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AN ANALYSIS OF BOSTON VOTING PATTERNS 1963-67

by

Ellen P. Fisher and Franklin M. Fisher

Number 30 -- October 1968

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The views expressed in this paper are the authors' sole responsibility, and do not reflect those of the Department of Economics nor of the Massachusetts Institute of Technology. The computations reported in this paper were performed by Alan Marin at the MIT Sloan School of Management Computer Facility.

## 1. Introduction

The preliminary election for mayor of Boston in the fall of 1967 presented an unusual opportunity for the study of the voting patterns of the Boston electorate. Because of the large number of candidates (five major, and ten in all) the electorate was fragmented into a number of separate groups. In this paper, we use regression analysis to determine if these different groups had recognizably different voting patterns in other elections, or if support for candidates in the 1967 race was a matter of personal appeal rather than appeal to definably different voter groups.

In particular, we are interested in this regard in the voting patterns of the supporters of John Sears (then a state representative). To some local political analysts, Sears, except for the fact that he was Republican, seemed to appeal to the same group of voters as did Boston Redevelopment Administrator Edward Logue and possibly Massachusetts Secretary of State Kevin White.<sup>1</sup> On the other hand, considering the strong showing that he made in the preliminary election, it seems possible that Sears somehow succeeded in bringing out and activating a distinct group of voters. It was thus of some interest to determine whether this group of voters was in fact unique or whether it was a splinter group of the more

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<sup>1</sup>Writing in the Boston Sunday Globe, August 6, 1967, Robert Healy observed "... there is a Republican in Logue's future who is also worth watching. His name is John Sears .... It is doubtful that a Republican can win a preliminary election victory. But his kind of campaign can take away votes from Logue .... With the field this size and with an aggressive campaign by Sears, Logue could be hurt."

progressive voters of Boston.

In a somewhat similar vein, it seemed of interest to examine the voting patterns of supporters of School Committeewoman Louise Day Hicks and of City Councilman Christopher A. Iannella, the least liberal of the five major candidates, to see in what respects they were or were not similar.

Finally, we were also able to examine the hypothesis that the supporters of Mrs. Hicks formed a close-knit group coming out to vote for her in any election in which she ran.<sup>1</sup>

Some background on Boston politics and on the 1967 mayoralty election in particular is clearly in order. Boston is a Democratic city. No Republican presidential candidate has carried the city since 1924. The last Republican mayor was elected in 1925. The Republican voter registration in November 1967 was 25,122 out of a total of 286,798 registered voters. There are 202,351 registered Democrats. The concentration of Republicans in a few of the city's wards is great enough to elect two Republican representatives (John Sears was one of them) and one Senator out of a total city delegation of 36 legislators and 7 Senators. City elections are nominally nonpartisan. No party designation appears on the ballot.

In September 1967, as already indicated, ten candidates appeared on the ballot in the preliminary election for mayor of Boston. The winners in

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<sup>1</sup>Robert Healy, Boston Globe, September 11, 1967, p. 11, "Her people were with her last year and the year before that. It is a loyal and vocal following ...."

David B. Wilson (Boston Globe, September 21, 1967, p. 37) reported that the proportion of voters choosing Mrs. Hicks in the preliminary election would be about the same proportion which would choose her in the final election and that, while this would win her a spot on the final ballot it would not be sufficient to elect her mayor.

this preliminary election were Mrs. Louise Day Hicks (43,722 votes) and Kevin White (30,789).<sup>1</sup> Third was John Sears (23,924), fourth Edward Logue (23,766), fifth Christopher A. Iannella (18,343).<sup>2</sup>

Mrs. Hicks was a three term member of the Boston School Committee and former chairman of that committee. She had been embroiled in a continuing controversy with the Black community over de facto segregation in the schools, and school busing programs. She was champion of the neighborhood school and brought her audiences to their feet repeatedly during her campaign with the slogan "You know where I stand." The daughter of a former municipal judge, she resides on a street named for her father.

Kevin White was in his fourth term as Secretary of State of the Commonwealth when he ran for mayor. He is the son, grandson, and son-in-law of former presidents of the Boston City Council.

John Winthron Sears was a representative in the General Court for wards 3 and 5 in Boston. He was a Rhodes scholar and an attorney and financier.

Edward Logue was the only "outsider" in the preliminary election. Reared in Philadelphia, educated at Yale, he had been brought to Boston by Mayor John Collins as a result of his work in urban renewal in New Haven. Shortly before the preliminary election Mayor Collins gave a modest endorsement to Logue.

Christopher A. Iannella had been a legislator for four terms and was then a city councilman. He had been the top vote getter for city council in 1965.

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<sup>1</sup>White won the final election in November by 102,706 to 90,154.

<sup>2</sup>The sixth candidate received only about half of Iannella's total and candidates six through ten together received less than 15,000 votes.

As indicated above, and as explained in detail in the next section, we used regression analysis to examine the behavior of supporters of these five candidates in several other elections. The elections we chose for study were:

1) The city council election of November 1967. This election was of particular interest because the eighth of nine elected councilmen was Thomas Atkins, a Negro Harvard Law School student. Moreover, number one was John Saltonstall, Democratic nephew of the former Massachusetts Republican Senator and from an old New England family. Not since 1949, when Boston began electing councilmen at large, had anyone who was not of Italian or Irish origin been elected to the city council. (In the 25 years before 1949 under the ward system of electing councilmen, 84 Irish, 12 Jews, 9 Yankees, 4 Italians, and 1 Negro were elected.)

2) The school committee elections of 1963 and 1965 in which Mrs. Hicks was the leading vote-getter. In 1963 Melvin King, a Negro, was an unsuccessful candidate.

