Individual Contributors in Municipal Elections

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April 2014

In the United States political system, campaign finance is an important part of electoral politics. Money can influence whether or not candidates are successful, and therefore where and how they get this money is a largely studied topic. While some comes from candidate loans and self-financing, PAC contributions, or large corporations, a substantial portion comes from individuals. Constituents do not need to donate to candidates and could instead support them only by voting, so it is useful to study what drives individuals to give money. Looking first at several zip codes within Massachusetts, factors such as income, party affiliation, and candidate touring were examined. After finding trends only between income and donations, the next section looked at income, but also race and education level. This was not for all of Massachusetts, but using more detailed data from Worcester and comparing zip codes within the city. Finally, the same research question was applied to three demographically varied cities to determine whether the same trends existed. The cities used were Hartford, CT; Portland, ME; and Worcester, MA since these cities had significant differences in race, education, and income but also had usable campaign finance data for 2013. Overall, income was the most important factor in whether or not people gave to candidates, but was not the only influence. Other outside pressure affected contributions, such as political awareness, campaign issues, or finance systems as well as factors that seem to affect income, such as education level or race.

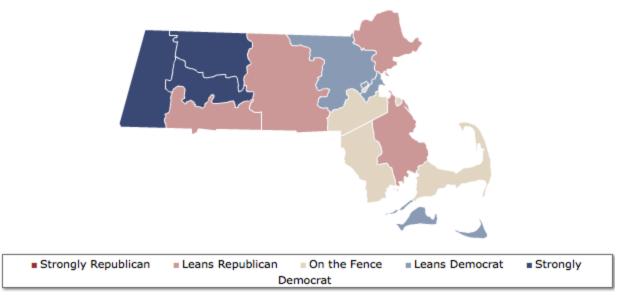


Figure 1: *Massachusetts county party leanings, 2012*

I. Comparing Zip Codes in Massachusetts

In 2012 Massachusetts leaned democratically, with 57 percent of money going to Democratic candidates and 46 percent to Republican candidates. Massachusetts' contributions total to \$132,941,559, ranking seventh in the United States.

Out of all of Massachusetts' fourteen counties Middlesex County made up the largest portion Massachusetts' total contributions, accounting for roughly 40 percent of Massachusetts' contributions with \$54,751,397 (much greater than that of the next highest contributor, Suffolk with \$30,648,907). While this number could be attributed to higher population (Middlesex county houses roughly ¼ of the total population of Massachusetts), the average contribution per person (total amount contributed divided by population) is \$6.5, compared to the state average of \$3.4.

This high amount is influenced by several factors. Middlesex country has a per capita income of \$42,289, roughly \$6,000 higher than the state average (\$35,485). Higher income allows for disposable income which can in turn be contributed to political campaigns.

Furthermore, Middlesex County has a much higher level of education than MA as a whole, with an 11.2 percent lead in the percentage of people with bachelor's degrees (Middlesex County with 50.2 percent, MA with 39 percent). Recipients of college degrees are on average 10 percent more likely to contribute than people with 'some college' and 18 percent more likely than those with high-school or less. This might be attributed to increased disposable income from higher quality jobs only open to those with college education, and/or the reverse, that people from wealthier families receive better education.

Within Massachusetts there are fourteen different counties, but this research will look specifically at two; Worcester and Suffolk. While Worcester and Suffolk have relatively similar populations, 806,000 and 744,000 respectively, Worcester is approximately 1,510 square miles and Suffolk is only 58 square miles. This means that Worcester County has 528 persons per square mile and Suffolk has 12,415 persons per square mile. Worcester is also less diverse, with 80.3 percent of the population identifying as white compared with only 47.9 percent in Suffolk. Despite these differences the annual per capita incomes are relatively similar, with Suffolk County averaging \$32,429 and Worcester averaging \$31,609. Looking at campaign donations, these counties could not be more different, with Suffolk County giving \$30,648,907 to various PACs and candidates in the 2012 election cycle and Worcester County coming in at \$3,774,132. Since the entirety of Massachusetts gave \$132, 941,559, Suffolk contributed roughly 23 percent while Worcester accounted for only 3 percent. Looking at the top zip codes for contributions in Massachusetts, four of them, including the top contributor, are in Boston which is in Suffolk

County, while none are in Worcester and the top donor in Massachusetts, Bain Capital, is also based out of Suffolk County.

