Title: Diversifying the Donor Pool: How Did Seattle's Democracy Vouchers Program Reshape Participation in Municipal Campaign Finance?

Authors: Brian J. McCabe, Georgetown University; Jennifer A. Heerwig, Stony Brook University

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Abstract: In this paper, we evaluate whether an innovative new campaign finance program in Seattle, Washington shifted the composition of campaign donors in local elections. In 2015, voters in Seattle approved the creation of the Democracy Voucher program with the intent of broadening representation in the campaign finance system and expanding participation from marginalized communities. Every registered voter in Seattle was provided with four, twenty-five-dollar vouchers that they could, in turn, assign to the local candidate(s) of their choice. Through an analysis of the inaugural implementation of the program in 2017, we investigate whether this innovative public financing system increased participation, broadened involvement from underrepresented groups and led to donor pool that was more representative of the electorate. Compared to cash donors in the municipal election, we report that voucher users are less likely to be high-income and more likely to come from poor neighborhoods. While older residents are over-represented among voucher users, there is little difference in the racial composition of cash donors and voucher users. Our analysis confirms that the Democracy Voucher program successfully moved the donor pool in a more egalitarian direction, although it remains demographically unrepresentative of the electorate. The lessons from Seattle's inaugural implementation offer key insights for other municipalities considering public financing policies, and these lessons have the potential to reshape the national policy debate about the influence of political money.

American elections are decided not only by voters, but also by the coalitions of donors that fund modern campaigns. Yet, only a fraction of Americans contributes to a political campaign each election cycle, and an even smaller share makes large donations to political candidates. In 2016, 0.52% of adults made a contribution over $200, but these donations accounted for nearly 70% of cash collected by political candidates (Center for Responsive Politics 2017). This population of donors is not only numerically small; it is also deeply unrepresentative of the broader electorate. Since donors in American elections are wealthier than the population at-large, the campaign finance system has emerged as a key potential mechanism for the transmission of elite policy preferences to American policymakers (Gilens 2012; Bonica 2018).

Concurrent with the growing role of money in politics, the Supreme Court has narrowed the scope of campaign finance regulations by affirming political donations as a form of speech subject to First Amendment protection. One result of these developments has been the innovation of new public financing programs designed to shift the focus of reforms away from restrictions and limitations on political contributions and toward innovative policies that increase participation in the campaign finance system (Overton 2012; Mayer 2013). While traditional public financing programs supplied campaign funds through candidate grants, this new generation of programs aims to incentivize citizen participation through programs like matching funds (Demos 2017).

In this paper, we report on an innovative, participation-oriented voucher program designed to increase participation in municipal campaign finance. In 2015, voters in Seattle, Washington approved a referendum to create the nation's first taxpayer-financed voucher program to fund local elections (Berman 2015). Under the rules of the program, each voter in

Seattle would receive four, twenty-five dollar vouchers to assign to the municipal candidate(s) of their choice. The program was launched in the subsequent election cycle in 2017, and residents of the city were permitted to redeem their vouchers for qualifying candidates in the at-large City Council and City Attorney races. Proponents of the Democracy Vouchers program expected the initiative to increase participation in municipal campaign finance and diversify the pool of donors in local elections – goals consistent with the broader efforts to mobilize democratic participation through public financing schemes. More broadly, city leaders expected the program to bring "democracy and accountability" to Seattle elections (Seattle Municipal Code 2015).

We offer the first comprehensive evaluation of Seattle's Democracy Voucher (DV) program to understand whether the program successfully expanded and diversified the local donor pool. While concerns about representational inequalities in the campaign finance system – and more broadly, the role of money in politics – have been widely researched and debated in federal elections, they have been largely neglected in the study of urban politics (Heerwig and McCabe 2018). This oversight is important because municipal elections are financed by a relatively smaller number of donors who may garner greater access to political candidates through their contributions.

In the sections below, we examine how the voucher program affected patterns of representation in the 2017 Seattle municipal election. First, we compare participants in the Democracy Voucher program to four groups – individuals who made a qualifying donation in the 2017 municipal elections ("qualifying donors")[1]; individuals who made a cash donation outside

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[1] Candidates for municipal office qualified for Seattle's Democracy Voucher program by soliciting a specified number of qualifying donations between $10 and $250. Candidates running for City Council qualified after receiving 400 donations and candidates for City Attorney qualified for the program after receiving 150 qualifying donations.

of the qualifying period in the 2017 municipal election ("cash donors")[2]; voters in the 2017

municipal election ("2017 voters"); and the broader Seattle electorate ("registered voters").

Through these comparisons, we assess the representativeness – both demographically and

geographically – of voucher users to other participants in the political ecosystem. In doing so,

we also offer one of the first individual-level portraits of the sociodemographic characteristics of

political donors in *local* elections. After reporting these descriptive comparisons, we estimate a

series of multilevel logistic regression models to predict voucher usage and successful voucher

assignment in the 2017 election. By identifying the socio-demographic correlates of voucher

redemption and assignment while controlling for overall participation propensity, we offer a

more nuanced understanding of the uneven patterns of participation in Seattle's Democracy

Voucher program.

Although our analysis comes from a single election cycle in Seattle, it contributes to a

growing movement in the field of policy analysis to consider the implications of "big data" for

evaluating and understanding social policy (Cook 2014). Drawing on several large,

administrative datasets, we are able to present a richly descriptive account of the landscape of

campaign finance in Seattle following the implementation of a major new social policy

innovation. This baseline analysis lays the groundwork for future research, both in Seattle and

elsewhere, to exploit program implementation and changes to estimate the causal effects of

voucher usage on political participation. Within the field of policy analysis, our research adds to

efforts to assess local initiatives designed to create more fair, equitable elections (Malbin, 2005;

Corrado, 2005; LaRaja, 2005; Wood and Spencer 2018).

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[2] This category includes all donors who made cash donation outside of the qualifying period, including those who *also* made a qualifying donation.

EQUALITY AND REPRESENTATION IN CAMPAIGN FINANCE

Issues of representational distortion are centrally important to the study of campaigns and elections, although they have received only limited attention in research on local campaign finance systems. We use the concept of *representational distortion* to understand how the demographic and geographic composition of donors to municipal campaigns compares to the composition of other groups, including cash donors and the broader electorate. To do so, we draw on theory derived from federal elections to evaluate representativeness in municipal politics, and we apply them to the study of local elections, which tend to focus on the involvement of organized groups, rather than the dominant role of individual donors, in funding municipal campaigns.

Although municipal elections are overwhelmingly funded by individual donors, previous research on local funding coalitions tends to focus on organized interest groups, including real estate organizations and labor groups. Through a series of individual case studies, past research has evaluated the way that organized interests shape local politics through the campaign finance system. Citing a rich theoretical tradition on the urban growth machine, they center on pro-growth groups, including real estate and development interests, that participate in local funding regimes as a way to tilt urban policy in their favor (Fleischmann & Stein 1998; Krebs & Pelissero 2001; Adams 2006, 2007). These studies hypothesize that donors connected to the real estate and development communities participate in financing municipal campaigns in order to steer urban policy and curry favor with local elected officials.