3) The gubernatorial elections of 1964 and 1966 in which Republican John Volpe defeated Democrats Joseph Belotti (1964) and Edward McCormack (1966). Of interest here was a test of ethnic voting patterns, in particular the behavior of the Italian-American supporters of Iannella when faced with both a Republican and a Democratic candidate of Italian-American background.

4) The Senatorial election of 1966 in which Edward Brooke (a Negro Republican) defeated Endicott Peabody (a Yankee Democrat).

5) The final election for mayor in November 1967 in which Kevin White defeated Mrs. Louise Day Hicks.

Because attitudes toward Mrs. Hicks or, more generally, toward Negroes were clearly of importance in most of these elections as well as in the 1967



preliminary election for mayor, it seemed likely that voting patterns among Negroes would differ from those among Whites. Accordingly, we removed all precincts with substantial (more than 10 per cent, as determined by the 1960 census) Negro population from our main study and considered them separately.<sup>1</sup>

Note that no similar reason prompts us to remove precincts with, say, a high number of voters of Italian origin. Indeed, if Italian-Americans tend to vote for candidates of Italian origin this should show up in the analysis of the behavior of Iannella supporters.

## 2. The Method, the Variables, and the Model

In each election studied, we took as our dependent variable, the fraction of those voting in a given precinct who voted for a particular candidate. We sought to explain that variable by regression on several independent variables (the unit of observation always being the precinct). For the most part, such independent variables were the fractions of total votes cast in the 1967 preliminary election for mayor for the five major candidates so that the regression coefficients reflect the differing degrees to which supporters of the different 1967 mayoralty candidates also supported the particular candidate whose vote is the dependent variable. There was one other independent variable used, however, and we shall discuss this before returning to the general model and its interpretation.

In elections for city council and for school committee, where more than one candidate is to be elected, each voter can cast as many votes as

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<sup>1</sup>1960 was the most recent census year. It seems likely that precincts which were more than 10 per cent Negro in 1960 had a rather higher Negro proportion by 1967. The choice of 10 per cent as the cut-off does not materially affect the results.

there are positions to be filled (nine in the case of city council and five in the case of school committee). Not all voters fill out the ballot so completely. Indeed, some voters, entering the booth primarily to vote for candidates for a different office (mayor, governor, senator, or president, for example) do not vote at all in such elections. This raises a problem as to how this phenomenon which shows up in the data as blank ballots can best be handled for our purposes.

The first possibility is simply to ignore the difficulty. One might argue that a blank ballot might just as well be treated as a vote for a fictitious candidate. Yet this is clearly not very satisfactory. The effect on the candidacy of a real person of numerous votes for such a fictitious candidate is not the same as that of the same number of votes for a real opponent. We do not want to count non-voting as though it were the same as voting.

On the other hand, it is not possible to cut through the problem by eliminating voters who failed to vote for the office in question or who failed to vote as many times as they legally could. (Indeed, it would be undesirable to remove the latter group.) The only data available are the total number of blank ballots cast in each precinct.

This is computed as follows. Let  $V$  be the number of voters entering the voting booth. Let  $k$  be the number of different names for which a vote can legally be cast in the given election. Let  $T$  be the number of votes actually cast by all voters in the precinct. Then the number of blank ballots,  $B$ , is given by the formula:

$$(2.1) \quad B = kV - T.$$

B thus measures the extent to which the actual number of votes cast falls short of the legal maximum. It is reported for each precinct (or if not, can be computed using (2.1)).

From B, we can compute the average number of blank ballots cast per voter,  $D = B/V$ . It is evident that a given nonzero value of D can come from two quite different sources. First, some voters may not have voted at all for the given office, while others filled out the ballot completely. Second, everyone may have voted but not as many times as he might have done. Thus, for example, a value of D of  $1/2$  can arise if half the voters fill out the ballot completely and the others not at all or if all voters fill out half the ballot.

This clearly makes it impossible to eliminate voters not casting any vote for the office in question. It also makes it hazardous to try to handle the problem by changing the measurement of the dependent variable from fraction of voters voting for a particular candidate to fraction of nonblank votes cast for that candidate. Aside from other problems, this is so because the fraction of nonblank votes that can be cast for a particular candidate depends on whether the nonblank votes are cast by the same or different voters. (Voters may vote five times for school committee, but they cannot vote five times for one candidate.)

We have tried to take account of this problem by using D itself as an independent variable in the regressions. Thus, our other coefficients can be interpreted as effects which hold with the average number of blank ballots per voter held constant.<sup>1</sup>

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<sup>1</sup>This may not be really appropriate, since it can be argued that the casting of blank ballots is itself a phenomenon that we may wish to explain in terms of voting patterns in the preliminary mayoralty election. We take up this matter in the Appendix where it is shown that most of the results are insensitive to this problem.

Our model is thus the following one:

$$(2.2) \quad Y_i = \alpha_0 + \alpha_1 H_i + \alpha_2 I_i + \alpha_3 W_i + \alpha_4 L_i + \alpha_5 S_i + \alpha_6 D_i$$

where the symbols are defined as follows:

$\alpha_0, \dots, \alpha_6$	parameters to be estimated
$i$	subscript indicating precinct
$Y_i$	fraction of voters entering polling booth in precinct $i$ who voted for a particular candidate in the particular election studied
$H_i$	fraction of voters entering polling booth in precinct $i$ in 1967 preliminary mayoralty election who voted for Louise Dav Hicks
$I_i$	similar fraction voting for Christopher A. Iannella
$W_i$	similar fraction voting for Kevin White
$L_i$	similar fraction voting for Edward Logue
$S_i$	similar fraction voting for John Sears
$D_i$	average number of blank ballots per voter cast in precinct $i$ in election studied (only nonzero in city council and school committee elections).

