Energy, Water, Telecommunications and Government Services. Since 1915, we have helped our clients improve the lives of people in more than 100 countries through consulting, engineering, construction, operations and program management.



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Telecom

Oil & Gas

We provide the best and most advanced solutions to clean, move, control and conserve water.

We work with carriers, utilities, communities and private entities to design and build the communications networks and technology infrastructure.

We are a global leader in gas processing and NGL fractionation, sulfur, LNG facilities, gasification and ammonia/fertilizers.



Transactions & Planning - Water

Within the past 5 years, we have supported over \$100 billion of transactions and completed over 500 engagements, including technical and regulatory services for:

- Water and Wastewater infrastructures:
 - 75+ million population served
 - 3,000+ million gallon per day water treatment facilities
 - 5,000 million gallon per day wastewater treatment facilities
 - 90,000+ miles of water and wastewater pipelines
 - 100+ bond issues totaling \$25+ billion



Over 20% of the world's population drinks potable water from a B&V designed, constructed or supported system



Project background

BV was retained by PGGM to provide technical due diligence services in support of a potential acquisition of a minority equity stake in Suez Water Resources, which owns 15 fully regulated water and wastewater utilities that provide services to approximately 2.1 million people across six states in the US. BV carried out a robust benchmarking exercise as part of its technical diligence support.

Role

The scope of services provided includes:

- ▶ Site visits to selected facilities
- ▶ Review of 7 largest utilities' historical operational data and water quality
- ▶ Review of Suez's asset management and project management approach
- ▶ Review of key technical provisions of the water purchase agreements
- ▶ Review of information technology and cybersecurity systems and plan
- ▶ Review of Suez's health, safety, and environmental (HSE) policies and procedures
- ▶ Review of pre-existing environmental contamination risks
- ▶ Review of environmental operational and compliance plans
- ▶ Review of technical and commercial inputs and assumptions in the Financial Model

Key highlights

BV's performance benchmarking analysis included reviews of:

- ▶ Water - Leaks and breaks (per 100 miles of pipe)
- ▶ Wastewater – SSOs
- ▶ Water - Non-revenue water (gals/connection/day)
 - ▶ Physical Losses
 - ▶ Apparent Losses

BV's cost benchmarking analysis included reviews of:

- ▶ Water - \$/mile of pipeline replaced
- ▶ Water - \$/MGD of new treatment
- ▶ Wastewater - \$/MGD of new treatment
- ▶ Wastewater - \$/mile of collection system replaced
- ▶ Operating ratio (%)

Outcome

BV's client, PGGM, successfully completed its investment in Suez Water Resources for a 20 percent stake in the company.*



Project background

BV was retained by Canada Pension Plan Investment Board's (CPPIB) to provide technical due diligence services in support of an investment in Aqua America Inc., the second-largest, publicly traded water and wastewater utility based in the United States.

Role

The scope of services provided includes:

- ▶ Conducted a technical assessment of Water Supply Management Plan, Asset Management Plan, Water Loss Value and Mitigation Programs and Water and wastewater quality reports.
- ▶ Conducted a regulatory assessment of key regulatory policies, procedures, precedents and rate case outcomes which can impact the financial performance and future growth.
- ▶ Completed an environmental compliance assessment of corporate policies, environmental planning documents, example permits/compliance reports, and general operational information related to the environmental compliance status of Aqua
- ▶ Review of Capital Improvement Plan, including proposed capital improvements and proposed spending levels
- ▶ Conducted site visits to selected facilities
- ▶ Review of technical and regulatory inputs and assumptions in the Financial model developed by CPPIB

Key highlights

BV's performance benchmarking analysis included reviews of:

- ▶ Water - Leaks and breaks (per 100 miles of pipe)
- ▶ Water - Non-revenue water (gals/connection/day)
 - ▶ Physical Losses
 - ▶ Apparent Losses

BV's cost benchmarking analysis included reviews of:

- ▶ Water - \$/mile of pipeline replaced
- ▶ Capex/customer/year
- ▶ Residential cost of service
- ▶ System environmental compliance

Outcome

BV's client, CPPIB, successfully invested approximately US\$750 millions in Aqua America's newly issued common stocks.


* <http://www.cppib.com/en/public-media/headlines/2019/aqua-announces-750-million-investment-cppib/>






Emerging Areas of Interest

The Challenges



Extreme weather events raising awareness of sustainability and resilience as key issues


Extreme weather events raising awareness of sustainability and resilience as key issues



Regulatory uncertainty from political turmoil




Rising rates challenging affordability, drives need for public awareness of the value of water systems and services



Increased need for capital and asset management to replace aging infrastructure



Need to influence customer behavior pointing to better customer engagement



Areas of Interest

Coordinated Market Solution	Offering/Project Focus
Connected Enterprise	AMI Strategy to-Operations Asset Management Strategies
New Water Economy	Customer Meter-to-Cash Products and Services Smart Water
Capital Efficiency	Stormwater Assessments Consolidation



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13 April 2021

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SEPTA Advertising

July 3 – August 13, 2017 and September 4 to October 15:

TAP program promotion on buses low-income areas

- 40 Bus shelters posters
- 75 Subway platform posters
- 75 King size bus exterior posters
- 250 Subway interiors
- 500 Bus interiors

Total: \$70,845.00

TAP Promotion Newspaper Ads

June 5 – July 13, 2017: Thirteen, ¼ page ads in the Philadelphia Metro - \$12,870

June 5 – July 10, 2017: Six, ¼ page ads in Al Dia - \$9,072

June 5 – July 10, 2017: Eighteen add in the Philadelphia Tribune - \$9,366

Total: \$31,308

End of Moratorium Billstuffers – (CAP Program highlighted)

March, 2016: End of Moratorium billstuffer - \$19,320.00

April 1, 2017: End of Moratorium billstuffer – \$19,240.00

March, 2018: End of Moratorium billstuffer - \$21,631.00

March, 2019: End of Moratorium billstuffer - \$28,238.40

Total: \$88,429.40

Rate Increase Billstuffers – (CAP Program highlighted)

July 1, 2017: Rate Increase billstuffer - \$26,640.00

Sept. 1, 2018: Rate Increase billstuffer – \$28,826.70

Sept 1, 2019: Rate Increase billstuffer - \$19,481.50

June 1, 2020: Assistance billstuffer - \$21,589.50

Total: \$96,537.70

CAP Program Radio Campaigns

June – July, 2017: TAP promotion radio ads - \$25,126.89

- Radio One: Boom 103.9, 100.3 WRNB, Praise 107.9
- iHeartMedia: Q 102, Power 99
- CBS Radio: KWY 1060

iHeart Media, WDAS Radio Assistance Program Campaign – \$24,808.00

- March 15 – April 25, 2021
- :05, :10, :15, and :30 second commercial announcements (224 total)
- :10 second mentions included as part of added value feature (56 total)
- 500,000 Branded Social Media Impressions
- 250,000 Digital Audio Impressions
- Five (5) pre-recorded messages by popular influencer Patty Jackson

La Mega Spanish Radio Assistance Program Campaign - \$25,200.00

- April 5 – June 27, 2021
- :30 second commercial announcements (432 total)
- Logo placement on MEGA's website
- Two (2) Facebook posts per month

Total: \$75,134.89

RainCheck Billstuffers

April, 2018: Rain Check billstuffer - \$21,408

December, 2019: Rain Check billstuffer – \$19,600

Total: \$41,008.00

Guide to Water Emergencies Billstuffers (HELP Program highlighted)