Although studies of organized groups in municipal politics dominate research in municipal campaign finance, these studies reveal that only a fraction of the money collected by municipal candidates comes from organized groups. Instead, the world of municipal campaign

finance is dominated by individual donors. Although these individual donors overwhelmingly

come from within the jurisdiction, rather than outside of it, their geographic distribution *within*

the city is poorly understood (Fleischmann and Stein 1998). In Seattle, previous research

highlights the spatial concentration of wealthy donors in both mayoral and City Council elections

(Heerwig and McCabe, 2018). Individual donors making a high-dollar donation contributed a

plurality of donations in City Council races and a majority of the money received by candidates

for mayor. These campaign contributors tended to be geographically concentrated in high-

income neighborhoods, rather than spread evenly across the city (Heerwig and McCabe 2018).

The neglect of research on individual donors and their spatial concentration within urban

neighborhoods leaves unexamined one important way that affluent donors work to distort policy

in their favor (Trounstine 2009). In municipal politics, where many policy decisions have

geographic consequences, the campaign finance system may be a particularly important

mechanism by which city residents influence the distribution of urban policies. Given the way

local political candidates rely on a small number of high-dollar donors, the voices of some city

residents are disproportionately heard while those of others are marginalized from the political

process. To the degree that these high-dollar donors are unrepresentative of the broader

electorate, the system of municipal campaign finance magnifies concerns about representational

distortion in local elections.

Research on the federal system, by contrast, has closely examined issues of

representational distortion. This research reports that individual donors in the federal campaign

finance system are demographically unrepresentative of the electorate and the larger population

at-large. Donors to federal elections are more likely to be white, affluent, highly educated, and

male (Brown, Powell & Wilcox 1995; Francia et al. 2003; Heerwig and Gordon 2018).

Critically, the degree to which donor characteristics depart from the electorate at-large tends to increase with the size of a contributor's donation. Donors who make large contributions to political candidates are even more unrepresentative than those who make small contributions (Joe et al. 2008). As we discuss in more depth below, representational distortion in the campaign finance system has recently been linked to diminished democratic responsiveness as well as the ideological polarization of the two political parties.

PUBLIC FINANCE IN CONTEXT

Programs in States and Municipalities

Given these patterns of political influence in local and national politics, a handful of states and municipalities around the country have adopted public financing programs. These programs aim to curb election spending, increase competition between candidates (Donnay and Ramsden 1995; Mayer and Wood 1995; Mayer, Werner and Williams 2006; Dowling 2011), and to reduce the influence of interest groups and wealthy contributors (Malbin and Gais 1998; Francia and Herrnson 2003; Miller 2011, 2014). Importantly, these public financing programs vary along a number of salient dimensions that structure how and when candidates receive public funds (Stern 2011; Miller 2014).

One of the most important dimensions of public financing programs is whether they provide full or partial funding for candidates. In public financing systems with full funding, candidates typically qualify for the program by gathering signatures and collecting a specific number of low-dollar donations to demonstrate their support and viability as a candidate. After the qualification stage, public subsidies are usually given to candidates via a lump sum bloc grant to finance either a primary or general election campaign. For instance, candidates for state senate

in Connecticut must receive $15,000 worth of small-dollar contributions including at least 300 in-resident contributions to qualify for public funding. In these so-called "clean elections" states like Connecticut, candidates receive an amount large enough to cover all (or most) of their campaign expenses and forego private contributions after the qualification stage (Stern 2011; Miller 2014).

In public financing systems with partial funding, candidates receive a subsidy that offsets some, but not all, of the costs of running for office. These partial subsidies typically come through the allocation of matching funds to supplement private donations. Matching funds systems incentivize candidates to engage a wider swath of the electorate as they solicit donations for their campaigns. In addition to the candidate-centered goals of traditional grants-based systems, matching funds explicitly emphasize the distinct goal of citizens engagement in the political process. As of 2017, ten municipalities, including New York City, NY; Tucson, AZ; San Francisco, CA; and Los Angeles, CA used matching funds to finance local elections (Demos 2017). In New York City, for example, candidates for City Council qualify for matching funds by collecting donations from a minimum number of private contributors within their districts and agreeing to abide by program rules. Once qualified, the city government provides $6 in matching funds for each donation, up to $175, raised by participating candidates (Kraus 2011; Malbin, Brusoe & Glavin 2012). After thirty years of matching funds, the New York City system has successfully increased the proportion of low-dollar donors in local races and broadened the geographic distribution of the donor base (Malbin and Parrott 2017).

Seattle's Democracy Voucher Program

In contrast to the grants-based and matching funds forms of public election funding, Seattle became the first municipality in the United States to utilize a voucher-based program to fund municipal elections. The Seattle program gave citizens publicly-financed vouchers to spend on their local elections. Notably, since Seattle residents bore no personal expense to participate in the program, the voucher program may be more effective in ameliorating representational inequalities than other forms of public financing.

The Seattle Democracy Voucher program was created in 2015 when city voters overwhelmingly passed a referendum (I-122) to develop a publicly-financed campaign finance system for municipal elections.[3] The program was launched in the municipal election two years later. The Seattle Elections and Ethics Commission mailed four, twenty-five dollar vouchers to registered voters on January 3, 2017. Vouchers were sent to every person who, by November 15th of the previous year, was registered to vote in the city. Residents who registered to vote between November 15th, 2016 and October 1st, 2017 were automatically mailed a voucher upon completion of their registration. Eligible citizens *not* registered to vote in Seattle could request a voucher directly from the Seattle Ethics and Election Commission. Upon receiving their vouchers, residents could redeem their vouchers by assigning them to any qualifying candidate for City Council or City Attorney in the 2017 election.

To participate in the program, candidates were required to participate in a series of public debates and agree not to solicit money on behalf of organizations that make independent expenditures. In addition, candidates agreed to both contribution limits from individual donors and overall spending limits in the election. Participating candidates could not accept more than

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[3] The program is funded through a 10-year, $30 million property tax levy.

$250 in contributions from a single individual. This amount *excluded* any vouchers assigned to the candidate, meaning that a candidate could accept $250 in cash *plus* $100 in vouchers from a single contributor. At-large City Council candidates participating in the program also agreed to limit their spending to $150,000 in the primary election and a combined $300,000 in the primary and general elections. Candidates for City Attorney agreed to a spending limit of $75,000 in the primary and a combined $150,000 in the primary and general elections. After agreeing to these program rules, candidates qualified for the Democracy Voucher program upon receiving a minimum number of *qualifying contributions* of *at least* $10, but no more than $250. At-large City Council candidates qualified for the program by receiving 400 qualifying donations; candidates for City Attorney qualified after receiving 150 qualifying donations (Seattle Municipal Code 2015).[4]

In 2017, two at-large City Council positions – Position 8 and Position 9 – and City Attorney were on the ballot.[5] Eight candidates contested the election for Position 8 and seven candidates contested the election for Position 9 in the primary election. Of these candidates, five at-large City Council candidates and one candidate for City Attorney qualified for the program, as we report in Table 1. For City Council candidates in the general election, the mean voucher totals of $241,137.50 in 2017 far exceed the average total fundraising of $140,383 for city council candidates in 2013 (Heerwig and McCabe 2017).[6]

<<Insert Table 1>>

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[4] In 2019, candidates for each of Seattle's seven district-level City Council seats will be eligible to participate in the Democracy Voucher program. In 2021, mayoral candidates will be eligible to participate, as well.

