

A Natural Experiment of Race-Based and Issue Voting: The 2001 City of Los Angeles Elections

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Abstract

The theory of racially polarized voting suggests that race is a primary determinant of vote choice in elections where a minority candidate is pitted against a white candidate. The spatial model of voting suggests that voters consider the issue positions of candidates and choose the candidate closest to their own positions. The unique context of the 2001 Los Angeles city election allows us to test these two theories. In each of two races in this election, a Latino candidate competed against a white candidate. In one race the white candidate was considered more liberal, while in the other race the Latino candidate was seen as more liberal. This particular ethnic and ideological composition provides us with a “natural experiment” in which to test the two competing theories. While voters’ ethnicity mattered, we show that consistent with the spatial model, voters also relied on issues and ideology as factors in their voting choices. By considering the choices voters are making in two different elections, we argue that estimates of the extent of racial voting in previous research may be overstated.

1 Introduction

Most research on political behavior has focused on four major theories of voter decision-making: socio-demographic characteristics of voters (e.g. Berelson et al. 1944), partisanship (e.g. Campbell et al. 1964), issues and ideology (e.g. Key 1966), and economic conditions (e.g. Key 1966). Much of this literature debates the relative importance of these characteristics, with recent research focusing on issues and economic factors (e.g. Alvarez and Nagler 1995).

In this paper we focus on the 2001 Los Angeles citywide general elections. Both the 2001 Los Angeles mayoral and city attorney races presented a unique opportunity for researchers of voting behavior. First, these two simultaneous elections, both for executive-style city government positions, provide more information for studying voter decision-making strategies than does a single election; also, by looking at two races we can determine whether voters use the same decision strategies across both races. Both contests were highly contested and high profile: \$14.6 million was spent by the mayoral candidates and \$4.8 million was spent in the city attorney election.¹ Clearly, spending was not equal in these two races, yet the amount spent in the city attorney election is considerable, and these spending figures indicate that both elections were competitive.² Second, not only were both of these positions open seat races, but Los Angeles city elections are nonpartisan, and the candidates competing in the general elections were Democrats. Thus, the cue of partisanship was absent from these elections (Schaffner and Streb 2002, Squire 1988), as well as its next best substitute, incumbency (Schaffner, et al. 2001). This setting gives us the ability to understand how voters decide in this setting.

Another important reason to study the 2001 Los Angeles city elections is that the races featured candidates of different ethnic identities, as a Latino candidate competed against a white for each of the two highest elected offices in city government. The ethnic context of this election produces a “natural experiment” where two competing theories of voting behavior can be tested.

On one hand, theories of racially polarized voting suggests that race is a primary determinant of vote choice in elections where a minority candidate is pitted against a white candidate. This theory is most relevant given the undertones of “racial fear” that emerged in the last two weeks of this

election. James Hahn, the white mayoral candidate, began broadcasting a television advertisement with “an image of a crack pipe held to a flame” followed by a grainy picture of the Latino mayoral candidate, Antonio Villaraigosa.³ This image refers to a letter written by Villaraigosa, requesting presidential clemency for a convicted cocaine dealer. The advertisement then mentions that the cocaine dealer’s father had donated more than \$6,000 to Villaraigosa’s campaign. While Hahn defended his advertisement as factual and one that questions Villaraigosa’s trustworthiness and position on crime, both the media and Villaraigosa’s campaign argued that the advertisement played the “race card”, primarily appealing to “racist whites in the San Fernando Valley”.⁴ Mendelberg’s work (1997, 2001) would characterize this advertisement as an implicit racial appeal, where this message would prime prejudiced whites to vote in a racially prejudiced manner against the Latino mayoral candidate. Thus, if voters were completely racially polarized, we should observe all whites voting for the white candidate (Hahn) and all Latinos supporting Villaraigosa.⁵

On the other hand, the spatial theory of voting assumes that voters rely on non-demographic cues: the correspondence between the issue positions and ideology of the voter and the candidates (Downs 1957). If there is no correspondence between voters’ race or ethnicity and their issue positions, then the spatial model predicts that the observed relationship between voters’ race and their vote choice is absent. However, in the case where issue positions and race are perfectly correlated, then the spatial theory of voting provides predictions that are observationally equivalent to racially polarized voting. Since in practice voters’ race and their issue positions are often highly correlated, it can be a challenge to observe concrete distinctions between the two theories in any election.

The unique context of the 2001 Los Angeles city election allows rigorous testing of these two theories. Both elections were open seat and non-partisan, thus the cues of incumbency and partisanship were absent. Both contests were high profile, and hotly contested. Moreover, the racially-charged atmosphere of the election makes it possible to test whether ideology and issue positions even played a role in these elections. Furthermore, in each of two elections on the same day among the same sets of voters, a Latino candidate competed against a white candidate.

The elections also provided variance in the election context. While both mayoral candidates

were fairly liberal, Hahn was considered to be the more moderate of the two.⁶ The city attorney election, on the other hand, saw the candidacy of a moderate Latino, Rocky Delgadillo, while the white candidate, Mike Feuer, was more liberal (Marinucci, 2001b).⁷ If race primarily determined vote choice, we would expect that Latinos would vote for Villaraigosa and Delgadillo, while whites would vote for Hahn and Feuer. But, the spatial model predicts *moderate and conservative* Latinos and *moderate and conservative* whites voting for Hahn and Delgadillo, with *liberal* Latinos and *liberal* whites voting for Villaraigosa and Feuer.

Below we present evidence suggesting that the spatial model has more power than previously believed in elections offering the opportunity for racial voting. Because of the nature of this election, we use survey data to estimate voter choice over pairs of candidates using bivariate probit analysis. Our results demonstrate that by observing two races involving Latino candidates we find that racial polarization is lower than what we would infer had we studied a single race, and that the spatial model is relevant in white-Latino elections.

2 Race, Issues, and Local Elections in the United States

Much of the literature on racially-polarized voting has focused on the relationship between whites and blacks (Gurin, Hatchett, and Jackson, 1989; Grofman and Davidson 1992; Grofman and Handley 1994; Handley, Grofman and Arden 1994; Swain, 1994). While work by Key (1949) and others (Wright 1977; Huckfeldt and Kohfield 1989; Giles and Buckner 1993; Carsey 1995; Voss 1996) have focused on the “racial threat hypothesis”, which addresses the contextual effects of racial densities on racially polarized voting, a primary challenge in this area is measuring polarization along racial lines. First, one cannot easily rely on ecological inference, and using aggregate data to make inferences about individual voting behavior often forces one to assume that individual behavior will be similar to aggregate voting patterns (Robinson 1950), an assumption that has been particularly troublesome in the area of voting rights cases (Shaw 1997). Lai (1999) also notes that this method is made even more challenging given the difficulties in controlling for socioeconomic and demographic factors. Some have used ecological regression or ecological inference models to determine

levels of racial polarization (Achen and Shively 1995; King 1997), but these models assume that individual behavior is fixed independent of neighborhood context and they are able to control for socioeconomic variables contingent on that assumption.

Another approach for measuring racial polarization emanates from political psychology and sociology, using survey questions to determine one ethnic group's attitudes towards other groups (e.g., Campbell 1965; Kinder and Sanders 1996; Sears and Kinder 1971; Sniderman and Piazza 1993; Sniderman and Carmines 1997; Welch 2001). Attitudes revealed in these survey responses suggest that racial tensions exist between whites and minorities; for example, Schuman et al.'s exhaustive survey of racial attitudes over almost four decades shows that white American attitudes on issues like affirmative action have changed little since the late 1950's (1997, chapter 3).