A few remarks about the model and its interpretation now seem in order. First, we have chosen a linear form as a simple approximation. It works quite well, but no more is claimed for it than that. Second, we have normalized the variables in per voter terms so that large precincts do not dominate the sample. Thus the coefficient of  $H_i$ , for example, should be interpreted as the number of percentage points by which votes for the candidate in the election studied rises, other things equal, when we move between precincts in which the vote for Mrs. Hicks in the 1967 mayoralty preliminary election differed by one percentage point.

This leads us naturally to a discussion of the constant term,  $\alpha_0$ . This is, taken literally, the value of the dependent variable (the fraction of voters voting for the candidate studied) which would have occurred in a precinct in which all the independent variables were zero. Of course, no such precinct exists, so the constant term must be regarded only as an approximate estimate of such an intercept. Remembering that it is only an approximation, it should be regarded as measuring the strength of the candidate in the election studied among otherwise undifferentiated voters -- that is, among voters who did not vote for one of the five principal candidates in the 1967 preliminary election for mayor (either because they did not vote in that election or because they voted for a minor candidate). Similarly, the coefficients of the various other variables (except D) should be regarded as measuring the extent to which the given candidate ran better (worse) among those supporting Hicks, Iannella, Logue, White, or Sears, as the case may be, than he did among voters otherwise not classified. Thus a coefficient of zero for  $H_1$ , for example, would not mean that supporters of Mrs. Hicks failed to vote for the candidate in question, but that they did so in no greater numbers than did unclassified voters. A negative coefficient would mean they did so in smaller numbers and a positive one that they did so in greater numbers. This will be important in interpreting the results to which we now turn.

### 3. The Basic Results

As already remarked, we first removed from the sample any precinct which a comparison of precinct maps with census tracts showed to have had more than 10 per cent Negro population in 1960, since it seemed likely that Negro and White voting patterns would differ in ways not captured by our

variables. The 54 "Negro" precincts were treated separately to see if this was so; we shall return to this later. The remaining precincts were 221 in number.

The first election which we shall consider is that for city council in November 1967.<sup>1</sup> The two candidates in that election whom we singled out for particular attention for reasons already given were Thomas Atkins and John Saltonstall.

We first present the results of estimating equation (2.?) with dependent variable,  $A_i$ , the fraction of voters in precinct  $i$  voting for Atkins. Figures in parentheses are standard errors.

(3.1) 1967 City Council Election: Atkins

$$A_i = .102 - .273 H_i - .286 I_i + .455 W_i + .422 L_i + .723 S_i + .244 D_i$$

$R^2 = .833 \quad N = 221$

The fit is extremely good (particularly considering the large number of observations) and the coefficients are highly significant. All coefficients save the constant term and the coefficient of  $D_i$  are significantly different from zero at least at the one-tenth of one percent level and frequently well beyond. The coefficient of  $D_i$  is significant at the one percent level but not at the one-tenth of one percent level. The constant term is not significantly different from zero.

More important, the results make good sense. Other things equal, Hicks and Iannella voters voted against Atkins (in the sense that he ran

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<sup>1</sup>Data for all elections prior to 1967 were taken from the Annual Reports of the Boston Election Department. For 1967, we used the official tally sheets on file at that department.

worse among them than among undifferentiated voters). Considering Mrs. Hicks' position as to Negroes and schools, this is what we should expect of her supporters. Similarly, if we identify Iannella voters as largely from the Italian-American precincts where a school bussing controversy was going on and where Mrs. Hicks was said to be cutting into the Italian-American vote,<sup>1</sup> it is not surprising to find them less in favor of a Negro for city council than unclassified voters were.

Supporters of White, Logue, and Sears, however, in a pattern which we shall encounter again, tended to vote for Atkins. White supporters and Logue supporters did so to about the same extent (.455 and .422, respectively), but Sears supporters did so by far more (.723). While Logue voters and White voters were located in different places (otherwise the regression would not have given significant coefficients to both L and W separately), they acted just about the same so far as voting for Atkins was concerned. Sears voters behaved more like these two groups than like any other, but clearly formed a group with definably different voting behavior.<sup>2</sup>

Finally, the coefficient of the average blank ballot variable, D, is interesting, particularly when compared with the coefficients found in the results to be presented below. Other things equal, Atkins did better where average blank ballots were high than he did where they were low. This is

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<sup>1</sup>See the column by Robert Healy, Boston Globe, August 11, 1967, p. 9. On the other hand, the evidence in the Appendix shows that Iannella voters tended to cast blank ballots in this (and other) elections, so that part (but not all) of the explanation of the negative coefficient of I may be that many Iannella voters did not vote at all for city council whereas Atkins tended to be strong among voters casting only partially blank ballots as discussed below. If this is true, then Iannella voters, given their value of D, voted less for Atkins than did voters in other classes. See the Appendix for further discussion.

<sup>2</sup>The difference is statistically significant at about the five percent level.

attributable to two related causes (associated with the different reasons, discussed above, why average blank ballots can be high).<sup>1</sup> In the first place, Atkins was not the best-known candidate for city council. People voting for someone else for city council and starting to fill out the full ballot might not automatically put his name down (we shall see the reverse of this true when we come to better-known candidates). Rather, we would expect him to have done well among people who came out to vote particularly for him. Indeed, it is possible that many people "bullet voted" for Atkins -- that is, voted only for him, leaving the other eight places on the ballot blank. Particularly considering his race and the candidacy of Mrs. Hicks, we should expect Atkins not to have benefitted from relatively inattentive voting. Rather, we would expect him to have done well among people voting specially for him for city council. This is borne out both by the coefficient of D and by the relatively low value of the constant term, indicating low strength among unclassified voters.

