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AN ANALYSIS OF BOSTON VOTING PATTERNS 1963-67
bv
Ellen P. Fisher and Franklin M. Fisher

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\text { Number } 30-- \text { October } 1968
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## massachusetts

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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 comnutations renorted in this paper were nerformed by Alan Marin at the MIT Sloan School of Management Comnuter Facilitv.

## 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 grouns had recognizably different voting natterns in other elections, or if support for candidates in the 1967 race was a matter of personal anpeal rather than appeal to definably different voter groups.

In particular, we are interested in this regard in the voting,
patterns of the sunporters of John Sears (then a state representative). To some local nolitical analysts, Sears, excent for the fact that he was Renublican, seemed to anneal to the same group of voters as did Boston Redevelopment Administrator Fdward Logue and nossiblv Massachusetts Secretary of State Kevin White. ${ }^{1}$ on the other hand, considering the strong showing that he made in the preliminary election, it seems nossible that Sears somehow succeeded in bringing out and activating a distinct groun of voters. It was thus of some interest to determine whether this groun of voters was in fact unique or whether it was a snlinter groun of the more
${ }^{1}$ 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 awav 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 resnects they were or were not similar.

Finally, we were also able to examine the hypothesis that the supiorters of Mrs. Hicks formed a close-knit groun coming out to vote for her in any election in which she ran. ${ }^{1}$

Some background on Boston politics and on the 1967 mayoralty election in particular is clearly in order. Boston is a Democratic city. No Renublican nresidential candidate has carried the city since 1924. The last Republican mayor was elected in 1925. The Redublican 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 narty designation annears on the ballot.

In September 1967, as already indicated, ten candidates anneared on the ballot in the nreliminarv election for mavor of Boston. The winners in
$1_{\text {Robert Healy, Boston Globe, September 11, 1967, D. 11, "Her Deople }}$ were with her last year and the year before that. It is a loyal and vocal following ....'

David B. Wilson (Boston Glohe, September 21,1967 , n. 37) reported that the proportion of voters choosing Mrs. Hicks in the preliminary election would be about the same pronortion which would choose her in the final election and that, while this would win her a snot on the final hallot it would not be sufficient to elect her mayor.
this preliminary election were Mrs. Louise Day Hicks (43,722 votes) and Kevin White $(30,789) .^{1}$ Third was John Sears $(23,924)$, fourth Edward Logue $(23,766)$, fifth Christopher A. Iannella $(18,343) .{ }^{2}$

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 communty over de facto segregation in the schools, and school husing nrograms. She was champion of the neighborhood schnol and hrought her audiences to their feet reneatedly during her cammalgn with the slogan "You know where I stand." The daughter of a former municinal 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-1aw of former nresidents of the Boston City Council.

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

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

Christopher A. Iannella had been a legislator for four terms and was then a citv councilman. He had heen the ton vote getter for city council in 1965.
$1_{\text {White won }}$ the final election in November by 102,706 to 90,154 .
${ }^{2}$ 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 councflmen was Thomas Atkins, a Negro Harvard Law School student. Moreover, number one was John Saltonstall, Democratic nenhew of the former Massachusets Republican Senator and from an old New England famfly. Not since 1949, when Boston began electing councilmen at large, had anvone who was not of Italian or Irish origin been elected to the cfty 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 Renubilcan John Volpe defeated Democrats Joseph Belotti (1964) and Edward McCormack (1966). Of interest here was a test of ethnic voting natterns, 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 Fndicott Peabody (a Yankee Democrat).
5) The final election for mavor in November 1967 in which Kevin thite defeated Mrs. Louise Day Hicks.

Because attitudes toward Mrs. Hicks or, more generally, toward Negroes were clearlv of imnortance in most of these elections as well as in the 1967
preliminary election for mayor, it seemed likely that voting natterns 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. ${ }^{1}$

Note that no similar reason promnts us to remove precincts with, sav, a high number of voters of Italian origin. Indeed, if Italian-Americans ten'd to vote for candidates of Italian origin this should show un in the analysis of the behavior of Iannella sunporters.

## 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 orecinct who voted for a particular candidate. We sought to explain that variable by regression on several independent variables (the unit of observation alwavs being the precinct). For the most part, such indenendent variables were the fractions of total votes cast in the 1967 oreliminary election for mayor for the five major candidates so that the regression coefficients reflect the differing degrees to which supoorters of the different 1967 mavoralty candidates also supported the particular candidate whose vote is the denendent variable. There was one other indenendent variable used, however, and we shall discuss this hefore returning to the general model and its internretation.

