Is Participatory Democracy Representative? A Survey of Engaged Town Meeting Voters[1]

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Abstract

We survey voters within the traditional direct democracy annual town meetings of Massachusetts to assess local representation. Findings indicate attendants to town meetings are more likely to be older, white, married, to work as municipal employees, and to be homeowners compared to the population at large. Conditional on owning a home, attendants' housing wealth is evenly distributed. Sixty percent of meeting attendees report having been present to the last five consecutive annual assemblies. This group of pivotal, faithful voters—representing only 1.2 percent of a town's adult population on average—has resided in town for 30 years, 12 years longer than occasional voters. Meeting regulars are more likely to participate in civic organizations, town committees, and volunteering activities. We conclude that older, married, locally-rooted, civically-minded homeowners who have known each other for a long time bear more power in municipalities where recurrent public meetings are used for municipal decision-making.

Introduction

Citizen participation in public decisions is an important policy goal. Whether deciding the amount of taxation and public goods, or in making planning, zoning, and traffic decisions, public involvement is important to elicit the preferences of citizens. Even when preferences around specific topics are not well defined, public participation can provide a venue for citizens to generate ideas, learn about issues, inform decision-makers of policy consequences, and to voice or channel potential concerns about their adverse impacts.

While the importance of citizen participation in public decisions is generally accepted, the channels through which participation is effectively implemented are open to debate and should be subject to empirical assessment. Extant evidence has documented the biases in the composition of attendants in participatory public decision-making processes (e.g. Turner and Weninger 2005; Einstein, Palmer, and Glick 2019). We add to this literature by assessing the bias associated with participation in local direct democracy institutions. Specifically, survey results on the characteristics of participants in six Town Meetings in Massachusetts are presented and analyzed.

As remarked early on by Tocqueville (De Tocqueville 1835), the New England Town Meeting (TM hereinafter) is a unique institution, and one of the few examples of direct participatory democracy in developed countries.[2] The first instances of the New England town meeting date back to the 1630s (Zimmerman 1999). As settlements in New England grew, informal systems of governing were created and administered by the adult males in each community. The TM is built on tradition and, as such, what transpired in those assemblies over 300 years ago remains remarkably similar to town meetings taking place across towns in New England today. All registered voters who show up to the meeting participate in their town's

legislative policymaking and provide a check on the power of its executive body. However, given its low participation rates, there are concerns about the representativeness of this body (Williamson and Fung 2004).

We are only aware of one previous study of participation in municipal direct democracies based on open assemblies (DeSantis and Hill 2004). Building on this previous work, we extend it to the analysis of demographic variables, communal engagement, municipal worker-status, and homeownership. These variables are chosen as they are more likely to clearly define interest groups within TMs. We also devote attention to studying attendance longitudinally, as regular TM attendees may differ from voters with only an occasional attachment to the institution.

Special focus is placed on the variables of homeownership and home value. There is a growing realization that the affordability crisis is partially due to not-in-my-backyard (NIMBY) anti-development pressures (Pendall 1999, Fischel 2001, Tighe 2010). Besides taxation and the provision of local public services—education, police, administrative—zoning is one the most important purviews of local government in the United States. Planning and zoning confer municipal governments with arguably the deepest and most comprehensive regulatory powers over human activity and its settlements in an otherwise free-market oriented country (Nelson 1977).

We find that attendance to TMs in the towns sampled amounted to only two percent of the adult population. Survey respondents reported being faithful attendants, with claims of participation in almost 4 meetings during the past 5 years on average.[3] Our results suggest that TM voters tend to be long-term residents. They are highly likely to participate in civic associations, volunteering, and NGOs. An astounding 40 percent of them report having participated in municipal committees. These characteristics show themselves more acutely

among voters who attend regularly, as opposed to transient participants. Specifically, regular attendees—amounting to only 1.2 percent of the adult population, but conforming a pivotal group of 60 percent of voters in each meeting—have lived in the same town for an average of 30 years. Therefore, the picture of TM attendants is that of a committed and civic-minded—if potentially cliquey—group. In addition, we find that their perspectives may not be fully representative of the population. TM participants are more likely to be white, and much more likely to be married and to own a home than the population in their municipalities at large. They are also more likely to be municipal employees, and tend to be older. Surprisingly, however, we do not find evidence that they are of higher socioeconomic status (SES)—as captured by home values.

These results have immediate implications for policymaking. Local public policy and planning take place in complex social and political contexts. Policymakers cannot feasibly access the views of all citizens affected. Moreover, there are no unanimously-accepted decision rules to translate citizen preferences into collective action.[4] An even more immediate challenge for implementing methods of citizen participation in urban planning and local government is ensuring that most—if not all—views are adequately represented in the process. Challenges to participatory-democracy institutions include those identified by the literature in social and organizational psychology. These include groupthink (Janis 1982) and bandwagon effects (Simon 1954), social dynamics that are conducive to peer-pressure or fear of retaliation (Tracy and Durfy 2007), and biases in the choice of effective or principled leaders (e.g. Nevicka et al. 2011). Previous work also identifies *participation fatigue* (Coaffee and Healey 2003) as a source of decline in the quantity and quality of citizen participation, as the information and number of decisions presented to the public grows. Additionally—as we also find in this research—the

composition of attendants in policy-relevant meetings (Einstein, Palmer, and Glick 2019), their stakes in the outcomes, and their perceptions about the relevance of the process are all known to affect the quality of local decision-making (McComas 2003; Irvin and Stansbury 2004). While citizen participation is a must, our paper—together with the previous literature documenting known biases in participatory democratic institutions—suggests that much more thought should be devoted to the optimal institutional design of executive citizen assemblies in order to ensure fairness and a broader representation.

The paper proceeds as follows. In the following section, we briefly review previous literature on public meeting participation. We also review direct local democracy literature, focusing on the New England town meeting. We then provide some methodological notes about the data; after which we describe the main findings of our survey, and finally, we concluded.

Background

Biased Meeting Participation and Decision-Making

A number of extant studies focus on the political views of participants in meetings. Arguably, this literature is not as extensive as it should be given the critical importance of citizen participation in municipal government and urban planning (Adams 2004). While each study is invaluable in its context, we still do not possess a full quantitative picture of how different environments of direct voter participation in policymaking affect potential biases in the participant pool, and even less so the policies themselves.

Studying public meetings in the UK, Redburn et al. (1980) find that the views expressed by participants in public participatory processes that were required by law were not representative of the average view. However, the authors also show that the view of conventional political elites—as elected in representative democracies—are also biased.