Empirical evidence indicates that racial differences in voting patterns exist between whites and blacks.⁸ For example, Grofman and Handley (1994) found that in all southern states during the 1980's, few black candidates were successful in white-majority districts; Handley, Grofman and Arden (1994) present similar evidence regarding the electoral success of minority candidates using data from the 1990 redistricting, showing that the odds of electing a black candidate from a black majority-minority district has increased over the last decade, but the likelihood of electing a minority from a majority White district is unchanged.

In related work, Bullock (1984) examines racial cross-over voting for black and white voters. His findings show that while Atlanta voters often choose for candidates of their own race, the extent to which voters support candidates of other races varied greatly. According to Bullock, incumbency and newspaper coverage are keys to gaining cross-over voters.⁹

While the literature has shown that racially polarized voting exists between blacks and whites, little work has examined whether these patterns also hold for Latinos. There have been few studies directly examining Latino and white racially polarized voting; one exception is a handful of studies involving the *Garza v. County of Los Angeles* case (1990). Scholars who have published studies arising from their work on this case have reached dramatically opposing conclusions, indicating the methodological difficulties of studying Latino and white racially polarized voting (Freedman

et al. 1991; Grofman 1991; Lichtman 1991).¹⁰ Shaw's (1997) analysis of statewide Latino-white racial polarization shows some evidence of racial polarization, but also shows the methodological problems involved in studying Latino-white voting behavior using existing data. Other studies, like Hero's (1987) analysis of the 1983 Denver mayoral election of Federico Pena, suffer from the same methodological problems involved in the use of aggregate data to study racial crossover voting.

Also, Lai (1999) examines racial differences in voting patterns between minority groups, specifically, Latinos and Asian Americans, in the 1994 election of California's 49th Assembly district (an area comprised mostly of Latinos and Asian Americans). This race pitted a Latino incumbent candidate, Diane Martinez, against an Asian American, Judy Chu. Despite Chu's strong name recognition and her previous political track record in the area, Martinez won. Lai suggests that racially polarized voting did occur in select precincts of the 49th district. However, Saito's (1993) examination of Asian Americans and Latinos in the same area of Los Angeles provides a different perspective. He studies an Asian organization established for redistricting advocacy efforts and focused on how the group formed an alliance with its Latino counterpart in the region. Saito argues that since both groups would benefit from this alliance, it should not be surprising that Latinos and Asian Americans were willing to work together to avoid racially polarized voting. The studies by Lai and Saito point out two important realities of coalition building: coalitions can be successful when shared interests are at stake, but can suffer when they involve competition for elected representation. More broadly, these studies on coalition building exemplify situations in which the importance of race can diminish in light of shared political interests among individuals.

The evidence indicating that minority groups vote according to racial lines suggests that many factors are at work. First, a candidate's race may influence a minority group's voting preferences when a voter is unable to distinguish the candidates' policy positions, because of a lack of specificity by the candidates or because of similarity in candidate positions (Bullock 1984). Or, in non-partisan settings, candidates may emphasize their race because they know that voters lack partisan cues or candidates may realize that voters are largely uninformed in about local contests. As Bullock suggests, the race of the candidate should be more powerful than other personal characteristics since it is more closely associated with a number of policy options than are club memberships or

other affiliations. Moreover, race is often readily discernible. As such, voting for a candidate of one's own race may be a product of racism, or it may be the result of a reliance on a simple readily available cue that is suggestive of a candidate's political beliefs; for example, voters may assume that a black candidate's ideology may be more liberal than that of a white candidate. Thus, the race of a candidate may be viewed as an informational shortcut for voters who are less politically informed or interested, relative to voters who hold greater levels of political knowledge.

Kaufmann (2004) suggests that voters are most likely to vote along racially polarized lines when there are high perceived levels of racial conflict. Her argument suggests that we could observe highly polarized voting in one election in a given city, and a lack of polarization in another election in the same city held under a different political context. As we noted earlier, there were explicit charges of attempts by one side to use an explicit racist appeal in the elections we study here. But such an appeal does not necessarily mean that group conflict will be created when there is little initial perceptoin that such a conflict exists. Thus without measures of group conflict that are comparable over time, we cannot know whether the elections we examine support or refute Kaufman's claim.

While the racial theory of voting has generally been based on white versus black scenarios in the United States, we think it is the appropriate conceptual vehicle in this situation. As we mention above, the Hahn-Villaraigosa race featured explicit charges that a candidate was "playing the race card." But we are not arguing that any inference drawn from this analysis of the willingness of Latino voters to vote for white candidates, or vice-versa, can be extended to the black-white case. We are examining a Latino-white contest. But, our methodological argument — that voters behaving according to the spatial model may often *appear* observationally equivalent to race-based voters — does apply to black-White races. Any estimates of racial voting based on one election where the race of the candidates may be proxies for issues or ideology are likely to over-estimate the amount of racial voting.

This literature clearly outlines the motivational component that race plays in a voter's decision-making process. However, other factors influence vote choice, especially issues and ideology (Brody and Page 1972; Nie, et al. 1979; Carmines and Stimson 1980; Knight 1985; Wright and Berkman

1986; Rabinowitz and McDonald 1989; Alvarez and Nagler 1998a; Abramson, Aldrich and Rohde 2002). The spatial model of voting assumes that the policy positions of candidates or parties determine an individual's vote choice. In the spatial model, policy positions are conceived of as points in a policy space, where the policy space can span multiple issue dimensions (Downs 1957; Hinich and Munger 1997). Research by Sigelman et al. (1994) has shown that other dimensions of voter decision-making can in fact be quite important when the race has nonwhite candidates: minority candidates who are conservative or middle-of-the road are better able to project competent leadership and "mainstream values" to voters. In Sonenshein's "crossover model" (1989), ideology plays a critical role for the electoral success of black candidates, provided that a relatively unified black electorate can coordinate with liberal white voters (see also Browning, Marshall and Taub 1984).

Finally, economic conditions, both the performance of the local economy and the voters' own personal financial conditions, might influence vote choice in local elections. This is particularly true in elections for citywide executive offices, such as mayoral elections, where voters may attribute some responsibility for the condition of the local economy.¹¹ On the other hand, attribution for economic conditions might be problematic for executive offices, such as city attorney, that have little or no control over local economic development and performance. Here is a situation where examining the decision-making strategies of voters for a pair of elections may help to understand what drives vote decisions, where we expect to see economic factors play a role only in the mayoral election.

3 Hypothesis and Research Design

Our aim is to determine whether issues and ideology, or racial cues, primarily accounted for vote choice. If issues and ideology indeed influenced voter decision-making, then this election is similar to most other elections in the United States. On the other hand, if whites were unwilling to elect Latinos, and Latino voters solely supported Latino candidates, then the claim could be made that voting was based on the racial characteristics of the candidates. In order for this theory to hold true, we should find little evidence of "cross-over" voting: voting should be based primarily on race,

and thus, we would observe little white support for the Latino candidates. We hypothesize that white voters were not primarily motivated by racial animosity towards Latinos, and were instead motivated by issues and ideology in their vote choice.