March, 2017: Guide to Water Emergencies billstuffer - \$26,917.50

November, 2017: Guide to Water Emergencies billstuffer - \$26, 917.50

November, 2018: Guide to Water Emergencies – \$28,532.55

December, 2019: Guide to Water Emergencies - \$28,532.55

Total: \$110,900.10

Senior Citizen Discount Mailing

November, 2019: Postcards and Letters Mailing –

Total: \$46,640

Grand Total: \$560,803.09

In House TAP Promotion

PWD's Public Affairs Team developed collateral and partnerships to ensure awareness and accessibility to TAP. These initiatives included:

- Online presence on PWD website (www.phila.gov/water)
- Informational Fact sheet
- Information poster (to be distributed to NECs, ECA, UESF, CLS, Libraries, WRB payment centers, city council, etc.)
- Presentations at assistance program forums
- Resource table at PWD Town Hall meetings and partner resource fairs
- TAP Advisory Committee (CLS, UESF, ECA, Drexel University Center for Hunger Free Communities)

Tiered Assistance Program (TAP)

2019 | Water Revenue Bureau

Survey Report

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Background

The Tiered Assistance Program (TAP) began in 2017 as an affordability program, designed to help PWD customers who are low-income, senior citizens, or facing a special hardship to pay their monthly water bill. The goal of TAP is to improve upon the City's existing customer assistance programs by easing the financial burden on City residents most in need.

Currently, TAP administrators are tasked with increasing enrollment for the program and switching senior citizen discount users to the TAP program. The purpose of the 2019 TAP survey was to better understand participant satisfaction levels and identify locations for future marketing.

Methodology

ImpactED developed the 2019 TAP Survey in collaboration with the Philadelphia Water Department (PWD). In total, 6,773 program participants were invited to take the survey and 1,782 people completed the survey, yielding a response rate of 26%. The survey was open from April 30th, 2019 - May 27th, 2019.

Limitations

There are two primary methodological limitations of this survey. The first is related to the survey mode, and the second, how TAP participants were recruited to participate in the survey. The survey was only available online, and thus, participants who do not have access to the internet or who prefer not to use the internet could not take the survey. Second, only TAP participants who provided valid email addresses were invited to take the survey. Thus, the sample is limited to TAP participants with email addresses and those willing to participate in an online survey, which may exclude participants who do not use the internet.

To account for non-response within the given sample, the survey response data was weighted to reflect the population of TAP participants with email addresses, based on their reported income levels. However, the data barely changed after weighting, which means the survey sample was very representative of TAP participants.

Findings

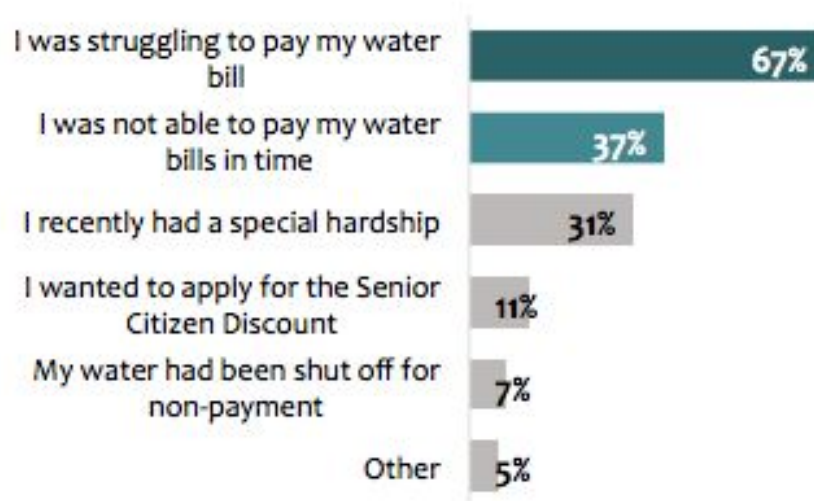
The study resulted in key findings across several topic areas discussed below. Throughout the findings, “TAP participants” is used to refer to the population of TAP participants with email addresses that comprised the sample.

Why did residents apply and how was the process?

- **WHY? | The majority of TAP participants applied for the program because they were struggling to pay their water bill.**

When asked why participants applied for the TAP program, 67% said that they were struggling to pay their water bill with the second most common response being that they could not pay their water bill on time. Figure 1 below shows the full set of responses.

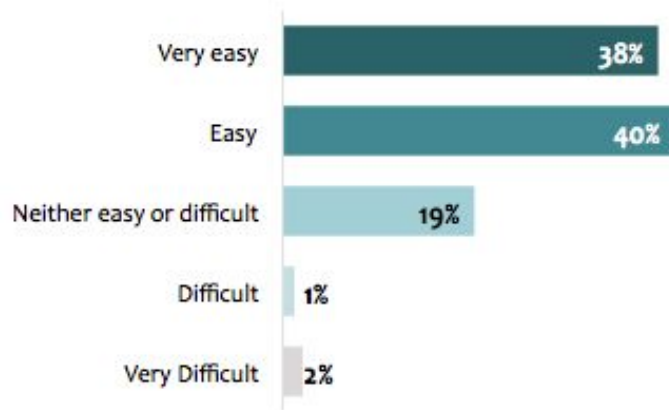
Figure 1. Reasons residents applied for TAP



- **EASE OF APPLICATION? | The large majority of TAP participants found the application process either very easy or easy.**

Overall, 78% of TAP participants found the application process either very easy or easy, with only 3% of total respondents indicating that the application process was difficult or very difficult, as shown in Figure 2.

Figure 2. Perceptions of TAP application process ease.



- **HELPFULNESS? | Nearly all (98%) of TAP participants found the supporting documents helpful in preparing the TAP application.**

PWD provided supporting materials such as a factsheet and application checklist to help residents through the application process. 98% of participants found the supporting documents helpful in preparing the application.

What are TAP survey participant's demographics?

- **The large majority of TAP participants are homeowners who have been Philadelphia residents for more than ten years.**

TAP participants are largely long term Philadelphia homeowners. 85% of participants are homeowners and 89% have been Philadelphia residents for more than ten years

- **Almost half of participants are Black or African American**

In terms of race, 43% of participants identified as Black or African American, 12% White, 8% Hispanic or Latino/a, 4% Other, and 1% Asian.

- **The large majority (85%) of TAP participants are females.**

Females make up 85% of TAP participants, males account for 14%, and 1% identified as "Other".

- **The majority of TAP participants enrolled in 2018.**

In terms of TAP enrollment, 44% of TAP participants enrolled in 2018, 19% in 2017, 11% in 2019 and 26% of participants are not sure which year they joined the program.

