

The Diversity Discount: When Increasing Ethnic and Racial Diversity Prevents Tax Increases

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According to recent research, racial and ethnic diversity reduces U.S. localities' investment in public goods. Yet we remain unsure about the mechanisms behind that relationship and uncertain that the relationship is causal. This essay addresses these challenges by studying the impact of racial and ethnic demographics on property tax votes in Massachusetts and Texas. Employing novel time-series cross-sectional data, it departs from the emerging consensus by showing that diversity does not always influence local tax votes. Instead, diversity reduces localities' willingness to raise taxes only when localities are undergoing sudden demographic changes. Theoretically, this finding points us away from the dominant understanding of diversity as divergent preferences, and towards approaches that emphasize how sudden demographic changes can destabilize residents' expectations and influence local elites. To understand how diversity influences public good provision, we should look to those towns that are diversifying, not those towns that are diverse.

In the United States, localities that are ethnically and racially diverse are often among the most disadvantaged. According to recent research, those disadvantages are compounded by local politics. For instance, Alesina and coauthors show that diverse U.S. municipalities spend less money on schools, roads, and other public goods (1999). According to similar research by Poterba (1997, 60–61), U.S. states fund their schools at lower levels if the elderly and the young are from different ethnic or racial backgrounds. Even back in the early 1900s, Iowa towns that were homogeneous in ethnic, religious, and economic terms led the way in boosting high school attendance (Goldin and Katz 1999, 718).¹ In a variety of settings, ethnic and racial diversity seems to dampen communities' willingness to make large-scale public investments. Since U.S. local governments now spend 1.14 trillion dollars each year (U.S. Census Bureau, 2005), even small changes in demographics might explain major inequalities in the public resources available across America.

Despite the consistency of this finding, we still do not understand the political processes that lead diversity to reduce local public spending. Past work

typically suggests that public opinion is the mechanism: diverse environments generate distinctive opinions, which are then translated into policy by local leaders. Yet recent research has demonstrated that opinions on public spending are often unrelated to local demographics (Soroka, Johnston, and Banting 2005). Also, we know significantly more about attitudes towards public spending than about the local political processes that draw on those attitudes to set spending levels. Within the broad theoretical rubric of intergroup threat (Blalock 1967; Key 1949), this essay shifts attention to the political mechanisms that connect local demographics to public good provision. While its evidence addresses other theories, including those based on age cleavages, the essay is primarily interested in *how* diversity influences public investment.

Specifically, it focuses on local ballot measures to set tax levels. Data from these votes allow us to test five theoretical mechanisms of how and when diversity shapes local public spending. As the next section shows, these mechanisms go beyond predictions about the associations we might expect to make predictions about where in the political process diversity's impact

¹According to this burgeoning literature, ethnic and racial diversity shapes not just communities' public investments, but also their residents' trust of one another (Alesina and La Ferrara 2002; Leigh 2006; Putnam 2007), their willingness to help secure public goods (Vigdor 2004), and their support for redistributive spending (Luttmer 2001).

should be most pronounced. Some of the mechanisms describe how diversity affects individual opinions, while others emphasize its influence on local elites. Some follow Alesina, Baqir, and Easterly (1999) in positing that levels of diversity should predict votes on tax increases, while others posit changes in diversity as the central predictor.

This essay also makes improvements to past empirical strategies. Despite the consistent finding that diversity encourages a retreat from collective goods, skeptics have reason to doubt that it plays a causal role. In this field, omitted variables abound. Consider the case of U.S. cities. Perhaps diversity and lower spending on public goods are both symptoms of economic decline or of urban labor markets. Endogeneity is another concern. Public investment might shape local demographics, with high-spending towns attracting disproportionately white populations and pricing out others. The cross-sectional data sets which have generated the core findings to date are ill-equipped to rule out endogeneity. Hence this paper's shift to new time-series cross-sectional data, data which allow us to observe demographic changes and *subsequent* political responses. By studying Massachusetts municipalities from 1995 to 1999, and by supplementing the findings with Texas school districts from 1999 to 2002, this article traces how small demographic changes can sometimes lead to marked changes in local public finance. It can thus transform an often-discussed correlation into a legitimate causal claim.

Why study Massachusetts municipalities and Texas school districts? The chief reason is that the data—especially the Massachusetts data—far surpass those available for other states. One-third of all Massachusetts towns hold some type of tax vote each year, giving voters ample opportunity to express their views on taxes and spending. Additionally, the Massachusetts data span 15 years, allowing researchers to condition on past tax votes in a comprehensive way. To be sure, the emphasis on a homogeneous state like Massachusetts limits us to learning about whites' responses to nonwhite newcomers. But it provides an unparalleled data set for addressing that question.²

Like much of the nation, many Massachusetts towns have seen marked demographic changes in recent years. Indeed, in the 1990s, the probability that two individuals in a given Massachusetts town were from the same ethnic or racial group dropped by

11 percentage points weighting towns by population. Massachusetts remains more homogeneous than Texas, but the same probability in Texas school districts dropped by just two percentage points during the 1990s. Considered together, Massachusetts and Texas allow us to capture one homogeneous state that has recently diversified and another state that has long been diverse, extending the scope of our inferences.

This study's results challenge past ways of thinking about diversity's influence. In Massachusetts and Texas, we see that diverse communities face no special obstacles in overriding tax limitations. In both states, *levels* of ethnic and racial diversity do not dampen communities' willingness to hold or pass measures that raise taxes. That finding moves us beyond simplistic notions that people are consistently less likely to support tax hikes when the money will benefit those from other groups.

However, demographic *changes* can have an impact on tax votes. Texas school districts that become more diverse are 2.1 percentage points less likely to hold "rollback" votes for substantial tax increases. And that effect is especially pronounced for votes on long-term capital projects. If a Massachusetts town diversifies more rapidly than 90% of other towns, we should expect its probability of holding a vote on a capital project to drop by 10.6 percentage points, with a 95% confidence interval from 1.9 to 18.7 percentage points. That is a massive change of 38% when compared to the baseline probability of 0.28. In Massachusetts, the effect is strong only on votes about long-term capital spending, suggesting that demographic changes operate in part by narrowing people's time horizons.

While multiple theoretical mechanisms receive at least some support from this pattern of findings, *this work moves us decisively away from thinking about diversity as preference divergence—the dominant understanding at present—and towards mechanisms that explain how changing demographics disrupt existing expectations and elite agendas.* Of the mechanisms presented, the mechanism emphasizing the changing expectations of local residents finds the most consistent affirmation in the data. In diversifying communities, people's uncertainty about how long they will stay in the community could induce them to withdraw support for long-term public projects even without any visible ethnically or racially charged debates.

The results suggest that diversity undercuts public investments not in the most diverse places, but in those places that are becoming more diverse. At a

²Here and throughout the paper, "white" will be used as shorthand for "non-Hispanic white."

time when nonwhite immigrants are moving beyond the traditional immigrant gateways to many formerly homogeneous communities (Frey 2006), knowing that diversity's impacts are concentrated during periods of rapid change is critical. These findings also help make sense of an otherwise puzzling fact about the local immigration battles in 2006 and 2007: that they took place overwhelmingly in communities that were recently homogeneous (e.g., Badkhen 2006).