To test our hypotheses, we use exit poll data collected by the *Los Angeles Times* for the run-off election (*Los Angeles Times* Study 460, Exit Poll, Los Angeles City General Election, June 5, 2001). On June 5, 2001, 3427 voters from 62 precincts in the city of Los Angeles were selected according to turnout patterns from previous citywide elections. The survey questions pertained to vote choice, issue opinions and voter demographics.¹² Our analysis begins with bivariate tables of each candidate's vote share, broken down by voter demographics, ideology, and issue positions. We also present a bivariate analysis of vote choice based on the four possible candidate pairings, as a function of the voters' race. Next, we examine the willingness of white and Latino voters to cross-over in any or all of the races, broken down by their income, education, and ideology. We then turn to a multivariate analysis.

An important feature of our research design is our conceptualization of the city election. While it would not be wrong to conceive of voter decision-making by examining these two elections independently, we contend that the unique demographic features of these two races make it useful to analyze the two elections jointly. The fact that we had one white and one Latino candidate in each election provides the basis to conceive of vote choice as four different candidate combinations: Hahn-F Feuer, Hahn-Delgadillo, Villaraigosa-F Feuer, and Villaraigosa-Delgadillo. Combinations one and four both represent scenarios where racially polarized voting might have occurred, since a voter choosing either of those candidate pairs voted for both of the white candidates or both of the Latino candidates. On the other hand, combinations two and three provide instances where a voter was willing to vote for one Latino candidate and one white candidate. These observed patterns of voter preferences in these two races allow for basic tests of the racial polarization hypotheses. If voting in this election was racially polarized, voters will sort themselves along racial and ethnic lines, to a greater extent than issues and ideology: under the racial polarization model, we expect Latino voters to support the two Latino candidates, and white voters to support both white candidates. Perfect racial polarization would see Latino and white voters falling into these distinct categories.

However, to the extent that white or Latino voters do not fit this prediction, for instance if we find white voters supporting at least one of the Latino candidates in large numbers, then we may infer that the racial polarization hypothesis does not hold for that group.

Our discussion thus far has focused on the Latino-white dichotomy, but the Los Angeles electorate is also comprised of a sizable percentage of Asian and black voters. There is no necessary prediction for their behavior based purely on race and ethnicity; but for the black electorate, Hahn's family legacy played an influential role, as his father's political dominance a generation earlier in Los Angeles County resulted in close ties to the black community. Hahn's father, Kenneth Hahn, served for 39 years on the Los Angeles County Board of Supervisors representing the second district which included South Central Los Angeles and other predominantly black communities. Such a relationship was considered to be advantageous to James Hahn in 2001, and no doubt helped him garner the endorsements of prominent elected black officials in Los Angeles such as Rep. Maxine Waters, and of Magic Johnson. Also, Hahn's racially-motivated television advertisement could play a role in black voter decision making by either fueling black-Latino racial resentment or by persuading black voters to vote for a fellow nonwhite candidate. However, that same dynamic did not exist in the city attorney's race. But, if we do see that significant numbers of blacks or Asians support either the white or Latino pair of candidates, we then have evidence of racial polarization for these groups.¹³

To properly understand the role of ethnicity and issues and ideology in these two elections, we employ a multivariate statistical technique that allows voters to make choices over pairs of candidates. Our conceptualization of voting behavior across the pairs of candidates requires our use of a bivariate probit model. This method allows the error terms for each of the vote choices models, one of mayoral vote choice and the other of city attorney vote choice, to be correlated with one another.¹⁴ The bivariate probit model allows the unobserved factors that influence voter decisions that are correlated across the races to affect the vote choice. This model does not assume that parameters of the systemic component of the model are similar, so we are not constraining those coefficients, or any coefficients, to be the same across the two elections. In fact as the mayor and city attorney perform different functions, we expect some differences in how voters weigh

considerations across the two elections. Below we discuss in more detail our estimation strategy.

4 Findings

In Table 1 we provide the basic outcomes for both elections, as reported by the exit poll voters and from the actual election results. These data show that both races were close: Hahn was victorious over Villaraigosa in the mayoral race by six percentage points; Delgadillo edged out Feuer by less than five percentage points in the city attorney race. When we examine the results from these two elections by voter demographics, there are several insights revealed regarding voter preferences. Distinct racial voting patterns were evident in the mayor's race, with 79% of black voters supporting Hahn, and 82% of Latino voters supporting Villaraigosa. The margin among Asian voters, while not as large as for blacks or Latinos, was also lopsided, with 65% of Asians voting for Hahn. Interestingly, among white voters the race between the two candidates was closest, with 58% of whites voting for Hahn.

[Table 1 Goes Here]

The city attorney race also provides evidence indicating racial preferences for a particular candidate. An important distinction in this race is the base of support for the two Latino candidates. While in the mayoral race Villaraigosa only received a majority of Latino votes, in the city attorney race Delgadillo received majority support from Latino voters and black voters. Further, Delgadillo ran 14% stronger among Asians than Villaraigosa did. Thus while looking at only the mayoral race might suggest racially polarized voting between blacks and Latinos, also examining the city attorney race shows majorities of blacks and Latinos supporting the same candidate.

When examining vote choice based on voter demographics, income and education are not as strong predictors as race was in the mayoral election. Significant voting differences based on income were not evident in the mayor's race. But in the city attorney election, lower income voters were much more likely to favor Delgadillo than either middle or high income voters. Thus Villaraigosa and Delgadillo obviously were not perceived the same by the voters. While Villaraigosa and Delgadillo received almost identical shares of the Latino vote (82% and 79%, respectively), their

vote shares were very different when voters were stratified by income. Delgadillo ran 24% better among voters in the bottom income group than he did among those in the highest income group, while Villaraigosa ran only 5% better among voters in the lowest income group than he did among voters in the top income group.

The importance of ideology in the mayoral race is evident as 59% of all liberal voters supported Villaraigosa, while almost two-thirds of the conservatives voted for Hahn. Likewise, Feuer won 57% of the liberal vote in the city attorney race, while over 63% of conservative voters supported the more moderate Delgadillo. A sizable majority of moderates (61.7%) supported Hahn over Villaraigosa, and a solid majority of moderates (55.3%) supported Delgadillo over Feuer. These findings are consistent with the media’s portrayal of both Hahn and Delgadillo as the more “middle of the road” and moderate candidates in the mayoral race.

The cross-tabulations in Table 1 present initial evidence of racially polarized voting. But as we pointed out above, given their different performances when vote shares were broken down by education and income, it is unlikely that the 82% of Latinos voting for Villaraigosa were the same 70% of Latinos voting for Delgadillo. Table 2 tests this contention further by analyzing votes for different combinations of candidates, that is, the percentages of voters who reported supporting each possible pair of candidates. If racial voting were pervasive, we would expect whites to overwhelmingly choose Hahn and Feuer, and Latinos to overwhelmingly choose both Villaraigosa and Delgadillo. Thus whites would be heavily clustered in the top left corner of the white table, and Latinos would be heavily clustered in the bottom right of the Latino table – each group occupying a different element of the diagonal. However, when we look at the top-left quadrant of Table 2 we see that only 32% of whites reported voting for both Hahn and Feuer. The proportion of Latinos reporting votes for both Villaraigosa and Delgadillo was much higher, 66%, but still significantly less than the 79% or 82% reporting votes for either Villaraigosa or Delgadillo individually. Notice that for white voters, the least popular combination was the bottom-right cell containing Villaraigosa and Delgadillo (12.1%). However, notice that 67.8% of white voters are outside the top-left cell, indicating that they reported voting for *at least one* Latino candidate. Thus without any additional analysis, we can see that the racial theory of voting does not apply to over two-thirds of white voters.

