

## Political Charity

In the last chapter we developed a reputational theory of charity, a theory about any prosocial behavior that has costs to the individual so engaged. Voter participation and commonly defined charity qualify as such behavior. The former has time costs and is regarded as having favorable social consequences. There is a positive externality from either being a voter or being the sort of person who would vote. The willingness to accept the legitimacy of democratic government policy with which one disagrees is an important component of social harmony, and one fostered by high voter participation. There is some evidence for this contention. In addition to self-serving “get out the vote” drives of political parties and their allies, there are frequent public service announcements from neutral sources such as the Advertising Council,<sup>1</sup> and some polities tax the act of not voting.

Because the participation occurs so infrequently, some might regard voter participation as a poor vessel for signaling reputation. But the resulting reduction in returns is matched by a similar reduction in costs. Many give infrequently to specific charities. A person cumulates a reputation for trustworthiness by many prosocial acts, one of which could well be voter participation.

There is a more serious objection to voter participation as a signaling device: the limited information that others have about whether an individual voted or not. There is very little direct observation of an individual by others whose good opinion matters to that individual. In the last chapter, we saw, however, that people can get information about voting participation from individuals stating that they voted. In spite of the substantial lying from those who so state, the probability that a person actually voted is increased by his saying that he voted. Even so, information is scarce.

A similar problem exists for charity. We hypothesized that our theory’s successful predictions in that case were the result of a combination of actual reputational signals and conscience, and the latter we argued in the last chapter is positively related to reputational variables.

We use the same argument here, though it well might be that there is less information about voter participation than charity. There certainly is less information from direct observation, though the taboo on bragging about one's charity, discussed in chapter 3, does not hold with equal force for statements about voting. In any case, the a priori case for predicting voter participation through reputational variables is highly dependent on conscience being thus predictable.

The literature has long recognized some obvious features of voting behavior: (1) Any single person's vote has virtually no impact on an election; (2) people vote anyhow; and (3) the only way this seeming paradox can be resolved is by the existence of some private return to voting rather than a return from influencing the outcome of an election. The private return we propose is dominantly a conscience return with probably a little reputational signaling as well.

### **Who Is More Likely to Vote?**

Reputation variables in part determine voting participation whether motivated directly by reputation or indirectly by conscience. Hence, the same variables that determine charitable contributions determine voting participation. In chapter 3 we made four predictions. Now, all we have to do is substitute the word *voting* for *charity*. (1) We predict that the more people one knows, the more likely he will be to vote. The more people one has known in the past, the more one will have developed a conscience. (2) Since the returns to trustworthy behavior are delayed returns—future reciprocity gains—those with lower rates of time preference have more to gain by signaling trustworthiness. As developed in chapter 3, that implies, that those with a lower rate of time preference in the past would have developed more of a conscience applicable to behavior about which others know little. Those with greater education and steeper age-earnings profiles will tend to have lower rates of time preference. (3) People with greater incomes or greater assets will also have lower rates of time preference. In addition they will tend to have greater reciprocity gains in dollar terms simply because they deal with greater-valued transactions. Because income levels have some stability over time, these groups will also have more to gain in the past from developing a conscience, which as a by-product leads to more frequent voting. However, the cost of voting—the value of time—also increases with an important component of income, wage income. (4) The income of people who are self-employed is particularly dependent on the reputational gains that can

be generated by prosocial behavior. Hence, they should vote more frequently.

We test these propositions about voting with the *General Social Surveys, 1972–1996* (NORC 1996). The most serious problem with that data was discussed in chapter 3 in a different context. There is a substantial portion of lying nonvoters among those counted as voters. There is a reputational incentive to lie about voting as well as a reputational incentive to vote. Are regression results that show that reputational variables explain voting attributable to the liars rather than the voters? Bernstein, Chadha, and Montjoy (2001) showed that all seven of the variables we employed and that we can identify as reputational variables that were significant in a regression using self-reported votes were also significant with the same sign in a regression using actual votes, though the values of the coefficients differed in the two regressions.<sup>2</sup>

We explain VOTER (= 1 if respondent reported voting in the last presidential election; = 0 if not, but was eligible to vote) using a wide variety of relevant variables. The results are in table 4.1.<sup>3</sup>

### **Community Involvement**

We first test the proposition that the probability of voting increases with the number of people one knows. This hypothesis implies that those who are more involved in the community will be more likely to vote. There are several variables in the NORC (1996) data set that are related to community involvement, though they have other possible meanings as well.