Gundry and Heberlein (1984) do not find clear results when studying three different public meetings pertaining to the environment in Wisconsin.[5] More extreme viewpoints on the topics covered in the meetings were held by citizens not in attendance in one of the cases, but by those in attendance in another. On average, however, the views of participants in the meetings appeared to capture the average opinions of citizens at large. In contrast, Johnson et al. (1993) and McComas (2001) find that participants in a meeting about deer management policies and hazardous waste respectively held stronger more divisive positions than those who did not attend. Similarly, Turner and Weninger (2005) examine selection into participation at public meetings where firms—rather than citizens—are invited to engage. They collect and deploy data about the regulatory process of the Mid-Atlantic surf clam and ocean quahog fisheries. They find firms with preferences for extreme policies are substantially more likely to participate in public meetings than firms with more moderate views.

Studying participation in informative meetings about cancer clusters, McComas and Scherer (1998) find that attendants tended to have more time availability, but that they were also more worried about potential negative outcomes than the average citizen. These authors state "the majority of citizens who attended the public meetings could be categorized as the curious, the fearful, and the available. In comparison, the majority of citizens who did not attend could be described as the uninformed, the indifferent, the occupied, and the disaffected."

Williamson (2014) uses data from a random telephone survey to compare the characteristics and attitudes of participants in a series of public meetings in Florida. The survey and public engagements—conducted by Hillsborough County—were designed to gauge attitudes about spending priorities on more than 39 million of federal grants. She finds that the opinions of

meeting attendees often differed from citizens at large, the former showing higher preferences for redistributive policies.

Fiorina (2004) uses a case-study pertaining to negotiations about changes in land use between a Massachusetts town and a school to illustrate the power of extremist voices in shaping the outcomes of zoning board and environmental commission participatory institutions. He documents an 8-year battle that did not substantially change the initial plans—as finally imposed by a state court—but that costed more than 500,000 dollars in litigation due to the opposition of only a few, very vocal, citizens.

The results from this—somewhat sparse—literature focusing on attitudes suggest the existence of potential biases in meeting attendance. On balance, agents with more extreme views or higher stakes appear to be more likely to turn up at participatory-democracy meetings. However, the intensity of the biases appears to be dependent on the context. Beierle (2010) argues that—despite its biases and limitations—the process of public participation in environmental decisions is overall positive to final policy outcomes. In their survey, Carpini, Cook, and Jacobs (2004) conclude that public participation yields positive results on average. However, they also state "although the research summarized in this essay demonstrates numerous positive benefits of deliberation, it also suggests that deliberation, under less optimal circumstances, can be ineffective at best and counterproductive at worst."

Therefore, the relevant set of questions may not revolve around whether we should have public meetings or not. Rather, we may want to ask: How do differences in institutional environments or in engagement techniques affect the biases in attendant composition? This suggests that more effort should be devoted to study the characteristics of citizen participation in different contexts, and in the ex-post analytical evaluation of alternative participation tools

(Rowe et al. 2008). To that effect, we provide evidence about an important institution in the American history of citizen participation: the New England TM.

Rather than studying attitudes or abstract political views, other research focuses on the identity of participants, and their potential—perhaps self-interested—biases. To the best of our knowledge, there appears to be a limited literature describing measurable differences in social, economic, or demographic attributes of citizens who show up at participatory democratic policymaking. Findings from this limited literature are somewhat consistent in observing the overrepresentation of higher socioeconomic status and older participants. Sinclair (1977) finds those who attended a public hearing held by the International Court of Justice regarding water conservation along the American-Canadian border had higher incomes and education than the general public they represented. While not finding clear patterns with respect to self-selection based on opinions, the aforementioned Gundry and Heberlein (1984) did find demographic differences between community participatory meeting attendees and the average citizen. Participants tended to be more educated (or to enjoy higher incomes), older, and were more likely to hail from rural areas. In one of the meetings, males were disproportionately represented. Carr and Halvorsen (2001) examine the attendance patterns in three different types of community participation activities: surveys, conversations with community groups, and community dinners. These public engagements discussed integrated and sustainable forest management in the upper Michigan peninsula. They find the characteristics of individuals participating in all three participatory techniques to be markedly different from those in their communities as a whole. Participants were more likely to be male, older, and to display higher incomes and educational achievement. Williamson (2014) tests for, but does not find racial differences between meeting participants and the average citizen.

A related research literature studies the potential biases in participatory budgeting. Talpin (2013) studies participatory budgeting in Rome (Italy) and Morsagn-sur-Orge (France). With regards to the composition of participants (only 0.55 and 2.5 percent of the population in, respectively, Rome and Morsagn) this author reports an "over-representation of middle-class, educated, and over fifty," further arguing that their "deliberative quality remains fairly low." Navarro and Font (2013) study participation in participatory budgets and so-called "consultation councils" (non-executive meetings where citizens can express their opinions and demands) in five cities in Spain. They find biases in favor of "men, dissatisfied citizens, more psychologically involved individuals and, above all, members of associations." Participants also tended to be older and more educated.

Regarding other forms of consultative, non-executive, public participation vehicles, early literature has coalesced in pointing to the over-representation of extremist voices (Davis, 1982). More recently, Sintomer anf De Maillard (2007) are also critical of the effectiveness and representativeness of the councils established by "*la politique de la ville*," an initiative fostering the formation of local citizen consultative bodies in France.

Unfortunately, current innovations do not seem to improve issues of bias. Newer forms of electronic citizen participation—via petitions to executive bodies—seem to also be affected by participation biases. Specifically, higher income and time-availability predicts more participation in electronic voter representation via public petitions in Scotland (Carman 2012).

Participation in political protests and regular citizen petitions are also subject to biases (Caren, Ghoshal, and Ribas 2011). Specifically, participants in political protests demonstrate higher propensity to be politically liberal, college-degree holders, black, urban, high-income, male, single, affiliated with unions, below the age of 55, and residents of the Northeast. Petition

signatories, on the other hand, tend to be liberal, white, highly-educated, high-income, older, union-affiliated, and are more likely to reside in the Midwest and the West.

Our paper is most related to recent work by Einstein, Palmer, and Glick (2019). They demonstrate how biases in citizen participation in planning decisions affect policymaking and the provision of affordable housing. The authors use public records of all citizens who intervened—through publicly speaking—in zoning and planning meetings throughout 97 Massachusetts municipalities. They match meeting participation data with voter and property tax records. They report older, male, long-time residents, voters in municipal elections, and homeowners to be significantly more prone to participate in these meetings.