[Table 2 Goes Here]

The level of willingness to cross-over is not as strong among Latino voters, relative to white propensity to cross-over. The rate of Latino cross-over voting in both the mayoral and city attorney race was about 18% and 21%, respectively. Furthermore, a considerably smaller number of Latinos voted for one white candidate, 27.5%, or for both white candidates, 6.3%. Overall, these results indicate a relatively strong white cross-over rate for Latino candidates, but a very weak Latino cross-over trend for white candidates. This further illustrates our basic point. Where in Table 1 it appears that only 21% of Latino voters were willing to vote for a white candidate, Table 2 shows that over 33% of Latino voters were willing to vote for a white candidate.

While the variation across ethnic groups in willingness to cross-over is important, we can gain a greater understanding of the factors leading to cross-over voting by examining the characteristics of cross-over voters in each group. One obvious distinction between the spatial theory of voting and the racial theory of voting is that the spatial theory puts a higher informational burden on the voter: in the classic statement of issue voting, the voter must know the issues of the day, the positions of the candidates on the issues, and have an opinion on the issues (Campbell et al. 1964). This is a burden more likely to be met by better educated voters, and the implication is that better educated voters will be more likely to cross-over.¹⁵ In Table 3 we examine the percentage of cross-over voters within different demographic categories for whites and Latinos. For whites, we see that cross-over in the mayor's race was more likely to come from higher income, better educated, and more liberal voters. On the other hand, white cross-over in the city attorney's race was more likely to come from lower income, less educated, and more conservative voters.

Note to JN and MA; I found these next two sentences confusing. I think that breaking out the following as a complete paragraph, and making it clearer what "less variance" means helps. But check this carefully to make sure it still means what we want it to mean.

Thus, we see that for whites, *who* crossed over depended on the context of each race. However, for Latino cross-over voters, the context of the race mattered less. Generally, we see in Table 3

that higher income and better educated Latinos were more likely to cross-over in both races and vote for white candidates. However, we do find the expected diversity in Latino cross-over based on ideology: moderate or conservative Latinos were more likely to cross-over in the mayoral race, while liberal or moderate Latinos tended to cross-over at greater rates in the city attorney race.

[Table 3 Goes Here]

Of course, the analysis thus far has focused on simple cross-tabulations. To provide stronger tests of our hypotheses requires multivariate analysis, and as discussed earlier, we use bivariate probit models to test our hypotheses in a multivariate framework. To test the salience of the two voting theories, we model voters' vote choices as functions of their race and ethnicity, ideology, views on issues, and demographic characteristics. A voter's ideology was coded on a 5 point scale, with a 1 indicating that the voter is very liberal and a 5 are those voters who are very conservative. Ideology was therefore treated as a continuous variable.¹⁶ There is a long tradition in the spatial modeling literature of assuming that candidate competition and voter choice occurs along a single ideological dimension in the United States (Downs 1957, Hinich and Pollard 1981, Enelow and Hinich 1984); this literature assumes that a one-dimensional ideological space is really the projection of a multidimensional issue space to a single dimension (Calvert 2002, page 576). More recent research in this area, especially that of Hinich and Munger (1996), argues that political ideology simplifies political communications between voters and candidates by eliminating the need for more complicated issue-by-issue communications. Last, a large body of research suggests that politics in the United States typically lies along a single dimension (e.g., Poole and Rosenthal, 2000), so assuming that ideology provides a suitable proxy for a multidimensional issue space is appropriate. Thus, it is common to think of American elections as being fought on a single dimension, where ideology is seen as a proxy for a left-right continuum.

For measures on issues, voters were presented a list of eleven issues, and asked to name up to two which were most important in influencing their vote choice for each race. We coded three binary variables indicating whether or not the voter named education, crime, or jobs as one of the two most important issues. We felt that this covered the three most debated issues for both elections: crime, education, and jobs.¹⁷ We would of course prefer to know the voters' position on

the issues, rather than simply their rating of the issues' importance. With only the salience of the issue to the voter available we cannot faithfully specify a spatial model of issue voting. However, if the candidates emphasized different issues, or were perceived by the voters to have strengths on different issues, then the measures of issue salience should still be important predictors for voters making their decisions based on candidate issue stance. That is because each of these are valence issues: presumably all voters want less crime, better education, and a good economy.¹⁸ Thus while we directly measure neither the voters' nor the candidates' issue positions, we believe that the combination of voters' ideology and issue salience measures are adequate to test the spatial model.

We also include a measure of voters' perceptions of the Los Angeles economy, and we include a variable that measures voter opinions of their personal finances. Voters were asked to evaluate the state of Los Angeles' economy, with four valid responses: ranging from 'very well' to 'very badly' (we coded the variable so that positive evaluations were scored higher). Voters were also asked to describe the state of their own personal finances, with four valid responses ranging from 'very secure' to 'very shaky' (we again coded the variable so that positive, or more secure, responses were scored higher). We focused on these two economic indicators, given the important role that the economy has played in voter decision-making. Finally, in order to account for other explanations of vote choice, we also control for the demographic characteristics of income, education, age, and region.

We begin by estimating a bivariate probit model for all voters, presented in Table 4. The dependent variables in the model are the probability of supporting the Latino candidate in each race: Villaraigosa and Delgadillo. As we would expect from the spatial model, voters' ideology was highly significant in both races. And as expected, in the mayoral race the more liberal the voter, *ceteris paribus*, the more likely they were to vote for the Latino candidate, Villaraigosa; whereas in the city attorney race the more conservative the voter the more likely they were to vote for the Latino candidate, Delgadillo. This is powerful evidence that voters are motivated by issue-based concerns, and not only race. The effects of economic evaluations make it clear that voters saw the candidates differently on economic issues in the mayoral race: voters who felt the L.A. economy was doing well were significantly more likely to vote for Villaraigosa, and voters who felt their personal

finances were not secure were more likely to vote for Villaraigosa. This is an unusual result: in models of voting in national elections we would not expect the coefficients of these two variables to have opposite signs. However, this is indicative of the problems of relying on the economic voting model in a non-partisan race without an incumbent, where it is difficult for voters to decide which candidate deserves blame or credit for existing economic conditions. In the city attorney race voters did not distinguish between the candidates based on either economic evaluation.

[Table 4 Goes Here]

Voters who felt that crime and jobs were important issues were less likely to support Villaraigosa in the mayoral race, while voters who felt education was more important were more likely to support Villaraigosa. Such voter preferences based on crime and education are certainly consistent with Villaraigosa's standing as the more liberal candidate in the race. These issues were not significant predictors of vote choice in the city attorney race. This is not especially surprising since two of the issues included — education and jobs — are outside the concerns of the city attorney. And since we are measuring the salience of these issues to voters, while mayoral candidates could differ in the emphasis they put on crime (versus all other city concerns, such as education and jobs), city attorney candidates have little choice but to emphasize crime. In the city attorney race, as in the mayoral race, voters' ethnicity was important. In addition, consistent with what we saw in the bivariate tables, the voters' level of education was an important predictor in the city attorney race, while it was not significant in the mayoral race. In both races our model offers substantial predictive power, correctly classifying vote choices in 74.7% and 66.9% of cases, compared to the modal responses of 53.4% and 52.5%, respectively, in the two races.

This model also allows us to examine the effects of race and ethnicity, controlling for other demographic attributes of the voters, as well as ideology and issue preferences. The coefficients for voters' ethnicity are interpreted relative to the omitted category, blacks. We do see evidence for polarized voting, as Latino voters are significantly more likely than members of any other ethnic group, *ceteris paribus*, to support the Latino candidates. With all of the control variables included, we find that white voters were statistically more likely to support Villaraigosa for mayor than the baseline group (blacks), but less likely than blacks to support Delgadillo. Last, the bivariate probit

analysis for the entire electorate presents an error correlation parameter (ρ) estimate that is not statistically different from zero.

