

Who Votes, Who Doesn't?

Predicting Voter Turnout for the November 2011 Detroit City Charter Election

vote!



by: Clay Martin - D3 Analyst

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The Common Denominator

DATA DRIVEN DETROIT

On November 8th 2011, registered voters in Detroit will decide whether or not to approve a revised city charter. Among other things, the new charter is intended to establish a city council by districts, strengthen measures against waste and fraud in city government, require the mayor to attend community meetings, require a feasibility assessment for a Detroit automobile and property insurance system, and promote sustainability initiatives. The changes are controversial enough that two groups, Citizens for Detroit's Future and the Democratic Open Government Caucus of the Michigan Democratic Party, have registered with the City Clerk's office to challenge voters' eligibility and the conduct of election officials. [1]

Even though the new charter would implement significant changes in local government, the challenge of engaging citizens enough to vote on this local issue is also likely to be significant. We at Data Driven Detroit (D3) have been combing through voter data from the last 10 years and, based on turnout in previous local, non-mayoral elections, are estimating an 8.5% voter turnout on the charter issue. We do hope that the number will be higher on this important issue; however we want to take this as an opportunity to share our data with you as well as the precedents we studied to determine this estimate.

To begin with, voter turnout in Detroit has been described as "disgraceful" and worse. [2] D3 wanted to go beyond the hand wringing and uncover the patterns behind previous elections. To do so, we abided by a few basic principles.

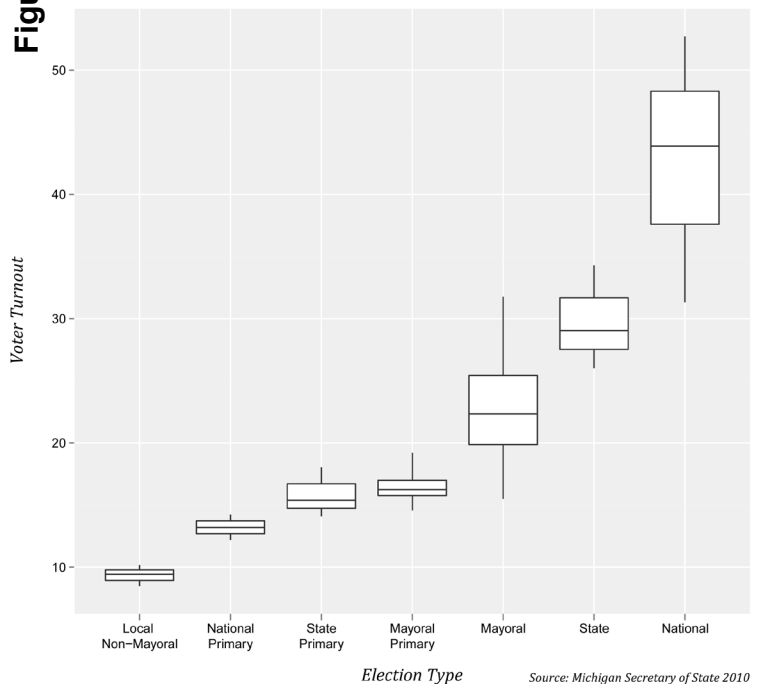
Principle 1: All Elections Are Not Equal

For the purposes of turnout prediction, Detroit elections can be placed into seven categories:

- 1) National presidential elections
- 2) Off year, non-presidential state general elections
- 3) Mayoral elections
- 4) Mayoral primaries
- 5) State primaries
- 6) National primaries
- 7) Local, non-mayoral primaries

As you can see in Figure 1, turnout declines from categories 1 to 7. [3] Of course, some elections stubbornly refuse to abide by this rule. Kwame Kilpatrick's reelection in 2005 so ignited Detroit voters that turnout was above the average for state general elections. Conversely, Detroit voters showed little interest in George Bush's 2004 reelection bid, voting as if it were an off year. Today's election falls firmly within category 7, so despite these outliers, we expect turnout in local, non-mayoral elections to be in the 8 to 10 percent range.