- **The majority of those enrolled in a water bill assistance program before 2017 were enrolled in Water Revenue Assistance Program (WRAP).**

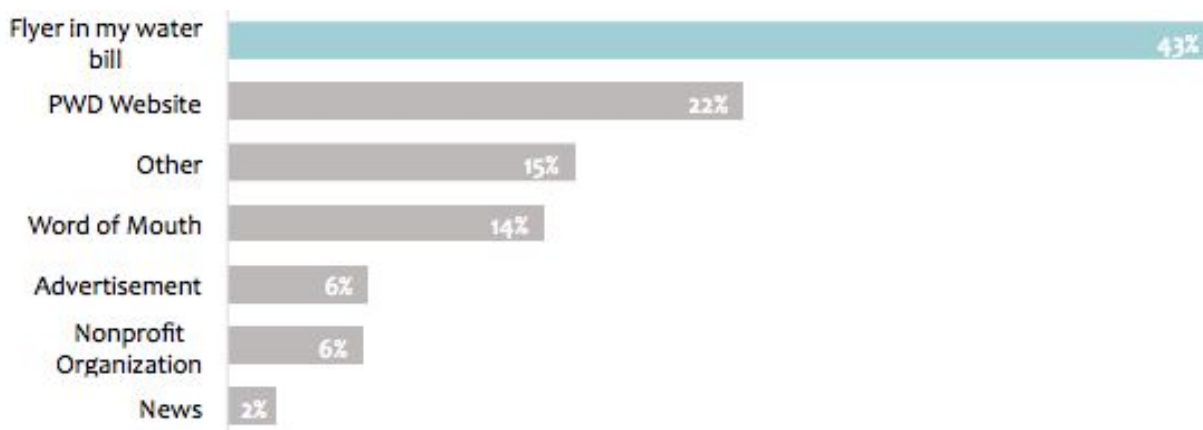
Prior to the TAP program, eligible residents could participate in the WRAP program to help them with their water bill. 88% of those who were enrolled in a water bill assistance program before 2017 were in the WRAP program.

How did residents learn about the program and apply?

- **Almost half of TAP participants learned about the program through a flyer with their water bill.**

Forty three percent of TAP participants learned about the program through a flyer with their water bill. Other common responses were through the PWD website and “other”, as shown in the image below.

Figure 3. How Residents learned about the TAP program

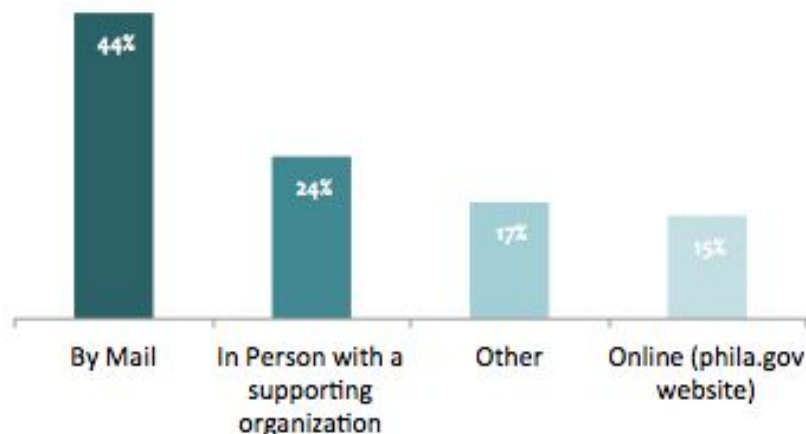


Out of the 15% of TAP participants who selected “other”, their responses mainly described community groups, Philadelphia Water Department, Water Revenue Bureau, or another city department.

- **The most common method of applying for the TAP program was via mail.**

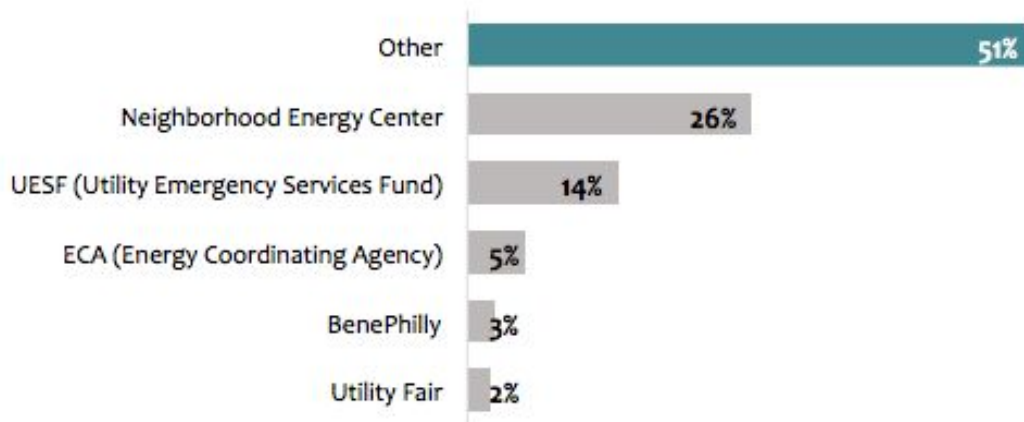
Overall, 44% of participants applied for the program via mail while 24% applied in person with a supporting organization.

Figure 4. Methods of applying for the TAP program



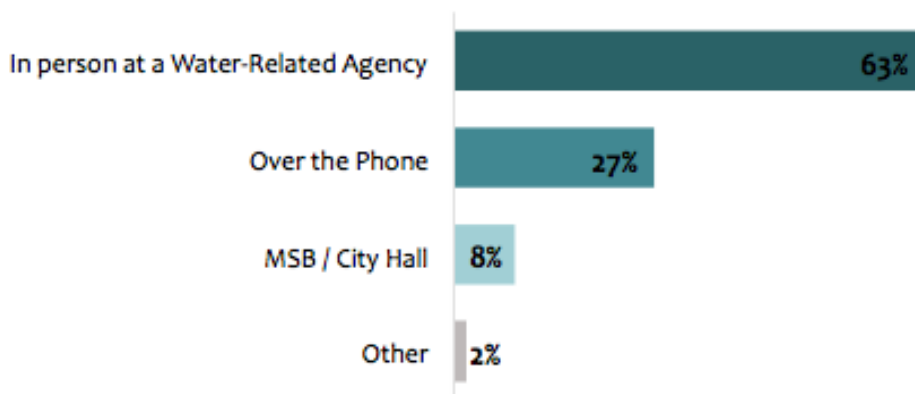
If participants indicated that they applied “in person with a supporting organization”, respondents were asked a follow up question asking where they applied in person (results shown in the graph below). Fifty one percent of participants who indicated that they applied in-person said they applied through “other” source. After an analysis of the open ended responses for “other”, the most common answers were PWD, WRB, or another city department.

Figure 5. Breakdown of where participants applied “In Person with a supporting organization”



Of the 17% of participants who responded “other,” the most common responses were from a city department (mainly PWD and WRB). Some respondents responded that they called PWD / WRB or walked in to one of these departments for help in person. A few participants said they were automatically enrolled into the TAP program from WRAP.

Figure 6. Breakdown of “Other” responses for those who applied in person

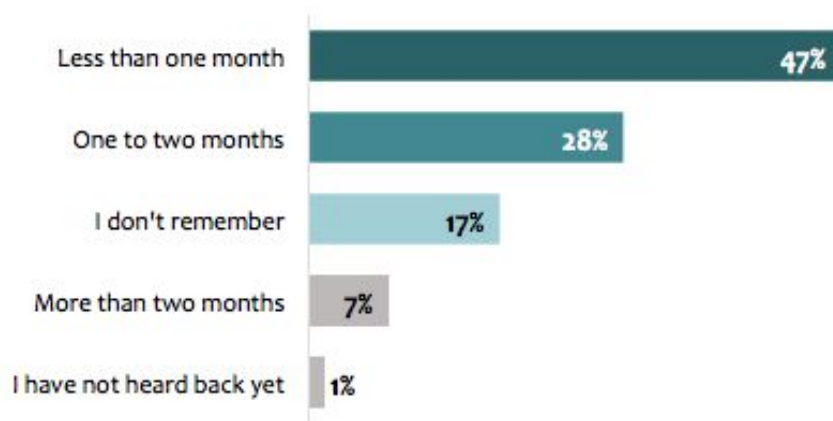


What is the turnaround time?