The third section is devoted to an in-depth explanation of the Massachusetts towns at the heart of this research, and that section further details the unique features of the Massachusetts data that add credibility to these inferences. The fourth section provides the main empirical evidence, including the Texas results. The discussion in the fifth section supplements the quantitative results with evidence from local newspapers. When it comes to decisions about whether to hold a tax vote, the decisions are often made without much publicity. This observation helps reaffirm a key point from the quantitative analyses. By shaping whether towns ever consider new tax proposals, rising diversity can have a stealth impact even absent visible and contentious local political battles. First, though, this essay turns to theoretical questions about the key mechanisms at work: how might diversity affect support for local public investments? And how might we sort through the variety of mechanisms generating a negative relationship?

Mechanisms: How Diversity Might Matter

In explaining their chief finding, Alesina, Baqir, and Easterly contend that diversity might slow public investment for “two non-mutually exclusive reasons. One is that different ethnic groups have different preferences over which type of public goods to produce . . . The second is that each ethnic group's utility level for a given public good is reduced if other groups also use it” (1999, 1244). Certainly, those are viable explanations, and they are restated as the preference divergence and outgroup aversion mechanisms below. But both mechanisms posit *levels* of diversity as the key causal variable, and both take public opinion as their point of departure. Alongside residents' attitudes, this essay will consider local elites and the relationships between residents and their elected officials as alternative points of influence, and

will identify five mechanisms that could connect diversity to public investment.³

Although this essay follows the work of Alesina, Baqir, and Easterly (1999), there is a key difference in what is being explained. Alesina et al. define their dependent variable as “productive public goods.” Instead, this essay focuses on voter approval of tax increases, a prerequisite for local spending of any kind, public good or not. This dependent variable should still be tapping general support for public investments in each community, even if some targeted spending is included among the investments. And in place of the distinction between public and private goods, this essay posits a distinction between long-term capital spending and day-to-day services—or in the parlance of Massachusetts local government, between debt exclusions and override votes. When called to the ballot box, local voters are likely to know when the proposal will come to fruition. While current spending provides tangible benefits in the near-term, capital investments take years, and so require both significant trust in the taxing authority and a broad construction of one's self-interest.

To differentiate the various mechanisms presented, *this section will highlight predictions about whether it is the level of diversity or its change that matters, about whether we should expect a difference in impact between current and capital spending proposals, about the level of political contention expected, and about how diversity might influence different stages of the political process.* The mechanisms are all drawn from theories of racial threat, and all posit a negative relationship between diversity and public spending. But they differ markedly when we turn to predictions about the points in the political process where diversity matters most, thus affording researchers new leverage on an old problem.

Outgroup Aversion

“Outgroup aversion” couples two related mechanisms, both of which explain how diverse environments reduce residents' support for public spending. The first comes directly from theories of racial threat,

³Clearly, political institutions provide yet another potential avenue of influence—as Bridges (1997) points out in her study of southwestern U.S. cities, political institutions can shape diversity's political expression. And indeed, Alesina, Baqir, and Hoxby (2004) demonstrate that school districts and municipalities tend to be smaller in more racially or economically heterogeneous places, clear evidence of a relationship between homogeneity and political institutions. Still, this study focuses on the impact of changing demographics within a set of fixed institutions, leaving the institutional questions for another day.

which date back to Key (1949, 652) and Blalock (1967, 186–89). It holds that individuals living near members of another racial group feel increased competition for scarce resources, competition which reduces tolerance.⁴ In this view, people's level of outgroup animosity is heightened by proximity and by perceived competition.

In the case of public resources, there is a second, related mechanism. It holds that people are less likely to enjoy public goods that they share with other groups. As Kruse (2005) documents, white Atlanta residents abandoned public pools as soon as they integrated in the 1960s. This logic could apply to less tangible goods such as healthcare or education as well. Since at least some prominent American spending policies are racially coded (Edsall 1991; Gilens 1999; Goren 2003), a diverse locality might lead whites to see public spending as having diminishing benefits for them. Certainly, there is evidence that views on race, ethnicity, and spending—even local spending—are intertwined.⁵ As the local population changes, so too might perceptions of who benefits from local spending.

Outgroup aversion predicts a decline in the number of tax increases that are both proposed and passed in diverse places, either because local leaders anticipate negative sentiments or else due to a decline in support for those proposed tax hikes that do come before voters. These mechanisms are most likely to operate if the ethnic and racial composition is a visible, politicized feature of the community, either because of a high baseline level of diversity or perhaps due to a rapid influx of people from different backgrounds. There is no reason to expect differences between proposals for increased operating revenues and capital projects.

Still, despite the prevalence of the claim that people are less supportive of spending on those from other groups, recent research suggests that this relationship is not ubiquitous. One study demonstrates that local

diversity affects interpersonal trust without necessarily influencing trust in government or attitudes towards public spending (Soroka, Johnston, and Banting 2005). Other work has shown that local diversity shapes attitudes towards public spending only when race and ethnicity are highly politicized (Hopkins 2007). Outgroup aversion is a plausible explanation but certainly not a foregone conclusion.

Changing Resident Expectations

Another mechanism also takes the residents' attitudes as its starting point, but in the spirit of Tiebout (1956), assumes that diversity matters chiefly through its impact on moving decisions. Here, it is changes in diversity that really matter, since residents presumably chose a community knowing its baseline diversity. Sociologists have demonstrated that racial and ethnic considerations are often paramount when individuals consider where to move. That is especially true for neighborhoods undergoing changes in their ethnic and racial composition (e.g., Gamm 1999; Green, Strolovitch, and Wong 1998; Horton 1995; Kruse 2005; Massey and Denton 1993; Rieder 1985; Self 2003). Gould (2000) provides the microfoundations for this approach by demonstrating that non-Hispanic whites use race as a proxy for neighborhood quality—and that they are more likely to leave neighborhoods that have seen *changes* in their demographics, irrespective of the baseline percent black.⁶ Inflows of people from different ethnic and racial groups can lead residents to reassess their loyalty to the community, their expected returns when they sell their home, and their long-term expectations for staying there. There is an empirical basis to this claim. In the 2006 Social Capital Community Benchmark Survey, 35.7% of people who moved to a more homogeneous community expressed a desire to leave, whereas 45.4% of people who moved to a more heterogeneous community expressed the same sentiment.

To be sure, moving involves overcoming substantial fixed costs and takes time. We might expect that if residents' expectations are changing, increases in ethnic and racial diversity will mostly affect residents' support for capital projects and other long-term plans, since community members might be uncertain that they will remain in the community long enough to benefit. A proposed park might not be completed for five years, but it will be funded with today's increased

⁴For the ongoing debates about racial threat theory, see among others Bledsoe, Welch and Sigelman (1995); Cain, Citrin and Wong (2000); Fox (2004); Giles and Hertz (1994); Glaser (1994); Oliver and Mendelberg (2000); Sigelman and Welch (1993); Taylor (1998); Tolbert and Grummel (2003); and Voss (1996).

⁵Writing about the California property tax revolt in 1978, Sears and Citrin (1985, 220) conclude that symbolic racism helped generate support for a property tax cut. A 1988 survey found that 81% of Californians believed that the demands of Hispanic immigrants for public services would lead to higher taxes (Citrin, Reingold, and Green 1990). In a similar vein, Luttmer illustrates that "individuals increase their support for welfare spending as the share of local recipients from their own racial group rises" (2001, 500).

⁶This could explain why Taylor (1998, 525) contends that threatened responses are more common outside the South, which has long had a significant African-American population.

taxes, and so represent a poor deal for residents uncertain about their future in the community. One advantage of this mechanism is that it produces different predictions for votes on capital spending as opposed to votes on general-purpose spending, providing us with additional leverage in sorting through the mechanisms. This approach also differs from others in that it can operate even if no one politicizes the arrival of the newcomers. So long as it shapes residents' long-term expectations, diversity could matter without becoming a visible topic of local politics.