In elections for citv council and for school committee, where more than one candidate is to be elected, each voter can cast as many votes as
${ }^{1} 1960$ was the most recent census year. It seems likely that precincts which were more than 10 ner cent Negro in 1960 had a rather higher Negro pronortion by 1967. The choice of 10 ner cent as the cut-off does not materially affect the results.
there are nositions to be filled (nine in the case of citv 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 oresident, for examnle) do not vote at all in such elections. This raises a prohlem as to hov this phenomenon which shows up in the data as blank ballots can best be handled for our nurposes.

The first nossibility 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 satisfactorv. The effect on the candidacy of a real nerson of numerous votes for such a fictitious candfdate is not the same as that of the same number of votes for a real ondonent. We do not want to count non-voting as though it were the same as voting.

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

This is comnuted 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:

$$
\begin{equation*}
B=k V-T . \tag{2.1}
\end{equation*}
$$

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

From B, we can compute the average number of blank ballots cast ner 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, evervone may have voted hut 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 anv 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 narticular 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 narticular 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 nroblem by using D itself as an indenendent variable in the regressions. Thus, our other coefficients can be interpreted as effects which hold with the average number of blank ballots ner voter held constant. ${ }^{l}$
${ }^{l}$ This may not be really annronriate, since it can be argued that the casting of blank ballots is itself a nhenomenon that we mav wish to explain in terms of voting natterns in the preliminarv mavoralty election. We take un this matter in the Annendix where it is shown that most of the results are insensitive to this nroblem.

Our model is thus the following one:

$$
\begin{equation*}
Y_{i}=\alpha_{n}+\alpha_{1} H_{i}+\alpha_{2} I_{i}+\alpha_{3} W_{i}+\alpha_{4} I_{i}+\alpha_{5} S_{i}+\alpha_{6} n_{i} \tag{2.2}
\end{equation*}
$$

where the sumbols are defined as follows:


A few remarks ahout the model and its internretation now seem in order.
First, we have chosen a linear form as a simnle aproximation. It works quite well, hut 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 noints 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 nreliminary election differed by one nercentage noint.

This leads us naturally to a discussion of the constant term, $\alpha_{n}$. 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 nrecinct exists, so the constant term must be regarded only as an approximate estimate of such an intercent. 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 nrincinal candidates in the 1967 oreliminary election for mayor (either because they did not vote in that election or because thev voted for a minor candidate). Similarlv, the coefficients of the various other variables (excent D) should be regarded as measuring the extent to which the given candidate ran better (worse) among those sumporting Hicks, Iannella, Lngue, White, or Sears, as the case mav be, than he did amone voters othenvise not classified. Thus a coefficient of zero for $\|_{i}$, for examnle, would not mean that sunnorters of Mrs. Hicks failed to vote for the candidate in question, but that thev did so in no greater numbers than did unclassified voters. A negative coefficient would mean they did so in smaller numbers and a oositive one that they did so in greater numbers. This will be imnortant in internreting the results to which we now turn.

## 3. The Basic Results

As alreadv remarked, we first removed from the samnle anv nrecinct which a comparison of precinct mans with census tracts showed to have had more than 10 ner cent Negro nonulation in 1960 , since it seemed likelv that Negro and White voting natterns would differ in ways not cantured hy our
variables. The 54 "Negro" nrecincts were treated separately to see if this was so; we shall return to this later. The remaining precinsts were 221 in number.

The first election which we shall consider is that for city council in November 1967. ${ }^{1}$ 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 cquation (?.?) with dependent variable, $A_{i}$, the fraction of voters in orecinct $i$ voting for Atkins. Figures in parentheses are standard errors.
(3.1) 1967 City Council Election: Atkins

$$
\begin{aligned}
& R^{2}=.833 \quad N=291
\end{aligned}
$$

The fit is extremely good (particularlv considering the large number of observations) and the cnefficients 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 nercent level but not at the one-tenth of one nercent 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
${ }^{1}$ Data for all elections prior to 1967 were taken from the Annual Penorts of the Boston Flection Denartment. For 1967, we used the official tally sheets on file at that denartment.
worse among them than among undifferentiated voters）．Considering Mrs．Hicks＇ nosition as to Negroes and schools，this is what we should exnect of her sunporters．Similarly，if we identify Iannella voters as largelv from the Italian－American nrecincts where a school bussing controversy was going on and where Mrs．Hicks was said to be cutting into the Italian－American vote，${ }^{1}$ it is not surprising to find them less in favor of a Negro for citv council than unclassified voters were．