- **Nearly half of participants were notified about the status of their TAP application within one month.**

Overall, 47% of participants reported that they received notice about the status of their application in less than one month from submitting their information. Another 28% heard back in one to two months with only 7% saying it took two months to receive a response.

Figure 7. Turnaround time for the TAP application



- **Most of TAP participants would have submitted their application through email if it had been an option.**

Currently, the TAP program does not accept applications via email, although applicants can apply online. 65% of participants would have used email to apply for the program, had it been an option.

What is the LICAP participation for TAP participants?

- **The majority (67%) of TAP participants do not participate in the LICAP program.**

The LICAP program is a conversation assistance program that provides water conservation devices and education to low income customers (at or below 150% of the poverty line). 67% of TAP participants do not currently participate in the LICAP program.

- **A higher proportion of TAP participants who received assistance completing the application also participate in the LICAP program, as compared to people who did not get assistance in completing the application.**

When comparing TAP participants who received assistance in completing the application with those who did not get assistance in completing the application, it was evident that those who received assistance were more likely to be part of the LICAP program (23%), than those who did not receive assistance (16%).

- **Participants who are enrolled in both TAP and LICAP use less water than before starting the TAP program compared to participants who are only enrolled in the TAP program.**

In terms of water usage, those who participate in **both** the TAP and LICAP program say that they are using less water than before starting the TAP program (46%), compared to 30% of those who only participate in TAP and not the LICAP program.

How has the TAP program affected participants?

- **The majority of TAP participants feel like the program has helped them with their budget.**

Since joining the TAP program, 88% of participants responded that the program has helped with their monthly budget while 8% said there was no change and 4% said it did not help them.

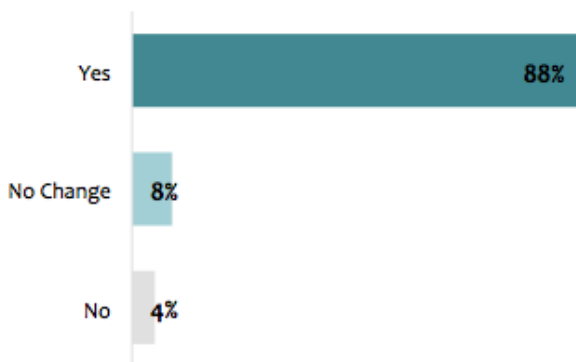
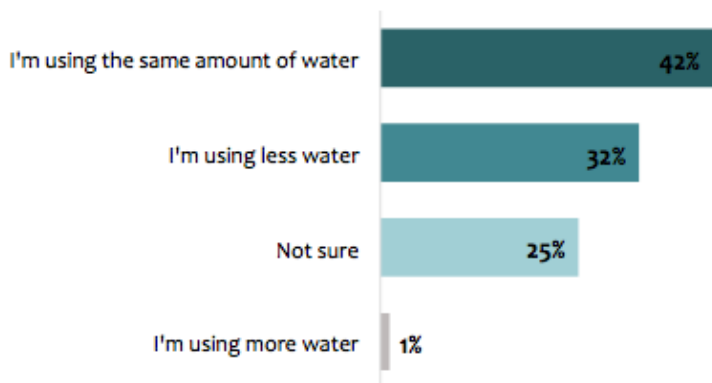


Figure 8. Percentage of participants who believe that the TAP program has helped with their budget

- **Almost half (42%) of TAP participants feel like they are using the same amount of water as before enrollment.**

When asked about their water usage, 42% of participants believe they are using the same amount of water as before they enrolled in the TAP program, 32% say they are using less water, 25% are not sure, and 1% is using more water.

Figure 9. TAP Participant’s water usage compared to before enrolling in the program

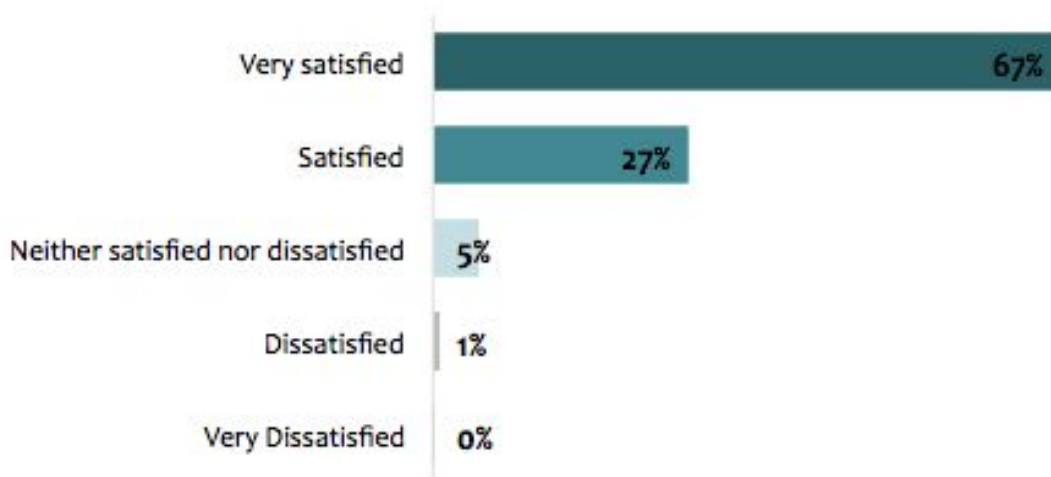


What is the satisfaction level for TAP participants?

- **Nearly all TAP participants responded positively when asked how satisfied they were with the program.**

Overall, 94% of participants are very satisfied or satisfied with the TAP program. 5% provided a neutral answer and only 1% responded that they were dissatisfied. 0% responded very dissatisfied.