Figure 1 Voter Turnout Box Plots By Election Type, Detroit 2000 to 2010



Principle 2: All Voters Are Not Equal

One person, one vote, is the cornerstone of democracy. And yet, some eligible voters consistently choose to exercise the franchise more often than others. As Figure 2 shows, women in Detroit consistently vote at higher rates than men. In all but two categories, the lowest turnout election for women is higher than the highest turnout for men. The only elections where this is not true (indicated by the overlap of boxplots) are the Kilpatrick reelection in 2005 and the Obama election in 2008. The gender gap is not particular to Detroit, and scholars have offered several explanations, ranging from increased literacy among female voters to higher rates of incarceration among men. [4]

Voter age also matters. Figure 3 shows dramatic differences in turnout among voters 18 to 35, 35 to 55, and 55 and older across all election types. Again, the only elections where we see overlap among groups are the 2005 Kilpatrick reelection and the 2008 Obama election, which saw record participation among young voters, both locally and across the country. For the purpose of predicting today's election, notice that turnout in local, non-mayoral elections is driven largely by voters 55 and older.

Figure 2

Voter Turnout Box Plots By Gender And Election Type, Detroit 2000 to 2010

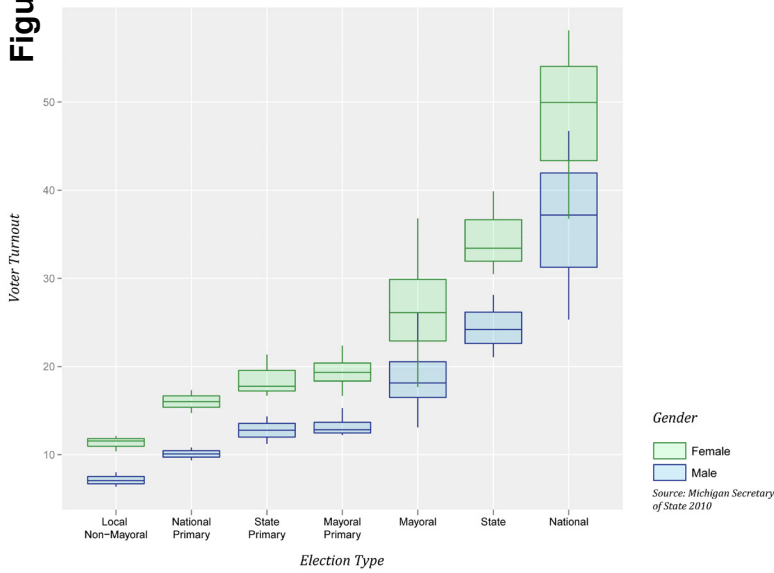
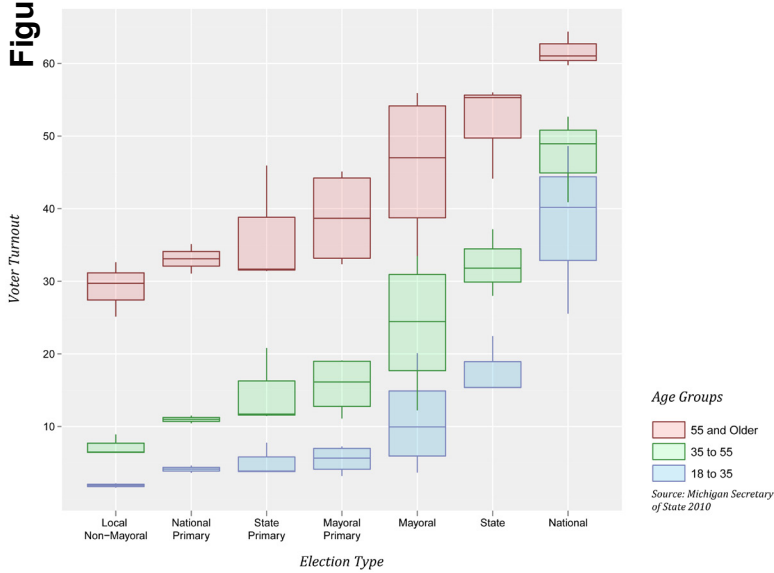


