Gender, Race, Age and Voting: A Research Note

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Abstract

In this brief analysis, we use a new dataset of two million voter registration records to demonstrate that gender, race, and age do not correlate with political participation in ways that previous research has shown. Among Blacks and Latinos, women participate at vastly higher rates than men; many Blacks participate at higher rates than Whites; and the relationship between age and participation is both not linear and varies by race and gender. Survey research is unable to capture the true relationship between demographics and participation, on account of survey bias and, more importantly, the non-linearity of effects. As a result, theories of participation, like the dominant resources-based models, have been built on faulty premises and tested with inadequate data. Our evidence calls for a renewed effort to understand election participation by utilizing large datasets, by being attentive to linearity assumptions, and by returning to theory.

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Using a sample of two million registration records, we demonstrate that the ways that race, gender, and age correlate with political participation in the United States are misunderstood. Political scientists have long used survey samples of 1,000 to 15,000 respondents to study political participation. Because of the predictors of self-reported behavior that routinely arise in such surveys, scholars have inferred that a certain set of social and political processes must drive participation. Specifically, arguments that people's "resources" drive participation dominate the field. These arguments predict that people who are disadvantaged or discriminated against in society are less likely to get involved (e.g. Rosenstone and Hansen 1993, Verba, Schlozman and Brady 1995).

We show that some of the most basic facts that led scholars to formulate the resource theories are wrong. Survey research finds that Whites participate in politics more than Blacks and men participate in elections at similar rates as women. According to Verba, Burns, and Schlozman (1997), there is a "well known equivalence between men and women in electoral turnout." Based on how voting models are often estimated, participation is also thought to increase linearly or quadratically with age. Each of these findings and assumptions will be shown to be incorrect in ways that call for a rethinking of the resource-based theories themselves. The theoretical contribution of this essay is to challenge resource-oriented participation models with new evidence that demographic groups considered to be lacking in participatory resources are registering and voting at the highest rates.

Data

In 2010, we partnered with Catalist, a data vendor to Democratic politicians and liberal interest groups that collects voter registration records, cleans and updates them, and provides a database of all registered voters in the U.S. to its political clients.[1] For the present study, we use Catalist's national sample of 1% of all active registration records. In most jurisdictions,

[1]For more information, consult Ansolabehere and Hersh (2010).

age and gender are available on the voter file. When gender is unavailable, it can be predicted by registrants' first names. Voters in eight Southern states report their race in the public record. For voters in other states, Catalist makes a prediction of race based on voters' names and Census block-group contextual data. In a study in which we tested the accuracy of Catalist's racial predictions, we found that 91% of the time Catalist's prediction of race matches a voter's self-reported race. In this analysis, we use Catalist's racial predictions for the entire sample; however, if we were to restrict the sample to voters who report their race on the voter file, or to voters whose races are predicted with the highest degree of confidence, the results do not meaningfully change.

Catalist's records provide estimates of registrants and voters. For this study, we focus on turnout in the 2008 general election as recorded on voter files by election officials.[2] However, the effects identified are not particular to 2008. We also utilize citizen population estimates as a baseline for participation. To create such estimates, we start with the Census Bureau's full population estimates by gender, race, and single year of age for 2009.[3] We then use the American Community Survey (ACS) to generate the percentage of each age-gender-race cohort that are citizens, and we weight the population statistics accordingly.[4] The ACS has a sample size of three million residents, and is sufficiently large to provide accurate citizen estimates for all age-race-gender cohorts.

Results and Discussion

Table 1 shows the rate of registration among citizens, the rate of voting among registrants, and the rate of voting among citizens, by gender and race. In all racial groups, women are registered to vote at *higher* rates than men. The gap differs by race: it is 2-3 points for

[2] In a study of election administration quality, Ansolabehere and Hersh (2010) find turnout statistics on voter files to be highly accurate.

[3] "NC-EST2008-alldata: Monthly Population Estimates by Age, Sex, Race and Hispanic Origin for the United States," November 2009, United States Census Bureau.

[4] American Community Survey, "2008 1-year PUMS File," United States Census Bureau.

Whites and Asians, but 14-16 percentage points for Hispanics and Blacks. Given that a person is registered, there is a separate effect of gender on voting, with women in all racial groups voting at higher rates. Again, these differences are small for Whites and Asians and large for Blacks and Hispanics. The two gender effects together (the effect on registration and the effect on turnout) contribute to the overall participation gap, as witnessed in the third section of the table. The largest gender gap is among Blacks: Black women are 17 percentage points more likely to vote than Black men. Apart from identifying substantially larger gender effects than previously found, the evidence in Table 1 also challenges the assumption that Whites participate more than Blacks. In fact, Black women register at a higher rate than any other group, and overall Black women vote at a higher rate than White men.