Figure 10. TAP participants' level of satisfaction

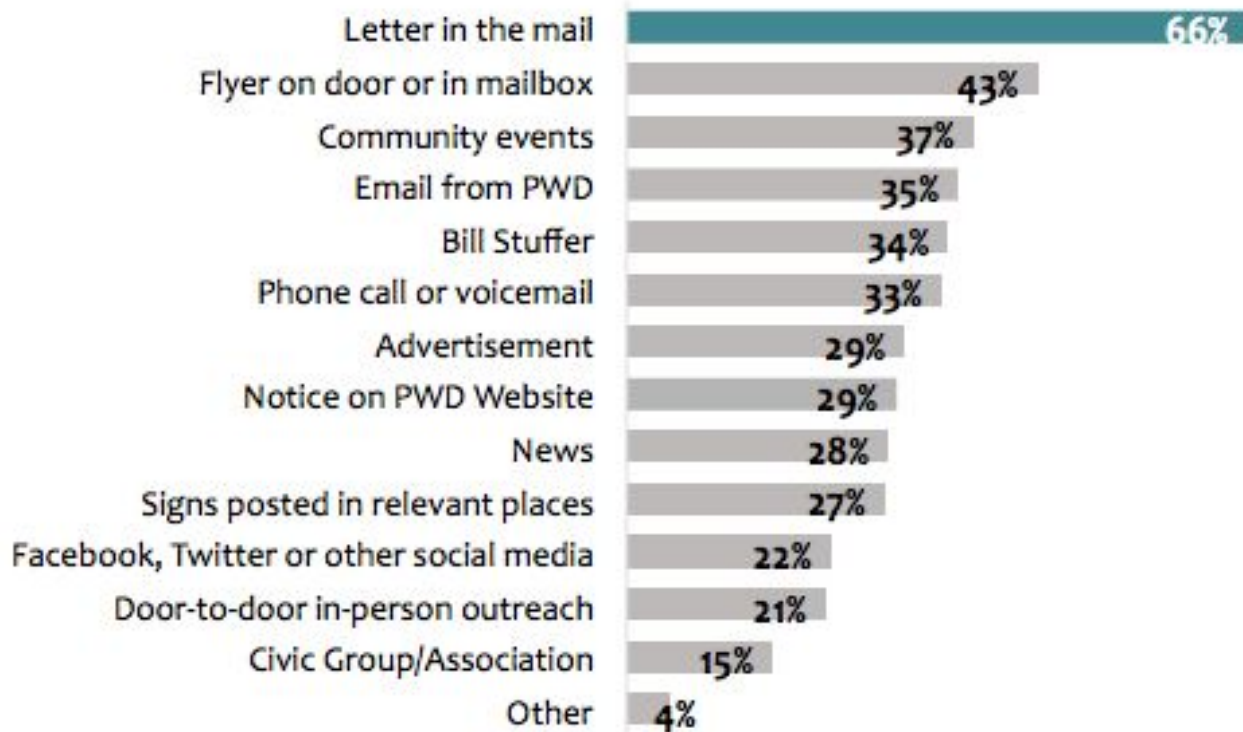


How should WRB communicate with TAP participants?

- **More than half of TAP participants (66%) think a letter in the mail is the best way to promote the TAP program.**

Overall, 66% of TAP participants indicated that they believe the best way to promote the program is through a letter in the mail. This finding is very consistent to what was discovered in the 2019 PWD Comprehensive survey in terms of how residents prefer to receive information about upcoming PWD events and projects. A flyer in the door or in the mailbox was the second most popular option at 43%, showing a theme of direct paper advertisements being a very popular theme with program participants. Of note, 35% of respondents indicated that emails from PWD would be a good way to promote the TAP program. Given the low cost of emails compared to other methods, such as mailed letters, flyers, bill stuffers and phone calls, this is a method worth further exploration.

Figure 9. Participant's opinion on how to promote the TAP program



Recommendations

Recommendations for Improving Services

The following recommendations are based on the findings from this report, and reflections of the Water Revenue Bureau staff.

➤ **Explore using email as a way to promote and increase awareness about the TAP program.**

Considering the positive response when asked if participants would have applied via email if it had been an option, in addition with the above graphic which shows an email from PWD at 35% for the best way to promote the program, digital communication could be an area to explore further.

➤ **Provide education and information about the LICAP program during or after TAP enrollment, especially for those who apply in person.**

Since the majority of TAP participants do not participate in the LICAP program, there could be further outreach to increase knowledge about this program, which helps residents conserve water.

- **Overall satisfaction levels are high, consider additional use of testimonials and statistics in future campaigns to promote TAP.**

Consider adding an open ended response question to the next survey to capture the high levels of satisfaction for the TAP program.

Recommendations for Future Research

- **Consider including “PWD,” “WRB” or a general city department category for questions regarding how participants heard about the program, how they applied, etc. as this was the most common response in “other”.**

Adding this option could decrease the number of responses that fell into the “other” category, which could provide a more accurate depiction of the survey data.

- **Explore options for surveying non-email users.**

This could allow us to collect data and perspectives from those who do not have access to the internet or have an email address.

- **Explore the in-person application further.**

Consider adding more in depth question regarding the process of in person applications for the TAP program.

- **Explore the effectiveness of the changed new application, especially since so many participants rated it as easy.**

The survey could ask participants what makes the new application so easy to use in order to gain deeper insight into the participant application experience. The survey could compare those were enrolled under the WRAP program, compared to the TAP program for ease of application.

- **Continue to measure the number of water shutoffs for TAP participants.**

Since PWD did not shut off water service for TAP participants with delinquent accounts thus far, it could be useful to monitor the number of shutoffs in the coming year when they do stop water service for participants who do not pay their monthly bill.

- **Consider using data from the TAP program in coordination with survey data.**

The TAP program collects data such as where, when, and how participants apply for the program so that could be used, alongside the self reported survey data to better understand the TAP program and participants.

2019 Tiered Assistance Program (TAP) Survey *Results*

RCAS Meeting
9.23.2019

Background

Goals and purpose

- ▶ **Future TAP goals?** TAP aims to increase enrollment and switch senior citizen discount users to the TAP program.
- ▶ **Purpose of survey?** The purpose of the TAP survey is to understand participant satisfaction levels & identify locations for future marketing.

Methodology

Survey design and weighting

- ▶ **26% response rate** - 6,773 people invited, 1,782 completed
- ▶ Recruited participants via **email**
- ▶ Survey design in collaboration with PWD, WRB and ImpactEd
- ▶ Open from April 30th, 2019 - May 27th, 2019

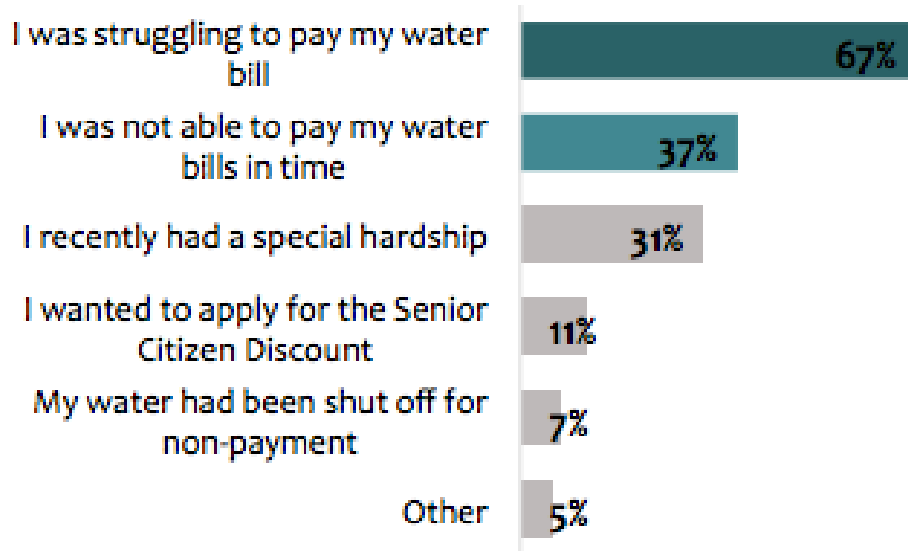
Findings

Why did residents apply and how was the process?

- ▶ **WHY?** The majority of TAP participants (67%) applied for the program because they were **struggling to pay their water bill**.
 - ▶ **EASE OF APPLICATION?** The large majority of TAP participants (78%) found the application process either **very easy** or **easy**.
 - ▶ **HELPFULNESS?** Nearly all (98%) of TAP participants found the **supporting documents helpful** in preparing the TAP application.
-

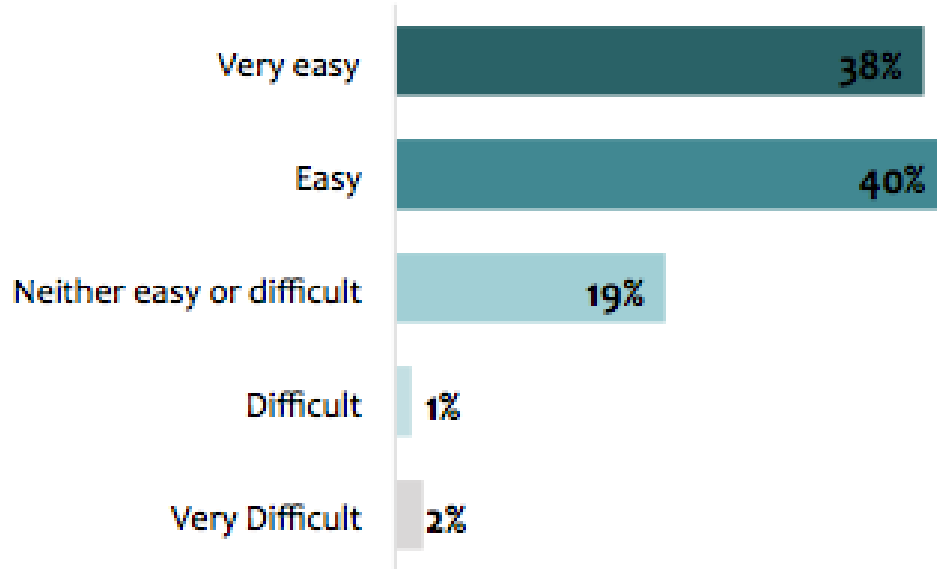
Why did participants apply for TAP?