Sunporters of White，Logue，and Sears，however，in a nattern which we shall encounter again，tended to vote for Atkins．White sunnorters and Logue sunporters did so to about the same extent（． 455 and .422 ，respectivelv）， but Sears sunporters did so by far more（．723）．While Loque voters and White voters were located in different places（otherwise the regression would not have given significant coefficients to both $L$ and $⿴ 囗 十 ⺝ 丶$ just about the same so far as voting for Atkins was concerned．Sears voters behaved more like these two grouns than like anv other，but clearlv formed a groun with definablv different voting behavior．？

Finallv，the coefficient of the average hlank ballot variahle，$n$ ，is interesting，narticularly when comnared with the coefficients found in the results to he presented below．Other things equal，Atkins did better where average blank ballots were high than he did where thev were low．This is
$1_{\text {See the column by Robert Healy，Boston Globe，August 11，1967，D．} 9 . ~}^{\text {，}}$ On the other hand，the evidence in the Anpendix 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 manv Iannella voters did not vote at all for citv council whereas Atkins tended to be strong among voters casting only nartiallv 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 Annendix for further discussion．
${ }^{2}$ The difference is statisticallv significant at alout the five nercent level．
attributable to two related causes (associated with the different reasons, discussed above, why average blank ballots can he high). ${ }^{1}$ In the first nlace, Atkins was not the best-known candidate for citv council. Peonle 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 neonle who came out to vote narticularlv for'him. Indeed, it is possible that manv nennle "hullet voted" for Atkins -- that is, voted only for him, leaving the other eight olaces on the ballot blank. Particularlv considering, his race and the candidacy of Mrs. Hicks, we should expect Atkins not to have benefitted from relativelv inattentive voting. Rather, we would expect him to have done well among neonle voting specially for him for city council. This is borne out hoth by the coefficient of $D$ and bv the relativelv low value of the constant term, indicating low strength among unclassified voters.

A similar but not identical nattern emerges when we examine the candidacy of John Saltonstall in the same election. Indicating the denendent variable by $S A$, the results are:
(3.2) 1967 City Council: Saltonstall

$$
\begin{gathered}
\mathrm{SA}_{\mathrm{i}}=\underset{(.055)}{.416}-\underset{(.064)}{.212} \mathrm{H}_{\mathrm{i}}+\underset{(.066)}{.236} \mathrm{I}_{\mathrm{i}}+\underset{(.091)}{.353 \mathrm{~N}_{i}}+\underset{(.0796)}{. .579} \mathrm{~L}_{\mathrm{i}}+\underset{(.06 ?)}{.768} \mathrm{~S}_{i}-\underset{(.072)}{.532} \mathrm{~N}_{\mathrm{i}} \\
\mathrm{R}^{?}=.837 \quad \mathrm{~N}=221
\end{gathered}
$$

Again the fit is extremely good. All coefficients are significant at
${ }^{1}$ The average value of $D$ across the ?21 nrecincts was .338 in this election. On the average, one in every three voters cast one blank hallot or one in every six cast two blank ballots, and so forth.
better than the one-tenth of one nercent level. As in the Atkins regression, the coefficient of $S$ is Darticularlv significant, being more than ten times its standard error.

The pattern of the coefficients is again revealing, narticularly when contrasted with that found for Atkins. The five grouns of voters are strung out in ascending order of favorableness toward Saltonstall as : Hicks, Iannella, Thite, Logue, and Sears. This is essentially the same pattern as for Atkins but here Hicks and Iannella supporters no longer behave the same: further, Thite and Logue sunporters 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 citv council. He was clearlv 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 obviouslv borne out by the results.

We turn now to some nartisan elections for state and natioanl office. The first of these is the gubernatorial election of 1966 in which John A. Volpe, the incumbent Republican governor defeated Bdward J. McCormack. With vo denoting the denendent variable, the results are as follows:
(3.3) Governor, 1966: Volpe vs. McCormack

$$
\begin{aligned}
& R^{?}=.746 \quad N=221
\end{aligned}
$$

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

The results are what we would expect in a partisan election and (like some of the other results to he nresented), thev serve chiefly to check on our methods. Relative to unclassified voters, supporters of regular IrishAmerican Democrats, Hicks and White, both voted against the Republican candidate and for his Democratic Irish-American onnonent. Sunporters of Italian-American candidate Iannella voted for Italian-American Volne. Sunnorters of Renublican Sears voted for the Redublican candidate. So did those of Logue who himself had strong support in the business community. ${ }^{1}$

An interesting difference lending added confidence to our method emerges when we analyze the 1964 gubernatorial election in which Volne defeated Francis X. Bellotti, the incumbent Democratic lieutenant governor who had himself unset the incumbent governor, Endicott Peabodv, in the Democratic primary. The results are:
(3.4) Governor, 1964: Volpe vs. Bellotti

$$
\begin{aligned}
& R^{2}=.731 \quad N=221
\end{aligned}
$$

${ }^{1}$ The blank ballot variable does not enter in a gubernatorial or senatorial election since we can take as the denominator of the denendent variable the total votes cast for the office thus simnlv 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 narties.