Looking at one zip code from each county, the ways people give are very different. Clark's zip (01610) and the Financial District in Boston (02110) are both very dense with 11,343 persons per square mile and 8,562 persons per square mile respectively, but 01610 is 2 square miles and 02110 is 0.2 miles. In addition, the financial district the median income is above average with 78.2 percent of people with a bachelor's degree and 50 percent with a graduate or professional degree, and consequently the overall campaign donations are 38 times that of the average zip code. In Worcester, the median income is below average with only 18.5 percent of people holding a bachelor's degree and 4.7 percent with a graduate or professional degree, and the campaign spending is 1/8 that of the average zip code. Analyzing the contributions for Worcester, 76 percent went to Republican candidates or causes, but this may not be representative of the entire community since of the top ten contributions, seven were made by two men with strong Republican leanings. In Worcester, only two contributions of over \$1,000 were made, both by the same person whereas in Boston 50 percent of contributions were Republican and 50 percent Democrat all of the top ten contributions were over \$30,000, with the highest equaling \$450,000. From this data, it could be assumed that Worcester is Republican, yet it is represented by Warren and Markey in the Senate and McGovern in the house, all of whom are Democrats. In fact, Elizabeth Warren defeated Scott Brown in the 2012 election despite his being the incumbent and receiving the highest contributions in the region. This information shows that just population cannot predict how people will contribute, since in all of 01610 there were only 24 contributions over \$200 made in the 2012 election cycle, and 02110 had twenty times less the amount of people yet over 1000 contributions.

Individual campaign donors each give for a plethora of reasons specific to themselves; how we classify these donors help us identify patterns within contributions. We can separate the general pool of donors into four categories; investors, ideologues, intimates and incidentals. The investors are typically motivated by their business or industry and maintaining that political policy remains friendly to it. They are what we could also called material spenders; seeking a specific policy outcome in return for their so called investment in a candidate such as lowering taxes or allowing an industry to flourish uninterrupted. Ideologues seek out candidates who share similar perspectives as themselves and are strongly concerned about supporting a cause and impacting elections; this group shows the strongest sense of unity and mobilization based on data regarding their motivation. Intimates fall into two subcategories; there are those who regularly attend social fundraisers for the networking advantage and then there are those who are close friends of candidates and are obligated to donate, they all do however keep personal relationships with candidates. Incidentals make up a small percentage of total campaign contributions; they give for mixed reasons listed above but lack consistency in their contribution patterns.

Data cannot tell us all however; misrepresentations of data often flaw our understanding of campaign finance. For example when polling individuals on why they donate people will often choose a more socially acceptable reason for giving, similar to the Bradley Affect, donors will often state that they give for ideological reasons though they seek material gain simply because of the negative implication it may have.

All of this data raises the question: what types of questions can we ask using campaign finance data? The various statistics mentioned above cover many facets, and there are other resources which can be used to infer information from the numbers provided. Some of these resources include state and city census data from the United States Census Bureau, numbers for

State elections from www.followthemoney.org, as well as search engines like google and wikipedia. Augmenting data from the Center for Responsible Politics with data and insights from these various sites, we can ask questions such as: Why do Massachusetts donors tend so highly to give to democratic candidates? Is there a correlation between living in an urban, suburban, or rural environment and giving to one or the other political party? Or, as is touched upon above, is there a correlation between median household income or average education level of a county and the amount and frequency of contributions? Is there a marked change in donations in response to political advertisements? All these questions can be, if not answered, at least studied by utilizing the resources listed above, in conjunction with donor information from the FEC through opensecrets.org and other sources.

Another interesting question remains, which will be examined in brief in the remainder of this section. Does a candidate visiting an area on tour correlate with a rise in campaign donations in the following election cycle? To examine this information, one must first look at the campaign tour schedules of candidates up for reelection or running for office. Of the 2012 campaign of Elizabeth Warren, Wikipedia says that she delivered a speech at Andover, MA in mid-September 2011, a week after announcing her intention to run. The data from the Center for Responsive Politics for area code 01810 (Andover, MA) shows a marked increase in campaign contributions in the 2012 election cycle. The contributions from Andover, according to the Center for Responsive Politics, went 34 percent to Democrats and 66 percent to Republicans; however, the contributions for Essex County, MA (which contains Andover), went 38 percent Democrat and 61 percent Republican. Considering this year was a Presidential election year, a good comparison year would be 2008. In 2008, Contributions swung slightly Democrat in Essex county, with 58 percent going to Democratic recipients and 41 percent going to Republican

Contribution Trends From 01810

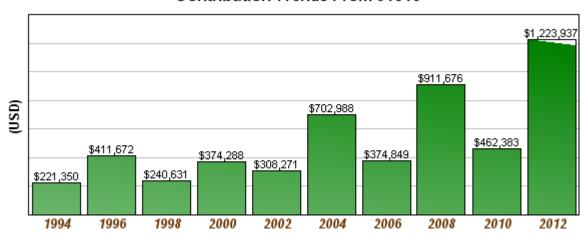


Figure 2: Andover (01810) contribution trends from 1994-2012 in Federal Elections, via the Center for Responsive Politics.

recipients. This data would suggest that Warren's speech in 2011 had a negative impact on her 2012 campaign contributions in Essex County; however, this data is certainly not significant enough to establish a causal relationship, or to make generalizations about the impact of tour visits on campaign contributions. Despite this drawback, it shows how one would go about analyzing these resources to establish a correlative connection between tour visits and contributions.