67% of TAP participants were struggling to pay their water bill and 37% indicated that they were not able to pay their bills on time.



How difficult is the application process?

38% of participants found the application process very easy and 40% found it easy.



Respondent Demographics

Who are TAP survey respondents?

- ▶ The large majority of TAP participants are **homeowners (85%)** who have been Philadelphia **residents for more than ten years (89%)**.
- ▶ Almost half (43%) of participants are **Black or African American**, 12% white, 8% Hispanic or Latino/a, 4% other, and 1% Asian
- ▶ The large majority (85%) of TAP participants are **females**.

Findings

Who are TAP survey respondents?

- ▶ The majority (44%) of TAP participants **enrolled in 2018**.
- ▶ Slightly more than half (52%) of TAP participants were enrolled in the water bill assistance program before 2017.
- ▶ The majority of those enrolled in a water bill assistance program before 2017 were **enrolled in Water Revenue Assistance Program (WRAP) (88%)**.

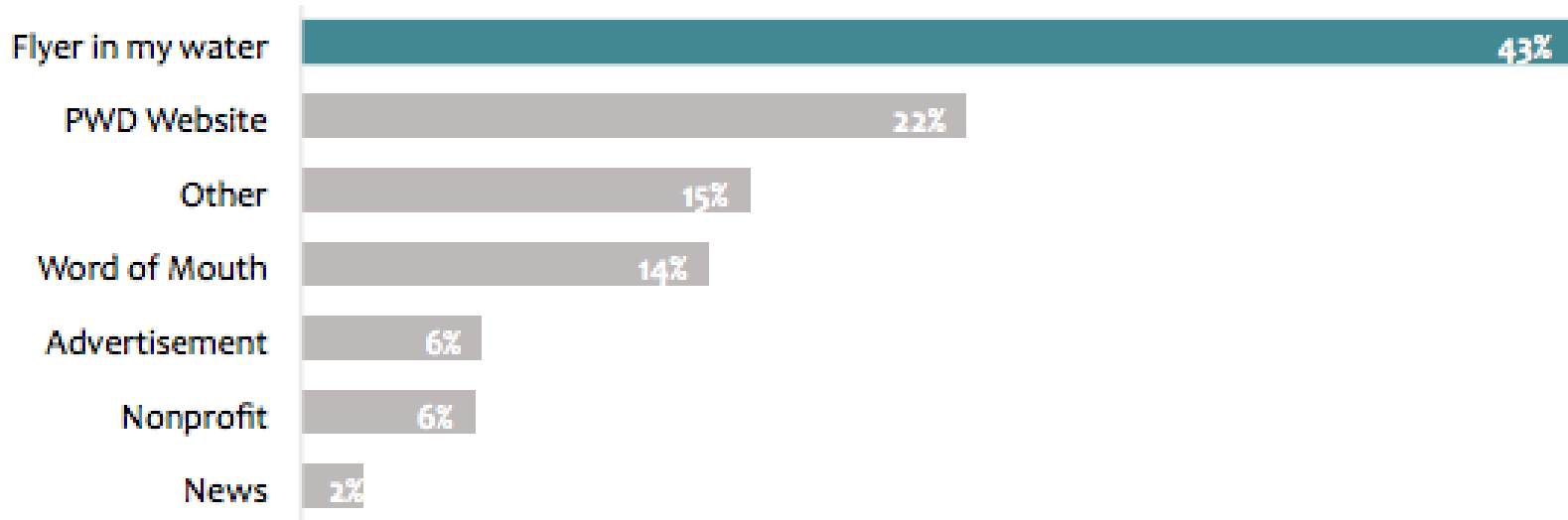
Findings

How do residents learn about the program and apply?

- ▶ **Learning About TAP.** Almost half (43%) of TAP participants learned about the program through **a flyer with their water bill**
- ▶ **Apply for TAP.** The most common method of applying for the TAP program was via **mail (44%)**

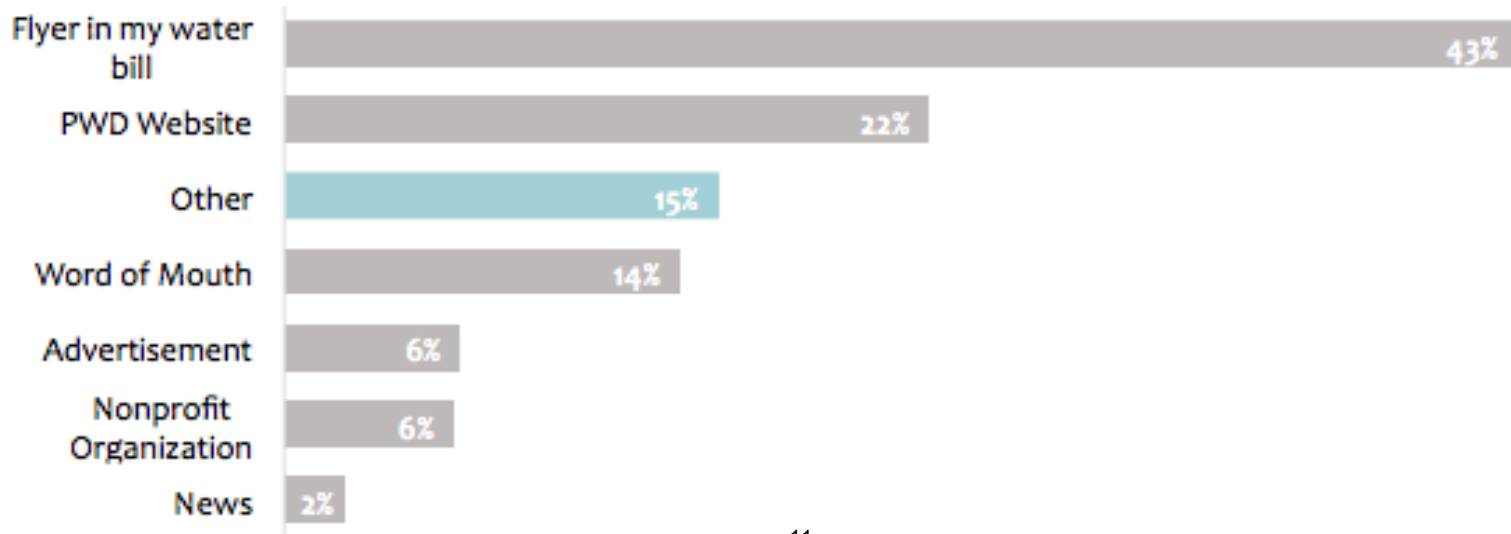
How did participants learn about TAP?