[5] The 2017 Seattle elections also featured an unexpected open seat contest for mayor after incumbent Edward Murray resigned on September 12, 2017.

[6] In 2013, four at-large city council seats were contested.

Local proponents of the DV program made several claims about the expected impact of the program that echoed the larger concerns about private money in American elections. First, they argued that the donor pool for local candidates was descriptively unrepresentative of the Seattle electorate. By providing vouchers to every registered voter in the city, program advocates expected a larger share of low- and moderate-income residents to participate in the campaign finance system. Likewise, they anticipated that the Democracy Voucher program would reshape the pool of campaign donors in a way that more accurately reflected the demographic and geographic composition of the electorate (Berk 2018). Beyond these representational changes, proponents expected the Democracy Voucher program to increase the rate of participation in the local campaign finance system (Seattle Municipal Code 2015). In doing so, the program would dilute the power of a small number of wealthy donors by offering an avenue for non-traditional donors to make their voices heard. In the next section, we evaluate these claims.

DATA

To investigate whether the Democracy Voucher program enlarged the donor pool or reshaped the composition of campaign donors in Seattle, we begin with a complete list of all registered voters in Seattle as of October 2, 2017. The Washington state voter file includes the name, address, registration date and full vote history of each citizen including the last election in which each voter voted. It also includes each registered voter's gender and date of birth (age). The state voter file also contains a Washington State Voter Identification Number that uniquely identifies each individual in the file. Because Democracy Vouchers were mailed to every

resident on the voter roll, this universe of individuals represents all Seattle residents eligible to redeem a Democracy Voucher.[7]

Next, we merge in publicly available donation records from the 2017 election. Each cash contributor to a municipal campaign is recorded by the Seattle Elections and Ethics Commission, and their record includes the campaign(s) to which they donated, the size of their contribution and the date of their contribution. Before matching to the voter file, the contributions of each unique donor were assigned a donor identification number using a variety of deterministic and fuzzy deduplication techniques. Because the donor data do not include the Washington State Voter Identification Number for each campaign contributor, we then matched the contribution records to the voter file primarily through a deterministic match on last and first names, as well as street address. Additional details are available in the Methodological Appendix.

Using the residential address of every voter in the Seattle voter file, we geocode each voter to identify the census tract where they live. We then merge the voter file with data from the 2016 American Community Survey (ACS). For this analysis, we create quintiles of census tracts by median household income so we can identify whether voters live in the poorest quintile of neighborhoods, the second poorest quintile of neighborhoods, etc.

The final version of the Democracy Voucher program participation data was provided by the Seattle Election and Ethics Commission (SEEC) on January 3, 2018. The data identifies the date each voucher was assigned, the candidate to whom the voucher was assigned, the number of vouchers used by each city resident, and the status of each voucher. Information about voucher usage is merged into our dataset using the Washington State Voter Identification Number.

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[7] Seattle residents *not* registered to vote could request a Democracy Voucher independently, but in practice, only a very small number did so.

Throughout the analysis, we refer to everyone registered to vote by October 2, 2017 – the full set of registered voters in the city – as *registered voters*. We describe citizens who voted in the 2017 municipal elections as *2017 voters*. Seattle residents who made a cash contribution to a municipal campaign outside of an eligible candidate's qualifying period are referred to as *cash donors*. Notably, this category of cash donors includes a small number of donors who made both a qualifying donation *and* reported a separate cash donation.[8] Residents who made *only* a donation (under $250) during the candidate's qualifying period are referred to as *qualifying donors*. Residents who used their Democracy Vouchers to contribute to a campaign are referred to as *voucher users*. Notably, donors and voucher users are not mutually exclusive, as a significant share of Seattle residents both used their vouchers and made a cash contribution, either inside or outside of the qualifying period.

Since the publicly-available voter, voucher, and donor files contain only limited demographic characteristics, we supplement our voter and voucher data with a proprietary dataset from Catalist. The Catalist file includes information on the race, income, and political ideology of each eligible voter in Seattle along with their state voter identification number. Taken together, we use the following demographic variables:

Age: Age is measured in years and is available in the Washington state voter registration data. We recode age into 4 categories: 18-29, 30-44, 45-59, and 60 years or older.

Gender: Gender is available in the Washington state voter file. We code gender as female or male.

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[8] These "dual donors" appear similar to cash donors on key sociodemographic characteristics. Descriptive statistics for dual donors are available upon request.

Race: Washington state does not require race on its voter registration form. Therefore, the Catalist data includes an imputed race variable that is modelled from a voter's surname and geographic location.[9] Validation studies of the demographic information available in commercial voter files have found that race is generally well-identified (Hersh 2015; Schaffner, Rhodes and LaRaja 2017; Pew Research Center 2018).

Income: Catalist models a voter's household income bin modelled based on a large, nationally representative survey. We recode income into 6 categories: less than $30,000; $30,000 to $49,999; $50,000 to $74,999; $75,000 to $99,999; and $100,000 or more. Income is missing for just over 2% of registered voters in Seattle. However, validation studies have shown considerable uncertainty in estimates of income (Pew Research Center 2018). For this reason, the income results should be read with some caution.

Ideology: Finally, Catalist estimates a predicted continuous measure of ideology with zero indicating the most conservative (least progressive) and 100 indicating the most liberal. We recode ideology into three categories: conservative (0-39), moderate (40-60), and liberal (61-100). Again, validation studies of commercial voter files in general—and Catalist in particular—have found that voter ideology is generally well-identified even in states, such as Washington,

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[9] Catalist reports the variable for *race* in two separate ways – first, as a seven-category indicator (including other and unknown) identifying a respondent's race; and second, as a three-category confidence score (Highly Likely, Likely and Possible) identifying the model's confidence in the selected racial category. In the methodological appendix, we re-run the models presented below limited to only those with "highly likely" race classifications.

where registration is non-partisan (Schaffner, Rhodes and LaRaja 2017; Pew Research Center 2018: 30; but *see also* Hersh 2015).

RESULTS

Demographic Composition of Voucher Users

Using these variables, we begin with a descriptive analysis that compares voucher users with four categories of participants in Seattle's political system: qualifying donors, cash donors*,* 2017 voters, and registered voters. Given our broad interest in the *representativeness* of the pool of voucher users, we focus on two sets of comparisons. First, we compare these groups on a range of demographic indicators, including age, race, gender, income and ideology, to identify whether the composition of voucher users differs meaningfully from the composition of these groups in the Seattle electorate. We take differences between the demographic composition of these groups – for example, a larger share of whites in the voucher pool than the electorate – as evidence that participants in the Democracy Voucher program are *not* representative of the electorate. We then extend this descriptive analysis to the *geographic* composition of voucher users. After classifying Seattle neighborhoods into quintiles by median income, we identify the share of voucher users from each quintile. These descriptive comparisons identify whether voucher users are less spatially concentrated than cash donors in municipal elections.