MEMNUM, the number of organizations to which one belongs, has a strong positive relationship to VOTER ( $t = 8.87$ ). Community involvement affects VOTER in another way as well. The more frequently one attends church, the more involved one is in church activities. Since the church is such an important vehicle for socializing, frequent church attendees are also people with more acquaintances.<sup>4</sup> The relationship of ATTEND—the frequency of attendance at religious services—to VOTER is particularly large. Since several cross-products of ATTEND to other variables—various religious groups—were employed, we look at the value of the slope of ATTEND at the average values of the other variables included in the cross-products,  $b = .0168$  ( $t = 15.01$ ).

The alternative hypotheses about the effect of church attendance revolve around the content of the religious message. The more one

attends church the more likely one is to confront either messages about piety or about social activism, with the mix depending upon the particular church one attends. One suspects that a message about social activism would increase the probability of voting more than a message about piety. Since the former is more relevant to voting, one would predict a tendency to vote among the less pious, *qua* pious, as opposed to more frequent church attendees.

The ATTEND effect occurs among Catholics and Protestants, but not Jews. Whether Protestants are Fundamentalists or mainline has no significant impact. We believe that any ATTEND effect among Jews is masked by the sect effect. Orthodox Jews are more likely to attend services than Reform or Conservative Jews. This masking can only occur if Orthodox Jews are less likely to vote than other Jews. Among Jews, then, there is some indirect evidence that Jewish piety reduces votes, or Jewish “do-gooding” increases votes. But there is no indication that the same holds for Christians. The coefficient of the cross-product of Fundamentalist with attendance is virtually zero.<sup>5</sup>

Another variable that has a community involvement component is age. It is common knowledge that the old vote more than other groups, and this relationship is not confined to the United States. Studies of the Netherlands (Jaarsma, van Winden, and Schram 1985) and Canada (Lapp 1999) come to the same conclusion. But to our knowledge, nobody has provided a satisfactory explanation. There are lower time costs to voting after retirement, but that does not explain why throughout the age distribution voting participation increases with age. In fact, the coefficient for age squared is significantly negative, with  $b = .0001$  ( $t = 16$ ). This result is just the opposite of what one would expect from the cost-of-time hypothesis.

The slope of the age-voting participation relationship at mean age and the means of other variables used in cross-products with age is equal to .0084 with  $t = 35.74$ , a  $t$  value far and away the largest of any associated with any other explanatory variable. This average slope implies enormous differences in voting probabilities for the young and the old. Over a span of fifty years the voting probability of the old would be .42 larger than the young. Given a mean reported voting probability of .704, this implies that the voting probability of the old is almost twice that of the young, holding other variables constant.

The signaling explanation for this result is the same as our explanation in the case of the positive age-charity relationship. The cost of acquiring new friends goes up with age, so the return to impressing old friends about one’s trustworthiness increases.<sup>6</sup> However, there is a puz-