Flyer in water bill and **PWD website** are most common ways that participants learned about the TAP program.



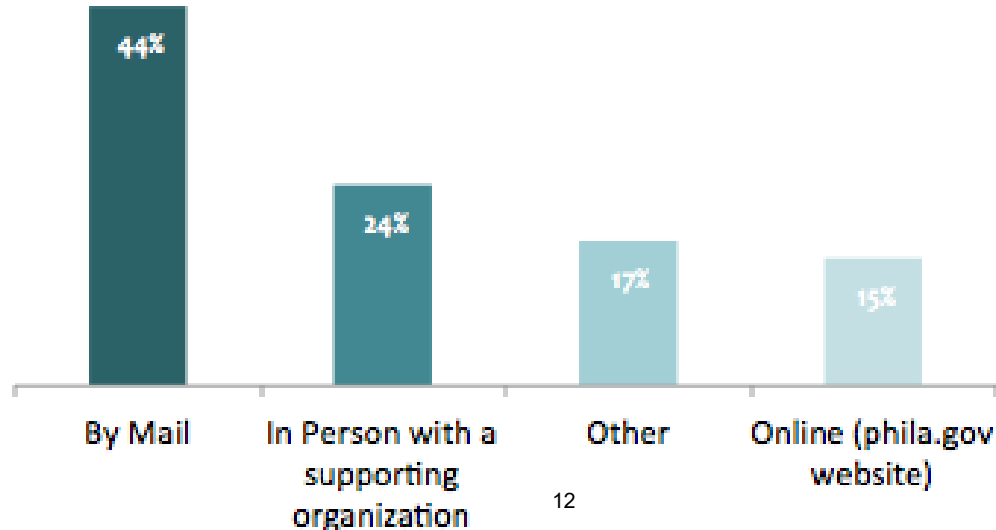
How did participants learn about TAP?

Of the 15% of participants who responded “Other,” the most common responses were from a **city department** (mainly **PWD** and **WRB**).



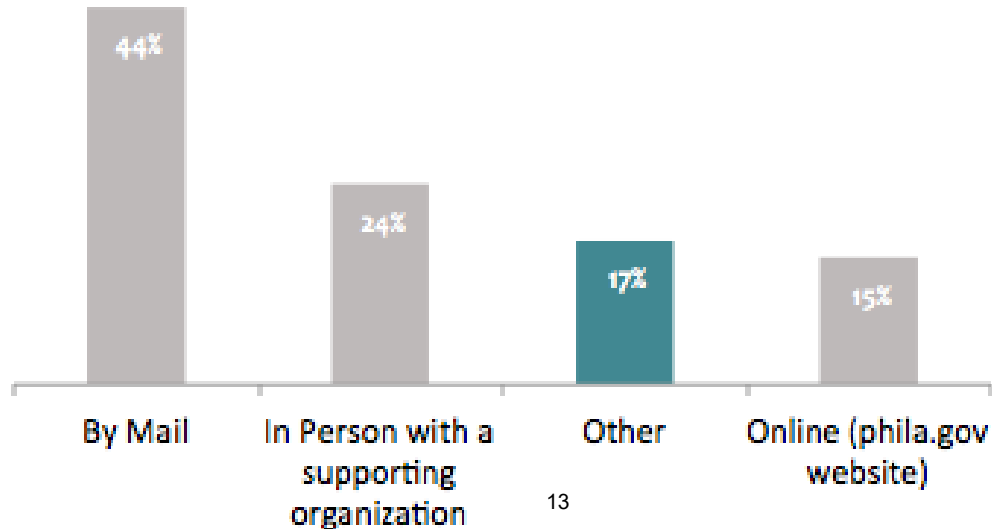
How did participants apply?

By mail and **in person with a supporting organization** are most common ways that participants applied for TAP.



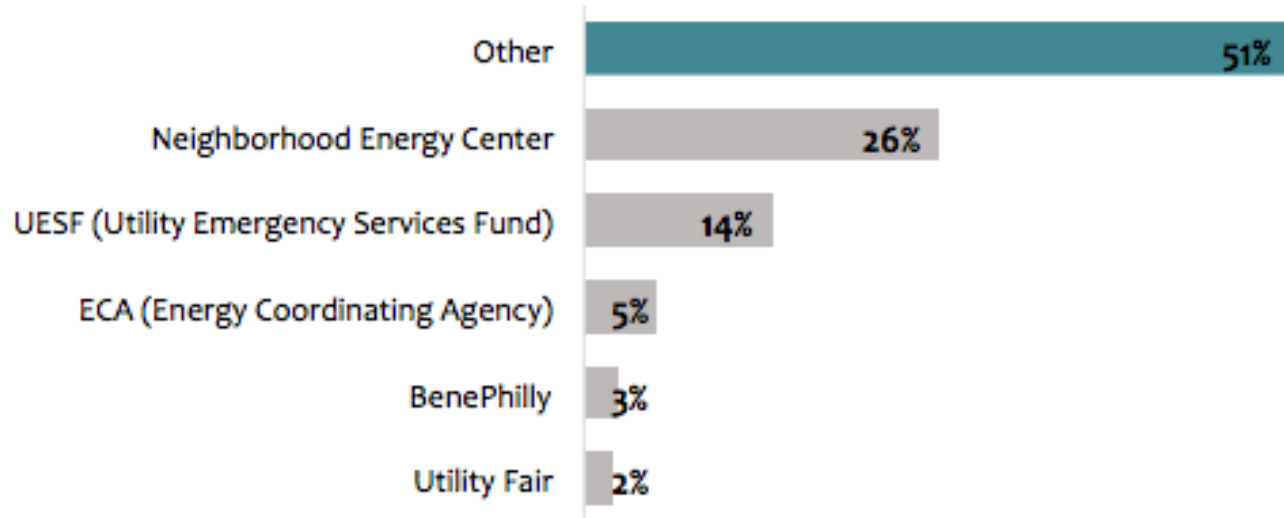
How did participants apply?

Of the 17% who indicated “Other,” the majority said they applied **in person at PWD/WRB** with the second most common answer being **via phone**.



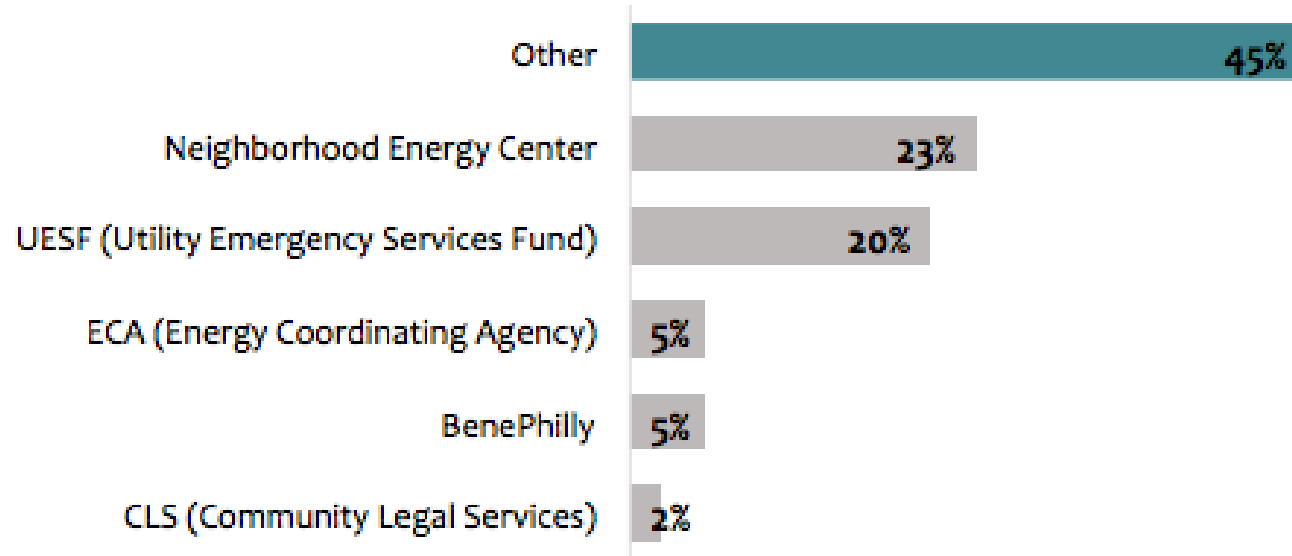
Where did participants apply in person?