Figure 3

Voter Turnout Box Plots By Age And Election Type, Detroit 2000 to 2010



A Short Note on the Plots

It is important to note that each of the following plots is actually three separate plots combined. Each dot represents a single block group or tract and age group. As a result, each block group or tract is represented by three separate dots, a red dot (55 and older), a green dot (35 to 55), and a blue dot (18 to 35). In addition, we have drawn lines of best fit that correspond to each age group and an overall line of best fit (brown) that is drawn using data from all age groups. The light band around each line of best fit indicates the standard error. The band narrows as the estimate becomes more confident. If you can count really, really fast, you may have noticed that each plot only has 300 dots, whereas there are 297 tracts and over 1,000 block groups in Detroit. If each tract or block-group is represented with three dots, there should be at least 891 dots per plot. What gives? Well, while the lines of best fits are drawn using data from all tracts or block-groups, we only plotted a random sample of 100 tract or block-groups to avoid clutter.

Figure 4 Voter Turnout, School Board Election, Detroit 2007

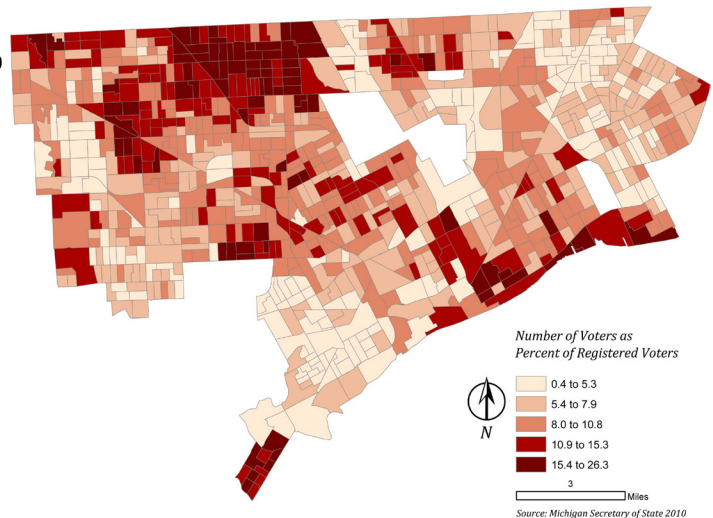
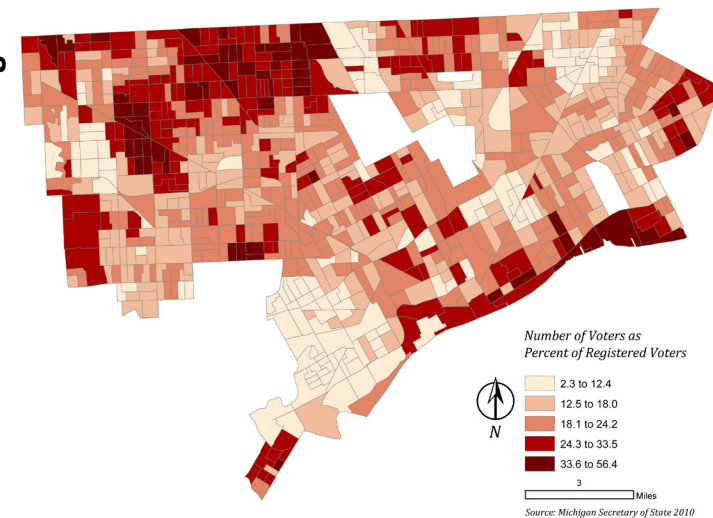