Diverging Preferences

The outgroup aversion mechanism emphasizes how changing levels of diversity might affect individual attitudes. But diversity might matter because of its collective properties, not because of the attitudinal change it fosters. This is at the heart of Alesina, Baqir, and Easterly (1999) and its claims about preference divergence. If we assume that ethnic and racial diversity leads to increasing disagreement over priorities, groups might withhold support for spending on the knowledge that the money is less likely to be used in ways they support. Here, individual attitudes remain identical, but in a diverse setting, the political logic that follows from those attitudes is distinctive. For this mechanism to operate, voters need to recognize the changing political calculus that accompanies the presence of other groups. Also, it is the baseline level of diversity that shapes the extent to which preferences diverge.

The diverging preferences mechanism predicts that since the town leaders must approve overrides before they are sent to voters, diverging preferences should matter only once the incoming group is of a sufficient size to affect the town council's composition or the subsequent vote. It also predicts that the level of diversity, far more than any short-term changes, should be influential in dampening the probability that a town supports tax increases. Here, there is no reason to expect a distinction between diversity's impact on short-run and long-run proposals.

Conflictual Elites

Of course, citizens are often not well-informed about politics, and that is especially true of local politics. In a 1987 survey, just 32% could name their local school superintendent (Delli Carpini and Keeter 1996, 75). Diversity might matter not because it reshapes attitudes among residents but because it affects the

patterns of politics among elites.⁷ The resulting mechanism is essentially the mirror image of the divergent preferences mechanism. Diversity matters because it shapes the municipality's agenda and introduces conflictual questions about status, race, and ethnicity. Under certain circumstances, racial and ethnic contention provides local leaders with opportunities to attract new voters, to gain recognition, and to advance their agenda. These divisive questions can also divide local leaders and generate lasting cleavages, making it harder to bring together a coalition in support of increased taxes. The new, divisive issues can keep spending plans off the agenda entirely.

Scholars from Hero (1998) to Horowitz (1985) to Taylor (1994) have noted that heterogeneous polities can give rise to a politics of status recognition. The claims made in such a politics are often absolute and are not amenable to compromise.⁸ Studies of Canarsie, NY, and Boston, MA (Gamm 1999; Rieder 1985) have detailed just how contentious and all-consuming local battles in changing neighborhoods can become.

Since conflictual local elites are the focus of this mechanism, we expect that communities with a sudden increase in ethnic or racial diversity will hold fewer tax votes, as local leaders shift their attention away from spending concerns. We further expect that changes in diversity should matter most, as over time, the political system and individuals' moving choices adapt to a given level of diversity. Certainly, the ethnographies of Rieder (1985) and Horton (1995) demonstrate that dynamic. The transaction costs for elites in learning to cope with newly diverse environments are high. This mechanism posits that ethnic and racial diversity's political impact should be highly visible, since it reshapes the local agenda. And finally, the conflictual elites mechanism predicts that even relatively small changes in the local demographic composition can induce marked, visible changes in the organization of local politics.

⁷Here, local elites are defined narrowly as those officials and community leaders who regularly participate in public discussions about local affairs. A town councilor would qualify; a Chamber of Commerce chairperson might qualify; and the average community member would not.

⁸One recent example comes from Farmingville, NY, where the arrival of 1,500 mostly undocumented Mexican immigrants led to heated battles over law enforcement, housing, and the treatment of the newcomers (Curiel 2004, A24). The town had 15,000 residents, and the new arrivals were largely excluded from local politics by virtue of their citizenship. But even without formal political representation, their very presence transformed the politics of the town, as legislators and other elected officials took sides in a series of pitched battles over the immigrants.

Declining Social Capital

If diversity can alter relationships among political leaders, it can also restructure the relationship between political leaders and their constituents. The fifth mechanism posits that diverse communities' lower social capital might in turn dampen their collective willingness to make public investments. There is considerable evidence that social capital—that is, “connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam 2000, 19)—is lower in ethnically and racially diverse environments (Alesina and La Ferrara 2000; Leigh 2006; Putnam 2007).⁹ Thus the question becomes: does this lower social capital reduce communities' capacities to support for public investment?

To understand this mechanism, imagine two communities, one with dense social networks, the other without. In the well-networked community, there are a variety of informal channels through which local leaders become aware of the public's priorities. By contrast, diverse and socially fragmented communities might lead local leaders to make proposals that only a subset of constituents support. Hence the prediction that because they are not as closely connected with their constituents, leaders in diverse communities will propose spending initiatives not supported by their constituents—and so will see them fail at the ballot box. Diversity is especially potent once it reaches some threshold and comes to have an impact on the social networks that structure the community. A second and more tentative prediction is that the declining trust that accompanies weak networks will make long-term commitments harder to sustain. We thus might expect that diversity will affect capital spending more than spending on current operations. These predictions apply chiefly to levels of diversity, since it is unclear that changes in diversity necessarily diminish social capital.

The predictions of the five mechanisms overlap, so no one empirical observation could rule decisively in favor of any single one. But by combining predictions about which aspect of diversity matters (levels or changes), the pathways through which it matters (mass opinions or elite actions), the visibility of intergroup contention, and the type of tax proposals that are most affected (short-term or long-term), we can differentiate them empirically. As Table 1 makes clear, no two mechanisms predict exactly the same pattern of findings.

⁹By contrast, Marschall and Stolle (2004) conclude that for Detroit, a neighborhood's racial and ethnic characteristics matter chiefly in predicting African Americans' levels of trust.

The Data: Massachusetts Property Tax Votes

If our goal is to test mechanisms linking ethnic and racial diversity and public investment, Massachusetts might seem an odd choice. But there are persuasive reasons to study it, especially when supplemented with data from Texas. First, Massachusetts provides an unusually good time series. Moreover, Massachusetts towns vary both in their baseline diversity and in their patterns of change in recent years. The mean town¹⁰ was 92.6% non-Hispanic white in 2000, down from 97.1% non-Hispanic white in 1980. The standard deviation increased over that time, from 6.2 percentage points to 8.9 percentage points, indicating that the pace of diversification was uneven. By 2000, 20% of Massachusetts towns were more than 10% nonwhite, and 7% were more than 20% nonwhite. This allows researchers to compare towns which diversified with those that did not.

More importantly, due to Massachusetts' 1980 Proposition 2½, every town in the state faces identical property tax limits.¹¹ Those that wish to increase property tax levies by more than 2.5% per year must seek voter approval. These override votes are a common occurrence, with 33% of towns holding some kind of vote in the average year and 27% approving a tax increase. Typically, scholars of local politics face an overwhelming variety of local rules, making cross-sectional comparisons suspect. But here, we can observe how functionally equivalent towns respond given exactly the same constraints on their public investments.¹² And Massachusetts' local government structure is unusually simple, with no major responsibilities given to the counties. The “all else equal” that underpins many statistical analyses is more reasonable here than in most comparisons of counties, metropolitan statistical areas, or other heterogeneous units. By providing data on which towns hold

¹⁰Throughout the essay, I will use “town” and “municipality” interchangeably, although technically, towns are a subset of municipalities which excludes cities. All Massachusetts municipalities are included in the analysis.