Half of respondents who indicated they applied in-person said they applied with an **“Other”** source.



Findings

Which organizations assisted residents in application?



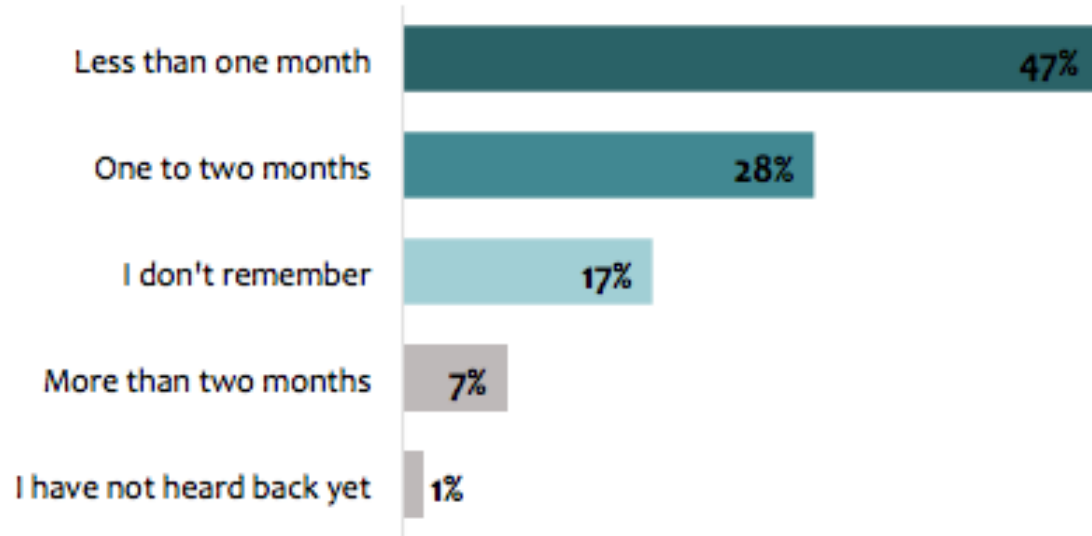
Findings

What is the turnaround time? LICAP participation?

- ▶ Nearly half (47%) of participants were notified about the status of their TAP application **within one month**.
 - ▶ The majority (67%) of TAP participants **do not participate** in the LICAP program.
 - ▶ Most (65%) of TAP participants **would have submitted their application through email** if it had been an option..
-

How is the turnaround time?

47% of participants were notified with a status of their application in less than one month.



Findings

How has the TAP program affected participants?

- ▶ Nearly all (96%) of TAP participants have **not had water shutoffs** since enrolling in the program.
 - ▶ The majority (88%) of TAP participants feel like the program has **helped them with their budget.**
 - ▶ Almost half (42%) of TAP participants feel like they are **using the same amount of water** as before enrollment.
-

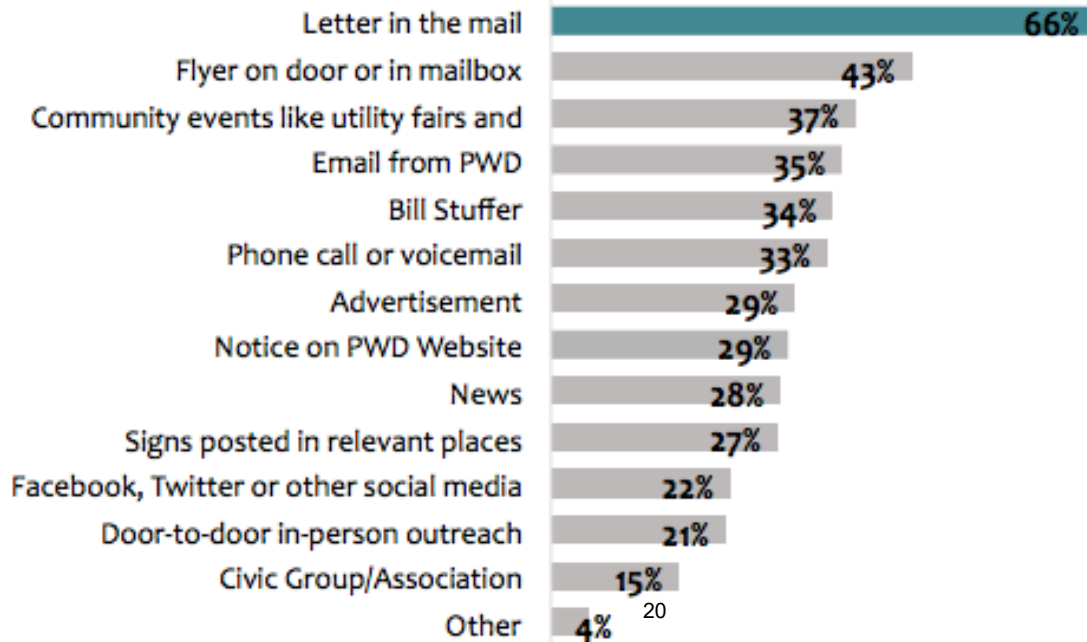
Findings

Overall satisfaction and future outreach

- ▶ Nearly all TAP participants (94%) are **very satisfied or satisfied** with the Tiered Assistance Program.

What is the best way to promote TAP?

More than half of TAP participants (66%) think a **letter in the mail** is the best way to promote the TAP program.



Cross Tabulations Findings

LICAP participants & those assisted in the TAP application

A higher proportion of TAP participants who received assistance completing the application also participate in the LICAP program (23%), as compared to people who did not get assistance in completing the application (16%)

Cross Tabulations Findings

LICAP + TAP participants & water usage

Of those who also participate in the LICAP program, 46% say that they are using less water than before starting the TAP program, as compared to 30% of those who do not participate in LICAP.

Reflections & Recommendations

Reflections on the Data

Please reflect on the following questions:

1. What findings stand out the most?
2. What patterns/themes are apparent?
3. What is most exciting?
4. What is surprising or different from what you expected?
5. What questions do you have?

Summary: Low Income Customers
As of FY17, FY18, FY19, FY20, and FY21 To-Date
(FY21 as of March 31, 2021)

Low Income Program	FY17	FY18	FY19	FY20	FY21 To-Date
TAP	0	11,790	15,952	15,866	16,730
WRBCC	8,546	1,350	167	71	57
Sr. Citizen	23,275	23,866	24,071	23,225	22,748
Extended payment agreement	0	904	1,144	1,177	1,204
TOTAL	31,821	37,910	41,334	40,339	40,739