A similar but not identical pattern emerges when we examine the candidacy of John Saltonstall in the same election. Indicating the dependent variable by SA, the results are:

(3.2) 1967 City Council: Saltonstall

$$SA_i = .416 - .212 H_i + .236 I_i + .353 W_i + .579 L_i + .768 S_i - .532 D_i$$

$R^2 = .837 \qquad N = 221$

Again the fit is extremely good. All coefficients are significant at

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<sup>1</sup>The average value of D across the 221 precincts was .338 in this election. On the average, one in every three voters cast one blank ballot or one in every six cast two blank ballots, and so forth.



better than the one-tenth of one percent level. As in the Atkins regression, the coefficient of S is particularly significant, being more than ten times its standard error.

The pattern of the coefficients is again revealing, particularly when contrasted with that found for Atkins. The five groups of voters are strung out in ascending order of favorableness toward Saltonstall as : Hicks, Iannella, White, Logue, and Sears. This is essentially the same pattern as for Atkins but here Hicks and Iannella supporters no longer behave the same; further, White and Logue supporters are no longer indistinguishable. If we consider Saltonstall as a candidate of old Yankee origin with establishment and intellectual support, these results are about what we would expect.

Further, Saltonstall led the returns for city council. He was clearly the best-known name on the ballot. According to the argument given above when discussing the results for Atkins, we should expect him to have a relatively high constant term and to do better where ballots are filled out than where D is high. These expectations are obviously borne out by the results.

We turn now to some partisan elections for state and national office. The first of these is the gubernatorial election of 1966 in which John A. Volpe, the incumbent Republican governor defeated Edward J. McCormack. With VO denoting the dependent variable, the results are as follows:

(3.3) Governor, 1966: Volpe vs. McCormack

$$VO_i = .606 - .425 H_i + .396 I_i - .539 W_i + .333 L_i + .347 S_i$$

$R^2 = .746 \quad N = 221$

Again the fit is quite good, although not as good as before. All coefficients are significant at better than the one-tenth of one percent level with the exception of the coefficient of  $L_1$  which is significant at the two percent level.

The results are what we would expect in a partisan election and (like some of the other results to be presented), they serve chiefly to check on our methods. Relative to unclassified voters, supporters of regular Irish-American Democrats, Hicks and White, both voted against the Republican candidate and for his Democratic Irish-American opponent. Supporters of Italian-American candidate Iannella voted for Italian-American Volpe. Supporters of Republican Sears voted for the Republican candidate. So did those of Logue who himself had strong support in the business community.<sup>1</sup>

An interesting difference lending added confidence to our method emerges when we analyze the 1964 gubernatorial election in which Volpe defeated Francis X. Bellotti, the incumbent Democratic lieutenant governor who had himself upset the incumbent governor, Endicott Peabody, in the Democratic primary. The results are:

(3.4) Governor, 1964: Volpe vs. Bellotti

$$VO_i = .573 - .409 H_i - .214 I_i - .621 W_i + .465 L_i + .332 S_i$$

(.069) (.082) <sup>1</sup> (.067) <sup>1</sup> (.116) <sup>1</sup> (.136) <sup>1</sup> (.077) <sup>1</sup>

$$R^2 = .731 \quad N = 221$$

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<sup>1</sup>The blank ballot variable does not enter in a gubernatorial or senatorial election since we can take as the denominator of the dependent variable the total votes cast for the office thus simply eliminating voters not voting for that office. In fact, we also discarded the very small number of votes for candidates not from the two major parties.

The fit is again good. All coefficients are significant at better than the one-tenth of one percent level with the exception of that of  $I_i$  which is significant at the one percent level but not quite at the one-tenth of one percent level.

The pattern is obviously the same as for the 1966 election with one notable exception -- the Iannella voters. This is exactly what one should expect remembering that the Democratic candidate in 1964 was of Italian rather than Irish descent as in 1966. It confirms our belief that Iannella voters tended to be Italian in origin.

The last of the partisan elections which we studied was that for Senator in 1966. In that election, Republican Edward Brooke, a Negro, defeated former Democratic governor, Endicott Peabody. Using the vote for Brooke as the dependent variable, and denoting it by  $B_i$ , the results are:

(3.5) Senator, 1966: Brooke vs. Peabody

$$B_i = .370 - .375 H_i + .123 I_i - .031 W_i + .206 L_i + .736 S_i$$

(.050) (.059) (.048) (.084) (.098) (.056)

$$R^2 = .871 \quad N = 221$$

The fit is the best so far obtained. The constant term, the coefficient of  $S_i$  and the coefficient of  $H_i$  are all significant well beyond the one-tenth of one percent level. The coefficient of  $I_i$  is significant at the two percent level. The coefficient of  $L_i$  is significant at the five percent level. The coefficient of  $W_i$  is not significant.

In a way, these results reveal a pattern intermediate between that observed in the 1967 city council election (and continued in the school committee results below) and that observed in the gubernatorial elections

just discussed. The order observed in the case of Atkins and Saltonstall -- Hicks, Iannella, White, Logue, Sears -- is preserved save for the inversion of White and Iannella. This is reasonable. Since Hicks supporters can be characterized as Democrats with some anti-Negro bias, both the fact that Brooke was Republican and the fact that he was a Negro should lead to a negative coefficient here. Similarly, the earlier results suggest that Logue and Sears voters are liberal (in civil right matters) Republicans. Both effects lead to a positive coefficient here, and the larger coefficient on  $S_1$  than on  $L_1$  is consistent with the results found for Atkins and Saltonstall. White voters, on the other hand, might be characterized from our earlier results as liberal Democrats. The fact that Brooke was a Negro and the fact that he was Republican should here have pulled in opposite directions and, accordingly, we find a near zero coefficient and a position lower than that of Logue and Sears voters but higher than that of Hicks voters. The only surprise might appear to be the position of Iannella voters who in the results above and below are closer to Hicks voters when a Negro runs than is any other group. Their coefficient in these results may perhaps be explained by two facts. First, this was the election in which Volpe faced McCormack in the gubernatorial race (see Equation (3.3), above) and there may have been some carry-over. Second, Brooke's wife is white and Italian born. She campaigned for him in the Italian districts.<sup>1</sup>

The last two elections to be examined are those for school committee

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<sup>1</sup>Gloria Negri in the Boston Globe for November 1, 1966 (p. 12), reported that Remigia Brooke campaigned even at grocers: "She is a great favorite in the North End, East Boston and other Italian communities and lately has been tossing in a bit of campaigning while doing her grocery shopping in the North End."