The collection of easily accessible campaign finance data allows several options for both civilian researchers and the candidates who represent them. A researcher can look at data from different districts, as well as the trends, topics, and events of that election in news sources to determine what hot-button issues may have caused different contributor behavior. Researchers can look also at data from the US Census Bureau to determine what the demographics of a certain area might tell about the motives of the contributors in that area. On the other hand,

candidates—and their strategists—can look at the changes in contributions in response to different campaign strategies, and make predictions about what strategies work best given a certain demographic.

II. Individual Contributors in Worcester

Since individual donors form an integral part of the driving force for money in campaigns, analyzing the demographics they are comprised of is of great importance. Individual donors come from all regions, races, education levels, and backgrounds, and are as varied in their demographics as the country in which they are donating. However, data shows that some demographics give more often and in larger quantities than others. This section will analyze zip codes and neighborhoods in the city of Worcester, Massachusetts to assess the impact of race, income and education on donation habits.

There is a strong correlation between race and contribution habits. Studies have shown that 95 percent of all donors are white, while other minorities including blacks, Hispanics and Asians each comprise roughly 1 percent of all contributors (Francia et al 30). This trend is no different in Worcester. Areas which contain a higher percentages of blacks or Hispanics show considerably fewer donations, as demonstrated in maps 1 and 2 (see supplemental materials).

The zip codes where the greatest percentages of these minorities are found are 01610 and parts of 01605, 01604 and 01609 (map 3 shows the geographic locations of these zip codes). The latter three zip codes are very large and the areas they cover contain varying demographics, with poorer areas bordering route 290 and wealthier neighborhoods falling nearer to the city borders on the east and the centroid of 01602 on the west. The demographic variation in the latter three

zip render analysis of the available Census data unhelpful, as the extremes of wealth and poverty in this zip code average each other out. The zip code 01610, however, covers a very demographically uniform area and therefore represents its data accurately. This zip code has a high black and Hispanic population, at 12 percent and 34 percent respectively. 18 percent of the Hispanics from this zip code hail from Puerto Rico. This zip code is quite poor, with 37.4 percent of individuals living under the poverty level and a median household income of \$29,994 (\$12,724 less than the Worcester median household income which is \$42,718 and \$32,865 less than the state median income which is \$62,859).

The 2011 US Census shows that the countrywide median household income for black and Hispanic Americans is \$32,000 and \$38,000 respectively, roughly \$10,000 lower than the median household income of white Americans, which resides at \$55,000. With a median Massachusetts household income of just over \$60,000, the hypothetical median income of Massachusetts minorities would be in vicinity of \$50,000. Households with income in this range comprise of only 4 percent of all campaign contributors (Francia et al 28). With this in mind, one can conclude that the lack of donations from areas with high minority populations can be attributed to lack of income rather than simply race.

The impact income has on campaign donations can be seen by looking at two Worcester zip codes with vastly different average incomes and finding that donations are different as well. One zip code used is 01610 which includes the Main South area which has a per capita income of \$13,873 based on 2012 inflation adjusted numbers. Additionally, this zip code has an 18 percent unemployment rate and 37.4 percent of residents are living below the poverty line. In contrast the zip code 01609 has a per capita income almost twice that of 01610 at \$26,227. The unemployment in 01609 is also lower at 11.9 percent and 21.7 percent of people are living below

the poverty line. These differences are reflected in the data for Worcester campaign donations in the past few election, as 01609 not only has more donations, but they are also larger amounts. In 01610, not only are there fewer donations, but roughly 15 percent are from unions rather than from individuals. Overall, there were 38 contributions made in 2013 from 01610 with 50 percent \$50 or less whereas in 01609 there were 240 contributions with only 25 percent of \$50 or less.

The two largest donations from the zip code 01619 in 2013 were candidate loans for Jennithan Cortes and Michael Gaffney rather than contributions from constituents, so another wealthy zip code was examined to ensure that 01619 was not unique or skewed by candidates. 01604 is another Worcester zip code and its per capita income is close to that of 01609 at \$26,756. The unemployment rate is 11.8 percent and the percent living below the poverty line is 15.3 percent which makes it very similar to 01609 in income levels. The donations made in this zip code are strikingly similar to those made in 01609, including the top two contributions coming from candidate loans, though in this case for Kate Toomey and Michael Germain. However, individual spending in these zip codes is not biased towards these candidates, and in fact George Russell received the most individual donations from 01604 in 2013.