¹¹Readers might wonder if Massachusetts' relatively homogeneous population made enacting Proposition 2½ possible in the first place. But at the time, Massachusetts had an extraordinarily high local tax burden, a fact which is usually credited with explaining the tax revolt's success there (Hale, 1993; Wallin, 2004).

¹²As an example of their commonality, the central 80% of Massachusetts towns spend between 41% and 64% of their budgets on schools. The remainder is split among policing (5%), housing and community development (4%), fire departments (3%), and a range of other local services (U.S. Census Bureau, 2005).

TABLE 1 This table summarizes the key predictions from the five mechanisms being tested.

Mechanism	Levels or Changes?	Short-Run or Long-Run?	Elite or Mass Initiated?	Visible Contention?
Out-Group Aversion	Both	Both	Mass	Yes
Changing Expectations	Changes	Long-Run	Mass	No
Diverging Preferences	Levels	Both	Mass	Yes
Conflictual Elites	Changes	Long-Run	Elite	Yes
Social Capital	Levels	Long-Run	Both	Maybe

votes and which towns pass tax overrides, Massachusetts allows us to observe both elite and mass behavior.

Constructing the Massachusetts Data

Using 1980, 1990, and 2000 U.S. Census data in combination with data from the Massachusetts Department of Revenue (2005) and electoral data from the Beacon Hill Institute, I compiled a data set covering all 351 Massachusetts towns from 1985 to 1999. Tables 2 and 3 summarize the time-varying dependent variables (e.g., votes) and the key independent variables. I focus on fiscal years in the period from 1995 to 1999 for two reasons. First, changes in towns' ethnic and racial demographics are measured once per decade, and by focusing on the latter half of a decade, we can be sure that the change was underway prior to the observed decisions about holding votes. Second, we can then employ the first decade of data among the control variables, allowing us to condition on past voting decisions in a comprehensive way.

One challenge comes from the strategic action of local leaders. Knowing that their constituents are likely to oppose certain propositions, local elites might

not bring those weaker propositions to a vote, so we cannot use the election results as a straightforward estimate of public preferences. This is an intractable problem and renders all conclusions about the relative influence of elites and the public tentative. To minimize problems of selection bias while maximizing the information extracted, this essay focuses on two dependent variables. The first is whether or not the town held a vote at all and is taken to reflect elite processes of deliberation as well as anticipation of voters' opinions. The second, a "successful vote," refers to cases where a vote is held and the proposal approved; it compares towns that pass increases to all others, limiting the selection bias induced by the town officials' decision to hold the vote. Additional analyses look at outcomes and vote margins conditional on vote occurrence, although the selected nature of these samples must not be forgotten.

Differences between overrides and debt exclusions are potentially valuable in testing the mechanisms, so it is worth understanding them. In Massachusetts, override votes authorize a tax increase which becomes part of the permanent baseline tax levy and which is often used to support general revenues. They typically fund services, often either listed to voters as "general revenues," "schools," "police," or other

TABLE 2 This table summarizes the time-varying dependent variables from 1995 to 1999. Variables denoted by an asterisk (*) are conditional on a vote occurring in that town-year. In many towns, voters are being asked again and again to consider proposals to increase taxes.

Variable	Mean	SD	Min.	Max.
Holds Either Vote Type	0.327	0.469	0.000	1.000
Success, Either Type	0.268	0.443	0.000	1.000
Holds Debt Vote	0.281	0.450	0.000	1.000
Successful Debt Vote	0.251	0.434	0.000	1.000
% Supporting Debt Vote*	0.601	0.120	0.196	0.946
Holds Override Vote	0.106	0.308	0.000	1.000
Successful Override Vote	0.045	0.207	0.000	1.000
% Supporting Override*	0.485	0.134	0.184	0.939

TABLE 3 The table below summarizes key independent variables for the period from 1995 to 1999, including a variety of indicators of municipal finances. One asterisk (*) denotes that these variables are in thousands; two asterisks (**) denote that this variable is in millions.

Variable	Mean	SD	Min.	Max.
% White, 90	0.954	0.063	0.510	1.000
% White, 00	0.926	0.089	0.340	1.000
Δ % White 90–00	−0.029	0.038	−0.231	0.086
% Hisp. 90	0.018	0.036	0.000	0.418
% Hisp. 00	0.025	0.054	0.000	0.598
% Black 90	0.012	0.023	0.000	0.240
% Black 00	0.014	0.026	0.000	0.236
% As. Am. 90	0.011	0.014	0.000	0.110
% As. Am. 00	0.017	0.025	0.000	0.163
Population*	17.420	35.524	0.095	560.557
Δ Lg. Pop. 90-00	0.080	0.124	−0.875	0.599
Median Hsh. Inc. 90*	41.678	11.748	18.250	95.134
Excess Capacity	0.028	0.050	0.000	0.432
Prop. Tax Rate	0.015	0.003	0.002	0.025
Levy Limit**	17.559	43.988	0.170	819.313
% Republican Registrants	0.149	0.052	0.000	0.358
Open Town Mtg.	0.744	0.437	0.000	1.000
Avg. Commute Time 90	23.392	4.470	9.700	34.800

services. The other common option is a debt exclusion, which allows the debt from a specific project to not be counted towards tax limits for a specified number of years. Debt exclusions typically are for major capital projects such as the construction of libraries or the purchases of fire trucks. As compared to overrides, debt exclusions combine short-term costs and long-term benefits.

Debt exclusions make up the bulk of the total dollars approved and account for an average of just under \$0.7 million in increased taxes per town. All told, the mean Massachusetts town approved \$0.8 million in the period from 1995 to 1999—for a total across the 351 towns of \$272 million. Although data on the size of attempted debt exclusions are unavailable, we know from override votes that town officials had wanted considerably more revenue than was approved. The average town put \$289,776 in overrides on the ballot for consideration in the period from 1995 to 1999, of which just \$103,124 was approved. Voters commonly exercise their veto power.

Explanatory Variables

The key causal variables are the percent non-Hispanic white and the change in the percent white from 1990 to 2000. I adopt this operationalization of homogeneity because it is easily interpreted. Also, it is so highly correlated with the Herfindahl index used by Alesina, Baqir, and Easterly (1999) that the choice makes no impact on the results.¹³ The percent white is also distributed such that taking a log or squaring the variable leads to no substantive difference.¹⁴ Indeed, the correlations are strong enough that we should worry about collinearity and not use multiple measures in the same model. Substantively, Massachusetts towns diversified in the 1990s to varying degrees, with Asian Americans and Hispanics accounting for more of the nonwhite population increase than Blacks. At the fifth percentile was Waltham, which was 10.1 percentage points less white in 2000 than in 1990. At the 95th percentile was Wenham, whose percentage of non-Hispanic whites grew by 1.0 percentage point.

Evidence: Diversity's Impact

What is the impact of diversity—both its level and its increases over time—on communities' willingness to tax themselves at higher rates? To answer that question, this section first presents the results of logistic regressions predicting several vote-related dependent variables in the 351 Massachusetts towns. This analysis shows that changing diversity—but not the baseline level of diversity—matters in predicting debt exclusion votes. And it matters in predicting whether votes are *held*, suggesting a potential role for elites in translating diversity into less public investment. After several robustness tests, this section turns

¹³Specifically, the Pearson's correlation between the Herfindahl index and the percent white in 1990 was 0.99, and the correlation between the changes in those variables from 1990 to 2000 is 0.89. Formally, one creates a Herfindahl index by calculating the proportion of the population belonging to each of n groups and then summing the squared proportions. It is interpreted as the probability that two randomly chosen individuals will be from the same group.