Figure 5 Voter Turnout, Mayoral Election, Detroit 2009

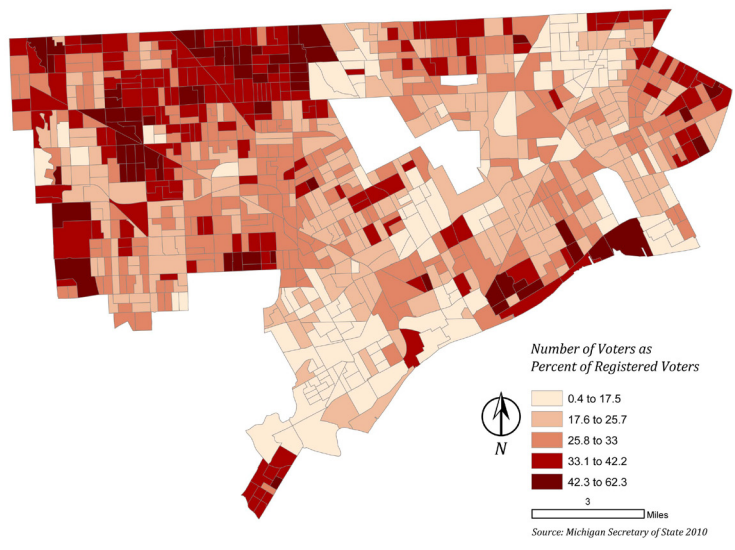


Principle 3: All Neighborhoods Are Not Equal

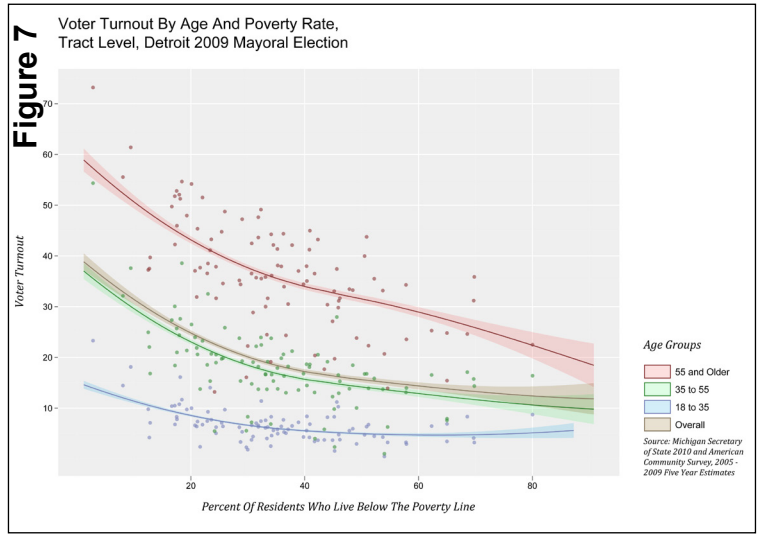
High turnout voters tend to live close to other high turnout voters. This is evident from a quick look at Figures 4, 5, and 6, which show the distribution of voter turnout in the 2007 school board election, the 2009 mayoral election, and the 2010 state general election. The most interesting feature of these maps is that they all look basically the same: some areas turnout in high numbers in election after election, and others do not. Investigating the reason why this is the case will take the remainder of this column.

The literature on voter turnout and its correlation to socioeconomic and demographic indicators is vast. We have sifted through that literature to bring you four indicators that are particularly relevant to Detroit neighborhoods: 1)the poverty rate, 2)homeowner occupancy,3) the percent of residents with at least a high school degree, and 4)the percent of residents who have moved in the last year. We will see how each of these variables influenced turnout in the 2009 mayoral election.