In the 2017 election, 20,727 residents of Seattle redeemed their Democracy Vouchers in the races for City Council and City Attorney.   This represents approximately 4.05% of the electorate in Seattle. By contrast in the 2013 election, the most comparable recent election, Heerwig and McCabe (2018) report that only 1.49% of the voting-age population in Seattle made

a cash contribution to a municipal candidate.[10] While the number of voucher users represents

only a small share of the electorate, it is nearly a three-fold increase over the total number of

contributors in the 2013 election. We present the raw number of unique campaign contributors

in 2013 and 2017 as compared to the number of unique voucher users in Figure 1.[11]

<<Insert Figure 1>>

In Table 2, we compare voucher users (column 1) to registered voters (column 2), voters

in the 2017 election (column 3), qualifying donors (column 4), and cash donors (column 5).

Compared to registered voters, voucher users are disproportionately female, more likely to be

white, older and more likely to be liberal. About 55 percent of voucher users are female

compared to only 51 percent of the electorate. More than 88 percent of voucher users are white

compared to only 82 percent of the electorate. Older Seattle residents (age 60 and over) make up

36 percent of voucher users, but they comprise only 24 percent of the electorate. On the other

side, residents under the age of 30 comprise 19 percent of the electorate, but they make up only

11 percent of the voucher users. There is some evidence that middle-income voters are

overrepresented among voucher users compared to the Seattle electorate. For example, citizens

with an income between $50,000 and $74,999 — a range which includes the Seattle median

household income of $74,448 in 2016 (Census Bureau 2018) — make up 31% of registered

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[10] In 2013, 4 at-large city council seats and a mayoral contest were on the ballot. In that election, voters in Seattle also passed a referendum to move from an at-large city council system to a districted city council. As a consequence, all 9 city council seats were up for election in 2015. We therefore use 2013 as the most comparable recent election to compare with the 2017 election.

[11] In Figure 1, we report the total number of voucher users and cash donors reported by the Seattle Ethics and Elections Commission. In the descriptive and multivariate analyses below, our results are limited to voters who had complete information on all of the covariates. The missing data rate for this analysis is 5.35%.

voters, but they comprise 33% of voucher users. By contrast, citizens in the lowest household income categories are underrepresented among voucher users, while citizens in the highest income categories are overrepresented. Table 1 also indicates that liberal Seattle residents are overrepresented among vouchers users, while conservative and moderate residents are underrepresented.[12]

<<Insert Table 2>

Although voucher users are descriptively unrepresentative of registered voters, we find fewer differences when we compare voucher users to voters in the 2017 election. Similar to voucher users, nearly 88 percent of 2017 voters are white. About 11 percent of 2017 voters are under the age of 30 years old and 29 percent of voters were between the ages of 30 and 44 – numbers that are remarkably similar to the composition of the voucher pool itself. Voters in the 2017 election are more likely than voucher users to come from the highest income category.

In Column 4, we present the characteristics of qualifying donors. One of the unique features of the Seattle Democracy Voucher Initiative was its two-pronged approach to diversifying the donor pool. In order to qualify for the public financing program, candidates had to solicit small-dollar donations from a minimum number of residents, as noted above. Like voucher users, small-dollar donors who gave a contribution during a candidate's qualifying period may be more representative of the Seattle electorate than donors who made a cash contribution outside of the qualifying period. Column 4 shows that the qualification stage of the

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[12] This analysis is limited to voters with complete information on all covariates. Of the 488,744 registered voters in Seattle, 25,727 voters had a missing value on one or more of the covariates. The final missing data rate is 5.35%.

DV program also helped to diversify the donor pool. Whites compose 82% of registered voters and about 83% of qualifying donors. African Americans are actually overrepresented among qualifying donors—about 7% of qualifying donors are African American compared to just 6% of the Seattle electorate. The youngest voters are underrepresented among qualifying donors, but those in the 30-44 range are overrepresented. Qualifying donors are also more representative by income. Voters in the $30,000-$49,999 range are 31% of qualifying donors and about 32% of registered voters. Similarly, voters in the $50,000-$74,999 range where the Seattle median household income falls are overrepresented among qualifying donors (33%) compared to registered voters (31%).

Finally, when we compare voucher users to cash donors, we find some evidence that the pool of voucher users is more egalitarian. We find that women are overrepresented among voucher users compared to the traditional campaign finance system, at least in 2017. Table 2 indicates a similar percentage of people of color in the voucher pool compared to donors in the 2017 cycle. While 11 percent of voucher users are under 30 years old, only 7 percent of cash donors fall into this age category. Cash donors are more likely to come from the highest income category than voucher users. In fact, about 27 percent of cash donors have an income above $100,000 compared to only 17 percent of voucher users—evidence for the democratizing impact of the Democracy Vouchers program. These differences are graphed in Figure 2.

<< Insert Figure 2 >>

In the final rows of Table 2, we compare the geographic distribution of voucher users to the geographic composition of cash donors, 2017 voters and registered voters. After dividing

Seattle neighborhoods (census tracts) into quintiles based on the median neighborhood income, we identify the share of voucher users residing in each quintile of neighborhood. About 13 percent of voucher users live in the poorest quintile of neighborhoods and approximately 22 percent of voucher users live in the wealthiest quintile of neighborhoods.

Relative to the electorate, voucher users are more likely to come from wealthy neighborhoods and less likely to come from poor ones. Over 15 percent of registered voters live in the poorest quintile of neighborhoods and about 20 percent of registered voters live in the wealthiest quintile. However, we observe the opposite pattern when we compare voucher users to voters in the 2017 election. Compared to 2017 voters, voucher users are slightly more likely to come from the poorest neighborhoods and slightly less likely to come from wealthy ones. Only 12 percent of voters in the 2017 election came from the poorest quintile of neighborhoods and more than 24 percent came from the wealthiest quintile.

Finally, when we compare voucher users to cash donors, we show that voucher users are substantially more representative of the electorate. While 33 percent of voucher users came from the bottom two quintiles, only 25 percent of cash donors came from these neighborhoods. Likewise, while 22 percent of voucher users were from the wealthiest quintile of neighborhoods, 31 percent of cash donors came from these wealthy communities. Cash donors are more likely to be drawn from the wealthiest neighborhoods and less likely to be drawn from the poorest ones, thereby making voucher users more representative of the Seattle electorate than cash contributors. These differences are graphed in Figure 3.

<< Insert Figure 3 >>

Modeling the Likelihood of Using a Voucher: Multivariate Analyses

The descriptive analysis above suggests that voucher users are more representative of the Seattle electorate than cash donors. To better understand how the voucher program impacted representational inequalities in participation, we next estimate two multilevel logistic regressions predicting the likelihood of voucher redemption and voucher status among Seattle voters. First, we model the likelihood of voucher usage regardless of the final status of the vouchers. In these models, citizens who participated in the program by returning one or more of their vouchers are coded "1" and those who did not participate in the program are coded "0". Next, among those who participated in the program, we model the likelihood that a voucher user successfully assigned all of her attempted vouchers to a qualifying candidate. Used vouchers are assigned a status of redeemed, accepted, received, on hold or voided by the Seattle Ethics and Election Commission (SEEC).[13] In these models, vouchers users who successfully assigned 100% of their attempted vouchers—including vouchers that were redeemed, accepted or received—are coded "1", while vouchers users who successfully assigned less than 100% of their vouchers are coded as "0". For instance, a voucher user who attempted to use 3 vouchers with 2 successfully redeemed and 1 voucher voided would be coded "0". Overall, about 12 percent (n=2,233) of program participants submitted a voucher that was not accepted (i.e., the voucher was put on hold or voided by the SEEC).