The fit is again good. All coefficients are significant at hetter than the one-tenth of one nercent level with the exception of that of $I_{i}$ which is significant at the one nercent level but not quite at the one-tenth of one nercent level.

The nattern is obviously the same as for the 1966 election with one notable excention -- the Iannella voters. This is exactlv what one should exnect 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 nartisan elections which we studied was that for Senator in 1966. In that election, Republican Edward Brooke, a Negro, defeated former Democratic governor, Fndicott Peabodv. Using the vote for Brooke as the dependent variable, and denoting it by $B_{i}$, the results are:
(3.5) Senator, 1966: Prooke vs. Peabody

$$
\begin{aligned}
& R^{2}=.871 \quad N=221
\end{aligned}
$$

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 nercent level. The coefficient of $I_{i}$ is significant at the two nercent level. The coefficient of $L_{i}$ is significant at the five nercent level. The coefficient of $W_{i}$ is not significant.

In a way, these results reveal a nattern intermediate between that observed in the 1967 city council election (and continued in the school committee results below) and that observed in the rubernatorial elections
just discussed. The order ohserved in the case of Atkins and Saltonstall -Hicks, Lannella, White, Lopue, Sears -- is preserved save for the inversion of White and Iannella. This is reasonahle. Since Hicks sunporters can be characterized as nemocrats with some anti-Negro bias, hoth the fact that Brooke was Renublican 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 liheral (in civil right matters) Renuhlicans. Both effects lead to a nositive coefficient hore, and the larger coefficient on $S_{i}$ than on $t_{i}$ is consistent with the results found for Atkins and Saltonstall. White voters, on the other hand, might he characterized from our earlier results as liberal Democrats. The fact that Brooke was a Vegro and the fact that he was Renublican should here have pulled in opposite directions and, accordinglv, we find a near zero coefficient and a nosition lower than that of logue and Sears voters but higher than that of Hicks voters. The only surnrise might annear to be the nosition of Iannella voters who in the results above and below are closer to Hicks voters when a Negro runs than is anv other groun. Their coefficient in these results mav nerhans be explained hy two facts. First, this was the election in which Volne faced McCormack in the gubernatorial race (see Fquation (3.3), above) and there mav have been some carry-over. Second, Brooke's wife is white and Italian born. She campaigned for him in the Italian districts. ${ }^{1}$

The last two elections to he examined are those for school committee
${ }^{1}$ Gloria Negri in the Boston Globe for November 1, 1966 (n. 12), reported that Remigia Brooke camnaigned even at grocers: "She is a great favorite in the North Find, Fast Boston and other Italian communities and latelv has been tossing in a bit of camnaigning while doing her grocerv shonning in the North End."

Similarlv, Timothv Leland wrote on Sundav, November 6, 1966 (n. 16)" "His wife, Remigia, took over for her husband on the campaign trail where he left off, touring the North Find 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 nuhlicized 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 denendent variahle by $k_{i}$, the results are:
(3.6) 1963, School Committee: King

$$
\begin{aligned}
& R^{2}=.734 \quad N=221
\end{aligned}
$$

The fit is about the same as for the gubernatorial elections. The coefficients of $W_{i}, L_{i}, S_{i}$, and $T_{i}$ are significant at least at the one-tenth of one nercent level: the coefficient of $I_{i}$ is significant at the ffve nercent 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 Thite, Logue, and Sears voters, the results are as one would exnect. 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 grouns. Moreover, the results as to blank ballots are consonant with our orevious discussion. King was stronger, other things equal, where blank ballots where high than where thev 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 1267 (Equation (3.1)), we find all three groups -Hicks voters, Tannella voters, and unclassified voters -- to he less favorable to a Negro candidate for citv office than the remaining three grouns. What may annear surprising is the near zero coefficient of $H_{i}$. This does not indicate, however, that Hicks voters were more favorable to King than to Atkins. Rather it indicates that thev 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. Ohviously, in view of the issues on which the 1963 school committee election was fought and in view of Mrs. Hilks' own position and candidacy the second hynothesis is more reasonable. It is borne out by the negative (though insignificant) constant term in the King, results as onnosed to the positive (though insignificant) constant term in the Atkins results. To nut the matter slightly differently. It looks as though Hicks voters ${ }^{1}$ had the same attitude in 1963 toward the candidacy of King as did unclassified voters (and rough1v, as did Iannella voters). That attitude was nreserved bv 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 denendent variable bv HI, the results for 1963 are:

[^0]\[

$$
\begin{aligned}
& \text { 1963, School Committee: Hicks }
\end{aligned}
$$
\]

$$
\begin{aligned}
& R^{2}=.937 \quad N=221
\end{aligned}
$$

The fit is very good. All coefficients are significant well beyond the onetenth of one nercent level with the exception of the coefficient of ${ }_{1}$ which is not significant.