Similarly, Timothy Leland wrote on Sunday, November 6, 1966 (p. 16) "His wife, Remigia, took over for her husband on the campaign trail where he left off, touring the North End with all the verve and velocity of a seasoned politician."

in 1963 and 1965 when Mrs. Hicks was herself a candidate for school committee. Particularly in 1963 when she was the incumbent chairman, the school committee election was highly publicized and turned largely on the issue of treatment and segregation of Negro children in the schools.

We begin with the 1963 election and turn first to the candidacy of Melvin King, a Negro who unsuccessfully sought election to the school committee. Denoting the dependent variable by  $K_i$ , the results are:

(3.6) 1963, School Committee: King

$$K_i = - .120 - .072 H_i - .165 I_i + .547 W_i + .411 L_i + .711 S_i + .439 D_i$$

$R^2 = .734 \quad N = 221$

The fit is about the same as for the gubernatorial elections. The coefficients of  $W_i$ ,  $L_i$ ,  $S_i$ , and  $D_i$  are significant at least at the one-tenth of one percent level; the coefficient of  $I_i$  is significant at the five percent level; the constant term and the coefficient of  $H_i$  are not significant.

These results are very interesting when compared to those for the 1967 city council election. For White, Logue, and Sears voters, the results are as one would expect. They all voted for King more than did unclassified voters and more than did Hicks or Iannella voters. Further, Sears voters tended to do so more than did the other two groups. Moreover, the results as to blank ballots are consonant with our previous discussion. King was stronger, other things equal, where blank ballots were high than where they were low.

It is the remaining three coefficients which require discussion -- the constant term and the coefficients of  $H_i$  and  $I_i$ . Consistent with the

results for Atkins in 1967 (Equation (3.1)), we find all three groups -- Hicks voters, Iannella voters, and unclassified voters -- to be less favorable to a Negro candidate for city office than the remaining three groups. What may appear surprising is the near zero coefficient of  $H_1$ . This does not indicate, however, that Hicks voters were more favorable to King than to Atkins. Rather it indicates that they were more favorable relative to unclassified voters. The shift from the Atkins results to the King results in this regard is consistent either with a movement of Hicks voters toward favoring the Negro candidate or with a movement of unclassified voters away from favoring him. Obviously, in view of the issues on which the 1963 school committee election was fought and in view of Mrs. Hicks' own position and candidacy the second hypothesis is more reasonable. It is borne out by the negative (though insignificant) constant term in the King results as opposed to the positive (though insignificant) constant term in the Atkins results.

To put the matter slightly differently. It looks as though Hicks voters<sup>1</sup> had the same attitude in 1963 toward the candidacy of King as did unclassified voters (and roughly, as did Iannella voters). That attitude was preserved by Hicks voters relative to Atkins in 1967, but it was not shared by unclassified voters to so great an extent. It is of interest to note in this regard that King lost and Atkins won.

This shift, or difference in attitudes is borne out in a slightly different way when we examine the results for Mrs. Hicks' own candidacies for school committee in 1963 and 1965 (she led the ticket on both occasions). Denoting the dependent variable by  $HI$ , the results for 1963 are:

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<sup>1</sup>As we have so far done, we shall use the term "Hicks voters" to refer to those voting for Mrs. Hicks in the 1967 preliminary election for mayor, not to those voting for her in the 1963 and 1965 school committee elections.

(3.7) 1963, School Committee: Hicks

$$\begin{aligned} \text{HI} = & 1.302 - .031 H_i - .387 I_i - .384 W_i - .458 L_i - .746 S_i - .936 D_i \\ & (.071) (.061) (.061) (.086) (.101) (.058) (.071) \\ R^2 = & .837 \quad N = 221 \end{aligned}$$

The fit is very good. All coefficients are significant well beyond the one-tenth of one percent level with the exception of the coefficient of  $H_i$  which is not significant.

For 1965, the results are similar:

(3.8) 1965, School Committee: Hicks

$$\begin{aligned} \text{HI} = & 1.202 + .099 H_i - .371 I_i - .670 W_i - .658 L_i - 1.114 S_i - .393 D_i \\ & (.073) (.085) (.088) (.118) (.140) (.079) (.106) \\ R^2 = & .794 \quad N = 221 \end{aligned}$$

The fit is slightly poorer but still very good. Again all coefficients are significant well beyond the one-tenth of one percent level with the exception of the coefficient of  $H_i$  which is not significant.

The pattern of these results is clear. In both elections, Mrs. Hicks ran strongly among unclassified voters and equally well (but not stronger) among those who would later support her in the 1967 preliminary election. She ran weaker than this among Iannella, White, Logue, and Sears voters, listed in order of decreasing Hicks strength. (Note that this is the order which we should clearly expect from the earlier results. In particular, note the difference between Sears and Logue voters.) Mrs. Hicks ran worse where blank ballots per voter were high, other things equal, than where they were low, the effect being particularly strong in 1963. This is what we should expect from our earlier discussion of the blank ballots variable,

since Mrs. Hicks was far and away the best known and (especially in 1963) the most controversial candidate. There is some evidence of polarization from 1963 to 1965 with the relative anti-Hicks behavior of White, Logue, and Sears voters becoming stronger.