In the 2013 election cycle, the correlation between income and contributions was clear, but this finding may not be generalizable to other election cycles. Looking at data from 2009 and 2011, there were still more contributions from the wealthier zip codes, but there were far fewer contributions overall. This suggests that the people giving money are not primarily habitual donors, since most gave only in the 2011 and 2013 elections, but not prior. This suggests that while people with large disposable income donate more readily than those with less, but that just having extra money does not compel people to donate. They must first be politically aware and care about a candidate or issue to be driven to donate.

As has been discussed at length, it can be difficult to ascertain the various specific motivations of campaign donors, especially in local municipal elections where the motivation behind a donation might be as simple as "the candidate lives next door". However, one can look at correlations between campaign donations of an area in total, their mean size, and various demographics such as average education level, in order to ascertain the possibility of a connection between these variables. In this section, donations will be compared between zip codes 01610 and 01605. These zip codes have similar populations (23,945 and 26,221) and thus the populations themselves should not play a significant factor in differences between contributions from each area. Total and mean donations will be tabulated for these area codes, and these numbers will be compared to US Census data for these regions which details the mean education level for these areas.

In zip code 01610, the achievement level is significantly lower across all fields except one when compared to 01605. The rate of those who have achieved a high school education or higher, is 74.1 percent in 01610; compare that with 82.2 percent in 01605, an 8.1 percent difference. Those who stopped education after finishing their high school education or equivalent make up 27.1 percent in 01610, and 28.8 percent in 01605. The outlier in this dataset is the amount of those in 01610 with some college or Associate's degrees, versus those in 01605: 01610 has 58.6 percent compared with 45.4 percent in 01605. This difference is largely due to the presence of two colleges in 01610. However, the most significant difference between these two regions is the amount of those in each with a Bachelor's degree or higher; this is 4.9 percent for 01610, compared to 13.1 percent for 01605. 01605 has a significantly higher proportion of people who have a Bachelor's degree or higher. The median expected income according to the U.S. Census Bureau, for those with a Bachelor's degree at \$56,665 per year; with an Associate's,

01610 Contributions			
Year	Total Contributions	# Contributors	Mean Contribution
2013	\$6,440	48	134
2011	\$27,960	134	208

Figure 3: Contributions from zip code 01610.

Tigure 5. Commonitions from Lip Code 01010.				
01605				
Contributions				
	Total		Mean	
Year	Contributions	# Contributors	Contribution	
2013	\$11,060	89	124	
2011	\$27,433	173	158	

Figure 4: Contributions from zip code 01605.

the number falls to \$39,771. For those with some college and no degree, mean earnings is \$32,295. Education makes a significant impact on the average income that can be expected by a person, and it logically follows that income would have a significant impact on donations, as the higher the income, the more capacity an individual has to donate. Therefore, it would be expected to see consistently higher donations from 01605 than from 01610.

Contributions from both zip codes in 2011 show significant activity, with over \$27,000 going to candidates from 01605, and almost \$28,000 from 01610. This large amount was in part a consequence of competitive district council races in both areas, and perhaps also a consequence of the fact that the city's prior mayor, Joe O'Brien, resided in the 01610 zip code and was expected to run for re-election until late in the 2011 campaign. 01610 gave more total donations in 2011, although 01605 had 39 more donors. 01610 donors also gave a larger contribution on average, which is contrary to what one would expect. However, in the 2013 election, where there was less competition in both areas' district council races, 01605 gave almost double the

total amount that 01610 did, a total of \$11,059.99 compared to \$6,440. 01605 also beat 01610 in terms of the amount of donors, with 89 total, 41 more than 01610's 48 donors. Interestingly enough, the mean contribution from 01610 was still larger than that of 01605 by \$10.

These numbers seem contrary to the logical assumption that the more educated area would also tend to give more money. While 2011 saw higher donations from 01610 than from 01605, 01605 saw higher donations in the next election, and further research would most likely demonstrate that 01605 gave higher amounts overall despite the circumstances of the election. This still leaves the conundrum of the significantly lower contributions from both regions in 2013. However, this dip in donations can most likely be explained by low interest in the 2013 election, as evidenced by the dismal 14.35 percent turnout of registered Worcester voters in 2013 (Kotsopoulos). It is entirely possible that education level affects some factor of political awareness which motivates people to donate more even in elections in which they have no imminent interest; it should be noted that repeated donations to candidates could also be seen as a strategic move to garner favor with business owners and others with a vested interest in municipal government. It is also equally likely that the only factor affected by education which pertains to political donations is the amount of money each contributor has to play with, and thus what amount they can spare to give to candidates for local office.