For 1965, the results are similar:
(3.8) 1965 , School Committee: Hicks

$$
\begin{aligned}
& R^{2}=.794 \quad N=221
\end{aligned}
$$

The fit is slightlv noorer but still very good. Again all coefficients are significant well bevond the one-tenth of one percent level with the excention of the coefficient of $H_{i}$ which is not sipnificant.

The nattern of these results is clear. In hoth elections, Yrs. Hicks ran strongly among unclassified voters and equallv well (but not stronger) among those who would later sunport her in the 1967 nreliminary 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 narticular, note the difference between Sears and Logue voters.) Mrs. Hicks ran worse where blank ballots ner voter were high, other things equal, than where they were low, the effect being particularlv strong in 1963. This is what we should exnect from our earlier discussion of the blank ballots variable,
since Mrs. Hicks was far and away the best known and (especiallv in 1963) the most controversial candidate. There is some evidence of polarization from 1963 to 1965 with the relative anti-Hicks hehavior of White, Togue, and Sears voters hecoming stronger.

The reallv interesting phenomenon, however, is the fact alreadv 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 stronglv among either groun). 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. Thatever the exnlanation, however, in 1963 and 1965 , when running for school committee, Mrs. Hicks ran well among unclassified voters and among licks voters. In the preliminary election for mayor in 1967 , bv definition, she ran extremelv well among Hicks voters and extremely badly among unclassified voters.

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

$$
\begin{aligned}
& R^{?}=.881 \quad N=221
\end{aligned}
$$

The fit is excellent, as before. All coefficients are significant well bevond
the one-tenth of one nercent 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 sumported her in the mavoralty primary. This is not surnrising, but it bears on the nhenomenon we have been discussing. In the 1963 and 1965 school committee elections, Mrs. Hicks ran enuallv well among the two grouns of voters. Then running for mayor in 1967 , she did not run as well among both grouns. Moreover, the results clearlv show that this was not simnly a matter of losing votes in the nreliminary election which then returned to her in the final. While Mrs. Hicks was stronger in the final election among unclassified voters than among any groun save those voting for her in the nreliminary election, she was significantlv weaker among unclassified voters than among those sunnorting her in the nreliminarv. This is in sharn contrast to the results for the school committee elections. It is thus quite clear that the hynothesis that the same groun of neonle alwavs comes out to vote for Mrs. Hicks is false. Then running for school committee she had broader-based sunnort than when running for mavor. Whether the difference is due to the nature of the offices, the onnosition, the issues, or a temnoral shift in attitudes, it is clear that it is there. It is scarcelv necessarv to remind the reader that Mrs. Hicks lost the final mavoraltv election to Kevin White.
Finally, as do (3.6) and (3.7), (3.8) shows Mrs. Hicks running.
stronger among Lannella voters than among the other grouns. However, as opnosed 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 mavor, hoth groups going stronglv for kevin White. (The larger negative coefficient for white voters needs no exnlanation, of course.) Tt
is interesting to note that this general nattern 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 anpropriate at this point to summarize what we have learned from the results of the nreceding sectinn. In hroad outline, the main conclusions drawn are these.