Figure 1 adds age into the analysis. For each race-gender cohort, the rate of registration among citizens (column 1), the rate of voting among registrants (column 2), and the rate of voting among citizens (column 3) are shown. The figures estimate voters in 3-year age cohorts, beginning with 18-21 year olds. The gender gap is somewhat higher among young people, especially for Blacks, but it is persistent across most age groups. The relationship between age and participation is very non-linear, and it varies substantially by racial group.

The evidence presented holds important methodological and substantive lessons. Methodologically, most social science surveys lack the statistical power to measure the non-linear relationships detected here. This paper estimates participation rates for twenty-one age cohorts, four racial groups, and two genders, or 168 cells. The results reveal a strong three-variable interaction. The 2008 National Election Study, which contained an over-sample of Black respondents, included only 238 Black men. Before even considering issues of vote misreporting and sample selection, the NES would not have the power to detect even sizable interactions of race and gender. Similarly, Burns, Schlozman, and Verba (1997) report regression coefficients that in fact show a large interaction between race and gender, but they discount the results because of the standard error. Larger samples like the Current

Population Survey (CPS) can be more helpful, though these surveys still face the problems of misreporting and sample selection (Silver, Anderson and Abramson 1986)), and even the CPS cannot measure with much accuracy the behavior of relatively small groups, such as Asians.

Without the standard modeling assumption that demographics like age, race, and gender affect election participation identically across groups, and having enough data to examine sub-groups, we need not turn to regression in this analysis. Even if our analysis observed just five age cohorts rather than twenty-one, a regression table interacting race, gender, and age would necessitate 40 coefficient estimates, and that would be before incorporating any other control variables that one might consider important. The methodological take-away is not that scholars must estimate fully-interacted models or else their results are unreliable and since most studies do not use data sources with two million observations, all hope is lost. Rather, the methodological lesson is that theory must guide the modeling process. When empirical tests of theoretical models are susceptible to non-linearities and group-size confounders, as they are in regard to the resources model of participation, then models should be estimated to capture the nuances of the relationship.

In substantive terms, the data show a surprising interaction between gender and race that runs contrary to most work on this subject. Most studies of gender and participation offer theories of why men participate in politics more than women, not the other way around. Some writers suggest that men have a greater taste for politics than women (e.g. Burns, Schlozman and Verba (1997, 2001)). This blanket argument cannot explain why among Blacks and Hispanic women participate in elections at vastly higher rates than men. There is also some debate over the basic facts. Some scholars claim that women participate less, or that the participation rates by gender are equivalent; other scholars have found evidence in surveys that women participate slightly more than men (e.g. Lien 1998, Seltzer, Newman and Leighton 1997), and a few scholars have noticed that Black women report higher turnout

than Black men (e.g. Seltzer, Newman and Leighton 1997, Hornor 1999, Lien 1998). Among Latinos, the previous evidence has been mixed about differential participation in voting between men and women (see Montoya, Hardy-Fanta, and Garcia 2000).[5] Looking at a national sample of voting data, we see that Black and Hispanic women vote a much higher rates than Black and Hispanic men, and the difference is much greater than for Whites. Moreover, young Black women participate at even higher rates than young White women. It is difficult to square these patterns with resource-based theories, and even more difficult to reconcile them with arguments that men are more attracted to politics than women.

There are several obvious potential explanations for the large gaps in participation between minority women and men. One suggestion is felony disenfranchisement laws, which disproportionately affect minority men. While these laws deserve further attention, a state-by-state analysis of the Catalist data reveals that in states with the most liberal felony disenfranchisement laws, the gender gap is even greater than in states with harsher laws.[6] Socio-economic status and marriage rates hint at other hypotheses. Black and Hispanic men are less likely to be well-educated, wealthy, and married, and this in turn may lead to lower participation rates. Our own preliminary analyses discredit this view, as we find that at all socio-economic levels there is a substantial gender participation gap among minorities, at all socio-economic levels there is only a modest gender gap among Whites, and the gap exists among married as well as unmarried minorities.[7] A third potential explanation is the religious and community involvement of minority women. Since the late 1800s Black churches have been mostly female (Wiggins 2005, see also Lincoln and Mamiya 1990, Greenberg 2001). While church attendance and community participation may lead to political participation,

[5] Jones-Correa (1998) offers an interesting account of participation by gender among immigrants.