Figure 6 Voter Turnout, State General Election, Detroit 2010



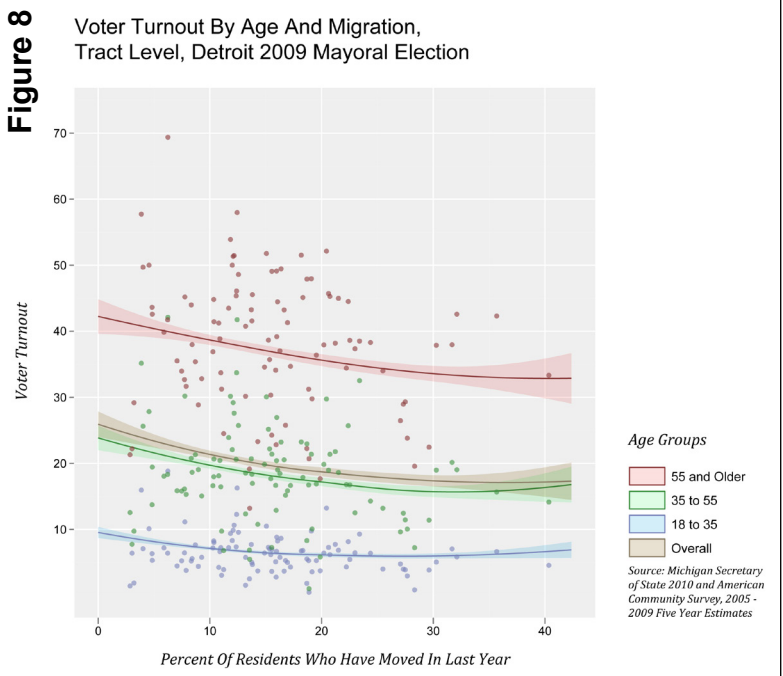
Voting and Poverty



There are at least two schools of thought on the relationship between voter turnout and poverty. One holds that economic hardship increases voter turnout as voters look to the ballot box as a means of redress. The other points out that voting costs in both time and money, and the least well off are least able to afford such costs. [5] [6] Figure 7 suggests that voter turnout by census tract declines as poverty rates increase for all age groups. The most dramatic decrease occurs as poverty rates increase from zero to 40%; after that, turnout continues to decline with poverty, but at a much lower rate.

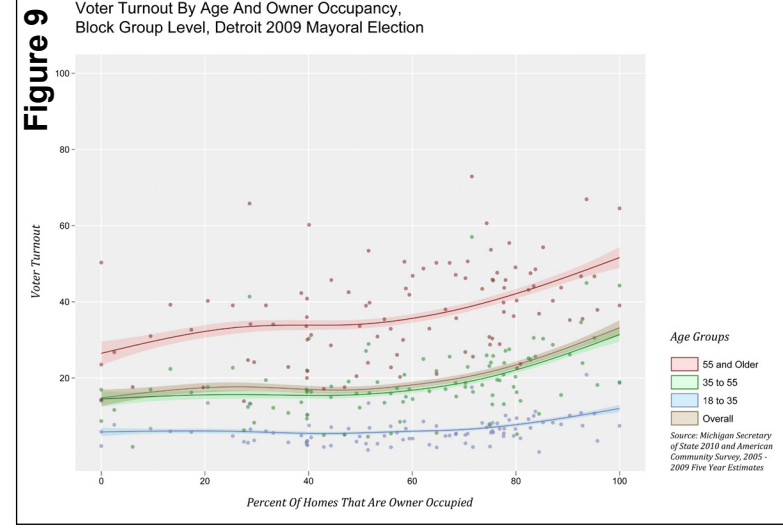
One person, one vote, is the cornerstone of democracy. And yet, some eligible voters consistently choose to exercise the franchise more often than others. **Women in Detroit consistently vote at higher rates than men. In all but two categories, the lowest turnout election for women is higher than the highest turnout for men.**

Voting and Migration



Moving can have a large impact on whether or not someone votes. In addition to the costs of moving, voters must navigate a new set of deadlines and requirements in order to re-register. As a result, people who have recently moved are less likely to vote than their stationary counterparts, despite espousing a similar interest in politics and an equally strong conviction that they should have a say in who governs. It has been estimated that turnout in national elections would increase by nine percent if the effect of mobility were removed. [7] From Figure 8, we see that the relationship between turnout and migration among Detroit voters generally follows the national trend, with voter turnout in tracts with no migration in the past year about six percent higher than in tracts where 40 percent of residents have moved. Migration seems to have the smallest impact on young voters.