Overall, it was found that the variables used in this paper did affect campaign contribution levels, but of all the demographics examined, income was the only one to have a direct impact. However, both race and education level are directly correlated with income level and therefore indirectly affect campaign donations. In future research, it would help to apply the same methodology to multiple cities to determine if these findings are generalizable. One variable which could be added is voter turnout to look at whether campaign contributions or any

of the demographics used in this paper correlate with political awareness and interest, represented by voter turnout levels.

III. Contributions from Three Cities

To understand the effect of demographics on contribution habits one must look at a greater range of data from locations which do not share demographic trends. The three cities used in this portion of the study will be Hartford, CT; Portland, ME; and Worcester, MA. Previously, multiple zip codes from within Massachusetts, as well as from within Worcester specifically, were compared in terms of demographics and individual campaign contributions. In order to determine whether the trends found are generalizable, the same variables will be examined for three cities, including Worcester as a whole rather than just select zip codes. As far as population size, Hartford has 124,893 while Worcester has 182,664 and Portland has only 66,214. Hartford and Worcester are fairly similar in size, while Portland is significantly smaller, as well as more homogenous. Using a smaller city will be useful in determining whether or not the trends discussed about Worcester apply to different populations.

An influential factor for whether or not people donate to campaigns is income level, and whether or not they have enough disposable income to spend on candidates. In Hartford, the median household income is \$28,931 while the per capita income is \$16,448 and 33.9 percent of the population is living below the poverty line. In Portland, the per capita income is \$28,874 which is roughly the same as Hartford's median household income. The median household income is much higher at \$44,487 and only 19.4 percent of the population is below poverty level. Worcester is more similar to Portland in terms of income level with a per capita income of

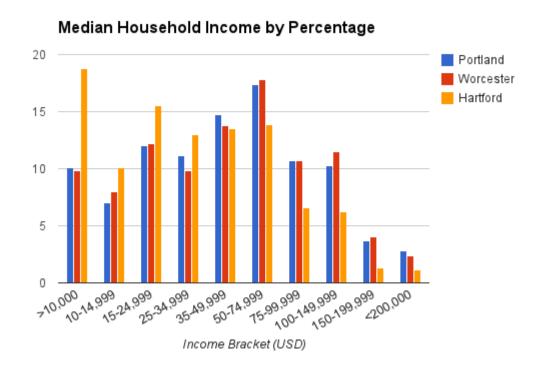


Figure 5: Median Household Income by Percentage

\$24,470 and a median household income of \$45,679 as well as 20.1 percent living below the poverty level.

In the comparisons of zip codes, there was a correlation between wealthier areas and more individual contributions, so it could be predicted that the same would apply everywhere, and data from 2013 will be used for all the cities, since that is the most recent complete election year. In Hartford throughout that year there were 1,241 contributions made by individuals versus 1,748 in Worcester. To account for population sizes, that would be 0.99 percent of Hartford's population versus 0.95 percent of Worcester. This is contrary to the prediction that the wealthier city would contribute more, and though Hartford's contribution level is not substantially higher,

their income levels are substantially lower. In Portland, there were 535 contributions in 2013, which corresponds to 0.80 percent of the total population.

Despite such a large number of contributions in Hartford, the total amount given was \$90,347 with the highest contribution being \$500 and the average \$72. Portland had a total of \$168,330 with an average of \$315 and a maximum of \$25,000. Worcester had \$917,742 in contributions, with the average being \$525 and the largest being \$30,912. Though Hartford had the highest number of contributions, they were much smaller which may be due to the public finance laws in Ct. In order to qualify for public funding, candidates must raise a certain amount of money in aggregate, but also receive a certain number of contributions from people in the district. This would account for the large number of very small contributions, since qualifying contributions are between \$5 and \$100. Worcester and Portland both had much larger contribution sizes, though the average in Worcester may be skewed due to a few extremely large contributions. Nevertheless, Worcester raised five times more than Portland, despite a population that is less than three times larger.

Based on these numbers, there is no definite correlation between income and contribution levels, but one factor that could also affect contribution levels would be political awareness and interest. Since it is not possible to directly measure political interest, voter turnout can be used as a representation of interest. Looking at 2013 voter turnout for each of the three cities, Hartford had the lowest turnout at 5.21 percent, Portland had the highest turnout at 22 percent while Worcester had a 14.35 percent voter turnout. The voter turnout correlates with income level, with wealthier cities having higher turnout level, so it may be that people with higher incomes are more likely to be politically aware and they may pay more attention to elections and consider giving, but vote even if they do not contribute.