The really interesting phenomenon, however, is the fact already mentioned that in both elections Mrs. Hicks failed to run better among 1967 Hicks voters than among unclassified voters (although, of course, she ran very strongly among either group). Consistent with our examination of the King-Atkins contrast, this suggests a shift in behavior of the unclassified voters between 1963-65 and 1967. Such a shift need not have been temporal, for different offices were involved. Indeed, it is entirely possible that had Mrs. Hicks run for school committee in 1967, she would again have run well among the unclassified voters. Whatever the explanation, however, in 1963 and 1965, when running for school committee, Mrs. Hicks ran well among unclassified voters and among Hicks voters. In the preliminary election for mayor in 1967, by definition, she ran extremely well among Hicks voters and extremely badly among unclassified voters.

Moreover, this phenomenon was not simply restricted to the preliminary election. The results for the final mayoralty election of 1967 are in sharp contrast to those for the school committee elections just given. They are:

(3.9) 1967, Mayor (Final Election): Hicks vs. White

$$HI = .883 + .285 H_i - .525 I_i - .943 W_i - .772 L_i - .735 S_i$$

(.051) (.060) <sub>i</sub>    (.049) <sub>i</sub>    (.085) <sub>i</sub>    (.099) <sub>i</sub>    (.056) <sub>i</sub>

$$R^2 = .881 \qquad N = 221$$

The fit is excellent, as before. All coefficients are significant well beyond



the one-tenth of one percent level.

The results show clearly that while Mrs. Hicks ran relatively well among unclassified voters, she did not run as well among them as she did among those who supported her in the mayoralty primary. This is not surprising, but it bears on the phenomenon we have been discussing. In the 1963 and 1965 school committee elections, Mrs. Hicks ran equally well among the two groups of voters. When running for mayor in 1967, she did not run as well among both groups. Moreover, the results clearly show that this was not simply a matter of losing votes in the preliminary election which then returned to her in the final. While Mrs. Hicks was stronger in the final election among unclassified voters than among any group save those voting for her in the preliminary election, she was significantly weaker among unclassified voters than among those supporting her in the preliminary. This is in sharp contrast to the results for the school committee elections.

It is thus quite clear that the hypothesis that the same group of people always comes out to vote for Mrs. Hicks is false. When running for school committee she had broader-based support than when running for mayor. Whether the difference is due to the nature of the offices, the opposition, the issues, or a temporal shift in attitudes, it is clear that it is there. It is scarcely necessary to remind the reader that Mrs. Hicks lost the final mayoralty election to Kevin White.

Finally, as do (3.6) and (3.7), (3.8) shows Mrs. Hicks running stronger among Iannella voters than among the other groups. However, as opposed to the results for the school committee elections, there was almost no difference in this regard among Logue and Sears voters in the 1967 final election for mayor, both groups going strongly for Kevin White. (The larger negative coefficient for White voters needs no explanation, of course.) It

is interesting to note that this general pattern is just what we should expect since our earlier results tend to show the five candidates strung out along a line in the order Hicks, Iannella, White, Logue, Sears.

#### 4. Summary of Conclusions

It seems appropriate at this point to summarize what we have learned from the results of the preceding section. In broad outline, the main conclusions drawn are these.

1. The preliminary election for mayor in 1967 split the Boston electorate into six groups of voters (Hicks, Iannella, White, Logue, Sears, and unclassified). That split was far from random. Rather, each of these groups displayed consistent voting characteristics in the various elections studied and knowing how a precinct was split in the 1967 preliminary election for mayor goes a long way toward explaining its vote in the other elections. We explain from 73 to 87 per cent of the variance of the various dependent variables.

2. In terms of attitudes toward Negro candidates in nonpartisan elections and related issues, the classified groups consistently range in the order Hicks, Iannella, White, Logue, Sears listed in ascending order of favorableness toward Negroes. Unclassified voters fall at the Hicks-Iannella end of the range, but much more so in the school committee elections of 1963 and 1965 than in the 1967 elections.

3. In partisan elections, Hicks and White voters are Democrats and Logue and Sears voters Republicans. The candidacy of Edward Brooke shifted White voters to the Republican column to some extent.

4. Iannella voters are clearly largely Italian-Americans, as one might expect.

5. Sears voters are a clearly separate group. In some elections the Logue voters are rather like them, but in others, Logue and White voters are rather similar. Invariably, Sears voters lie at the opposite extreme from Hicks voters and generally are distinguishable from Logue and White voters.<sup>1</sup>

6. In elections for school committee and city council where voters can cast more than one ballot, other things equal, blank ballots help Negro candidates (Atkins, King) and hurt prominent or controversial candidates (Saltonstall and especially Mrs. Hicks). This is consistent with the view that voters filling out a complete ballot naturally tend to vote for the most familiar name and that Negro candidates tend to benefit from bullet balloting.<sup>2</sup>

7. When running for school committee in 1963 and 1965, Mrs. Hicks was strongest and equally strong among two groups of voters. Only one of these groups supported her in the 1967 preliminary mayoralty election, and, while both groups supported her in the final election, they did not do so to an equal extent as had been the case in her winning school committee races.

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<sup>1</sup>Sears voters clearly tend to be Republicans or at least to be located where there are Republicans. We regressed the fraction of the Sears vote in the 1967 preliminary election for mayor ( $S_i$ ) on the ratio of registered Republicans to the total vote in that election. Denoting the latter variable by  $R_i$ , the results were:

$$(4.1) \quad S_i = .037 + .719 R_i$$

$(.004) \quad (.019)$

$$r^2 = .872 \quad N = 221$$

Both coefficients are significant far beyond the one-tenth of one percent level.