[6] Miles (2004) has currently the most sophisticated analysis of the effect of these laws on turnout, and he finds no effect.

[7] Because the data come from public records, we measure socio-economic status with block-group level Census statistics and marriage based on household information in the voter file (e.g. many married voters can be identified by age, gender, and last name of individuals in the household).

such an explanation is complicated by endogeniety. We do not know whether community participation causes political participation or whether some other factor affects both, and we suspect the latter (see Atkinson and Fowler 2011).

We are at an historical moment in political science. We can study political participation not by administering surveys but by observing the full population based on official records and consumer profiles. Upon doing so, the patterns of participation complicate the conclusions drawn from surveys in ways that challenge long-standing theories. Most importantly, a resources-based model of participation is out of synch with reality. African-American women in their 30s are not the demographic group thought to be at the apex of politically-relevant resources, as defined in seminal works of participation. But, they are registered at higher rates than any other demographic, vote at rates nearly 25 percentage points higher than Black men, and vote more than White men of similar age. This finding is just an initial step in a move to rethink the nature of political participation based not on what people say they do but on what they actually do.

Table 1: Mean Voting and Registration Rates by Race and Gender

Registration among Citizens		
	Male	Female
White	86.2%	89.1
Black	75.1	90.9
Hispanic	67.4	81.4
Asian	50.7	52.6

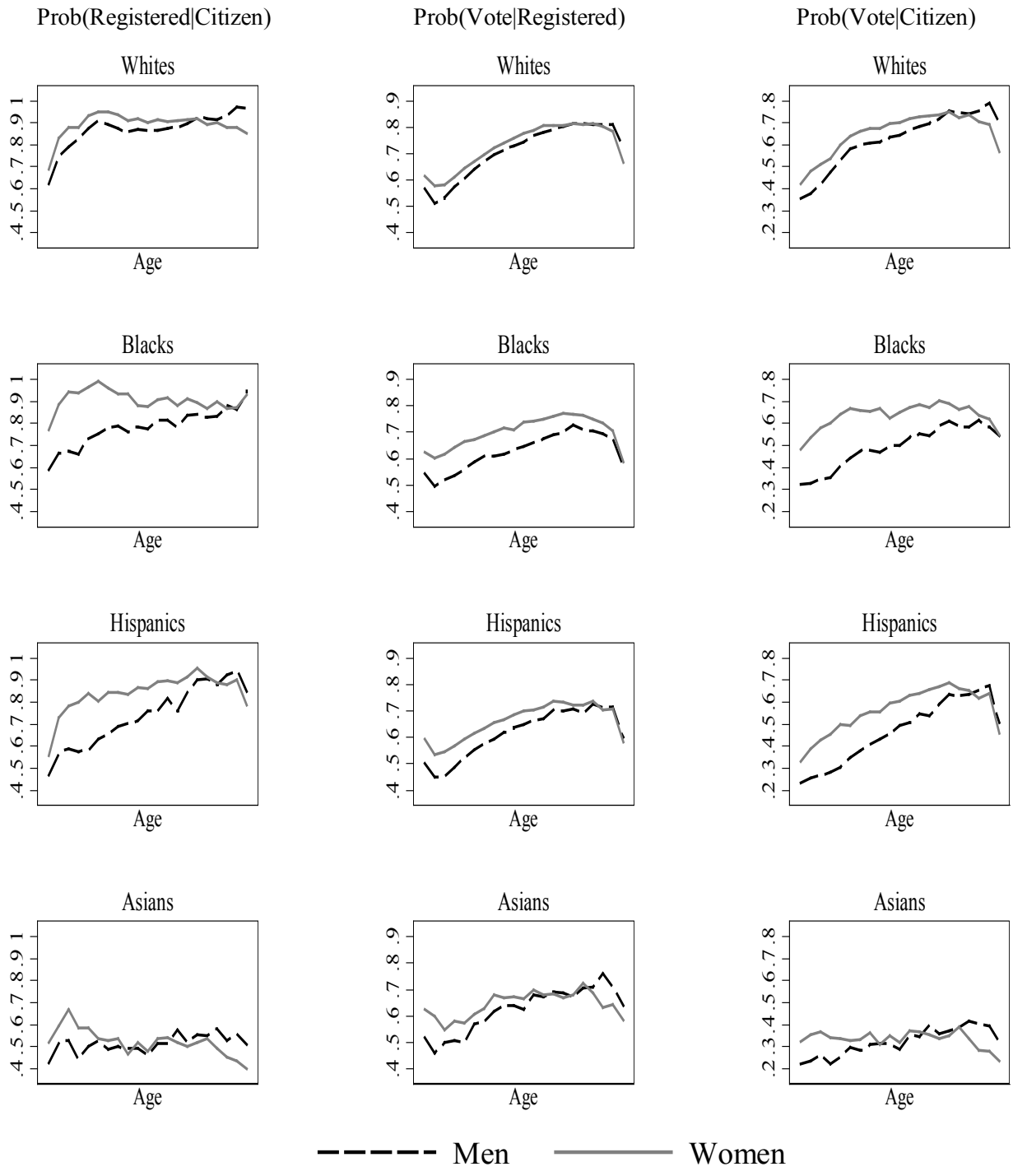
Voting Among Registrants		
	Male	Female
White	70.9	72.7
Black	61.0	69.0
Hispanic	59.1	64.3
Asian	61.0	64.1