Income is not the only factor that may influence campaign contributions, though. In addition to variables such as the number of seats up for re-election, the competitiveness of the races, and the issues at hand, demographics such as race may influence contribution levels as well. Portland Maine falls at one extreme on the spectrum of diversity. Whereas the national average ethnicity is 72.4 percent white, 12 percent black and 16 percent Hispanic (as of the 2010 census), Portland is 85 percent white, 7.1 percent black and 3 percent Hispanic. The city itself is coastal and four of its seven zip codes - 04109, 04108, 04050 and 04019 - fall over islands and their surrounding waters. These islands are even more exclusively white, with each island being comprised of less than 2 percent of each minority, with the exception of 04050 which is 2.2 percent and 2.6 percent black and Hispanic respectively.

Portland Maine municipal elections are unusual - each of its eight city councilors serve in three-year staggered terms. In 2013, only 3 seats were open - those held by Edward Suslovic and Jill Duson, and a third vacated by John Anton. Suslovic was first elected in 2010, and won his reelection in 2013 with 69 percent of the vote. Previous to his 2013 bid for a council position,

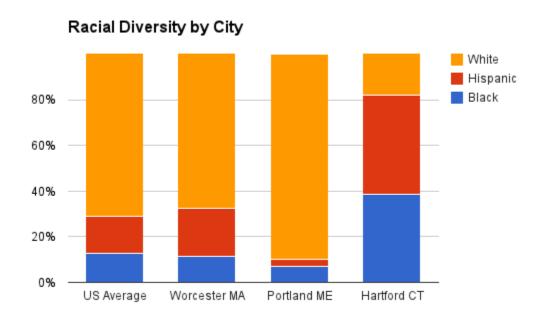
Zip Code	Percent Black	Percent Hispanic
04101	10.1%	3.9%
04102	5.5%	3.9%
01403	6.1%	2.1%
04108 (Island)	0.3%	1.7%
01409 (Island)	0%	0%
04050 (Island)	2.2%	2.6%
04019 (Island)	0%	0%

Figure 6: Portland Maine zip codes

Suslovic had worked as a state representative and also served two non-consecutive terms on the city council. Duson, incumbent since 2001 and known locally for working with the elderly and disabled won victory with 47 percent of the vote (to her competitors' 28 percent and 25 percent). The third seat was won by Jon Hinck, who had previously served three terms in the state legislature and succeeded against businessman Wellington Lyons 58 percent to 42 percent. The low percentage of the population that donated could perhaps be attributed to the fact that few seats were open and therefore few people ran.

Racially, Worcester Massachusetts is much closer to average than Portland. Where the national average is 72.4 percent white, 12.5 percent black and 16.3 percent hispanic, Worcester is 69.4 percent white, 11.6 percent black and 20.9 percent Hispanic. Many of the minorities in

Figure 7: Racial Diversity in Worcester MA, Portland ME, and Hartford CT



Worcester are concentrated into the zip code 01610 and those surrounding it. This area also exhibits the least contributions and the lowest income.

On the far side of the racial axis is Hartford. Hartford is 29.8 percent white, 38.6 percent black and 43.4 percent Hispanic - much higher percentages of minorities than the US average of 72.4 percent white, 12.6 percent black and 16.3 percent Hispanic. Furthermore, four out of the nine city councilors are black and three are Hispanic. This is much more diversity than exhibited by Worcester and Portland. The city of Hartford does not have districts - instead, each of its 9 councilors behaves the same way an 'at-large' councilor would in other cities.

Studies have shown that in congressional elections 95 percent of all donors are white, with minorities such as blacks, Hispanics and Asians each comprising 1 percent of all contributors (Francia et al 30). With this in mind, it would be logical to assume that Portland Maine would have a much higher percentage of the population contribute because it is more white. This is not the case, however. Out of the cities of Worcester, Hartford and Portland

City	Number of Councilors	Number of Black Councilors	Number of Hispanic Councilors
Worcester	11	0	1
Portland	8	1	0
Hartford	9	4	3

Figure 8: Racial Diversity of City Council Members in Worcester MA, Portland ME, and Hartford CT

City	Percentage of population who contribute	Total contributed	Average contributed
Hartford CT	0.99%	\$90.347	\$72
Worcester MA	0.95%	\$917,742	\$525
Portland ME	0.80%	\$168,330	\$315

Figure 9: Contribution statistics of Worcester MA, Portland ME, and Hartford CT

Hartford leads in the percentage of population who contributes at 0.99 percent. Worcester is in second with 0.95 percent and Portland last with 0.80 percent. The average size of donation is more logical, showing Hartford with a much smaller amount than Portland and Worcester.