<sup>2</sup>Our other results do not depend on our particular treatment of the blank ballot problem. See the Appendix.

### 5. Precincts with a Substantial Negro Population

Before closing, it seems of interest to discuss the results obtained when the same analysis was performed on the 54 precincts in Boston not included in the 221 to which the reported regressions apply. As indicated, these were those precincts which had a Negro population of more than 10 percent -- generally considerably more -- in 1960 (the most recent census year). Typically, we would expect them to have had a higher percentage of Negroes by the time of the analyzed elections.

The results for these precincts are rather different from those already discussed and, while the additional results do not seem worth reporting in detail, the broad nature thereof does merit some comment.

In the first place, as opposed to the 221 precincts already studied, the 1967 preliminary mayoralty election did not appear to divide the electorate of the 54 precincts into clearly distinguishable groups with different voting patterns. While there are some regressions in which that division seems to matter, on the whole it does not do so systematically. For the most part, indeed, voters supporting four of the five named candidates in 1967 were indistinguishable in other elections from unclassified voters.

There is, however, one striking (and expected) exception to this. Supporters of Mrs. Hicks in the 1967 preliminary election obviously form a group whose behavior in other elections differed sharply from that of the other voters in these precincts. It is obviously reasonable to suppose that this is largely because her candidacy did (as the others did not) tend to separate the electorate in these precincts into Negro and white voters. In other words, while there are some exceptions, it helps to explain behavior in other elections in these precincts to know where Hicks voters were located.

It does not help significantly to know how the rest of the electorate split in the mayoralty primary.

It does help, however, to know where blank ballots were high. Typically, blank ballots were higher on average in these 54 precincts than in the remaining 221. This was particularly so in those two of our three relevant elections in which there was a Negro candidate running. Thus, for the 1963 school committee election, blank ballots averaged .416 per voter in the 54 precincts and .274 per voter in the remaining 221. In the 1965 school committee election, the corresponding figures were .246 and .226, while in the 1967 city council election, they were .498 and .338. Further, in contrast to the 221 precincts in which Iannella voters tended to differ from the rest in casting a greater number of blank ballots (see the Appendix), in these 54 precincts, Hicks voters were notably different from the rest: they cast significantly fewer blank ballots.

These results are consistent with our earlier discussion which argued that Mrs. Hicks tended to run well in school committee elections wherever blank ballots were few, other things equal. They suggest in addition that blank ballots were used in these 54 precincts for bullet voting, especially for Negro candidates. Indeed, it is a reasonable characterization of the results for the 54 precincts to say that the two items which tend to matter in the regressions are the location of the Hicks voters and the extent of blank balloting.<sup>1</sup>

Among the non-Hicks voters in these precincts, then, our results suggest that what mattered was whether they voted purposefully, so to speak.

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<sup>1</sup>It should be added, however, that the fact that  $U_i$  and  $D_i$  tend to be highly negatively correlated occasionally makes it difficult reliably to distinguish the two effects.

Given that, the split of the electorate by the 1967 preliminary election mattered relatively little. The candidacies of the other four named candidates in that election apparently did not appeal to definably different groups with different voting patterns in the way which we found to be clearly the case in the precincts without a substantial Negro population. Indeed, they did not appeal to groups much different from unclassified voters. It would be somewhat surprising if it were otherwise. Only Mrs. Hicks (and perhaps Iannella) among the named candidates could be expected to have sharply different appeal from the other candidates in these precincts and we have already controlled for the principal difference between the voters here and elsewhere in the city by separating them in our analysis. Once that has been done, heterogeneity within these precincts except along the indicated lines, is not very pronounced.

Appendix: An Alternate Treatment of Blank Ballots

In Section 2, we considered the problem raised for analysis by the fact that in some elections more than one vote can be cast by each voter. In the main text we handled this by entering average blank ballots per voter ( $D_i$ ) as a variable in the regression equations. This had the merit of holding constant blank balloting per voter in comparing other effects, but it may not be a wholly satisfactory way of proceeding. This is so because blank balloting is itself not independent of the other effects which we are investigating. Thus, if Sears voters, for example, tend to blank ballot more than Hicks voters, we may want to leave the blank ballot variable out and attribute its effects to the split between Hicks and Sears voters. On the other hand, to leave out the blank ballot variable is to attribute to a given fraction of the vote for a given candidate the same importance whether or not the remaining fraction is blank or is cast for his opponents.

Fortunately, the results are generally not sensitive to this choice, although they are a little less sharp when the blank ballot variable is left out than when it is in. We now present the results omitting that variable.

(3.1') 1967, City Council: Atkins

$$A_i = .146 - .271 H_i - .146 I_i + .510 W_i + .433 L_i + .782 S_i$$

$R^2 = .826 \quad N = 221$

The fit is nearly as good as in Equation (3.1). All coefficients save the constant term and the coefficient of  $I_i$  are significant beyond the one-tenth of one percent level. The coefficient of  $I_i$  is significant at the two percent level and the constant term is significant at the five percent but

not quite at the two percent level.

(3.2') 1967, City Council: Saltonstall

$$SA_i = .320 - .216 H_i - .070 I_i + .234 W_i + .555 L_i + .640 S_i$$

$$(.060) (.071) \quad (.058) \quad (.101) \quad (.118) \quad (.067)$$

$$R^2 = .794 \quad N = 221$$

Again the fit does not deteriorate much. All coefficients save those of  $H_i$ ,  $I_i$ , and  $W_i$  are significant well beyond the one-tenth of one percent level. The coefficient of  $H_i$  is significant at the one percent level; that of  $W_i$  is significant at almost the two percent level; that of  $I_i$  is not significant.