Each of these logistic regression models includes a tract-level random intercept to account for unobserved differences across neighborhoods that may be related to participation in the voucher program. Past analyses of voting behavior have found that individual-level political

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[13] Vouchers were sent to the Kings County Board of Elections for signature verification (Berk 2018). Vouchers that were not properly filled out or signed by voters—or if the voter's signature could not be verified—were put on hold or voided. Vouchers received after a candidate had reached the voucher limit were received but not accepted or redeemed.

participation is importantly influenced by neighborhood context (Gimpel, Dyck and Shaw 2004;

Cho, Gimpel and Dyck 2006; Dyck, Gaines and Shaw 2009). Since we have already observed

variation across neighborhoods in voucher redemption, as indicated by Table 2, a single-level

logistic regression models violates the assumption of independence of observations (Snijders and

Bosker 2012). To account for the spatial dependence of participation, our logistic regression

models include a random intercept for each of the 135 Census tracts in Seattle. These tracts

contain a mean of 3,371 registered voters.

In addition to the tract-level random intercept and sociodemographic characteristics used

in the analyses above, we include two additional control variables in the multivariate models.

The first is a continuous measure of past voting history. For each voter in Seattle, we use the

Washington state voter file to identify the percentage of elections in which a voter participated

after registering to vote. (This share excludes the 2017 election.) We also control for whether

each voter is also a qualifying donor or a campaign donor. Finally, in the models predicting

voucher status, we control for the total number of vouchers that a participant attempted to

redeem.

The results of the multilevel logistic regressions are reported in Table 3. For ease of

interpretation, we present odds ratios rather than logit coefficients. In Column 1, we show that

sociodemographic predictors of political participation are, as expected, associated with voucher

redemption. Older residents are significantly more likely than younger ones to redeem a

voucher, even controlling for other individual characteristics and overall participation propensity.

People of color—and African Americans in particular—are significantly less likely to redeem a

voucher compared to whites. Compared to the $50,000-$74,999 income category, the most

affluent Seattle voters are less likely to be voucher users. Voters with incomes between $50,000-

$74,999 and those with incomes between $75,000 and $99,999 per year were the most likely to participate in the program, followed by those with incomes $100,000 or over, those in the $30,000 to $49,999 range, and finally those with incomes less than $30,000. We also find a strong association with political ideology. Liberal Seattle voters were over twice as likely as conservatives to participate in the program. This finding is consistent with research from other states that finds conservative candidates are less likely to participate in public financing systems (Miller 2011) given ideological opposition to state-funded elections. Finally, Column 1 confirms that other forms of political participation, including regularly voting in previous elections and making a cash donation, are significant predictors of voucher usage. In Methodological Appendix B, we also present a series of robustness checks for this model that use a restricted version of the race variable.

<<Insert Table 3>>

In Column 2, we model the likelihood of a voucher user having successfully allocated all of her attempted vouchers, conditional on being a voucher user. These models give insight into which demographic groups were able to successfully navigate the program's voucher assignment rules. In doing so, the analysis offers some indication of which communities might be targeted for support in future iterations of the program. Column 2 shows several interesting patterns compared to the coefficients in Column 1. Although older residents in Seattle were more likely to participate in the program, they were less likely than the youngest voters to have all of their vouchers successfully accepted. Women were more likely than men to successfully allocate their vouchers. While most of the race coefficients are insignificant, Asians are less likely than whites

(and other groups) to successfully assign their vouchers. Similarly, voters in the lowest income categories were both less likely to participate in the program *and* less likely to successfully allocate their vouchers. Unsurprisingly, qualifying donors and cash contributors were far more likely than non-donors to successfully assign their full set of vouchers. This relationship may be driven by campaign donors' familiarity with local politics and disclosure forms, as well as higher overall levels of political interest and efficacy.

DISCUSSION & CONCLUSION

In this paper, we offer the first evaluation of the Democracy Voucher program to understand whether this innovative, participation-oriented public financing program diversified the donor pool in municipal elections. Although the analysis centers on the inaugural year of the program, it offers important insight into the promise of public financing as a strategy to broaden participation and shift donor coalitions away from wealthy individuals. Notably, several cities, including Albuquerque, NM and Austin, TX, are considering programs similar to the one implemented in Seattle (Misra 2018), and a handful of other places, including Washington, DC, have recently implemented other types of public financing schemes designed to promote fairness in local elections (Chason 2018).

Our analysis offers several important insights from the Seattle program. Although the Democracy Voucher program increased participation in the municipal campaign finance system and shifted the donor pool in a more egalitarian direction, voucher users remain broadly unrepresentative of the electorate in Seattle. Compared to the group of people represented by elected officials, participants in Seattle's Democracy Voucher program are more likely to be white, female and older. However, voucher users are *more* representative of the electorate than

cash donors in municipal elections, and qualifying donors – those who contributed small sums of money to candidates during the qualifying period – appear to be the most representative. This finding suggests that one of the most notable successes of Seattle's program was the integration of a small number of *representative donors* into the donor pool at an early stage in the process. Finally, although we find that voucher users are not representative of the broad universe of registered voters, they are more demographically similar to voters in the 2017 election – a finding that underscores the theoretical equivalency of voucher participation to the binary act of voting.

In our multivariate analysis, when we investigate the predictors of successfully assigning all of one's attempted vouchers, our portrait of engagement with the program is more complicated. Although the oldest Seattleites were more likely to use a voucher, they were also significantly less likely to successfully assign all of their vouchers than younger participants. Although there are few significant differences by race, we do note that Asian-Americans were less likely to successfully assign all of their attempted vouchers, relative to whites. Notably, this finding may be driven by Seattle's large foreign-born Asian-American population. Although the vouchers were available in 15 different languages, non-native English speakers may have encountered difficulties with navigating the new system. We also report that, among voucher users, those in the lowest income categories were less likely to successfully assign all of their vouchers. This result may be driven by overall lower levels of the political resources critical to engagement—namely, time, money and civic skills (Brady, Schlozman and Verba 1995).

Our efforts to identify participant characteristics offer a methodological advance on previous analyses of matching fund programs, which typically rely on neighborhood-level characteristics to describe program participants. Still, our analysis is not without limitations. As

we noted above, the Catalist data we draw on to account for race, income, and ideology are imperfect measures of these demographic variables, and the findings in the multivariate analysis —especially vis-à-vis income—merit caution. Although we report that voters near the Seattle median household income were the most likely to participate in the voucher program, this estimate could be misleading if higher-income voters are systematically under-identified in the data. In their comprehensive evaluation of voter files, Pew Research Center (2018) finds that households with incomes above $75,000 per year were the least likely to be correctly identified in commercial files.