1. The preliminarv election for mayor in 1967 split the Boston electorate into six grouns of voters (llicks, Iannella, White, Togue, Sears, and unclassified). That snlit was far from random. Rather, each of these groups displaved consistent voting characteristics in the various elections studied and knowing how a precinct was snlit in the 1967 preliminary election for mavor goes a long way toward exnlaining its vote in the other elections. We explain from 73 to 87 ner cent of the variance of the various denendent variables.
2. In terms of attitudes toward Negro candidates in nonpartisan elections and related issues, the classified grouns consistently range in the order Hicks, Iannella, White, logue, Sears listed in ascending order of favorableness toward Negroes. Ninclassified 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 nartisan elections, Hicks and Thite voters are Democrats and Lngue and Sears voters Renublicans. The candidacy of Edward Pronke shifted White voters to the Renublican column to some extent.
4. [annclla voters are clearlv largely Italian-Amerfcans, as one might expect.
5. Sears voters are a clearly separate groun. 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 onposite extreme from Hicks voters and generally are distinguishable from Logue and White voters. ${ }^{1}$
6. In elections for school committee and citv council where voters can cast more than one ballot, other things equal, blank hallots heln vepro candidates (Atkins, King) and hurt nrominent or controversial candidates (Saltonstall and especiallv Mrs. Hicks). This is consistent with the view that voters filling out a comnlete ballot naturally tend to vote for the most familiar name and that Vegro candidates tend to benefit frombullet balloting.?
7. When running for school committee in 1963 and 1965 , Mrs. Hicks was strongest and equally strong among two grouns of voters. Only one of these grouns sunported her in the 1967 nreliminary mayoraltv election, and, while both grouns sunported her in the final election, thev did not do so to an enual extent as had been the case in her winning school committee races.
[^1]
## 5. Precincts vith a Substantial Negro Ponulation

Refore closing, it seems of interest to discuss the results obtained when the same analysis was performed on the 54 nrecincts in Boston not included in the $2 ? 1$ to which the renorted regressions annly. As indicated, these were those nrecincts which had a Negro nonulation of more than 10 nercent -- generallv considerablv more -- in 1960 (the most recent census vear). Tvoically, we would exnect them to have had a higher nercentage of Negroes by the time of the analvzed elections.

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

In the first place, as onnosed to the 221 precincts alreadv studied, the 1967 preliminary mavoralty election did not anpear to divide the electorate of the 54 precincts into clearly distinguishahle grouns with different voting natterns. While there are some regressions in which that division seems to matter, on the whole it does not do so systematically. For the most nart, indeed, voters sunnorting four of the five named candidates in 1967 were indistinguishable in other elections from unclassified voters.

There is, however, one striking (and exnected) excention to this. Supporters of Mrs. Hicks in the 1967 nreliminary election obviouslv form a groun whose hehavior in other elections differed shardly from that of the other voters in these precinsts. It is obviouslv reasonable to sunnose that this is largely because her candidacv did (as the others did not) tend to senarate the electorate in these nrecincts into Negro and white voters. In other words, while there are some excentions, it he1ns to explain behavior in other elections in these nrecincts to know where Hicks voters were located.

It does not heln significantly to know how the rest of the electorate split in the mayoraltv nrimarv.

It does heln, however, to know where blank hallots were high. Tvnicallv, blank ballots were higher on average in these 54 precincts than in the remaining 221. This was narticularlv 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 . 41 h ner voter in the 54 nrecincts and .274 ner voter in the remaining 2?1. Tn the 1955 school committee election, the corresnonding fipures were .? 46 and .? 2 h , while in the 1967 citv council election, they were .499 and .338 . Further, in contrast to the 221 nrecincts in which Iannella voters tended to differ from the rest in casting a greater number of hlank ballots (see the Annendix), in these $5 / 4$ nrecincts, Hicks voters were notablv different from the rest: thev cast simificantly fever 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 nrecincts for bullet voting, esneciallv for Negro candidates. Indeed, it is a reasonable characterization of the results for the 54 precincts to sav that the two items which tend to mater in the regressions are the location of the llicks voters and the extent of blank balloting. ${ }^{1}$

Among the non-Hicks voters in these precincts, then, our results suggest that what mattered was whether thev voted nurnosefullv, so to sneak.

[^2]Given that, the snlit of the electorate by the 1967 nreliminary election mattered relatively little. The candidacies of the other four named candidates in that election annarently did not anpeal to definably different grouns with different voting natterns in the way which we found to be clearly the case in the precincts without a substantial Negro nonulation. Indeed, thev did not appeal to groups much different from unclassified voters. It would be somewhat surorising if it were otherwise. Nnlv Mrs. Hicks (and nerhans Iannclla) among the named candidates could he expected to have sharnly different anneal from the other candidates in these nrecincts and we have already controlled for the nrincinal difference between the voters here and elsewhere in the city by senarating them in our analysis. Once that has been done, heterogeneity within these precincts excent 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 bv each voter. In the main text we handled this by entering average blank ballots ner voter ( $\mathrm{D}_{\mathrm{i}}$ ) as a variable in the regression equations. This had the merit of holding constant blank balloting ner voter in comnaring other effects, but it may not be a wholly satisfactory wav of proceeding. This is so because blank halloting is itself not independent of the other effects which we are investigating. Thus, if Sears voters, for example, tend to hlank ballot more than licks voters, we may want to leave the blank ballot variable out and attribute its effects to the snlit between Hicks and Sears voters. On the other hand, to leave out the hlank 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 onponents.