(3.6') 1963, School Committee: King

$$K_i = - .046 - .027 H_i + .050 I_i + .577 W_i + .348 L_i + .764 S_i$$

$$(.066) (.076) \quad (.063) \quad (.108) \quad (.127) \quad (.072)$$

$$R^2 = .702 \quad N = 221$$

Again the fit is about the same as in (3.6). The coefficients of  $W_i$  and  $S_i$  are significant at the one-tenth of one percent level; that of  $L_i$  is significant at the one percent level. The remaining coefficients are not significant showing again no substantially different behavior among Hicks, Iannella, and unclassified voters in this election.

(3.7') 1963, School Committee: Hicks

$$HI_i = 1.141 - .129 H_i - .856 I_i - .451 W_i - .322 L_i - .863 S_i$$

$$(.069) (.081) \quad (.066) \quad (.115) \quad (.135) \quad (.076)$$

$$R^2 = .706 \quad N = 221$$

The fit here deteriorates more than in other cases, which matches the fact



that blank ballots were found to play a fairly large role in Equation (3.7). All coefficients save those of  $H_i$  and  $L_i$  are significant well beyond the one-tenth of one percent level. The coefficient of  $L_i$  is significant at the two percent level; that of  $H_i$  is not significant.

(3.8') 1965, School Committee: Hicks

$$HI_i = 1.142 + .035 H_i - .577 I_i - .676 W_i - .581 L_i - 1.085 S_i$$

$(.073) \quad (.086) \quad (.070) \quad (.122) \quad (.143) \quad (.081)$

$$R^2 = .780 \quad N = 221$$

The fit is nearly as good as in Equation (3.8). All coefficients are significant far beyond the one-tenth of one percent level with the exception of the coefficient of  $H_i$  which is not significant.

The results are qualitatively similar to those in the text and our principal conclusions are obviously unaffected by them. The principal differences come in the coefficients of  $I_i$ . This suggests (and is borne out below) that Iannella voters tend to cast blank ballots. It also points up the danger in omitting blank ballots from the analysis. Thus, for example, in comparing Equations (3.7) and (3.7'), it might be thought that the latter equation shows Iannella voters strongly opposed to Mrs. Hicks while the former shows them only mildly opposed. In a way, this is true if "opposed" means "not voting for." In fact, however, large numbers of the Iannella voters not voting for Mrs. Hicks in 1963 were not voting for anyone for school committee. A high negative coefficient for  $I_i$  in that regression does not mean the same thing as a high negative coefficient for some other variable associated with voters who are voting against Mrs. Hicks when they do not vote for her. This is why we chose to hold blank ballots per voter

constant in the text, but it is comforting to know that it makes very little difference to our conclusions.

For what it is worth, we present regressions of  $D_i$  on the other variables in an attempt to see explicitly what groups tend to cast blank ballots. As there are several reasons for casting blank ballots (as discussed in the text), it is hard to interpret the results as more than descriptive.

(A.1) 1967, City Council: Blank Ballots

$$D_i = .180 + .007 H_i + .575 I_i + .224 W_i + .045 L_i + .241 S_i$$

$R^2 = .568 \quad N = 221$

The fit is not nearly so good as in the other results presented. Only a bit more than half the variance is explained. Thus a large part of the variation in blank balloting in this election is not associated with the split in the mayoralty preliminary election. The constant term and the coefficients of  $I_i$  and  $S_i$  are significant beyond the one-tenth of one percent level. The coefficient of  $W_i$  is significant at the one percent level. The remaining coefficients are not significant.

(A.2) 1963, School Committee: Blank Ballots

$$D_i = .171 + .106 H_i + .501 I_i + .071 W_i - .145 L_i + .125 S_i$$

$R^2 = .571 \quad N = 221$

Again only a bit more than half the variance is explained. The constant term and the coefficient of  $I_i$  are significant beyond the one-tenth of one percent level; the coefficient of  $S_i$  is significant at the five percent level; the remaining coefficients are not significant.

(A.3) 1965, School Committee: Blank Ballots

$$D_i = .152 + .164 H_i + .527 I_i + .015 W_i - .198 L_i - .075 S_i$$

(.045) (.054) (.044) (.076) (.089) (.050)

$$R^2 = .724 \quad N = 221$$

This time about 70 percent of the variance is explained. The constant term and the coefficient of  $I_i$  are significant at or beyond the one-tenth of one percent level; the coefficient of  $H_i$  is significant at the one percent level; the coefficient of  $L_i$  is significant at the five percent level; the remaining coefficients are not significant.

The conclusion emerging from these three regressions is that which we have already anticipated in comparing our other results with and without the blank ballots variable. Iannella voters consistently cast a high number of blank ballots relative to other voters. Other groups may or may not cast blanks relative to each other -- this appears to depend on the group and on the election -- but the relative differences in their behavior in this regard are small compared to the tendency for Iannella voters to vote blank.

Before closing this appendix, we may briefly mention an alternative method for handling the blank ballots problem which we did not adopt. This would be to take as the dependent variable not the fraction of voters entering the voting booth who voted for the given candidate but rather the fraction of the actual (non-blank) votes which that candidate received. This method, however, has the defect of counting precincts with very few voters casting non-blank ballots the same as precincts with almost all voters doing so. It can thus weight far too heavily the actions of relatively few people. Since we are interested primarily in the behavior of people voting

or not voting for a particular candidate, we do not want to count heavily the actions of a few voters just because they happen to live in a precinct in which interest in a given election is low. In any case, we performed all the relevant regressions with this change in the dependent variable, and while it does not seem worth while taking the space to report the results of so doing in detail, there are essentially no differences of any substantive importance between these latter results and those already discussed (although, of course, the precise numbers are different).



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