Arguably, the importance of real estate ownership has not been explored deeply enough in the above literature. While the social implications of homeownership in other arenas are well-documented,[6] similar discussions are surprisingly absent from the analyses of participatory democracy, and of the TM in particular. Yet, homeownership has been shown to be very influential in municipal decision-making processes. The Homevoter Hypothesis—as outlined by Fischel (2009)—asserts that homeowners will participate in local government in larger proportions than renters out of the fear of capital loss to their major asset and the desire to increase its value. Evidence for this hypothesis is fairly concrete. DiPasquale and Glaeser (1999) show a connection between homeownership and investment in social capital (Coleman, 1988). They argue that the lower mobility rates of homeowners—resulting from increased transaction costs—increase the incentives to improve the quality of their communities. They show homeowners are more likely to know the name of their representative, to know the name of the school board head, vote in local elections, be involved in nonprofessional organizations, garden, own guns, and attend church. In terms of homeownership's impact on voting turnout, they find

homeowners are 15.3 percent more likely to vote than renters. Furthermore, homeowners are 6 percent more likely to work in solving local problems.

More direct tests of the Homevoter Hypothesis show that homeowners do indeed vote for local policy programs and public projects based on perceived increases in home values. Brunner and Sonstelie (2003) examine a referendum on a school voucher program across two school districts. They find 56 percent of homeowners without children in neighborhoods with schools perceived to be of inferior quality voted for the program, whereas only 39 percent of homeowners located in neighborhoods with (perceived) superior schools voted for the program. Given that the voucher program allows for students in the "inferior" school jurisdiction to attend a "superior" school in a neighboring jurisdiction, the expected effect of the policy on housing values was a decrease in "superior" school jurisdictions and an increase in the "inferior" jurisdictions. Because none of the studied households had children, the authors argue that the most likely cause for such voter behavior was to elevate local housing prices. Using the setting of the referendum on the construction of the Dallas Cowboys' new stadium, Dehring, Depken, and Ward (2008) find that those homeowners who anticipated that the project would increase their home values voted in favor of the stadium, and vice versa.

The literature presented here hints to the potential importance of real estate values—and the perceived sense of privacy and aesthetics of homeowners—as important motivators in the municipal political process. We therefore seek to understand how those pressures are channeled in instances of direct citizen participation. To do so, we asked the respondents of our TM survey about their homeownership status and about the estimated value of their real estate holdings.

Town Meeting: Consensus or Bias?

The town meeting form of government has been dubbed a consensus-driven institution (Mansbridge 1983) with decisions made through voice vote and, if necessary, secret ballot.[7] Many town meeting participants believe this is the purest form of democracy. However, like its more common cousin, representative democracy, town meeting can suffer from low voter turnout and under or over-representation of particular groups.

In Bryan's (2010) systematic study of Vermont town meetings he finds that, on average, only 20 percent of registered voters attended town meetings from 1970 to 1998. Bryan justifies these low turnout rates due to the time requirements of town meetings (ranging from a few hours on a weekday evening to a full Saturday in some cases). Town size is by far the largest factor contributing to voter turnout, explaining 60 percent of the variance in town meeting attendance. Namely, as town size increases, turnout decreases.[8] Other factors that explain voter participation rates in TMs include the presence of Australian ballot (ability to vote on articles without being present at the meeting), and a yearly time trend. Both of these factors were found to have a negative impact on turnout. In Massachusetts DeSantis and Renner (1997) report very low participation rates in the 1990s, averaging only 7.6 percent of registered voters.

Critics of town meeting government—and deliberative democracy in general—suspect that the small fraction of residents who do participate may be "regulars," or that the voting body may be "stacked" with special interest groups like homeowners, retirees, teachers, or municipal workers (Williamson et al. 2004). Saiz (2011) provides empirical support for these suspicions in the form of a wage premium for municipal workers in towns that use the town meeting form of government as opposed to representative government.

Within the six town meetings visited during the research for this paper, we observed two apparent instances of stacking. The first involved an article proposing the rezoning of a downtown plot of land. The developer was seen entering the meeting with a group of his workers just prior to the vote and exited shortly after. Some of the workers—still in construction attire—mentioned this was the first town meeting they had attended. The second incident involved an article regarding the keeping of chickens in residential backyards. One older resident (in her 80s) mentioned she had never seen so many young people at a town meeting, "Must be for the chickens" she remarked.

However, Bryan (2010) believes that the only bias that exists is that people belonging to the middle range of socio-economic indicators are over-represented, with ultra-rich and very low income individuals being highly under-represented. It should be mentioned that Bryan does not use individual level data to come to this conclusion, thus it remains somewhat of a hypothesis. To our knowledge, only one paper investigates micro-level participation, focusing on civic characteristics of participants rather than on demographic representativeness of TMs. DeSantis and Hill (2004) conduct a telephone survey administered to randomly-selected Massachusetts towns in an attempt to uncover factors influencing the likelihood of attending a town meeting. They find older residents who engage in informal discussions with neighbors regarding local issues and read local newspapers more frequently are the most likely to attend.

Our survey complements previous comparative work by focusing on the demographic attributes of the attendants to the TMs of six diverse, mostly suburban, communities.

Survey Instrument, Data, and Methodology

Sample

Our research team attended five annual town meetings during the Spring of 2013 within the following suburban Boston towns: Abington, Hamilton, Lincoln, North Andover, and Stoneham. We also sampled one rural town in western Massachusetts: Ashfield. In each of the six towns, we invited TM participants to complete a survey, entitled the "Massachusetts Participatory Democracy Survey" or MPDS henceforth.

Internal constraints did not allow for a representative survey of Massachusetts towns.[9] We focused on the next-best viable alternative and restricted ourselves to a number of varied suburban communities within the Boston metropolitan area with the addition of a small rural town in order to ascertain that patterns are common.

A focus on suburban metropolitan municipalities is timely as suburban towns have become an important geographic focus in discussions regarding the affordability crisis in America. Metropolitan suburbs provide the natural expansion path for residential development in cities in which housing has become very expensive. Suburban communities are also more likely to experience NIMBY anti-development pressures. In their survey of land-use restrictiveness, Gyourko, Saiz and Summers (2008) show that central cities "have a less restrictive land use regulatory environment on average than their suburbs."