Fortunately, the results are generally not sensitive to this choice, although thev are a little less sharn when the blank ballot variable is left out than when it is in. We now nresent the results omitting that variable.
(3.1') 1967, City Council: Atkins

$$
\begin{aligned}
& R^{2}=.826 \quad N=2 ? 1
\end{aligned}
$$

The fit is nearly as mod as in Fquation (3.1). All coefficients save the constant term and the coefficient of $I_{i}$ are sisnificant bevond the one-tenth of one nercent level. The coefficient of $I_{i}$ is significant at the two nercent level and the constant term is significant at the five nercent but
not quite at the two percent level.
(3.2') 1967, City Council: Saltonstall

$$
\begin{gathered}
\mathrm{SA}_{i}=\underset{(.060)}{.320}-\underset{(.071)}{.216} \mathrm{H}_{\mathrm{i}}-\underset{(.058)}{.070} \mathrm{I}_{i}+\underset{(.101}{.234 \mathrm{~W}_{i}}+\underset{(.118)}{.055} \mathrm{~L}_{i}+\underset{(.067)}{.640} \mathrm{~S}_{i} \\
\mathrm{R}^{2}=.794 \quad \mathrm{~N}=221
\end{gathered}
$$

Again the fit does not deteriorate much. All coefficients save those of $H_{i}$, $I_{i}$; and $W_{i}$ are simificant well beyond the one-tenth of one nercent level. The coefficient of $H_{i}$ is significant at the one nercent level: that of $W_{i}$ is significant at almost the two nercent level: that of $I_{i}$ is not signifficant.
(3.6') 1963, School Committee: King

$$
\begin{gathered}
\mathrm{K}_{1}=-\underset{(.066)}{-.046-.027} \mathrm{H}_{\mathrm{i}}+\underset{(.076)}{.050} \mathrm{I}_{1}+\underset{(.108)}{.077 \mathrm{H}_{1}}+\underset{(.127)}{. .348} \mathrm{~L}_{\mathrm{i}}+\underset{(.072)}{.0764} \mathrm{~S}_{1} \\
\mathrm{R}^{2}=.702 \quad \mathrm{~N}=221
\end{gathered}
$$

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 nercent level. The remaining coefficients are not significant showing again no substantiallv different hehavior among Hicks, Iannella, and unclassified voters in this election.
(3.7') 1963, School Committee: Hicks

$$
\begin{aligned}
& \mathrm{R}^{?}=.706 \quad \mathrm{~N}=2 ? 1
\end{aligned}
$$

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 sionificant well heyond the one-tenth of one nercent 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

$$
\begin{gathered}
\mathrm{HI}_{i}=\underset{(.073)}{1.142}+\underset{(.086)}{.035} \mathrm{H}_{\mathrm{i}}-\underset{(.070)}{. .577} \mathrm{I}_{\mathrm{i}}-\underset{\left(.676 \mathrm{~N}_{\mathrm{i}}\right.}{(.122)} \underset{(.143)}{.081} \mathrm{~L}_{\mathrm{i}}-\underset{(.081)}{1.085} \mathrm{~S}_{\mathrm{i}} \\
\mathrm{R}^{2}=.780 \quad \mathrm{~N}=221
\end{gathered}
$$

The fit is nearly as good as in Equation (3.8). All coefficients are significant far bevond the one-tenth of one percent level with the excention of the coefficient of $H_{i}$ which is not significant.

The results are qualitatively similar to those in the text and our orincinal conclusions are obviouslv unaffected by them. The princinal differences come in the coefficients of $I_{i}$. This suggests (and is horne out below) that Iannella voters tend to cast blank ballots. It also noints 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 onnosed to Mrs. Hicks while the former shows them only mildly onosed. In a way, this is true if "onnosed" means "not voting for." In fact, however, large numhers of the Iannella voters not voting for Mrs. H1cks in 1963 were not voting for anvone 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. lifes when thev do not vote for her. This is whv we chose to hold blank hallots ner voter
constant in the text, but it is comforting to know that it makes verv little difference to our conclusions.