¹⁴In fact, the Pearson's correlation between the change in the percent white and the change in the logged measure is 0.96, meaning that there is little to be learned from logged specifications. Squaring the change in the percent white leads to a variable that is correlated at $-.86$ with the original variable. In making sense of the negative sign, remember that the average town lost white population share, so the variable is mostly negative to start. Squaring negative numbers inverts their ranking.

to the evidence from Texas school districts which corroborates certain findings in a very different state.

Model Specification

The analysis begins with four dependent variables: whether any debt exclusion vote occurred in a town in a given year, whether any debt exclusion vote was successful, whether any override vote occurred, and whether any override was successful. These are all binary dependent variables, so logistic regression is appropriate. To account for dependence across time—towns that had a vote last year might be less likely to have one again this year—I used the strategy advocated by Beck, Katz, and Tucker (1998) and included 15 indicator variables denoting how long since the last occurrence of the dependent variable.¹⁵ Year indicator variables capture unobserved time effects.

The model contains a variety of explanatory variables that are fixed across the five years being explained because they come from the decennial Census. Among the most critical potential confounders are a town's economic characteristics, including its median household income and the share of individuals at various income levels.¹⁶ Also important are variables measuring social capital and social organization. If small communities are better at generating civic engagement and interpersonal connections, we should condition on the town's population as well as the change in its population, both expressed in terms of logs. The average commuting time captures the communities' relation to the local economic center. The local political climate is another potential confounder, and so the model includes each town's percentage of Republican registrants (updated in alternate years) and its original percentage of support for Proposition 2½. We should not ignore political institutions. The majority of Massachusetts towns are governed via an open town meeting held in the spring, although 13% are governed by an elected Council and another 12% are governed by representative town meetings.¹⁷ Measures of the town's

financial situation are similarly critical and are available annually: the tax rate, the additional money already raised by previous votes, the town's levy limit, the potential money it could raise through an override, and its capacity to raise taxes without needing a vote.¹⁸ Certainly, there are other potential confounders, but as a later discussion will show, the results presented below are robust to the inclusion of a wide range of other variables.

Logit Results

For debt exclusion votes—votes to fund capital projects—Table 4 shows two results. The left two columns report the impact of the independent variables on the probability of *holding* a debt exclusion vote, while the right two columns show the impact on *holding and passing* a debt exclusion vote. In Table 5, we see the same results for the probability of holding an override vote to bolster operating revenues. In all four models, many of the most predictive variables are economic measures such as the tax rate and the median household income. In some models, political variables such as the town meeting system or the percentage of voters who originally backed Proposition 2½ are strong predictors as well.

On the question of which has more predictive power, homogeneity's level or its changes, the results are unambiguous. The variable measuring levels of homogeneity—the percent white in 1990—is not a strong predictor in any of the four models. When we look at the influence of demographic changes, we see a different and more complicated story. Changes are not a statistically or substantively significant predictor of

¹⁵In alternative specifications, I used various functions of the time since the last occurrence of the dependent variable, including linear terms, squared terms, and cubic terms (Carter and Signorino 2007). The substantive results are identical.

¹⁶In practice, only the share of middle-class households, those in the \$35 thousand to \$50 thousand yearly income bracket, matters.

¹⁷The elected officials are overwhelmingly non-Hispanic white, so there is little variation on that metric. Even among 10 of the most diverse Massachusetts cities, as of 2007 the percentage of non-white elected officials was just 9% (Center for Women in Politics and Public Policy 2007).

¹⁸To understand these final two variables, one must understand a few facts about post-1980 Massachusetts property tax law. A community's *tax rate* cannot increase by more than 2.5% each year, except with voter approval: that threshold is referred to as the *tax limit*. But there is also a global *tax ceiling*, such that tax rates can never exceed 2.5% of assessed value. The override capacity measures how close a community is to the 2.5% tax ceiling. As communities get close to this limit, overrides have a binding upper bound in terms of new revenue they can garner, and so might appear less worthwhile in the eyes of the town leaders. Technically, this measure of override capacity is calculated as the difference between the state tax ceiling of 2.5% and the town's current tax rate. An override capacity of .78 would indicate that the community could increase its tax rate by 78% above the current levy before hitting the tax ceiling. The excess capacity is the gap between the actual tax rate and the current tax limit and is another proxy for the fiscal necessity of a vote. As excess capacity grows, overrides become less necessary because the town can raise sufficient revenues without a vote. An excess capacity of 0.028 indicates a town that is collecting 97.2% of the taxes it can collect without an override.

TABLE 4 This table provides the results from logistic regressions that predict the probability of holding or passing a debt exclusion vote to pay for capital projects. Increasing homogeneity in the 1990s is a powerful and positive predictor of holding and passing debt exclusions. The asterisk denotes significance at the $p < .05$ level. The regressions also included four year-specific indicator variables and 15 Beck et al.-style (1998) indicator variables for the number of years since the last vote was held or approved. The AIC for the left model is 1,814 and it is 1,715 for the right model.

Variable	Hold Debt Exclusion		Pass Debt Exclusion	
	β	SE	β	SE
Intercept	-0.793	2.125	-1.469	2.180
% White 90	0.115	1.603	0.908	1.664
Δ % White 90s	8.269*	3.033	9.417*	3.243
Open Town Mtg	0.513*	0.224	0.252	0.236
Med. Hsh. Inc. 90	0.037*	0.008	0.042*	0.008
Δ Lg. Pop. 90-00	1.627*	0.564	1.409*	0.573
Lg. Pop. 90	0.165	0.104	0.241*	0.111
Levy Limit	-0.016	0.009	-0.027*	0.010
Additional \$ Avail	1.674	1.139	0.997	1.186
Override Capacity/Levy	-0.518*	0.226	-0.461*	0.231
Excess Override Capacity	-0.007*	0.002	-0.006*	0.002
Tax Rate	-0.159*	0.043	-0.145*	0.045
Avg. Commute 90	-0.034*	0.017	-0.027	0.018
% Rep. Registrants	1.753	1.393	2.412	1.437
% for Proposition 2.5	-1.251	0.855	-2.107*	0.883
% Hsh. 35K-50K Inc	-2.847	1.786	-3.372	1.846
Degrees of Freedom	1720		1720	

override votes. Shifting from a town whose percent white dropped by 8.6 percentage points to a town whose percent white increased by 1.5 percentage points while holding other variables at their means or medians, we see only a 2.7 percentage point decline in the probability of holding an override. Even this shift from the 10th percentile to the 90th percentile produces confidence intervals on the estimated effect that cross zero. Yet for debt exclusions, we see that diversifying slowly (e.g., higher values of Δ % white) is a strong positive predictor both for having a vote and having a successful vote. Demographic change can trigger reduced public investment, but mostly in long-term projects that couple immediate costs and long-term benefits.

Consider whether a town holds a debt exclusion vote in a given year. Again, compare a hypothetical town whose homogeneity declined more slowly than 90% of towns with another whose homogeneity declined more quickly than 90% of towns, and hold other explanatory variables at their means or medians. The quickly diversifying town is 10.6 percentage points less likely to hold a debt exclusion vote, with a 95% confidence interval from -18.7 percentage points to -1.9 percentage points. This is a marked

impact of 38% given that the baseline probability is just 28.2 percentage points.