Although our primary contribution concerns an emergent form of participation-oriented public financing at the municipal level, the analysis of Seattle's Democracy Voucher program offers insight for campaign finance reform at the federal level, as well. In federal elections, representational distortion reinforces the weak link between the policy preferences of the least well-off Americans and policy outcomes (Gilens 2012; Page & Gilens 2017; Bonica 2018). Without representation in the donor pool, low-income Americans may be less likely to see their policy preferences reflected in federal policy. The dominance of private campaign contributions has also been cited as an important causal mechanism in the growing ideological polarization of political elites (Bonica 2014; Barber 2016; Heerwig 2018). As Barber and McCarty (2015) argue, federal political candidates increasingly rely on donors with extreme ideologies. In doing so, these candidates may shift their own policy preferences toward the ideological extremes, underscoring the way that private money is linked to the ideological polarization of the political parties. Rescaling a participation-oriented public financing program to the federal level would empower a broader swath of donors, perhaps mitigating partisan polarization among members of Congress and re-aligning policy outcomes with the preferences of a wider group of citizens

(Page and Gilens 2017). In fact, among the anticipated outcomes of the Democracy Voucher program is not only that the donor pool will be more representative, but that public policy will reflect a much broader constituency.

For policy scholars and practitioners, the innovate Democracy Voucher program is at the forefront of a new wave of participation-oriented public financing programs. The program reflects a growing concern about the role of money in politics, and with tweaks through the next election cycle, it has the potential to dramatically reshape local campaign finance policies. Still, while the program holds the power to reshape municipal elections, only by linking this type of program with a constellation of political reforms—including changes to the voter registration system and stronger disclosure laws — will policymakers ensure equal and effective political representation in the United States (Page and Gilens 2017; Wood 2018).

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Table 1: Number of vouchers redeemed and total voucher proceeds for participating City Council and City Attorney candidates, 2017

Candidate	# of Vouchers	Voucher Total
City Council Position 8		
Teresa Mosqueda*	11,996	$299,900
Jon Grant	11,972	$299,300
Hisam Goueli (P)	1,086	$27,150
City Council Position 9		
M. Lorena Gonzalez (I)*	8,523	$213, 075
Pat Murakami	6,091	$152,275
City Attorney		
Pete Holmes (I)*	5,874	$146, 850
Total Redeemed	45,542	$1,138,550

Source: Author's calculations using Seattle Ethics & Elections Commission (2018).
Note: Asterisk indicates election winner. Incumbency is denoted by "I" and primary-only by "P" in parentheses.

Table 2: Demographic Composition of Voucher Users, Registered Voters, Active Voters, Qualifying Donors, and Cash Donors in the 2017 Election

	Voucher Users	Registered Voters	Voters (2017)	Qualifying Donors	Cash Donors[1]
Gender					
Male	45	49.34	47.68	46.73	49.93
Female	55	50.66	52.32	53.27	50.07
Race					
White	88.2	81.93	88.09	83.38	90.48
Black	3.68	5.75	3.73	7.4	3.2
Hispanic	2.35	3.31	2.16	3.48	2.08
Asian	5.76	9.01	6.02	5.73	4.23
Age					
18-29	11.02	19.42	10.83	10.81	7.48
30-44	28.93	33.56	29.07	40.57	26.97
45-59	23.57	23.4	26.84	24.38	30.05
60+	36.47	23.61	33.26	24.24	35.5
Income					
< $30K	3.72	7.56	3.7	3.19	2.12
$30K - $49K	25.13	31.89	23.81	30.55	20.05
$50K - $74K	33.34	31.08	31.37	32.66	28.4
$75K - 99K	20.83	15.81	20.54	18	22.62
> $100K	16.98	13.66	20.59	15.60	26.82
Ideology					
Conservative	1	1.61	2.1	0.36	1.43
Moderate	3.7	10.29	6.08	3.27	3.3
Liberal	95.3	88.1	91.82	96.37	95.27
Median Tract Income					
Bottom Quintile	12.72	15.35	11.79	13.28	10.24
Second Quintile	19.74	19.29	18.06	26.27	14.80
Third Quintile	20.98	23.16	21.91	21.48	20.12
Fourth Quintile	24.09	21.80	23.59	22.57	23.70

Top Quintile	22.47	20.40	24.65	16.40	31.13
N	18,770	455,017	210,391	1,378	6,429

[1] Cash donors include donors who made both a qualifying and non-qualifying cash donation.

Table 3: Random Intercept Logistic Regression Models Predicting Voucher Usage and Successful Assignment of 100% of Attempted Vouchers

	(1): Voucher Use	(2): Successful Assignment
Age		
30-44	1.29***	0.86
	(0.04)	(0.08)
45-59	1.22***	0.52***
	(0.04)	(0.05)
60+	1.57***	0.39***
	(0.04)	(0.04)
Gender		
Female	1.11***	1.11**
	(0.02)	(0.05)
Race		
Black	0.71***	0.82
	(0.03)	(0.10)
Hispanic	0.88**	1.21
	(0.04)	(0.21)
Asian	0.76***	0.72***
	(0.03)	(0.07)
Income		
<$30K	0.67***	0.65***
	(0.03)	(0.07)
$30K - $49K	0.86***	0.87**
	(0.02)	(0.05)
$75K - $99K	1.01	1.11
	(0.02)	(0.07)
>$100K	0.88***	1.02
	(0.02)	(0.07)
Ideology		
Moderate	0.98	1.05
	(0.08)	(0.22)
Liberal	2.34***	1.61**
	(0.18)	(0.30)
Past Voting (%)	1.03***	1.01***
	(0.00)	(0.00)
Qualifying Donor	15.19***	3.43***
	(0.89)	(0.73)
Cash Donor	6.41***	2.15***
	(0.19)	(0.22)
Total Vouchers		0.91**
		(0.04)
Constant	0.00***	5.22***
	(0.00)	(1.42)
Random Effect		
Intercept	0.35**	0.25**
	(0.03)	(0.03)

N (Voters)	455,017	18,770
J (Tracts)	135	134

Notes: Coefficients are odds ratios with standard errors in parentheses. Excluded categories are 18-29 (age), White (race), $50K - $75K (income), Non-donor (donor status), and conservative (ideology). *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Figure 1: Total Number of Cash Donors and Voucher Users