One possible cause for Hartford's large percentage is the way data is collected. In congressional elections only contributions above \$200 are itemized, but in local races such as Hartford's those limits are much lower. The lowest value itemized in Hartford's 2013 election is \$2. With lower disclosure limits the contributions of those who are only able to give small amounts of money (such as blacks and Hispanics, whose median household income is on average \$10,000 less than the US average) become visible.

Previously we had concluded that there was little correlation between average educational attainment of an area and the mean contribution size. We had also concluded that while there may not be a direct correlation between the two, there was probably a connection between education and income level, which is a factor which has been seen to affect the average contribution size. We looked at the educational attainment of three cities: Worcester, Hartford, and Portland, as well as their contribution data for the 2013 local election cycle, in order to determine if our previous conclusions about Worcester zip codes held true for other local elections. We compared this with US Census data on each of these cities detailing the

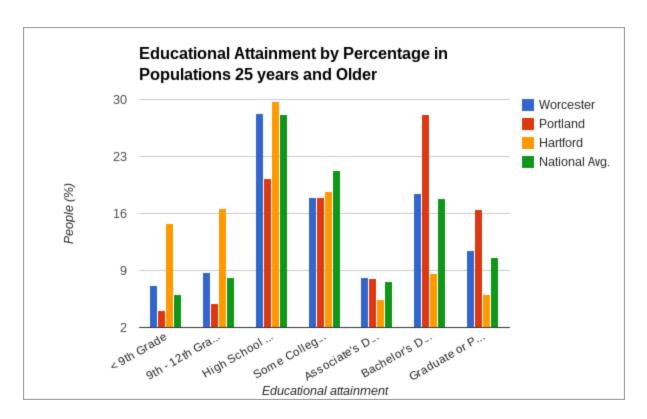


Figure 10: Percentages of those 25 years and older who have achieved within each educational bracket.

percentages of each population within educational attainment brackets from those with less than 9th Grade education to those with Graduate and Professional degrees.

We used the national average for educational attainment as a basis of comparison between the levels of education for Worcester, Portland, and Hartford. Given the data we collected, it seems that both Worcester and Portland have very similar educational levels when compared to the national average, with a few exceptions. In figure 10, it is obvious that the major outlier between these cities seems to be Hartford, which has an extraordinarily positively skewed distribution. The percentages for those with less than 9th grade education peak at High School education or equivalency, but Hartford's percentages for less than 9th Grade education and 9th - 12th Grades with no degree both roughly double the national average at 14.8 percent and 16.6 percent respectively. Portland leads the three in terms of Bachelors and Graduate or

Worcester Contributions: 2013 Election Cycle		
Total Contributions	\$917742.29	
Contributions	1748	
Average Contribution	\$525.024193363844	
Max Contribution	30912.22	
Hartford Contributions: 2013 Election Cycle		
Total Contributions	90347.8	
Contributors	1241	
Average Contribution	72.80241741	
Max Contribution	500	
Portland Contributions: 2013 Election Cycle		
Total Contributors	168330.23	
Contributors	53	6
Average Contribution	314.635943925234	
Max Contribution	25000	

Figure 11: Contribution Data for the 2013 Local Election Cycles of Worcester MA, Hartford CT, and Portland ME.

Professional degrees, at 28.1 percent and 16.5 percent respectively. In these respects, Portland and Hartford represent a dichotomy in terms of education—Portland representing high education and Hartford representing low—which can be used to fully examine the impact of educational attainment on mean campaign contributions. Worcester is also important in this model, as it has educational attainment levels close to the national average, and should balance out the two more extreme cases.

Worcester has the best approximation of a middle-ground in terms of education level between the three cities. However, as evidenced in figure 11, it seems that Worcester has the highest of any contributions in terms of average contribution size. However, this was likely driven up by the max contribution size, of over \$30,000 (figure 11). A more likely figure would probably be around \$200 or slightly more, if the large donations were discounted. Worcester also had the highest amount of donors, with 1748, making up 0.95 percent of the population.

Hartford has by far the lowest average contribution at just over \$72 (figure 11). This is unsurprising, as one would expect that an area with as much uneducated population, as well as

staggering amounts of poverty, would have very little in the way of donations. Surprisingly, Hartford has a fairly large number of contributors. This implies that Hartford has a high amount of very small contributions, in the amount of \$2, \$3, and \$5, which holds with what we observed by scanning over the contributor lists for Hartford in the 2013 election. Hartford also had the highest contribution rate in terms of population size, with 0.99 percent of the population donating.

Portland had 536 contributors in 2013, making up 0.80 percent of the population of the city, which is the lowest by a good margin. Portland's contributions had an average of roughly \$314 (figure 11), which is the highest if one considers the large donations found in Worcester going to non-candidate recipients. This holds with what would be expected, given that Portland has the highest levels of educational attainment in the higher categories.