One might challenge this conclusion by arguing that it is somehow specific to the period analyzed. To test that, I reestimated the models above using 1980s changes in diversity to predict votes in the 1990-94 period, a period when override votes were more common. There, too, the same result holds: the changing percent white is a positive predictor of holding debt exclusion votes but not of holding overrides. The same results also hold when we estimate the model for the full period from 1990 to 1999 and from 1985 to 1989 as well. The results are not period specific.

If diversity shapes both the decision to hold the vote and separately influences its subsequent success, the impact on the joint probability of holding a vote and the proposal passing should be even larger. It is, but only slightly: all else held at its mean or median, the quickly diversifying town is expected to have successful votes 12.2 percentage points less often, with a 95% confidence interval from -20.6 to -4.1. The demographic change is only slightly stronger when predicting the vote's success as opposed to the vote's occurrence, indicating that *most of the impact of diversity comes from the decision to hold the vote, not*

TABLE 5 This table provides the results from logistic regressions that predict considering or passing override votes covering operating budgets from 1995 to 1999. Both the level of homogeneity (% white) and changes in homogeneity are consistently insignificant predictors of holding a vote or passing a vote. The asterisk denotes significance at the $p < .05$ level. Although the coefficients are not shown, these regressions also included four year-specific indicator variables and 15 Beck et al.-style (1998) indicator variables for the number of years since the last vote was held or approved. The AIC were 987.5 and 546.3, respectively.

Variable	Hold Override		Pass Override	
	β	SE	β	SE
Intercept	-0.141	2.644	-3.976	3.687
% White 90	-1.128	1.896	-1.476	2.679
Δ % White 90s	2.950	4.140	0.358	6.195
Open Town Mtg	0.384	0.359	0.350	0.636
Med. Hsh. Inc. 90	0.013	0.010	0.034*	0.014
Δ Lg. Pop. 90-00	1.204	0.759	-0.210	0.987
Lg. Pop. 90	-0.141	0.143	0.007	0.246
Levy Limit	-0.001	0.010	-0.027	0.026
Additional \$ Avail	3.829*	1.538	6.021*	2.104
Override Capacity/Levy	-0.140	0.205	-0.043	0.246
Excess Override Capacity	-0.025*	0.005	-0.047*	0.012
Tax Rate	-0.107*	0.053	-0.151*	0.075
Avg. Commute 90	-0.061*	0.026	-0.047	0.038
% Rep. Registrants	1.669	2.008	-1.786	2.940
% for Proposition 2.5	0.001	1.232	-0.611	1.923
% Hsh. 35K-50K Inc	-1.598	2.631	-1.886	3.789
Degrees of Freedom	1720		1720	

the residents' decision to approve the proposal. Another way to see this is to estimate the impact of homogeneity on the passage of votes only for the subset of towns that actually held votes. For this subsample, neither changes in homogeneity nor baseline levels are a strong predictor of vote outcomes. Also, in a similar OLS model, neither levels nor changes are strong predictors of the margins by which debt exclusions pass or fail. Changes in diversity chiefly influence which towns *hold* debt exclusion votes, not which towns approve them or by what margin. This pattern of findings could represent strategic anticipation on the part of local elites, but it decidedly signals their involvement in the process in some form.¹⁹

The comparison between diversity's level and its change might seem unfair because the long-term impact of diversity could be incorporated into the

current tax rate or other time-varying covariates. In that case, the estimated impact of diversity understates the real impact. But the same pattern remains even when most covariates are removed, and we estimate a model with just the time-related indicator variables, the 1990 percent white, and the change in the percent white over the 1990s. At least for Massachusetts, levels do not appear to matter, but changes certainly do. As is shown in the online appendix, this pattern of findings also holds when we take a different estimation approach and use matching as a pre-processing step (Ho et al. 2007) to identify the 253 towns that are the most directly comparable.²⁰

²⁰The central idea here is that when data sets are unbalanced—that is, when the treated units also tend to differ in other observed ways from the control units—the results from parametric models such as OLS could be dependent on arbitrary modeling decisions. To reduce that dependence, data analysts can first use matching procedures to discard dissimilar observations and ensure that the treated and control populations are highly similar in terms of other covariates. Specifically, a genetic algorithm (Diamond and Sekhon 2008) identified 78 “control” communities that were as similar to the 175 treated communities as possible. The models above were then estimated on this weighted subset of the full data, with substantively similar results. See Table 1 in the online appendix.

¹⁹One threat to validity is the possibility that in diversifying towns, local elites are putting more expensive proposals before the voters. Unfortunately, we lack information on the size of debt exclusions that are not approved. But taking the total amount proposed in overrides as the dependent variable, we see that it is somewhat *lower* ($t = 1.68$) in diversifying towns.

Robustness Checks

One motivation for this essay is the possibility that omitted variables could explain past results. When studying the impact of diversity in a cross-sectional setting, the possibility of spurious results is marked. Moving to a time-series framework helps alleviate this threat, as we know that the change in demographics came prior to the political changes of interest. But of course, changing diversity could mask other factors. For that reason, this section shows how stable the estimated impact of changing diversity is in the presence of possible confounders.²¹

For example, nonlinear effects are a plausible alternative explanation: beyond some tipping point, demographic divisions become salient and generate a response (Gould 2000). This is especially important for political scientists, since political power often comes with having a critical mass. Given the collinearity between various functions of the change in the percent white detailed above, I instead broke that variable into five indicator variables denoting each quintile. There is not strong evidence of nonlinear effects. The five indicator variables all trend upwards, with the only break from monotonicity being that towns in the second quintile—those whose white population shrunk by between 2.4 and 4.3 percentage points—have a slightly lower probability of holding a vote than expected. Towns in the most rapidly diversifying quintile consider debt exclusions 17.2% of the time, while towns in the second quintile consider debt exclusions 14.3% of the time. Still, the confidence intervals overlap to the extent that a linear effect remains highly plausible.

For further robustness checks, I added various potential confounders to the original model one at a time and present the key coefficients in Table 6. The central conclusion is that the impact of local demographic change is always pronounced. In the first line of the table, I included fixed effects for 13 of the state's 14 counties to ensure that the results were not driven by hidden regional patterns. They are not. One might also speculate that diversifying towns spend their money differently and that compositional spending differences are the true explanatory variable. Yet the next result in Table 6 demonstrates that even conditional on the amount each town spends on schooling—the single largest budget item—the key finding is unchanged. Also, we could imagine that diversifying communities get less support from state revenues, potentially con-

founding our analyses. Yet the result holds even conditional on state aid per capita, although state aid per capita is itself a significant negative predictor.

The results are also robust to the inclusion of several economic and fiscal variables (e.g., unemployment rate) and several measures of community stability (e.g., the percent of people in the same home in 1985 and 1990). The results are not driven by housing prices or the change in housing prices, an alternative pathway through which diversity might shape property tax rates. Even accounting for fractionalization among major white ethnic groups—through the percentage with Irish or Italian ancestry—does little to affect the core finding. Since notions of white flight lead us to expect that areas become more diverse when wealthy whites leave, it is especially noteworthy that the result is not affected by accounting for changes in median income or median home values over the 1990s. Given cross-national models of government spending (e.g., Huber, Ragin, and Stephens, 1993), past findings (Poterba 1997), and the discourse that surrounds the votes in many towns,²² we might expect towns' age structure to matter, but neither the measures of age structure nor changes in those measures substantively affect the diversity result either. Following Poterba (1997), one might suspect that towns where the young are of a different ethnicity than the elderly might be less willing to hold a vote, but the inclusion of a measure for the "ethnic age gap"—the difference between the percent white among school children and the percent white overall—has no strong effect either.