Voting and Owner Occupancy

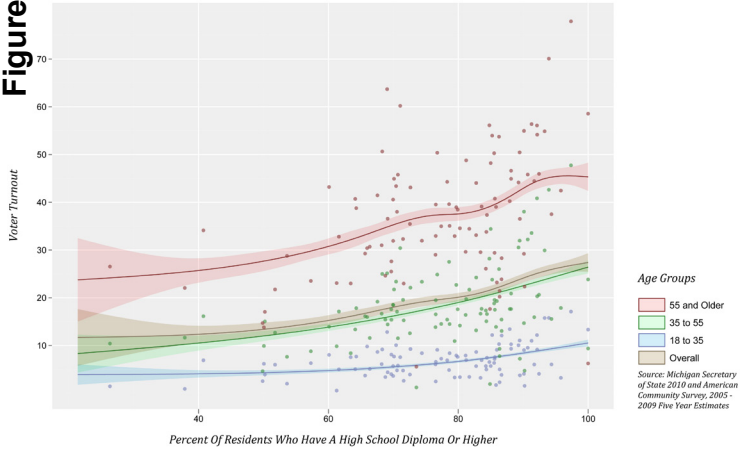


Owner occupancy and migration are both used to indicate neighborhood stability, though they generally move in opposite directions – migration declines as owner occupancy increases. With this in mind, Figure 9 should come as no surprise. It shows that as the percent of owner-occupied homes in a block group increases, the turnout rate increases as well.

Voting and Education

Figure 10

Voter Turnout By Age And High School Graduation Rate, Block Group Level, Detroit 2009 Mayoral Election



Voting can be a complicated process that requires a high degree of literacy and engagement. So it is unsurprising that numerous studies have demonstrated a positive relationship between turnout and education. [8] Again, Detroit is no different. Figure 10 shows that voter turnout increases as the percent of residents with a high school diploma increases.

Now Vote Already!

By now you have probably guessed that this article is not really about predicting turnout in the Detroit City Charter election. The true intent was to begin a discussion about civic engagement in the city, and how it is related to demographic and socioeconomic conditions. To continue this discussion, D3 has developed a website that allows you to explore voter data in Wayne County. In the near future, we intend to expand this site to include the entire state, as well as expand the list of related indicators. Until then: Go out and vote!

Works Cited

- [1] Cecil Angel. "Detroit charter revision hot election issue" Detroit Free Press, online. November 4, 2011.
- [2] Jonathan Oosting. "Rev. Jesse Jackson talks low voter turnout in Detroit, need for 'economic stimulus part two'." Mlive.com, online. August 11, 2010.
- [3] In case it has been awhile since you've seen box plots, here's a quick refresher. The horizontal line in each box tells you the average value for each group. The top and bottom of each box tell you the upper and lower quartiles for each group. Finally, the ends of the "whiskers" on each boxplot correspond to the highest and lowest values for each group. You can see, for example, that turnout in Local, Non-Mayoral elections averages about 9%, with a high of just over 10%, a low of around 7%, and upper and lower quartiles at just under 10% and 8%, respectively.
- [4] Miles, Thomas. "Felon Disenfranchisement and Voter Turnout." Journal of Legal Studies. 85 (2004).
- [5] Schlozman, K. and Verba, S. "Injury to Insult: Unemployment, Class, and Political Response" Harvard University Press, 1979. pp. 12 – 19.
- [6] Rosenstone, S. "Economic Adversity and Voter Turnout." American Journal of Political Science. 26 (1) (1982)
- [7] Squire, P., Wolfinger, R., and Glass, D. "Residential Mobility and Voter Turnout." The American Political Science Review. 81 (1) (1987)
- [8] Tenn, Steven. "The Effect of Education on Voter Turnout." Political Analysis. 15 (4) (2007)