Officials in the towns selected demonstrated a degree of cooperativeness with the survey efforts. We aimed, *ex ante*, to make the communities in our sample diverse in size and socioeconomic characteristics. As we statistically ascertain later, the five suburban communities are indeed diverse within the Boston context. More importantly, qualitative findings turn out to be extremely consistent across towns. All findings tend to replicate independently in the separate

communities. The probability for such findings to be spurious, but generally coincident across the municipalities under consideration is very small (Moonesinghe, Khoury and Janssens 2007). Thus we remain confident that the results capture key aspects of the data generating process with respect to citizen participation in the TMs of suburban Boston.

Table 1 Towns in the Massachusetts Participatory Democracy Survey (MPDS): Characteristics

	Massachusetts	Abington	Ashfield	Hamilton	Lincoln	North Andover	Stoneham
Population (Median for State)	10,209	15,985	1,737	7,764	6,362	28,352	21,437
Percentage under 18	21.93%	23.03%	19.06%	27.11%	28.06%	26.16%	19.83%
Percentage aged 30-49*	32.95%	30.52%	28.99%	31.83%	31.71%	34.04%	33.69%
Percentage aged 50-64*	25.98%	28.11%	37.67%	33.14%	32.82%	28.91%	28.46%
Percentage over 65*	19.00%	18.57%	22.88%	19.70%	23.30%	19.51%	22.65%
Percentage White	91.32%	92.83%	96.83%	90.27%	82.47%	87.89%	92.91%
Percentage Unemployed	4.39%	3.95%	4.09%	2.65%	1.15%	3.15%	3.87%
Median Household income	$77,728	$81,677	$66,429	$103,774	$130,523	$95,199	$77,476
Average Household income	$95,922	$86,916	$78,602	$115,010	$172,514	$127,261	$89,107
Median Home Value	$365,907	$335,400	$294,900	$491,900	$865,000	$434,000	$399,400
Home Ownership Rate	78.00%	67.60%	82.44%	82.57%	63.98%	73.22%	63.91%
Marriage Rate (Ages 16 and above)	57.99%	53.30%	55.38%	64.82%	69.51%	57.50%	53.71%
Town Meeting Attendants (MPDS)	1235	156	50	90	412	397	130
Town Meeting Turnout (MPDS)	1.99%	1.29%	3.58%	1.59%	9.42%	1.89%	0.75%
Returned Surveys (MPDS)	328	71	27	27	83	72	48
Survey Response Rate (MPDS)	26.53%	45.50%	54.00%	30.00%	20.10%	18.10%	36.90%

* Percentage with respect to voting age adults

The MPDS covered a number of general demographic and socio-economic questions. In particular, we asked voters about their gender, age, marital status, employment, homeownership, home values if they are owners, and length of residency in their current town. We also asked voters to indicate their participation or membership in unions, civic organizations, NGO's, and volunteering activities. And finally, we asked residents whether or not they had also participated in their local government as a member of a committee or board and how many recent town meetings they attended.

The survey was distributed to residents as they walked into the town meetings. Participation was voluntary and response rates can be found in the bottom lines of Table 1.

attendance in the meetings we observed and surveyed was quite low, ranging from 0.75 to 9.40 percent of resident adults in the town. Overall TM participation across the six town—as a percentage of total number of people older than 18—yields a paltry 2 percent in the aggregate: 1,235 people attended of the 64,064 adult inhabitants.[10] Of those attendees, 328 returned our questionnaires, for a weighted average survey participation rate of 27 percent. The largest survey response rate occurred in Ashfield (54%), and the smallest in North Andover (18%),

Table 1 provides an overview of the census data for the six towns in the MPDS and unweighted averages of such data across cities and towns in Massachusetts. Our objective here is to illustrate the range of variability of our chosen sample. The towns represent four Massachusetts counties: Plymouth, Franklin, Essex, and Middlesex. Town size ranges from 1,737 to 28,352 people. Population distributions are extremely skewed. We therefore benchmark each town's size to the state's median, namely 10,209 people. Abington (at 15,985) is 50 percent larger than the median, whereas Hamilton (7,764) and Lincoln (6,362) are 25-30 percent smaller. Small rural town representation is provided by Ashfield (1,737). North Andover (28,352) and Stoneham (21,437) represent towns at the top of the TM size distribution—larger municipalities tend to incorporate as cities or representative TMs, which function as elective democracies.

With respect to voting age population (18 and over), Lincoln has the largest proportion of residents over 65 at 23.30 percent while Abington has the lowest at 18.57 percent. The largest proportion of young people (under 18) with respect to the total population is in Lincoln at 28 percent, and the smallest is in Stoneham.

The average Massachusetts municipality is, on average, 91 percent non-Hispanic white. Most minorities tend to live in cities, and not in municipalities with TM. Four of our six towns are slightly more white, with Lincoln and North Andover having percentages lower than

average-town Massachusetts, 86 percent and 87 percent respectively. The unemployment rate in all of the towns surveyed was lower than the cross-municipality state average of 4.4 percent. The marriage rate (for residents 16 years of age or older) has quite a large range; from almost 70 percent in Lincoln down to 53 percent in Abington, with the state's unweighted average across municipalities being 58 percent. Intentionally, we chose towns such that the range of median household income was relatively large—in the context of suburban Boston; from $66,429 in Ashfield to $130,523 in Lincoln with the state median being $77,728. Comparing the median to the average we see that Lincoln and North Andover income distributions are highly skewed to the right. Homeownership ranges from 67 percent in Lincoln up to 85 percent in Ashfield while the state average across its 351 municipalities is 78 percent.

Data Adjustments

To account for comparison issues between the census and the survey data along with interpretation issues resulting from the covariance of a number of survey variables, two adjustments to the data are made. First, the home value bins provided by the census are of irregular size as compared to the survey bins of width $100,000. We estimate counts for bins of width $100,000 for the census data using a log-logistic kernel which is an extremely flexible function that lends itself well to wealth distributions (Kleiber and Kotz 2003). Second, we construct an adjusted census homeownership rate. Previous studies have compared the raw (unadjusted) propensity of a group of individuals to display higher homeownership rates relative to a control population. While this is a genuinely interesting question, there may be other socio-demographic attributes that differentiate two samples and which are at the root of any differences in homeownership rates between the two. For instance, if richer individuals tend to own homes, and they are also more likely to belong to group A—as opposed to B—then we would

mechanically expect more homeowners in A. This relationship would hold regardless of the true impact of homeownership on group ascription. Given this confounding, we show two differences between TM attendees and citizens at large with regards to homeownership. The adjusted rate can be thought of as the answer to the question: what would be the expected homeownership rate in the town be if its population displayed the same characteristics as MPDS respondents. For technical details of these adjustments and other data issues, see the appendix.