Two of Table 6's latter results are critical as well and speak to the differential impact that some ethnic or racial groups might have. One might expect an influx of African Americans to be driving the diversity finding, as white-black integration has been very contentious in U.S. history. If that were the case, once we condition on the changing percentage of African Americans, the diversity finding should disappear. It does not. Nor does conditioning on the change in the percent Hispanic. Put differently, these effects are not specific to any one ethnic or racial group.²³

²²Newspaper articles on override and debt exclusion votes commonly emphasize the cleavage between old and young, as captured by one reference to the "pain and generational conflict of an override" (Higgins 1999).

²³In the 1990s, the towns that tended to see the largest influx of Hispanics included several along the Connecticut river—Springfield, Chicopee, and Holyoke—as well as Worcester, Lawrence, Lynn, Fitchburg, and other towns scattered throughout the state. Some towns in the greater Boston area saw the largest increase in their African-American population, including Brockton, Everett, Malden, Medford, Somerville, and Stoughton.

²¹Because a single new variable in a logistic regression affects all coefficients, this section relies on coefficients' statistical significance as a rough proxy for the predictive power of new variables. Still, the results are so clear-cut that this reliance is not a liability.

TABLE 6 The table below begins by presenting the logit coefficient for the change in the percent white when predicting whether a town holds a debt exclusion vote from 1995 to 1999. The other covariates, though not shown, are identical to those from Table 5. Each row introduces one new covariate into the basic model to test how robust the diversity result is. Even accounting for a wide range of other confounders, towns that become more diverse were significantly less likely to hold votes on debt exclusions. The asterisk denotes significance at the $p < .05$ level.

Variable	β , Δ % White	SE	β , Other Variable	SE	df
County Fixed Effects	8.55*	3.14			
% Spending on Schools	8.79*	3.00	0.01	0.01	1719
State Aid per Cap.	8.50*	3.03	-0.80*	0.40	1720
Unemployment	8.78*	2.99	0.06	0.04	1720
Property Values per Cap.	8.57*	3.06	0.00	0.00	1720
Δ Lg. Med. Home Value 90-00	9.00*	3.00	-0.14	0.58	1720
% Poor 90	8.96*	3.05	-0.03	3.19	1720
Δ % Poor 90-00	8.99*	3.01	0.37	3.06	1720
Δ Med. Hsh. Inc. 90-00	8.91*	3.02	0.01	0.01	1720
% Urban 90	9.00*	3.00	-0.15	0.25	1720
% Same House 85-90	8.64*	3.00	0.85	0.96	1720
% Same County 85-90	8.65*	2.99	0.97	0.86	1720
% Irish 90	8.80*	3.02	0.57	1.02	1720
% Italian 90	9.13*	3.01	-3.28*	1.37	1720
% Under 18 90	8.83*	3.06	0.48	2.27	1720
Δ % Under 18 90-00	9.00*	3.01	0.41	3.39	1720
% Over 65 90	8.97*	3.00	1.28	1.98	1720
Δ % 65 90-00	8.92*	3.04	0.34	3.87	1720
Ethnic Age Gap	8.30*	3.27	1.24	2.46	1720
Δ % Black 90-00	12.25*	3.48	12.35	6.50	1720
Δ % Hispanic 90-00	7.32*	3.59	-5.34	6.60	1720

Out-of-Sample Test: Texas

The Massachusetts data provide unusual leverage, since we can observe responses to votes on short-term overrides and long-term debt exclusions. Still, Massachusetts is a single state, and an outlier in terms of its homogeneity and liberalism. Here, I corroborate the results by drawing on data from Texas school districts, which operate under a similar voter approval requirement for property tax hikes above a threshold.²⁴

Merging Texas state data with U.S. Census data and school district data from the Department of Education's Common Core, I created a data set of 744 Texas school districts that had between 250 and 5,000 students in 2000.²⁵ The local financial data are not as rich as in

the Massachusetts case, but I estimated as comparable a model as possible to determine the probability of holding any kind of vote at any time between 1999 and 2002. 6.1% of the 744 districts did so. The independent variables are contemporaneous or (where possible) antecedent levels or changes, so the model conditions on the percent white in 1990 and the change in the percent white from 1990 to 2000. It also accounts for the median family income in 2000, the log of the total number of students in 1990, and the change in the logged number of students from 1990 to 2000. As measures of deprivation, it conditions on the percentage of students receiving a free or reduced-price lunch in 1990 as well as the change in that figure from 1990 to 2000. Owing to data availability, some independent variables cannot be measured as early as 1990, and so I include the total revenue per student and the state aid per student as of 1999. I also include each district's change in total revenues per student from 1999 to 2002. Districts with increasing revenue over this period should find holding a rollback vote less necessary. Districts that had larger increases in their nonwhite population were also on average

²⁴Data are available via the Texas Comptroller's office, which is <http://www.cpa.state.tx.us/>. For the period in question, Texas school districts were mandated to hold elections when their taxes increased by more than 6 percent exclusive of debt.

²⁵Only these midsized school districts had votes, so there is little to be learned by studying larger or small districts.

slightly older, so I account for this by including the percent of the district's residents who are under 18.²⁶

Did levels of diversity or changes in diversity influence rollback elections once we account for other likely causes? The online appendix presents the results, which confirm and extend those for Massachusetts. The percent white in 1990 is not a significant predictor of which school districts hold votes. Levels of homogeneity are again not a useful predictor. But an increase in local homogeneity is a significant positive predictor. Using the same comparison as for Massachusetts, if we shift from a district whose nonwhite population increased by 8.5 percentage points to a district whose nonwhite population declined by 1.5 percentage points, we should expect a 2.1 percentage point jump in the probability that that district will hold a tax vote. The 95% confidence interval runs from 0.7 percentage points to 4.2.

Texas districts with younger populations are more likely to hold a tax vote, providing some evidence for the "grey peril" hypothesis (see also Berkman and Plutzer 2005). But the effect of increasing diversity holds even accounting for changing age profiles. Since the threshold for holding a vote in Texas is so much higher, since we lack data on how the Texas localities are using the money, and since far fewer localities have votes, we should be cautious about the conclusions we draw. Still, these results suggest that in a diverse border state as well as in a homogeneous northeastern state, it is not levels of homogeneity but changes in local demographics that can shape the politics of public spending. At the same time, these results are not as large as those for Massachusetts debt exclusion votes in terms of the proportion of units affected, reinforcing the claim that diversity's effects are not substantively large when the revenues are used in the short-term.

Discussion

Using data on Massachusetts, Cutler, Elmendorf, and Zeckhauser (1999) argue that the outgroup aversion mechanism—that people are unwilling to support local spending that benefits those from other groups—is

not supported. And indeed, this research can verify that *levels* of diversity are not a significant predictor of towns' willingness to approve tax hikes. But what many researchers have missed is the role of *changes* in diversity. Even in a state as homogeneous as Massachusetts, small demographic changes have marked effects on those towns' willingness to make long-term public investments. Put differently, these results indicate that time is an important element in understanding how diverse environments shape public investment. First, the timing of the demographic change matters greatly. Towns that have just become more diverse suspend their support for long-term public investments whereas towns that have long been diverse confront no special challenge. In a changing town, investments with short-term costs and long-term benefits seem less compelling to local elites, to residents, or to both.