The analysis above explicitly assumes that each factor has the same influence in the vote decisions of whites, Latinos, blacks, and Asians. The model allows for each group to support the candidates at different overall (or average) rates, but the effects of each of the explanatory variables are assumed to be the same across groups. This may of course not be true. If the racial theory of voting describes Latinos more accurately than it describes whites, then this assumption is false. Since in fact we want to *test* which theory of voting is at play, and since the whole point of this enterprise is to obtain estimates of the effects of race and ethnicity, it makes sense to relax this assumption. To do this we estimate a model identical to that just presented, but disaggregated by ethnicity of voters, a step that was supported by our testing of the basic model specification.¹⁹ This allows the effect of ideology and voter demographics, *and* the candidate's race, to be different for whites than for Latinos.

In Tables 5 and 6 we present bivariate probit results for each racial and ethnic group: whites and Latinos in Table 5, blacks and Asians in Table 6. Note that since the dependent variables here are voting for Villaraigosa and Delgadillo the estimated coefficients should be interpreted differently for whites and Latinos if the question of interest is cross-over voting. For white voters, positive coefficients indicate a higher probability of crossing over, *ceteris paribus*. But for Latino voters, negative coefficients indicate a higher probability of crossing over, *ceteris paribus*. First, in Table 5, we find confirmation for our earlier finding that white voting was heavily driven by ideology in both elections: conservatives were more likely to vote for Hahn in the mayoral race, and more likely to back Delgadillo in the city attorney race. And we also see that individual issues matter in the mayoral race: white voters who felt that crime or jobs and the economy were among the most important issues were less likely to vote for Villaraigosa, while those concerned with education were more likely to vote for Villaraigosa. Only one issue, jobs and the economy, was a significant predictor of white voting in the city attorney race. Since we are limited to measuring issue salience, it makes sense that these measures would be less important in the city attorney race than the mayoral race. The city attorney has a much narrower portfolio than the mayor, so we

would not necessarily expect voters' views of the salience of education or the economy to influence their choice for the office. Several demographic variables, especially education and age, also proved to be influential for white voters in both elections. Our estimate of the error correlation parameter ρ is not statistically significant for whites.

[Table 5 Goes Here]

The bivariate probit results for Latino voters also reveal the important role of ideology in the mayoral race, though the estimated coefficient (.18) is less than half the corresponding estimate for whites (.50). But the direction of the effect here is the same as for whites: more conservative Latinos, as with more conservative whites, were more likely to vote for Hahn in the mayoral race. Also as with whites, Latinos who felt education was a salient issue were more likely to prefer Villaraigosa to Hahn. And similarly to whites, the issue measures were generally more important in the mayoral election than the city attorney race: three of the issue variables were statistically significant in the mayoral race compared to one in the city attorney race. The demographic factors of age, education, and income affected vote choice in the city attorney's race, but only education was significant in the mayoral election. This is consistent with our earlier argument that for voters to abandon the racial model of voting and cross-over based on the spatial model the demands are higher on the voter: they must possess information about the candidates and the issues. Thus it makes sense that, *ceteris paribus*, better educated Latinos are more likely to cross-over. An interesting finding for this particular voting group is the statistically significant estimate of the error correlation parameter, ρ . This indicates that for Latino voters, unmeasured factors exist that are correlated between vote choice in the mayor's race and the city attorney election.²⁰

In Table 6 we present the bivariate probit results for blacks and Asians. Black voters, like Latinos, cast votes in the mayor's race based on ideology. Also, the decisions of black voters in this election depended on two main issues, the voters' evaluation of the state of the Los Angeles economy and the salience they attached to crime. As with white voters, black voters who felt crime was salient were more likely to support Hahn, *ceteris paribus*. We do not find any statistically significant parameters in the city attorney model, nor do we obtain an estimate of the ρ parameter that is different from zero. We see less evidence that Asians were influenced by specific issues than

we do for white, Latino and black voters. The only issue that had a statistically significant impact for Asians was the voters' evaluation of the Los Angeles economy: Asians who felt the economy was doing well were more likely to vote for Delgadillo. Asian vote choice, however, was similar to black and Latino vote choice as ideology influenced their choice of candidates: the more conservative the Asian voter, the more likely they were to vote for Hahn and Delgadillo. As with the black electorate, we do not obtain a statistically significant estimate of ρ in the Asian voting model.

[Table 6 Goes Here]

Thus far, our findings have suggested that both ideology and ethnicity influenced vote choice for both Latinos and whites. In this section we examine the magnitude of the impact of ideology on vote choice for both Latinos and whites. Since we have a model for vote choice by whites and a model for vote choice by Latinos, we can construct hypothetical voters with specified issue positions, demographic characteristics, and ideology, and compute the probability that hypothetical voters would choose each candidate. This allows us to look at the impact of changing our hypothetical voter's ideological position from conservative to liberal. We can also compare the predicted voting behavior of hypothetical voters who have identical issue views and identical demographic characteristics *except* for ethnicity (with one voter being white and one being Latino).

Our two hypothetical voters had mean or modal characteristics on all variables other than ideology; thus these voters are female, between the age of 45 and 64, with moderate income, and hold a college education. These voters believe that the Los Angeles economy is fine and do not believe that crime, education, or jobs and the economy are the most important issues. We computed the probability that these voters would support each of the candidates if the voters were liberal, and if they were conservative. The results are reported in Table 7.²¹ For our hypothetical white voter who shifts from a liberal to conservative position, her probability of voting for Villaraigosa drops from 76% to 8%, a shift of 68%. Thus, for whites, ideology was an incredibly powerful determinant of vote choice, a change in ideology could move a voter from having over a three-fourths chance of supporting Villaraigosa to a less than one-tenth chance of supporting Villaraigosa. In other words, liberal whites were overwhelmingly likely to vote for the Latino candidate and conservative whites were overwhelmingly likely to vote for the white candidate. For our hypothetical Latina

voter, such a shift had a much smaller change. Our liberal hypothetical Latina had a likelihood of voting for Villaraigosa of 85%, which decreased by 24% to 61% if she were conservative. Thus our hypothetical Latina voter *is* behaving according to the spatial model, but the impact on her vote choice is significantly less than for our white voter.

[Table 7 Goes Here]

We see similar results for the city attorney race. Though of course here, as predicted, the impact of adopting a more conservative ideology increases the probability of voting for Delgadillo. The effects for both whites and Latinas are somewhat smaller than they were in the mayoral race, which is consistent with the general view of the election that the ideological gap between Hahn and Villaraigosa was greater than between Feuer and Delgadillo. Finally, we note that the likelihood of supporting Delgadillo was almost identical for conservatives independent of whether they were white (71%) or Latina (72%). And similarly for liberals, the likelihood of supporting Villaraigosa was similar for our two voters: 85% for our Latina voter and 76% for our white voter.