Results

Demographically Representative?

Table 2 displays the differences between the town meeting participants and the census data. Column (a) shows the mean estimate of the attribute in each row for the whole MPDS sample, including voters in the six towns. Values in parentheses below the means capture the standard errors of the estimated means. Column (b) shows the average value of the relevant characteristics from the municipal census data: here each of the six municipal means is averaged using the total number of respondents in the MPDS in each town as weights, with estimates of standard errors in parentheses below.[11] Finally, column (c) shows the average differences between TM attendants and the population at large. Standard errors of the *differences in means* are in parenthesis. We also show statistically significant coefficients using asterisks, as specified in the table's appendix. The null hypothesis here corresponds to equality of the sample means of our survey and census averages.

Beginning with row 1 of Table 2, there is no significant difference in the proportion of female voters compared to female residents in all towns. This is good news if one is concerned with compositional gender biases. However, meeting attendants are five percentage points more likely to be white. Admittedly, the non-Hispanic white share in these towns was already at a very

high 89.3 percent, so the deviation in the MPDS sample represents only 5.6 percent of this variables' average.

Table 2 Meeting Attendance: Selection

		MPDS Means (S.E) (a)	Census Means (S.E) (b)	Difference of Means (S.E) (c)
(1)	Female	0.532 (0.028)	0.525 (0.006)	0.007 (0.028)
(2)	White	0.942 (0.013)	0.893 (0.008)	0.050** (0.015)
(3)	Married	0.858 (0.019)	0.595 (0.004)	0.263*** (0.020)
(4)	Homeowner	0.945 (0.013)	0.698 (0.009)	0.246*** (0.016)
(5)	Conditional on Other Observables	0.945 (0.013)	0.831 (0.009)	0.114*** (0.016)
(6)	Municipal Worker	0.152 (0.020)	0.068 (0.006)	0.084*** (0.021)
(7)	Aged 30-49	0.284 (0.025)	0.320 (0.009)	-0.036 (0.026)
(8)	Age 50-64	0.354 (0.026)	0.307 (0.009)	0.046* (0.028)
(9)	Age 65+	0.320 (0.026)	0.210 (0.006)	0.110*** (0.026)
(10)	Bottom Home Value ($0-300K)	0.211 (0.023)	0.198 (0.005)	0.010 (0.023)
(11)	Medium Home Value ($300K-700K)	0.556 (0.027)	0.547 (0.007)	0.013 (0.028)
(12)	High Home Value ($700K+)	0.232 (0.023)	0.255 (0.006)	-0.023 (0.024)

Standard errors of sample means (columns a and b) or differences in sample means (column c) in parentheses.
Age proportions with respect to voting age adults (18+).
*** p<0.01 ** p<0.05; * p<0.10

Differences in marital status are much larger and substantial. About 86 percent of MPDS respondents reported being married, compared to 60 percent of adults in their towns. Therefore, TM attendants conform a very stable demographic group in terms of family composition.

One key variable of interest is homeownership. As expected, TM attendants tend to disproportionally own their homes. Homeownership rates among this group are 24.6 percentage

points larger than the 69.8 percent average in their towns at large. Almost everyone in attendance (94.5%) was a homeowner. This is consistent with the Homevoter Hypothesis, whereby homeowners tend to be more rooted in their communities and to be more vocal in local politics. We cannot infer from these data alone that protecting home values is an important motivation for TM attendance. Nevertheless, results seem consistent with the view that the interests of homeowners are likely to be over-represented in TMs. Of course, other characteristics of participants may both account for homeownership, and for the propensity to turn out. Therefore, in the next row, we perform the adjustment discussed in the previous section.[12] If the population in the towns under consideration looked like the MPDS sample in terms of other variables, we would expect a higher municipal homeownership rate: 83 percent. And yet, we can still claim that TM attendants display a higher propensity to own (11.4 percentage points higher) above and beyond what their sociodemographic characteristics would predict.

We next examine the participation of municipal workers (row 6) and find that they are also more likely to participate in the meetings. While they only amount to 6.8 percent of the population, they represent 15.2 percent of meeting attendants. Of course, some of them may be present ex officio and are far from being a pivotal force. Nevertheless, given the paltry attendance numbers, they certainly represent an important constituency in TMs.

We next study the age distributions of MPDS respondents.[13] The results indicate that participants in these participatory local democracies tend to be older: 11 percentage points more likely to be above 65; 4.6 percentage points more likely to be in the 50-64 range; and 3.6 percentage points less likely to be between 30 and 49. This latter group encompasses the individuals who are most likely to be both engaged professionally and have substantial childcare obligations.

Finally, we examine the assessed home values of participants in the assemblies. We expected better-off individuals to be over-represented, but the data do not support this hypothesis. Contrary to our priors, the distribution of home values of TM attendants is similar to that of the population at large. While it is unambiguously clear that homeowners are firmly in charge of the assemblies, it may be comforting to observe that this over-representation is not solely driven by those with very expensive homes (relative to their town). Of course, smaller suburban Boston communities display relatively high levels of income across the board.

To summarize, Table 2 finds significant over-representation of whites, homeowners, married residents, municipal workers, the elderly, and under-representation of the 30 to 49-year old and younger.

Civic Engagement and Social Dynamics

Table 3 presents descriptive statistics without comparable census data but which may provide insight into the identity of participants in municipal participatory democracies. One of the questions for survey respondents was whether they were attending the TM together with their partner. This variable captures the household's—as opposed to the individuals'— commitment to the institution. The data disclose a very high pattern of familiar participation: 44 percent of attendants to the meetings were accompanied by their partners—given their high marriage rate, likely their husbands and wives. We also asked respondents to report how long they had lived in their current town of residence. TM participants tend to be long-term residents, averaging an astounding 25 years of local residency.

The survey contained a number of questions about participation in unions and in generic civic organizations. These questions were followed up with an inquiry about participation in non-governmental organizations (NGO). Thirteen percent of TM attendees reported being union

members; 27 percent claimed affiliation to a civic organization; and 21 percent, to an NGO. Fifty-one percent participated in volunteer activities. Together, these findings indicate respondents are a very civic-minded group.

Regarding more formal participation in municipality government, we asked: Do you currently, or have you in the past, participated in leadership positions in the town administration such as Selectman, member of the school boards, the conservation commission, the town's planning board, etc.? Forty percent of TM attendants reported having participated in local government committees. We conclude that civic commitment of TM attendees within their towns is beyond doubt; however, a germane concern is whether this group conforms a somewhat insular community.