Returning to Table 1, we can now evaluate the five mechanisms proposed earlier. The key empirical result is that changes in diversity—but not levels of diversity—influence tax votes. Thus those mechanisms that are based exclusively on levels of diversity receive little empirical support. Preference divergence is one such mechanism. It holds that higher levels of diversity produce more disagreement about which public goods to provide. But it makes no predictions about the impact of a marginal increase in diversity, and it cannot make sense of the chief finding here. The same is true for social capital. Since there is no reason to expect that sudden increases in diversity will reduce social capital in the short-term, there is also no reason to think that this mechanism is operative. The social capital mechanism also predicted that in diverse environments, disconnected local elites would propose tax measures without realizing their lack of support. But the evidence shows the opposite: that increases in diversity shape the holding of votes more than their eventual success.

The outgroup aversion mechanism seems to be more helpful, in that it emphasizes periods of change as likely to generate outgroup hostility. But it falls short on other tests, as it predicts no distinction between short-term and long-term proposals. It also has no place for elites, which means that it cannot explain why increasing diversity would have a strong impact on the decision to *hold* tax votes in the first place. Outgroup aversion may operate in tandem with other mechanisms, but it alone cannot explain the observed patterns either.

By contrast, the conflictual elites mechanism makes sense of the range of findings presented so far. This mechanism suggests that even small changes in

²⁶This measure is correlated with the percent over 65 at -0.54 , but including that measure instead makes no difference in the substantive results.

demographics can transform political agendas, with a special impact on easily ignored, long-term issues. In keeping with this approach, we do observe that small increases in diversity reduce the number of long-term projects proposed. On a more basic level, the conflictual elites mechanism points to elite-level processes as key and that presumption is reinforced by data showing that what changes most markedly is the *holding*, not the approval, of tax votes.

Another useful mechanism is changing resident expectations. It, too, predicts exactly the pattern of findings we have observed so far. As a community undergoes ethnic or racial changes, residents will discount the potential benefits from long-term projects at higher rates, as they cannot be sure they will remain in the community long enough to enjoy the project's benefits. In a period of seemingly rapid change, both elites and residents might narrow their time horizons considerably. This can explain why changes in diversity matter while levels do not, and why long-run proposals are dampened most sharply.

The quantitative findings do not alone rule decisively for a single mechanism, although they make a few key points. First, mechanisms based on levels of diversity, such as preference divergence and social capital, have little explanatory power. And second, whether they focus on elites, residents, or their interaction, mechanisms that emphasize the short-term disruptions that accompany increasing diversity are best suited to explain these findings.

Newspapers as Informants

From the quantitative analysis, two mechanisms emerge as the most likely: conflictual elites and changing resident expectations. Yet these mechanisms differ. The former emphasizes visible, elite-level conflicts while the latter emphasizes opinion changes induced by a subtle shift in people's expectations. The former posits elite leadership while the latter views elites as following public opinion. To evaluate them, and to identify the role of elites more concretely, this section draws on newspaper accounts to characterize the politics that surround overrides and debt exclusion votes.

Questions about the role of elites as opinion leaders have puzzled political scientists for decades (e.g., Miller and Stokes 1963), and a thorough answer requires detailed data on both elite and mass opinion at the local level (e.g., Berkman and Plutzer 2005; Clarke and Ferguson 1983). But by turning to the 541 newspaper accounts of debt exclusion and override votes during the same five years under study, we can

craft a tentative answer.²⁷ Above all, the centrality of elites in the decision to *hold* a tax vote emerges from the newspaper articles. Town leaders, school officials, or the reports of appointed study groups often initiate the drive for an override or debt exclusion. They typically do so in response to anticipated population growth, projected budget shortfalls, or even potential liability under the Americans with Disabilities Act, concerns that are unlikely to move most residents. Consider one example from Winthrop, where "the need for an override was first raised earlier this year by a group of town officials who had been meeting to address the town's fiscal situation" (Laidler 1999). Also, even if the distribution of opinions in a community is well known, it is difficult to anticipate turnout in the subsequent elections, which varied from 0.6 of one percent to 95.8%, with an average of 32.6%.²⁸ Uncertainty about turnout provides an additional explanation for why elites might exert an independent influence in deciding whether to hold such votes.

Nonetheless, the articles also show no evidence of contentious, ethnically charged battles in Massachusetts communities in this period. Those battles would come to Massachusetts, but not until after 2000.²⁹ For the articles assembled, it is generational cleavages that are most commonly discussed (e.g., Higgins 1999)—and in the hundreds of articles, there is not a single discussion of ethnic or racial tensions shaping the debate over an override or debt exclusion. If the results were driven by elites polarizing ethnic and racial divisions, it is hard to imagine that those tactics would go unmentioned by reporters. Given the absence of visible inter-group contention, the evidence here tips in favor of changing expectations as a mechanism, which holds that demographic changes can influence the local politics of spending even while ethnicity remains depoliticized. Without knowing its source, local elites might well be able to detect this changed sentiment and adjust their proposals accordingly.

²⁷The articles were identified using the Lexis-Nexis Academic search engine's Massachusetts papers. The initial search identified articles that mentioned "debt exclusion" or "override" and "vote," and 117 irrelevant articles were culled from the sample.

²⁸As Oliver and Ha (2007) demonstrate, voters in local politics are typically a nonrepresentative sample of highly motivated stakeholders. Nonetheless, turnout averaging 32.6% in override votes indicates that it is not just the local leaders and their social networks who are voting.

²⁹See for instance Badkhen (2006) on Milford, McNamara (2006) on Framingham, Woolhouse (2005) on Marlborough, and MacDonald (2002) on Holyoke.

Conclusion and Future Directions

What do these results mean for the other 48 states? In the period from 2000 to 2006, 110 localities across the United States responded to sudden demographic changes by considering or passing anti-immigrant ordinances (Hopkins 2007). The findings in this paper help us understand that trend: it is those communities that have undergone sudden demographic changes, not communities that have long been diverse, where diversity's effects are pronounced. These findings also help us understand why investment in public goods does not fall to zero in diverse places like Texas. Once local demographics stabilize, and with them residents' expectations, diverse localities face no special barriers to raising taxes. At the same time, this pattern of findings also suggests future attitudinal work, as we need to know more about how and when diversity changes people's expectations about staying in their community.

This essay is premised on the idea that to understand how diversity shapes public investment, we cannot be content with data on spending alone. We need to observe the intervening political processes—and to account for a wide range of alternative mechanisms. Still, more can be done in this vein. In-depth observation of towns, and a special focus on the rhetoric of public investment debates, will help in another way. A common and quite understandable criticism of this style of work is its inflexible treatment of racial and ethnic group boundaries. In practice, racial and ethnic group membership is multifaceted and partial (Lee 2004). To conduct these kinds of quantitative assessments, however, researchers need to assume a false uniformity within broad ethnic or racial categories, a uniformity that is often induced by Census categories. And while the strength of this essay's findings should justify the use of the categories, it is no less critical that research continue to develop notions of race and ethnicity that capture their realities.

But certainly, some boundaries still exist, however permeable. Questions of how to integrate Americans across racial and ethnic lines have generated sharp and ongoing debates, from *Brown v. the Board of Education* to the recent *Bollinger* decisions on affirmative action. And those debates are unlikely to go away: like Massachusetts and Texas, the United States is seeing sharp increases in its racial and ethnic diversity. This study focuses on Massachusetts and Texas as critical cases, but its findings on the impact of demographic changes might well apply to the set of states that are diversifying more quickly or at the same pace.

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