Voting Among Citizens		
	Male	Female
White	61.1	64.7
Black	45.9	62.7
Hispanic	39.8	52.3
Asian	30.9	33.8

Obs. (Registrants in Sample)		
	Male	Female
White	614,771	681,196
Black	87,409	123,441
Hispanic	65,493	81,370
Asian	16,843	19,151

Note: Voting, registration, race and gender statistics are from a 1% sample of active voter registration records, drawn in 2010 from Catalist. Racial identification is predicted from a voter's first and last names and Census block group characteristics when not available on the public registration file. 'Voting Among Registrants' statistics are estimated entirely from Catalist's data. For citizen estimates, we start with the Census full population estimates by race, gender, and age. For each race-gender-age combination, we use the American Community Survey to estimate the number of individuals who are citizens. By taking each comparable race-gender-age group in the Catalist 1% sample of registration records, multiplying by 100 and dividing by the Census counts, we arrive at estimates of citizen registration rates and citizen vote rates.

Figure 1: Voting and Registration by Race, Gender, and Age



References

Ansolabehere, Stephen and Eitan Hersh. July 14, 2010. "The Quality of Voter Registration Records: A State-by-State Analysis." Caltech/MIT Voting Technology Project Report.

Atkinson, Matthew D. and Anthony Fowler. March 31-April 3, 2011. The Effect of Social Capital on Voter Turnout: Evidence from Saint's Day Fiestas in Mexico. Annual Meeting of the Midwest Political Science Association Chicago, IL: Unpublished Conference Paper.

Burns, Nancy, Kay Lehman Schlozman and Sidney Verba. 2001. *The Private Roots of Public Action*. Cambridge: Harvard University Press.

Greenberg, Anna. 2001. "Race, Religiosity, and the Women's Vote." *Feminist Studies* 22(3):59–82.

Hornor, Louise L., ed. 1999. *Black Americans: A Statistical Sourcebook*. Palo Alto: Information Publications.

Jones-Correa, Michael. 1998. "Different Paths: Gender, Immigration, and Political Participation." *International Migration Review* 32(2):326–349.

Lien, Pei-Te. 1998. "Does the Gender Gap in Political Attitudes and Behaviors Vary Across Racial Groups?" *Political Research Quarterly* 51(4):869–894.

Lincoln, C. Eric and Lawrence Mamiya. 1990. *The Black Church in the African American Experience*. Durham: Duke University Press.

Miles, Thomas J. 2004. "Felon Disenfranchisment and Voter Turnout." *Journal of Legal Studies* 33(1):85–129.

Montoya, Lisa J., Carol Hardy-Fanta and Sonia Garcia. 2000. "Latina Politics: Gender, Participation, and Leadership." *PS: Political Science and Politics* 33(3):555–561.

Rosenstone, Steven J. and John Mark Hansen. 1993. *Mobilization, Participation, and Democracy in America*. New York: Macmillan.

Seltzer, Richard A., Jody Newman and Melissa Leighton. 1997. *Sex as a Political Variable: Women as Candidates and Voters in U.S. Elections*. Boulder, CO: Lynne Rienner Publishers.

Silver, Brian D., Barbara A. Anderson and Paul R. Abramson. 1986. "Who Overreports Voting?" *American Political Science Review* 80(2):613–624.

Verba, Sidney, Kay L. Schlozman and Henry E. Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge: Harvard University Press.

Verba, Sidney, Nancy Burns and Kay Lehman Schlozman. 1997. "Knowing and Caring About Politics." *Journal of Politics* 59(4):1051–1072.

Wiggens, Daphne C. 2005. *Righteous Content*. New York: New York University Press.