Table 3 Meeting Attendants: Civic Participation in MPDS

Partner in Attendance	0.438 (0.030)
Years of Residence in Town	25.425 (1.025)
Union	0.131 (0.019)
Civic Organization	0.269 (0.025)
NGO	0.218 (0.023)
Volunteer	0.510 (0.028)
Participates in Local Government Committees	0.377 (0.032)
Attendances in Last 5 meetings	3.904 (0.099)

Standard Error of Estimated Means in parenthesis below value.

In order to get a sense of potential longer-term dynamics within the attendant group, we introduced a question asking how many of the past five TMs respondents had participated in. Respondents were present at 3.9 of the past five annual TMs on average. This is a very large number, especially in a context of the very low attendance rates. It suggests that it is mostly the same people showing up recurrently. In fact, assuming that the meetings we witnessed were representative, we can infer the number of people in the town who are involved with the institution.

Specifically, the data tell us that seven percent of respondents had been to only one or two meetings, out of six occasions (including the five past and the current meeting). Participants in three, four, or five meetings respectively accounted for about 8.5 percent of respondents each group. An astounding 60 percent of the sample were present at the current meeting and reported having attended all five previous meetings. This group of faithful attendees maybe be pivotal and at the helm of municipal governance.

For now, consider the seven percent of respondents that report only having attended the current meeting, and thus admit being absent from the previous five. Every meeting will include transient voters like these. Hence, each respondent who claims missing all previous meetings represents herself—in this instance—and another five people who attended previous TM just once, for a total of six people. People who have attended two out of the six meetings, in turn, are representative also of the two absentees who did show up to the other four meetings (twice each), for a total of three people. Therefore, the total number of people involved in the last six meetings can be calculated as: $N^{total} = \sum_{i=1}^{6} \frac{6N^i}{(i)}$, where N^i is the estimated number of persons to have attended *i* of the past 6 meetings. N^i is calculated as the number of respondents by frequency of attendance, divided by the survey response rate. We find that the 312 survey respondents

represent the behavior of an estimated 1,924 TM attendants over the last six years. These people—some of them with very lose ties to the assembly—still only represent 3.10 percent of potential voters in the town. Therefore, while it is true that accounting for voters with occasional showings somewhat increases the share of citizens involved with the institution, overall engagement remains minimal.

Table 4 Regular Participants versus Occasional Attendees

	Regulars (1)	Occasionals (2)	Difference (3)	Std. Error of Diff. in Means (4)
White	0.96	0.90	0.06**	0.03
Married	0.85	0.89	-0.04	0.04
Homeowner	0.95	0.97	-0.02	0.03
Municipal Worker	0.18	0.12	0.06	0.04
Aged 30-49	0.20	0.40	-0.21***	0.05
Age 50-64	0.40	0.27	0.13**	0.05
Age 65+	0.36	0.27	0.10*	0.05
Partner in Attendance	0.46	0.40	0.06	0.06
Years of Residence in Town	30.34	18.03	12.31***	1.98
Union	0.17	0.07	0.10**	0.04
Civic	0.33	0.19	0.14***	0.05
NGO	0.24	0.19	0.05	0.05
Volunteer	0.61	0.38	0.23***	0.06
Local Government Committee	0.47	0.23	0.24***	0.06

*** p<0.01 ** p<0.05; * p<0.10

However, a very committed 60 percent of always-attendants—the *regulars*— manage to be pivotal in all meetings. Who are these people? In Table 4 we compare the characteristics of individuals who claim a perfect attendance record—labeled as “regulars"—with those of people who attend more sporadically—the “occasionals." We focus on the demographic variables that

were significant in Table 2 and on all civic variables captured in Table 3. Column 1 in Table 4 shows the average characteristics of regulars, column 2 those of the occasional, column 3 the differences between the two groups, and column 4 the standard deviation of the estimated differences in means across them.

Results are quite stark. Regular attendees are even more likely to be white, are substantially older, and have lived in the town for an average of 30 years, compared to the occasionals' 18 years of residence. They are also more likely to be engaged in unions, civic organizations, and volunteering activities. Finally, half of the faithful attendees reported having been involved in town committees in the past—double the propensity of less regular attendees.

Given these results, we believe it is not unfair to characterize the pivotal core of TM attendants—encompassing about 1.2 percent of the municipal adult population—as an extremely civically-committed if potentially cliquey group. This suggests that the literature studying the longitudinal dynamics of public decisions made in assemblies or participatory meetings should address issues surrounding the formation of social political networks among the core group of people who attend often. Social networks are critical in explaining political outcomes (Knoke 1994). Hierarchies, coalition-forming, enmity, and reciprocity in environments with repeated political interactions may be even innate to humans, as they are regularly found in the other great apes (De Waal and Waal 2007; Ostrom and Walker 2003). TMs and other repeated participatory meetings provide a fertile field to study the existence and longitudinal impact of political social networks in the future. Most of the literature reviewed here has examined the representativeness and views of meeting attendants related to the single outcome of the public convening under study thereby potentially missing interesting dynamics *across* meetings.

Consistency of Findings across Municipalities

A priori it is unclear whether the towns in the survey are representative of the typical TM. Yet—while precise average point estimates may not be exactly representative—we turn the question around and ask: How plausible would it be for us to find similar patterns across towns if the results were random and did not stem from a common data generating process, at least with regards to the signs of attendance biases?

In Table 5 we redo the exercise in Table 2. For each town, we display the MPDS TM attendant sample means, the counterpart census average, and the differences between the two. Sample standard errors are below town averages, and estimated standard errors for the difference-in-means test below the differences. Sample sizes for each municipality are rather small, so substantial volatility is to be expected.

Recall that no significant gender biases in TM composition was found. Consistent with those findings, two of the towns display a positive difference between the MPDS and the census (one of them significant), while four display negative and non-significant differences. Evidence regarding the share of white people in attendance is more conclusive, as five municipalities display the positive relationship found on average (three of them with significant coefficients), and only one displays a negative association. Note that, given the very high white share, any mismeasurement is likely to be negative.[14] Propensity for marriage results are more robust with six out of the six towns displaying positive marriage biases among TM attendants, and with five coefficients being statistically significant. Similarly, TM participation in all towns slants toward homeowners (five out of six using the adjusted definition). Over-representation of municipal workers and under-representation of younger voters also replicates in all the six towns. Under-

representation of younger voters is obtained in four of the six towns (three significant coefficients) and the over-representation of those above 65 replicates in four of six.