For what $1 t$ is worth, we oresent regressions of $\eta_{i}$ on the other variables in an attempt to see exnlicitlv what groups tend to cast blank ballots. As there are several reasons for casting blank hallots (as discussed in the text), it is hard to internret the results as more than descrintive.
(A.1) 1967, City Council: B1ank Ballots

$$
\begin{aligned}
& R^{?}=.568 \quad N=221
\end{aligned}
$$

The fit is not nearlv so good as in the other results presented. nnly a bit more than half the variance is exnlained. Thus a large part of the variation in blank halloting in this election is not associated with the split in the mavoraltv nreliminary election. The constant term and the coefficients of $I_{i}$ and $S_{i}$ are significant beyond the one-tenth of one nercent level. The coefficient of $W_{i}$ is significant at the one nercent level. The remaining coefficients are not significant.
(A.2) 1963, School Committee: Blank Ballots

$$
\begin{gathered}
\mathrm{D}_{\mathrm{i}}=\underset{(.049)}{. .171}+\underset{(.058)}{.006} \mathrm{H}_{\mathrm{i}}+\underset{(.047)}{.001 \mathrm{I}_{\mathrm{i}}}+\underset{(.082)}{.071} \mathrm{~N}_{\mathrm{i}}-\underset{(.096)}{.145} \mathrm{~L}_{\mathrm{i}}+\underset{(.054)}{.025} \mathrm{~S}_{\mathrm{i}} \\
\mathrm{R}^{2}=.571 \quad \mathrm{~N}=221
\end{gathered}
$$

Again onlv a bit more than half the variance is explained. The constant term and the coefficient of $I_{i}$ are significant bevond the one-tenth of one nercent level: the coefficient of $S_{i}$ is significant at the five percent level; the remaining coefficients are not significant.
(A.3) 1965, Schonl Committee: Blank Ballots

$$
\begin{gathered}
\mathrm{D}_{\mathrm{i}}=\underset{(.045)}{.152}+\underset{(.054)}{.164} \mathrm{H}_{1}+\underset{(.044)}{. .527 \mathrm{I}_{\mathrm{i}}}+\underset{(.076)}{.015} \mathrm{H}_{\mathrm{i}}-\underset{(.089)}{.0198} \mathrm{~L}_{\mathrm{i}}-\underset{(.075)}{. .075} \mathrm{~S}_{\mathrm{i}} \\
R^{2}=.724 \quad \mathrm{~N}=221
\end{gathered}
$$

This time about 71 nercent of the variance is explained. The constant term and the coefficient of $I_{i}$ are significant at or bevond the one-tenth of one percent level; the coefficient of $H_{i}$ is significant at the one nercent level: the coefficient of $L_{i}$ is significant at the five nercent 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 grouns may or mav not cast blanks relative to each other -- this annears to denend on the group and on the election -- but the relative differences in their behavior in this regard are small compared to the tendency for Lannella voters to vote blank.

Before closing this anpendix, we mav briefly mention an alternative method for handling the blank ballots nroblem which we did not adont. This would be to take as the dependent variable not the fraction of vnters entering the voting booth who voted for the given candidate hut rather the fraction of the actual (non-blank) votes which that candidate received. This method, however, has the defect of counting nrecincts with very few voters casting non-blank ballots the same as nrecincts with almost all voters doing so. It can thus weisht far too heavily the actions of relativelv few nennle. Since we are interested nrimarilv in the behavior of neonle voting
or not voting for a narticular candidate, we do not want to count heavily the actions of a few voters just because they happen to live in a nrecinct in which interest in a given election is low. In any case, we performed all the relevant regressions with this change in the denendent variable, and while it does not seem worth while taking the snace to renort the results of so doing, in detail, there are essentiallv no differences of any substantive imnortance hetween these later results and those already discussed (althnugh, of course, the nrecise numbers are different).




[^0]:    ${ }^{1}$ As we have so far done, we shall use the term "Hicks voters" to refer to those voting, for Mrs. Hicks in the 1967 nreliminary election for mavor, not to those voting, for her in the 1963 and 1965 school committee elections.

[^1]:    ${ }^{1}$ 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 nreliminarv election for mavor $\left(S_{j}\right)$ on the ratio of registered Renublicans to the total vote in that election. Denoting the latter variable by $R_{i}$, the results were:

    $$
    \begin{gather*}
    S_{i}=\underset{(.037)}{ }+. .719 R_{i}  \tag{4.1}\\
    \left.\mathrm{r}^{2}=.019\right) \\
    .879 \quad \mathrm{v}=22.1
    \end{gather*}
    $$

    Both coefficients are significant far bevond the one-tenth of one nercent level.
    ${ }^{2}$ nur other rosults do not denend on our narticular treatment of the blank hallot nroblem. See the Appendix.

[^2]:    ${ }^{1}$ It should be added, however, that the fact that $H_{i}$ and $\eta_{i}$ tend to be highly negatively correlated occasionally makes it difficult reliably to distincuish the two effects.