5 Implications

The 2001 Los Angeles municipal general elections provide an ideal situation in which to test the claim that in an election where a minority candidate faces a white candidate, whites are not willing to vote for minorities. Our analysis very clearly indicates that whites are willing to vote for Latino candidates, and that this willingness varies based on the ideology and issue positions of the candidates. Thus ideology played an influential role in this election. These findings contradict some portrayals of this election as being “racially charged”, with campaigns using the “race card” to draw divisions within the electorate.²² While Villaraigosa was unsuccessful in his bid as mayor, the other Latino candidate, Delgadillo, was victorious in the city attorney race. Some have previously argued that differences in candidate ideology are a reason for these election results (Sonenshein and Pinkus, 2002), but it must also be made clear that ideology is directly linked to issues.²³ Delgadillo’s ability to create coalitions among moderate Latinos, blacks, and Asians, based on shared issue interests, was essential to his electoral success. In contrast, Villaraigosa’s inability to create a broad liberal

coalition cost him the election.

Overall, our results cast doubt on the claim that there is something inherent about white voters that make them “anti-Latino”, or unwilling to support Latino candidates. While we do not claim that racism does not exist in elections with minority candidates, the evidence we provide indicates that voters are more sophisticated, relying not exclusively on low-information cues like race, but also on the more sophisticated predictors of vote choice such as ideology and issues.

We know of no analysis of voting behavior that studies a context where voters are offered ethnically diverse choices as rich as what we have presented here: we offer an analysis of both white and Latino voters when confronted with not one but two elections pitting a Latino candidate against a white candidate. Moreover, the varied ideological lineup of the candidates, in which one race saw the Latino candidate to the left of the white candidate and the other race saw the Latino candidate to the right of the white candidate, provides the perfect laboratory to ascertain how much voters are motivated by issues and how much they are motivated by race.

These findings are especially significant given the current demographic context of Los Angeles, as well as the United States as a whole. Latinos are projected in the next 10 to 20 years to comprise a sizable portion of nation’s population, and already account for one-third of California’s population and just under 50% of Los Angeles’s population (U.S. Department of Commerce, 2001). Thus, an obvious area of applicability of our findings is to the design of electoral districts. A key criteria of the “Gingles” test triggers scrutiny in an electoral district in which a majority of voters vote as a block to stop a minority from electing the candidate of their choice. As Justice Brennan succinctly states in the majority opinion,

A bloc voting majority must usually be able to defeat candidates supported by a politically cohesive, geographically insular minority group. The relevance of the existence of racial bloc voting to a vote dilution claim is twofold: to ascertain whether minority group members constitute a politically cohesive unit and to determine whether whites vote sufficiently as a bloc usually to defeat the minority’s preferred candidate.... And, in general, a white bloc vote that normally will defeat the combined strength of minority support plus white “crossover” votes rises to the level of legally significant white bloc voting.²⁴

Our results make it very clear that whites do *not* necessarily vote as a block to prevent Latinos from electing candidates of their choice. Rather, it is the case that whites vote for some Latino candidates and against other Latino candidates.

Our analysis also has implications for future redistricting efforts. As was argued in the recent *Cano v. Davis* case, where California's 2001 redistricting plan was challenged on various voting rights allegations, it is not necessarily the case that when a non-white candidate faces a white candidate in contemporary politics that the electorate will be racially polarized. As American society becomes more racially and ethnically heterogeneous (a situation that is clearly the case in California), racially divisive campaigns and racially polarized voting may both diminish. Our research here also shows the usefulness of testing our theories of voter decision-making — typically tested in the context of major national elections — in other electoral contexts, namely local elections.

Notes

1. Campaign spending figures are from the Los Angeles City Ethics Commission. http://ethics.lacity.org/pdf/cf1989_2001.pdf. In comparison, according to data compiled by the Center for Responsive Politics (<http://www.opensecrets.org>), in the 2002 election cycle the highest expenditure U.S. House election was the second district of West Virginia, with \$10.6 million spent, and the tenth-highest expenditure House race was the third district in Mississippi, with \$4.5 million spent. The Center for Responsive Politics reports that the most expensive 2002 Senate race occurred in North Carolina, with \$26.9 million spent, and the tenth-most expensive Senate race was in Colorado, where \$10.6 million was spent. Thus, in these terms, the city attorney's race had expenditures approximately equal to that of the most expensive House races; spending in the mayor's race was greater than the most expensive House races in 2002, but near that of the most expensive Senate races. So by this measure, while the city attorney's race was not as expensive as the mayor's race, the former still must be seen as a highly contested and high profile campaign.
2. For comparative purposes, in the 1997 city attorney election, total spending was \$2.7 million, and that was with an incumbent (Jim Hahn) in the election. While that amount is smaller than the 2001 figure, it still is a considerable amount of money for a citywide office. In terms of responsibilities, the city attorney holds a considerable amount of leverage and influence in the city of Los Angeles. The Office of the City Attorney is the largest municipal law office in the nation, with over 500 attorneys on their staff. The city attorney is responsible for prosecuting misdemeanors as well as providing counsel to the 35 departments and agencies in the city of Los Angeles. In addition, the city attorney office oversees a budget of approximately \$96 million. For more information on the city attorney position, refer to: www.lacity.org/atty/atyoa1.htm. Also, as just noted, Hahn was city attorney of Los Angeles for sixteen years, from 1985-2001.
3. For references on stories regarding this advertisement, refer to *The San Francisco Chronicle*, June 3, 2001. pg A1; *The Associate Press State and Local Wire*, June 3, 2001.; *The Daily News of Los Angeles*, June 7, 2001, Pg. N9.
4. *The Daily News of Los Angeles*, June 24, 2001. pg. V1.
5. While there was no advertisement such as this in the city attorney election, the "crack" advertisement may have had an effect on voters, given that this election occurred on the same day, and that the same racial dynamic was present in the city attorney election (white candidate v. Latino candidate). On the other hand, voters might be sufficiently sophisticated to see the distinctions between the two Latino candidates, and not be swayed in their decision-making in the city attorney's race by racially motivated campaigning in the mayoral race.
6. In an interview with the *The Daily News of Los Angeles*, March, 11, 2001, the interviewer indicates to Villaraigosa that he is the most of liberal of the mayoral candidates. While Villaraigosa does not deny this statement, he states the he prefers to call himself progressive instead of liberal. For other references that Villaraigosa is more liberal than Hahn, refer to Orlov (2001).

7. The ideological difference between Feuer and Delgadillo is evident in an editorial of *The Daily News of Los Angeles*, June 1, 2001, in which they endorse Delgadillo for city attorney. The article states, “During his tenure on the City Council, he [Feuer] has seemed to be more concerned with advancing a moralistic, liberal agenda...Feuer’s convictions are admirable, but he would bring too many ideological attachments to what is ultimately an administrative job...Delgadillo, by comparison, is more moderate.” Also, the endorsements that these two candidates received is telling of their ideological leanings. Delgadillo was endorsed by Republicans and pro-business individuals such as former Mayor Richard Riordan and Eli Broad (chairman of Sun America). On the other hand, Feuer was endorsed by the Sierra Club and the Los Angeles County Federation of Labor.
8. There exists an extensive literature on racial differences in voting patterns, especially regarding white and black voters as they cast ballots in races involving white and black candidates. For recent general discussions of this literature, see Canon (1999), Kousser (1999), and Lublin (1997).
9. Obviously Bullock’s work is plagued by problems of ecological inference, without individual level data he cannot reliably determine the rate at which cross-over voting is occurring (Robinson 1950, King 1997).
10. Kousser (1999) discusses the Garza case in chapter 2 of his book. He concluded that: “In Garza, the cumulative evidence of discriminatory intent was overwhelming, while the statistical proof of racially polarized voting and the demographic estimate of ethnic composition were more ambiguous” (p. 133).
11. There is research indicating that voters do make causal attributions for the responsibility of economic performance, especially at the national level and for politically sophisticated individuals (Anderson 1995; Gomez and Wilson 2001; Weatherford 1983), though some have studied statewide elections (Atkeson and Partin 1995). This is consistent with the expectations from previous work on causal attribution in political science (Brady and Sniderman 1985; Feldman 1982; Iyengar 1989; Lau and Sears 1981; Popkin 1991).
12. The questionnaire was available to voters in both English and Spanish, and was self-administered and confidential. The margin of error for the sample was +/- 2 percentage points. For more information on how the exit poll was conducted, refer to <http://images.latimes.com/media/acrobat/2003-07/8643223.pdf>.
13. We have no predictions for Asian voting behavior in Los Angeles. This is primarily due to the small Asian electorate in Los Angeles (1%) (U.S. Census, 2000), and consequently, little research on this topic. For a more general discussion of Asian American voting behavior, refer to Tam (1995) and Tam-Cho (1999).
14. It is easy to conceptualize the bivariate probit model as a pair of binary probit models:

$$y_m^* = \beta_m' x_m + \varepsilon_m \tag{1}$$

$$y_a^* = \beta_a' x_a + \varepsilon_a \tag{2}$$

where:

$$y_m = 1 \text{ iff } y_m^* > 0, 0 \text{ otherwise} \quad (3)$$

$$y_a = 1 \text{ iff } y_a^* > 0, 0 \text{ otherwise} \quad (4)$$

where m indexes the mayor's race and a the city attorney's race. We assume that the error term means are zero, their variances are unity, and the correlation between the error terms is given by the parameter ρ . If there is no correlation between the error terms, the bivariate probit model is identical to two independent binary probit models; if on the other hand there is something about voter choice in one race that is related to the other that is not captured by our right-hand side variables, then the estimate of ρ could be significantly different from zero. See Greene (1997) for further discussion of bivariate probit.

15. Of course better educated voters who share the issue positions of the candidate matching their ethnicity are not expected to cross-over, but education functions as an enabling characteristic to allow for the possibility of cross-over. Again, when we use the term cross-over voter, we mean that a white voter supported either one or both Latino candidates, or that a Latino voted for either one or both white candidates.
16. While the spatial model would suggest that we include the distance between the voter's position on ideology and each candidate's position, Alvarez and Nagler (1998b) show that a model including only the voter's position is a reduced form of a model incorporating the distance measures, and is thus consistent with the spatial model.
17. The survey asked people about "jobs and the economy," which we are referring to simply as "jobs." Several *Los Angeles Times* articles discussed the importance of these issues for the election: May 30, 2001, "Rivals Snipe in Preference, Then Cool It in Debate" by Matea Gold; May 20, 2001, "Rivals Town Down Rhetoric" by Matea Gold; and April 28, 2001 "Mayoral Hopefuls Wrangle on Crime Issues" by Matea Gold and James Rainey.
18. We note since we would rather use actual measures of issue positions, we are in fact performing a conservative test of the spatial model as it applies to issues. This is of course common in social science research: unable to obtain measures perfectly faithful to the underlying model, we use imperfect measures that allow us to test implications of the underlying spatial model.
19. We estimated a model, on the full sample of all voters, where we introduced 36 interaction terms for each racial or ethnic group multiplied by each right-hand side variable. This race and ethnicity interacted model, once estimated, allowed us to produce a likelihood ratio test of the fit of this model to the data relative to the restricted model (reported in Table 4). The likelihood ratio test statistic was 195.0, which with 36 degrees of freedom was highly significant (the 95% threshold for 36 degrees of freedom in this χ^2 test is 50.71). This statistical test supports our decision to estimate separate models for whites, Latinos, blacks and Asians.
20. Given the insignificant estimates of the error correlations on the other groups, were we to estimate the city attorney election and the mayoral elections individually with probit, rather than jointly with bivariate probit, we would obtain identical estimates for all groups other than Latinos. Thus for expositional clarity, rather than reporting a mix of bivariate probit and standard probit results, we simply report the bivariate probit results for each group. The

standard probits are available from the authors, though as we have indicated they are almost identical to the bivariate probits for the non-Latino groups.

21. Standard errors for the probabilities were computed by generating 1000 values of each of the model parameters drawn from their estimated distribution, and then computing the sampling distribution of the corresponding predicted probabilities. See King, Tomz, and Wittenberg (2000) for a discussion of this procedure.
22. See Los Angeles Times “Mayoral Hopefuls Wrangle on Crime Issues”, April 28, 2001 and La Opinion, “An Aggressive Campaign was Vital for Hahn”, June 7, 2001 for accounts suggesting race was an issue in the campaign.
23. See “Latino and Moderate: A Winning Combination” (La Opinion, June 7, 2001) for a discussion on the importance of ideology in the election.
24. Majority Opinion, *Thornburg v. Gingles* (1986), pp. 52-61. Canon (1999) discusses the “three Gingles prongs” in the larger context of voting rights, pages 70-73.

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Table 1: Candidate Vote, by Demographics

	Mayor		City Attorney	
	Hahn	Villaraigosa	Feuer	Delgadillo
Official Results	53.5%	47.5%	47.6%	52.4%
Exit Poll: All Voters	52.2%	47.8%	48.8%	51.2%
Race				
White	58.4%	41.6%	61.1%	38.9%
Black	79.2%	20.8%	40.9%	59.1%
Latino	18.1%	81.9%	21.5%	78.5%
Asian	65.2%	34.8%	53.1%	46.9%
Income				
Low	47.5%	52.5%	30.4%	69.6%
Middle	54.3%	45.7%	45.9%	54.1%
High	52.9%	47.1%	54.6%	45.4%
Education				
High School	48.6%	51.4%	34.0%	66.0%
College	57.8%	42.2%	47.2%	52.8%
Post College	50.4%	49.6%	59.8%	40.2%
Ideology				
Liberal	41.0%	59.1%	57.1%	42.9%
Moderate	61.7%	32.3%	44.8%	55.3%
Conservative	64.4%	35.6%	36.6%	63.4%

Source: L.A Times Exit Poll Data 2001, weighted sample; official results from Los Angeles City Clerk's Office.

Table 2: 2001 Election Results: Candidate Pairs

	White Voters			Latino Voters	
	Feuer	Delgadillo		Feuer	Delgadillo
Hahn	32.2	26.6		6.3	12.2
Villaraigosa	29.1	12.1		15.3	66.2
	Black Voters			Asian Voters	
	Feuer	Delgadillo		Feuer	Delgadillo
Hahn	32.9	46.1		37.4	27.6
Villaraigosa	8.2	16.3		12.9	18.7

Table entries indicate percentage of voters from each ethnic group who reported voting for the indicated pair of candidates: the row candidate for mayor, the column candidate for city attorney.

Table 3: Cross-Over Voting by Demographic Characteristics

	White Cross-Over Voters				Latino Cross-Over Voters			
	Mayor	City Attorney	One	Both	Mayor	City Attorney	One	Both
All Voters	41.2%	38.7%	55.8%	12.1%	18.5%	21.6%	27.5%	6.3%
Income								
Low	28.0%	47.9%	51.1%	12.3%	9.4%	11.7%	20.1%	0.9%
Middle	41.0%	37.6%	56.7%	10.3%	19.1%	20.4%	28.0%	5.7%
High	44.7%	39.0%	55.1%	13.8%	22.3%	32.2%	36.5%	8.8%
Education								
High School	26.8%	45.2%	45.2%	12.7%	10.9%	14.0%	22.3%	1.6%
College	38.3%	42.0%	56.5%	11.3%	23.8%	24.1%	30.5%	8.5%
Post College	51.3%	32.0%	57.8%	12.3%	22.4%	33.9%	40.1%	8.2%
Ideology								
Liberal	61.9%	25.4%	59.6%	13.3%	10.8%	23.6%	28.2%	3.1%
Moderate	29.7%	43.2%	45.3%	13.2%	25.3%	22.3%	32.3%	7.8%
Conservative	20.3%	56.0%	59.2%	8.1%	21.3%	18.7%	23.5%	8.1%

Entries are percentages of each ethnic-demographic group who crossed over in the column-race. Thus they are neither row nor column percentages for this table. Computed from L.A Times Survey Data, weighted. June 2001.