Table 5a Meeting Attendants: Selection by Town, Abington, Ashfield, Hamilton

	Abington			Ashfield			Hamilton		
	MPDS	Census	Diff	MPDS	Census	Diff	MPDS	Census	Diff
Female	0.522	0.555	-0.033	0.538	0.504	-0.034	0.423	0.510	-0.087
	(0.061)	(0.013)	(0.063)	(0.100)	(0.035)	(0.106)	(0.099)	(0.009)	(0.099)
White	0.930	0.928	0.001	0.852	0.968	-0.116	1.000	0.903	0.097***
	(0.031)	(0.013)	(0.033)	(0.070)	(0.069)	(0.098)	(0.000)	(0.023)	(0.023)
Married	0.821	0.533	0.288***	0.885	0.554	0.331***	0.778	0.648	0.130
	(0.047)	(0.013)	(0.049)	(0.064)	(0.005)	(0.064)	(0.082)	(0.011)	(0.082)
Homeowner	0.938	0.676	0.262***	0.926	0.824	0.101	0.962	0.826	0.136***
	(0.030)	(0.022)	(0.038)	(0.051)	(0.056)	(0.076)	(0.038)	(0.022)	(0.045)
Survey-Demographics	0.938	0.799	0.138***	0.887	0.978	-0.091	0.962	0.787	0.175***
Adjusted Homeowner	(0.030)	(0.022)	(0.038)	(0.051)	(0.056)	(0.076)	(0.038)	(0.022)	(0.045)
Municipal Worker	0.304	0.073	0.232***	0.185	0.126	0.059	0.077	0.069	0.008
	(0.056)	(0.011)	(0.057)	(0.076)	(0.019)	(0.078)	(0.053)	(0.010)	(0.054)
Age 30-49	0.352	0.305	0.047	0.148	0.290	-0.142**	0.074	0.318	-0.244***
	(0.057)	(0.021)	(0.061)	(0.070)	(0.025)	(0.074)	(0.051)	(0.020)	(0.055)
Age 50-64	0.310	0.281	0.029	0.630	0.377	0.253***	0.556	0.331	0.224**
	(0.055)	(0.020)	(0.059)	(0.095)	(0.033)	(0.100)	(0.097)	(0.021)	(0.100)
Age 65+	0.268	0.186	0.082	0.185	0.229	-0.044	0.333	0.197	0.136
	(0.053)	(0.013)	(0.054)	(0.076)	(0.020)	(0.079)	(0.092)	(0.012)	(0.093)
Bottom Home Value	0.544	0.379	0.165***	0.560	0.503	0.057	0.154	0.101	0.053
($0-300K)	(0.067)	(0.016)	(0.069)	(0.101)	(0.046)	(0.111)	(0.072)	(0.009)	(0.073)
Medium Home Value	0.439	0.584	-0.145**	0.440	0.460	-0.020	0.654	0.725	-0.071
($300K-700K)	(0.066)	(0.017)	(0.068)	(0.101)	(0.045)	(0.111)	(0.095)	(0.019)	(0.097)
High Home Value	0.018	0.038	-0.020	0.000	0.022	-0.022	0.192	0.174	0.018
($700K+)	(0.018)	(0.002)	(0.018)	(0.000)	(0.004)	(0.004)	(0.079)	(0.014)	(0.080)

Table 5b Meeting Attendants: Selection by Town, Lincoln, North Andover, Stoneham

	Lincoln			North Andover			Stoneham		
	MPDS	Census	Diff	MPDS	Census	Diff	MPDS	Census	Diff
Female	0.463	0.527	-0.060	0.638	0.514	0.124**	0.568	0.515	0.054
	-0.055	(0.014)	(0.057)	-0.058	(0.005)	(0.058)	(0.075)	(0.008)	(0.075)
White	0.940	0.825	0.115***	0.944	0.879	0.066**	0.979	0.929	0.050
	-0.026	(0.026)	(0.037)	-0.027	(0.010)	(0.029)	(0.034)	(0.010)	(0.036)
Married	0.890	0.695	0.195***	0.886	0.575	0.311***	0.841	0.537	0.304***
	(0.035)	(0.006)	(0.035)	(0.038)	(0.008)	(0.039)	(0.053)	(0.008)	(0.054)
Homeowner	0.975	0.640	0.335***	0.925	0.732	0.193***	0.933	0.639	0.294***
	(0.018)	(0.018)	(0.025)	(0.032)	(0.013)	(0.035)	(0.033)	(0.017)	(0.037)
Survey-Demographics	0.975	0.660	0.314***	0.925	0.917	0.008	0.933	0.849	0.084***
Adjusted Homeowner	(0.018)	(0.018)	(0.025)	(0.032)	(0.013)	(0.035)	(0.033)	(0.017)	(0.037)
Municipal Worker	0.040	0.037	0.003	0.111	0.043	0.068*	0.178	0.055	0.123**
	(0.023)	(0.010)	(0.025)	-0.040	(0.007)	(0.041)	(0.049)	(0.007)	(0.049)
Age 30-49	0.193	0.317	-0.124**	0.417	0.340	0.076	0.333	0.337	-0.004
	(0.044)	(0.023)	(0.049)	-0.059	(0.014)	(0.061)	(0.065)	(0.012)	(0.066)
Age 50-64	0.289	0.328	-0.039	0.361	0.289	0.072	0.250	0.285	-0.035
	(0.050)	(0.024)	(0.055)	(0.057)	(0.012)	(0.058)	(0.068)	(0.010)	(0.069)
Age 65+	0.506	0.233	0.273***	0.181	0.195	-0.015	0.354	0.226	0.128*
	(0.055)	(0.017)	(0.058)	(0.046)	(0.008)	(0.046)	(0.067)	(0.008)	(0.067)
Bottom Home Value	0.013	0.009	0.004	0.069	0.164	-0.095**	0.150	0.220	-0.070
($0-300K)	(0.013)	(0.001)	0.013)	(0.034)	(0.007)	(0.034)	(0.054)	(0.010)	(0.055)
Medium Home Value	0.295	0.273	0.022	0.845	0.728	0.117**	0.825	0.702	0.123*
($300K-700K)	(0.052)	(0.022)	(0.057)	-0.048	(0.010)	(0.049)	(0.070)	(0.012)	(0.071)
High Home Value	0.692	0.718	-0.026	0.086	0.108	-0.022	0.025	0.077	-0.052
($700K+)	(0.053)	(0.023)	(0.057)	(.037)	(0.005)	(0.037)	(0.049)	(0.004)	(0.049)

*** p<0.01 ** p<0.05; * p<0.10

As expected, home value patterns are mixed. This is consistent with the finding that it is not necessarily those with the highest home values that are more likely to show up in the meetings. All in all, the main socioeconomic characteristic results replicate well across towns:

they tend to take the “right” sign when they are statistically significant, and tend not to be significant when taking on the "wrong” sign. It is therefore extremely unlikely that the average findings from this sample of diverse towns resulted from chance in the sampling of towns or the residents therein.