A bar chart showing four categories:
- Cash Donors to All Races (2013): 8,234
- Cash Donors to All Races (2017): 10,297
- Cash Donors to City Council or City Attorney Races (2017): 4,960
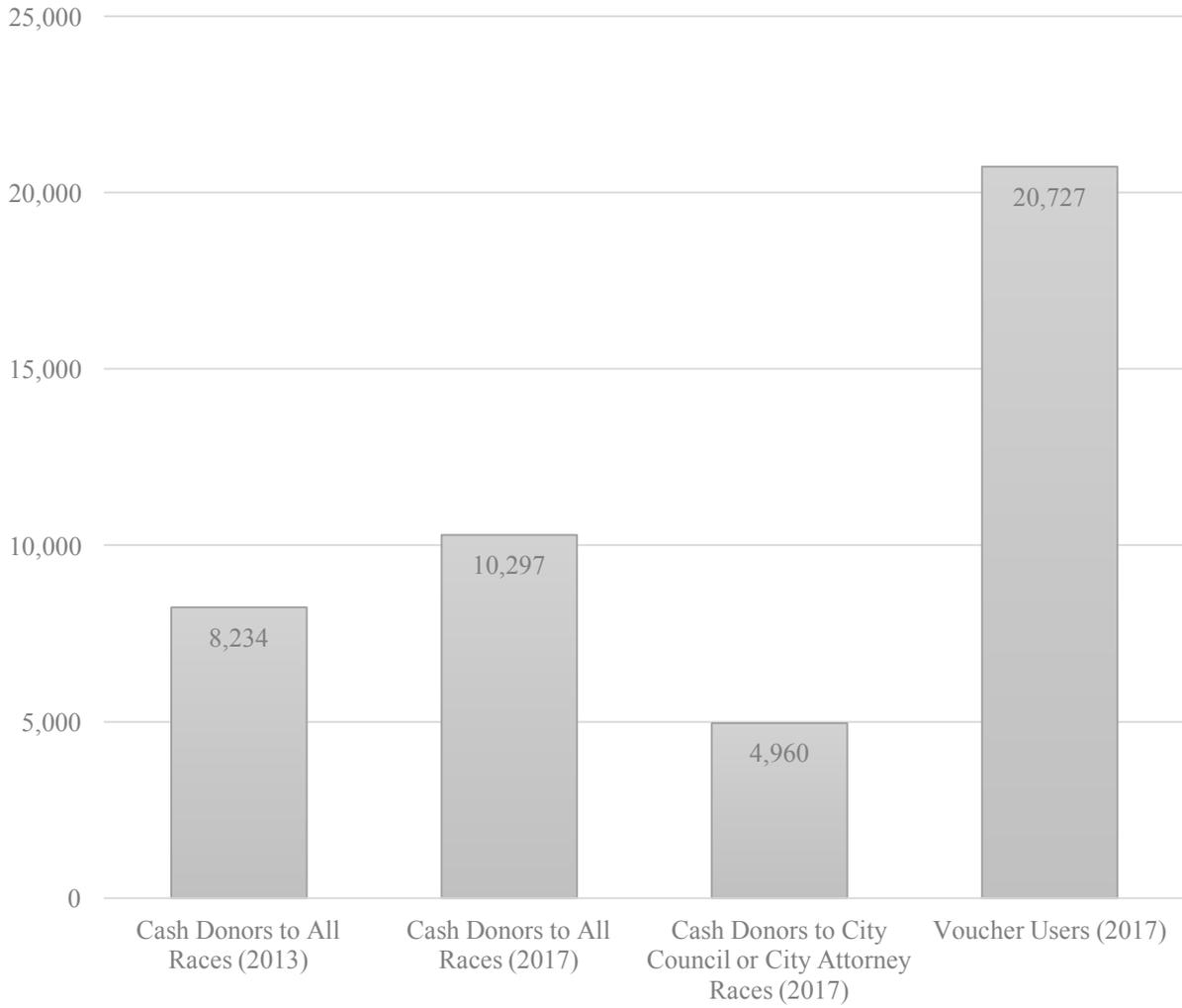- Voucher Users (2017): 20,727

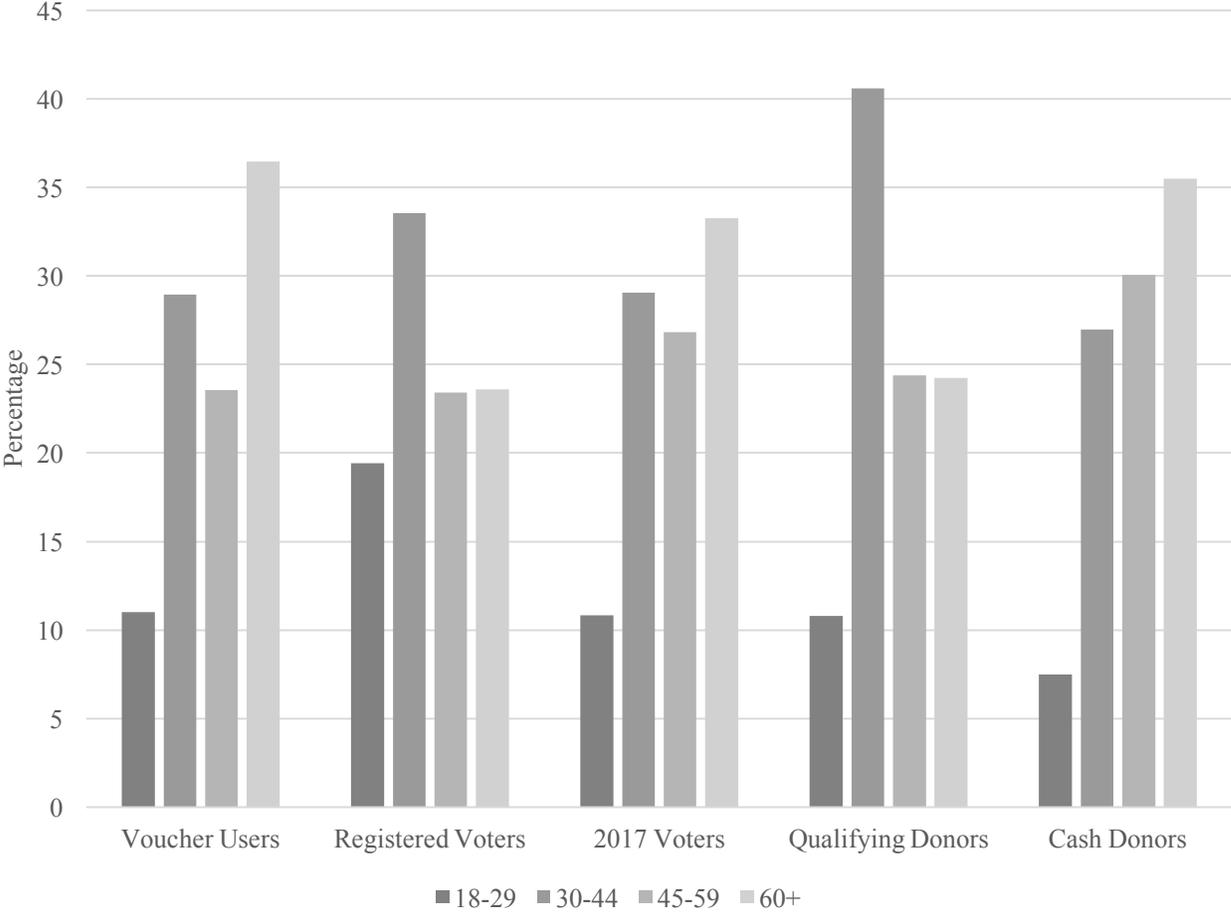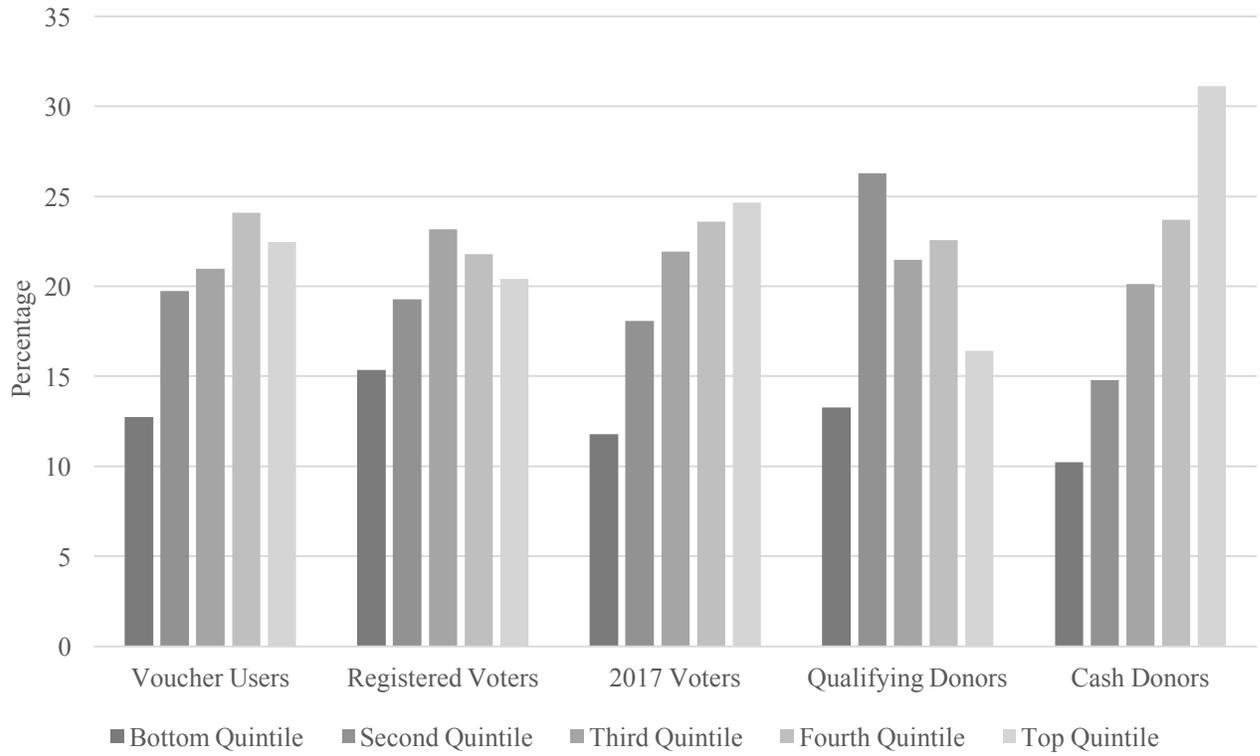**Figure 2: Composition of Political Participants, by Age**