We observed a few trends within the cities of Worcester MA, Hartford CT, and Portland ME in terms of their average contribution sizes and educational attainment levels. Hartford formed the bottom section of the scale, with low rates of education as well as low average contribution sizes. Although people in Hartford tend to give money, Portland took the opposite end of the dichotomy, with high levels of education in the highest degrees, as well as fairly high average contribution sizes. Worcester took up a middle ground, although the numbers were skewed higher by the amount of large contributions to non-candidate recipients. The correlation between education and contribution size becomes clear by looking at this data; however, that is not enough to say that education necessarily effects contributing behavior.

Those with higher education are also more likely to have higher income—and thus more disposable income—and can therefore afford to contribute to elections in higher amounts and with higher frequency. While income seems to have the greatest effect there are numerous other

factors which influence the number of contributions in a given election, including local election laws and habits or interest in local politics. While some of these factors influence income directly and contributions indirectly, they still have significant influence over individual contributors. Although more research is necessary in order to make meaningful conclusive statements about the nature of campaign contributions by individuals, it seems that the deciding factor can be attributed to an amalgamation of human factors which are difficult to quantify, in addition to the demographics examined in this project.

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Appendix

Phase 3 data:

All Hartford campaign data was retrieved from the CT State Elections Enforcement Commission's Online Campaign Reporting Information System (eCRIS). eCRIS has a searchable database where itemized contributions can be sorted by city, date, type of contribution (individual, PAC, loan, personal fund, etc), or amount and the downloaded in an excel file. eCRIS also allows separate searched of expenditures, or downloadable summary files for each year.

The Hartford data notably lacked addresses or zip codes for the contributions. It is therefore impossible to analyze the city on a zip-code level as done in Worcester in part 2.

http://seec.ct.gov/eCris/documentsearch/DocumentSearchhome.aspx

http://seec.ct.gov/ecrisreporting/SearchingContribution.aspx

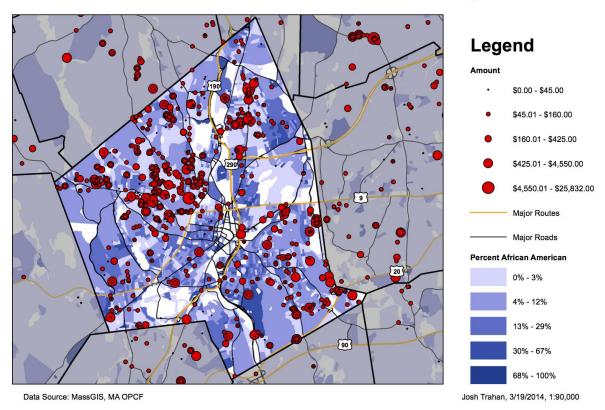
The Portland campaign finance data was retrieved from the *Maine Governmental Ethics & Election Practices Commission*. The data was downloadable as a .csv and included data for both 2013 and 2014. The data included fields for receipt amount, contributor type (individual, PAC, Nonprofit, Commercial Source, Loan, and more) and name, receiver type (candidate, PAC, Ballot Question Committee, Party committee) and name, location (address, city, zip code) and many more. The data was packaged for Maine in its entirety rather than just Portland so we had to sort it by the city and weed out the non-Portland contributions.

Because of the thoroughness of the data packaging, it would be easy to analyze other subjects than individual contributors in the state of Maine.

http://www.maine.gov/ethics/index.htm

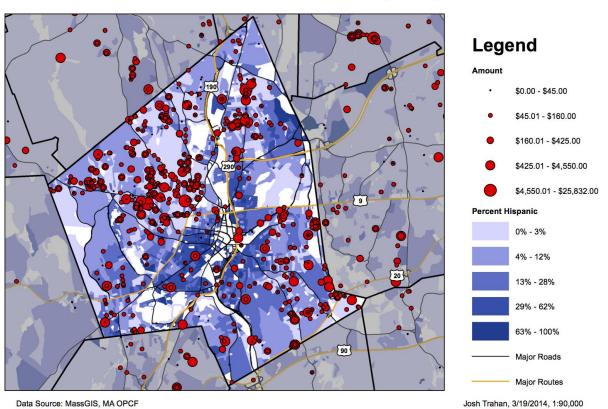
https://secure.mainecampaignfinance.com/PublicSite/DataDownload.aspx

Worcester Campaign Finance: Size of Contribution and Percent African American, 2009 - 2013

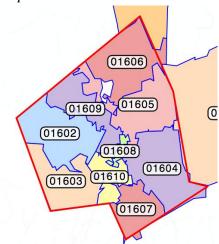


Map 1

Worcester Campaign Finance: Size of Contribution and Percent Hispanic, 2009 - 2013



Map 2



Map 3 - Zip Codes in Worcester