Discussion and Conclusions

A number of important decisions in local public policy and finance require voluntary participation. Public hearings, participatory planning, committees and commissions open to public comment, all allow voluntary citizen involvement in policy making. While public participation is broadly regarded as positive, its actual implementation may lead to problematic outcomes. One concern is that the engaged citizens who participate in the meetings may not be representative of the populace at large. Concretely, meeting attendees may differ from the average citizen in socioeconomic background and opinions.

The existing literature points to the fact that people with more extreme or skeptical positions are more likely to be over-represented at meetings. It also tends to find socioeconomic differences between public meeting participants and the local populace, although the number of studies is rather small. In their path-breaking study, (Einstein, Palmer, and Glick 2019) match meeting attendance logs to other public records and find that attendees at zoning and planning boards are disproportionately older, male, long-time residents, voters in municipal elections, and homeowners. Examining participation transcripts, they also tend to oppose new real estate development.

New England Town Meetings provide an excellent opportunity to examine potential biases of participation in local executive public meetings. In the towns adopting the institution in its pure form, *all* municipal regulations, bylaws, taxes, and expenditures have to be voted up or

down by participating citizens. We therefore conducted a survey of attendants to the annual TMs in six Massachusetts towns, five of them in suburban Boston. We do not find any gender differences in between TM voters and the population at large. This is in contrast to (Einstein, Palmer, and Glick 2019), although they identify participation in zoning meetings in terms of spoken interventions. This may suggest that public speaking represents more of a barrier than anonymous participation for women, a potential issue that we flag here.

In our survey, attendants to the executive public meetings are found to be older. They are also more likely to be married, to work as local public servants, and to be homeowners. This latter result, combined with those in (Einstein, Palmer, and Glick 2019), strongly suggest that the interests and points of view of existing homeowners are likely to be have disproportional impacts on collective decision making in executive public meetings. Interestingly, we do not find evidence that wealthier or less well-off homeowners are over-represented. *Conditioning on the better-off individuals who tend to own homes*, the TM institution seems to otherwise cut across economic layers. Importantly, the basic patterns of sociodemographic biases tend to replicate across the diverse towns under consideration. It is therefore very likely that they capture generic biases of attendance in municipal participatory democracies in a Northeastern US context.

We also investigate a number of behavioral attributes of TM attendants. We find them to be remarkably active in civic and volunteering organizations, and quite likely to participate in municipal committees and commissions. They conform a remarkably civic-oriented group. They are also firmly grounded in their towns, with an average of 25 years of residence.

Longitudinal attendance of current voters was examined—to the best of our knowledge, the first such analysis in the literature. A roughly uniform distribution of voters—with an approximate mass of eight percent each group—reported being present in one, two, three, four,

or five meetings out of the last six, respectively. An astounding 60 percent of meeting attendants reported having been present in six out of the last six meetings, including the one covered in the survey. This group of regular attendees is clearly pivotal in policy decisions.

Comparing this group of regular attendees to the more transient voters yields stark differences: TM regulars tend to have lived in the town for 30 years on average, 12 years longer than occasional voters. They also tend to be older and substantially more likely to participate in civic organizations and volunteering. Representing 1.2 percent of the town's adult population, with a remarkable fifty percent reporting having served on town committees.

In conclusion: Older, locally-rooted, civically-minded homeowners are at the helm of local government when recurring public participatory meetings are the main form of governance. This may represent the ideal situation for proponents of Jeffersonian democracy—advocating a central political role for locally-grounded proprietors, and for equality *within their group of peers* (Hardt 2007). However, it may open up a number of questions for others looking forward to more participation of renters, the young, and of workers who have to navigate an increasingly geographically-mobile society.

The civic commitment and personal sacrifice of the small group of regulars driving municipal policies in participatory meetings cannot be understated. Nevertheless, the fact that a small minority of the same people turn up over and over suggests the need for further inquiries about the characteristics of *recurring* public participatory processes. Issues regarding social and personality psychology, emergence of coalitions and enmities, sequentiality in game theory, and the establishment of local hierarchies should be incorporated into the study of participatory democracy whenever public meetings recur periodically.

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[1] We thank two anonymous reviewers for their helpful feedback. We are also grateful to the officials of the Massachusetts Towns of Abington, Ashfield, Hamilton, Lincoln, North Andover, and Stoneham for their cooperation. We similarly remain truly grateful to the respondents of our survey.

[2] Switzerland has a long-standing tradition of direct voter representation via national and cantonal referendums (e.g. see Kobach 1993).

[3] TMs have to be convoked at least once annually, and special meetings are rare.

[4] Theorists in social science put an emphasis on optimal choice in the context of full information (Arrow 2012, Sen 2018), while researchers in the urban planning literature tend to focus on the fairness and inclusivity of the decision-making process and on its learning aspects (Forester 1999).

[5] The issues considered: salt use in roads, deer hunting management, and zoning for natural resource conservation.

[6] See Dietz and Haurin 2003 for a survey.

[7] For more details on how TM operates, see the appendix.

[8] It is noteworthy that most towns in Vermont are rural and quite small.

[9] To do so, we would have needed to survey 30 or 40 municipalities, at a considerable financial cost beyond our reach.

[10] Of course, not all resident adults are registered to vote; the participation rate over registered voters is likely higher. Yet true representativeness is arguably a function of the size and characteristic of the whole adult population, as some adults may be disenfranchised by current registration practices.

[11] Standard errors for the census means are obtained from the Census or calculated by the authors as reported in the data appendix. Note again that we weight the census average in each town using their fraction of total responses in our sample.

[12] See appendix for more details.

[13] We omit the 18-30 age range, which is simply a residual of the sum of the others.

[14] To see this point, assume that the share of white people was actually 100 percent. Any degree of measurement error in the data would certainly indicate less than a 100 share of white in the survey sample.