Figure 3: Composition of Political Participants, by Median Neighborhood Income

METHODOLOGICAL APPENDIX A

Match Procedure	N	% of Matched Records
Last name, first name, zip code, street number	6,736	82.13
Last name, first name, zip code	705	8.60
Last name, nickname, zip code, street number	384	4.68
Last name and street number	183	2.23
Last name and first two characters of first name	148	1.80
Exact street address	46	0.56
Total	*8,202*	*100.00*
Final Match Rate: 79.65%		

Although the Seattle PDC matches campaign donors within candidates for each election, there is no unique donor identification number that would allow us to cleanly merge the donor records and voter file. Because of this, we matched the records using the personal identifying information available in both the donor records and voter files. These match variables include the donor's last and first names as well as street address and zip code.

Of the 10,297 unique donors to city council, mayoral, and city attorney candidates, we matched a total of 8,202 (79.65%) donors to the voter file. Of these matched donors, the large majority (N=6,736) matched a unique voter record exactly on full name, zip code, and street number. Next, a significantly smaller portion (N=705) of donors matched a voter record exactly on last and first name and zip code; these matches were limited to those where only one unique voter in the voter file existed for that combination of match variables.

A much smaller portion of donors were matched using one of four techniques. First, we matched donor records to the voter file where one of the listed first names was a nickname (e.g., Ben versus Benjamin), but otherwise matched exactly on last name, zip code, and street number (N=384). The last three matching procedures were the least stringent and matches produced by these procedures were manually reviewed for accuracy. First, we brought together records where last name and street number matched (N=183); this matching procedure identified contributors whose listed first names deviated from the name used in the voter file (e.g., Hank versus Henry). Second, we matched and then manually reviewed donors that matched a voter record on last name and first two characters of first name (N=148). Finally, we manually reviewed donors that matched a voter entry exactly on street address. This match (N=46) identified contributors where variations in the last/first names prevented a match on other identifiers.

Of the 8,202 donors matched to the donor file, 6,747 were what we refer to as "cash donors" and 1,455 were qualifying donors who gave a small dollar donation during a participating candidate's qualifying period.

METHODOLOGICAL APPENDIX B

In the table below, we present the main findings from the body of the paper in Column 1. In columns 2 and 3, we present models restricted to voters whose race category was identified with high confidence. The coefficients in Column 2 are restricted to the control variables that come directly from the voter file. In Column 3, we present the full model restricted to voters whose race category was identified with high confidence. Importantly, the direction and significance of the primary explanatory variables are consistent across specifications.

	(1) Voucher Use	(2) High Race Confidence: Restricted	(3) High Race Confidence: Full
Age			
30-44	1.29***	1.35***	1.25***
	(0.04)	(0.05)	(0.05)
45-59	1.22***	1.25***	1.18***
	(0.04)	(0.05)	(0.05)
60+	1.57***	1.61***	1.53***
	(0.04)	(0.06)	(0.06)
Gender			
Female	1.11***	1.17***	1.11***
	(0.02)	(0.02)	(0.02)
Race			
Black	0.71***	0.60***	0.60***
	(0.03)	(0.07)	(0.07)
Hispanic	0.88**	0.70	0.61*
	(0.04)	(0.17)	(0.16)
Asian	0.76***	0.62***	0.65***
	(0.03)	(0.05)	(0.05)
Income			
<$30K	0.67***		0.68***
	(0.03)		(0.05)
$30K - $49K	0.86***		0.87***
	(0.02)		(0.02)
$75K - $99K	1.01		1.02
	(0.02)		(0.03)
>$100K	0.88***		0.90***
	(0.02)		(0.03)
Ideology			
Moderate	0.98		1.06
	(0.08)		(0.11)
Liberal	2.34***		2.70***
	(0.18)		(0.24)
Past Voting (%)	1.03***	1.03***	1.03***
	(0.00)	(0.00)	(0.00)
Qualifying Donor	15.19***	16.77***	16.46***
	(0.89)	(1.32)	(1.31)
Cash Donor	6.41***	6.15***	5.83***

	(0.19)	(0.23)	(0.22)
Constant	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)
Random Effect			
Intercept	0.35**	0.29**	0.27**
	(0.03)	(0.02)	(0.02)
N (voters)	455,017	276,483	270,886
N (tracts)	135	135	135