Table 4: Bivariate Probit Estimates (All Voters)
Probability of Supporting Villaraigosa; Probability of Supporting Delgadillo

Variable	Mayor		City Attorney	
	Estimate	S.E.	Estimate	S.E.
Constant	0.08	0.19	0.40*	0.18
POLITICAL				
Conservative	-0.36*	0.03	0.24*	0.03
DEMOGRAPHICS				
Asian	0.04	0.15	-0.27	0.14
Latino	1.68*	0.10	0.47*	0.09
White	0.45*	0.09	-0.48*	0.08
Age	-0.06*	0.01	-0.06*	0.01
Education	0.07	0.05	-0.16*	0.04
Income	0.05	0.05	-0.09	0.05
Female	-0.07	0.06	0.01	0.05
L.A. REGION				
Valley	0.23*	0.10	0.05	0.09
Central	0.54*	0.10	-0.11	0.09
West	0.45*	0.11	0.02	0.10
ISSUES				
L.A. Economy Doing Well	0.15*	0.05	-0.01	0.05
Personal Finances Secure	-0.09	0.05	-0.02	0.04
Crime	-0.41*	0.07	-0.04	0.06
Education	0.21*	0.06	-0.02	0.05
Jobs	-0.17*	0.06	0.08	0.06
ρ		0.02		
σ_ρ		0.04		
Baseline	53.4%		52.5%	
Percent Correctly Predicted	74.7%		66.9%	
Number of Observations		2509		

*Indicates an estimate significant at p=.05 level

Table 5: Bivariate Probit Estimates (White and Latino Voters)
 Probability of Supporting Villaraigosa; Probability of Supporting Delgadillo

Variable	WHITES				LATINOS			
	Mayor		City Attorney		Mayor		City Attorney	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Constant	-0.11	0.34	-0.71*	0.33	2.08*	0.41	2.39*	0.38
POLITICAL								
Conservative	-0.50*	0.04	0.36*	0.04	-0.18*	0.06	0.07	0.05
DEMOGRAPHICS								
Age	-0.06	0.02	-0.07*	0.02	-0.04	0.03	-0.05*	0.02
Education	0.22*	0.07	-0.18*	0.06	-0.19**	0.10	-0.27*	0.09
Income	0.08	0.07	-0.02	0.07	0.02	0.12	-0.26*	0.11
Female	-0.02	0.08	0.09	0.08	-0.17	0.13	-0.13	0.12
L.A. REGION								
Valley	0.70*	0.23	0.14	0.21	-0.25	0.19	-0.19	0.18
Central	1.11*	0.24	0.02	0.21	0.05	0.21	-0.26	0.18
West	0.89*	0.24	0.19	0.21	-0.10	0.25	-0.37	0.22
ISSUES								
L.A. Economy Doing Well	0.08	0.08	0.04	0.07	0.19**	0.11	-0.27*	0.10
Personal Finances Secure	0.02	0.06	-0.02	0.06	-0.23*	0.10	0.06	0.09
Crime	-0.45*	0.09	-0.05	0.09	-0.13	0.16	0.00	0.14
Education	0.20*	0.08	-0.04	0.08	0.46*	0.13	0.06	0.12
Jobs	-0.20*	0.09	0.15**	0.08	0.03	0.15	0.02	0.13
ρ	-0.06				0.27			
σ_ρ	0.05				0.09			
Baseline	50.7%		66.7%		84.8%		74.4%	
Percent Correctly Predicted	71.8%		68.3%		85.1%		76.5%	
Number of Obs	1330				597			

*Indicates an estimate significant at p=.05 level.

**Indicates an estimate significant at p=.10 level.

Positive coefficients for Whites indicate an increase in probability of crossing-over; positive coefficients for Latinos indicate a decrease in probability of crossing-over.

Table 6: Bivariate Probit Estimates (Black and Asian Voters)
 Probability of Supporting Villaraigosa; Probability of Supporting Delgadillo

Variable	BLACKS				ASIANS			
	Mayor		City Attorney		Mayor		City Attorney	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Constant	-0.63	0.47	0.41	0.41	0.44	1.09	0.24	1.09
POLITICAL								
Conservative	-0.18*	0.07	0.09	0.06	-0.46*	0.14	0.30*	0.13
DEMOGRAPHICS								
Age	-0.09*	0.03	-0.05	0.03	-0.02	0.06	-0.08	0.06
Education	0.09	0.13	0.06	0.11	0.45**	0.24	0.14	0.23
Income	0.18	0.13	-0.14	0.12	-0.25	0.25	-0.24	0.25
Female	-0.00	0.15	0.04	0.13	-0.14	0.28	-0.49**	0.27
L.A. REGION								
Valley	0.53*	0.26	0.09	0.19	-0.14	0.82	-1.08	0.82
Central	0.42*	0.20	-0.07	0.18	-0.67	0.80	-1.62*	0.80
West	0.58*	0.26	0.30	0.25	0.08	0.81	-1.72*	0.84
ISSUES								
L.A. Economy Doing Well	0.36*	0.13	0.11	0.11	0.25	0.27	0.50**	0.26
Personal Finances Secure	-0.14	0.11	-0.13	0.10	-0.14	0.26	0.14	0.25
Crime	-0.60*	0.21	-0.09	0.16	-0.46	0.39	0.08	0.35
Education	-0.16	0.15	-0.04	0.13	0.37	0.30	0.04	0.29
Jobs	-0.27**	0.16	-0.01	0.14	0.03	0.28	-0.18	0.27
ρ			-0.02				-0.02	
σ_ρ			0.09				0.19	
Baseline	73.2%		54.1%		63.6%		54.5%	
Percent Correctly Predicted	75.8%		56.9%		70.0%		65.5%	
Number of Obs			392				110	

*Indicates an estimate significant at p=.05 level.

**Indicates an estimate significant at p=.10 level.

Table 7: First Difference Estimates on Ideology
Probability of Supporting Villaraigosa; Probability of Supporting Delgadillo

	Mayoral Race			City Attorney Race		
	Prob Vote for Villaraigosa			Prob Vote for Delgadillo		
Voter	Liberal	Conservative	Diff	Liberal	Conservative	Diff
Latino	.85 (.04)	.61 (.08)	-.24 (.08)	.62 (.06)	.72 (.06)	.10 (.07)
White	.76 (.03)	.08 (.02)	-.68 (.04)	.19 (.03)	.71 (.04)	.52 (.05)

Entries for Conservative and Liberal report the estimated probability of a hypothetical Latino or White voting for Villaraigosa in the mayoral race, or Delgadillo in the city attorney race. The entries for the ‘diff’ column report the difference in probabilities of supporting each candidate for a voter who shifts from reporting being very liberal to reporting being very conservative. Standard errors for all quantities are reported in parentheses.