**TABLE 4.1. OLS Regression for Voter Participation (t values in parentheses)**

Variable	Regression		Variable	Regression	
Self-Interest			City		
FY	.0516	(8.01)	LCCIT	-.0250	(1.98)
FY2	.0004	(.23)	SCCIT	-.0288	(3.85)
SELF	.1538	(2.13)	SSURB	-.0228	(2.92)
GOVR	-.0205	(2.19)	LSURB	-.388	(2.50)
UNION	.0147	(2.82)	OURB	-.0460	(5.82)
			SCITY	.0054	(.82)
Personal Background and Political Party			MCITY	.0138	(1.62)
BUSA	.1106	(5.90)	SUBRB	.0062	(.61)
PED	.0035	(3.66)	LCITY	.0140	(1.54)
MED	.0026	(2.47)	Religion		
NEWS	.0892	(6.10)	MAIN	.0019	(.22)
REPUB	.0036	(2.49)	JEW	.0655	(1.80)
REPUB*BLACK	-.0433	(8.67)	CATHOLIC	.0190	(1.43)
REPUB*FY	-.0036	(2.56)	NOREL	.0300	(1.83)
STRONG	.0742	(26.42)	OTHREL	.0294	(1.11)
NCOLYR	.0747	(16.90)	ATTEND	.0035	(.66)
COLYR	.0547	(9.40)	JATT	-.0007	(.06)
MALE	.0084	(.96)	PATT	.0145	(3.11)
MARRIED	-.0053	(.35)	CATT	.0135	(2.79)
MALE*MARRIED	.0338	(3.24)	FUNDAT	.0004	(.38)
CHILD*MALE	-.0199	(1.15)	FYINCOME	.0988	(3.63)
NCHILD*MALE	-.0084	(1.21)	FMARRIED	-.0552	(1.03)
ADULTS	-.0183	(3.84)			
MALE*ADULTS	.0071	(1.02)	Occupations and Industry		
CHILD	-.0045	(.39)	WRITER	.0296	(.94)
NCHILD	.0034	(.77)	LAWYER	.0037	(.11)
BLACK	.1019	(8.21)	CLERGY	.0053	(.14)
			CLERGYFU	.0368	(.91)
			PRIEST	-.0347	(1.19)
			BLACCL	.0238	(.89)
			PROF	.0429	(5.87)
			MGM	.0155	(1.87)
			CLERK	.0414	(6.67)
			SALES	.0408	(5.15)
			ARMY	.0497	[3.04]
			GOV	-.0783	[1.53]
			LOWTEACH	.0112	[.96]
			COLTEACH	.0280	[1.74]
			Community Involvement		
			AGE	.0311	(18.43)
			AGE2	-.0002	(15.93)
			STATMIG	-.0295	(4.72)
			CONTMIG	-.0403	(6.26)
			AGECOLYR	-.0012	(13.25)
			AGENCOLYR	-.0005	(5.72)
			MEMNUM	.0183	(8.87)
			YEAR	-.0016	(4.24)
			N	25,485	
			RSQUARE	.248	
			MEAN	.7095	

**TABLE 4.1.—Continued**

Variable	Regression		Variable	Regression	
<b>Regional</b>			<b>Regions when 16</b>		
NE	-.0215	(1.02)	16NE	.0395	(1.82)
MA	-.0630	(4.10)	16MA	.0200	(1.26)
ENC	-.0210	(1.53)	16ENC	.0193	(1.31)
WNC	-.0157	(.98)	16WNC	.0179	(1.09)
SA	-.0765	(5.41)	16SA	-.0003	(.02)
ESC	-.0916	(4.88)	16ESC	.0346	(1.84)
WSC	-.0597	(3.76)	16WSC	.0081	(.48)
M	-.0257	(1.60)	16M	.0281	(1.55)
SIGETHNIC	9				

*Note:* The key to abbreviations is as follows:

*Self-Interest*

FY = ln of family income relative to mean family income

FY2 = the square of FY

SELF = self employed equal 1

GOVR = recipients of government aid

UNION = union member or spouse of a union member equal 1

*Personal Background and Political Party*

BUSA = born in the U.S. equal 1

PED = father's education

MED = mother's education

NEWS = how frequently one reads newspapers

REPUB = party identification

\* = cross product

STRONG = absolute value of difference between party identification and independent

NCOLYR = number of years of noncollege education

COLYR = number of years of college education

MALE = male equal 1

MARRIED = married equal 1

ADULTS = number of adults in the household

CHILD = child in family equal 1

NCHILD = number of children

BLACK = black equal 1

*Region*

NE = Northeast

MA = Mid-Atlantic

ENC = East North Central

WNC = West North Central

SA = South Atlantic

ESC = East South Central

WSC = West South Central

MT = Mountain

*Occupation and Industry*

WRITER = writer or journalist equal 1

LAWYER = lawyer equal 1

CLERGY = clergy equal 1

CLERGYFU = cross product of clergy and fundamentalist

PRIEST = Catholic clergy equal 1

BLACCL = black clergy equal 1

PROF = professional equal 1

MGM = management equal 1

CLERK = clerk equal 1

SALES = salesmen equal 1

ARMY = armed forces or police equal 1

GOV = employed by government except armed forces, police or education equal 1

LOWTEACH = noncollege teacher equal 1

COLTEACH = college teacher equal 1

*Regions when 16*

Resided in 1 of 8 regions when age 16

*City*

LCCIT = large central city equal 1

SCCIT = small central city equal 1

SSURB = suburb of small central city equal 1

LSURB = suburb of large central city equal 1

OURB = other urban equal 1

SCITY = in small city when 16 equal 1

MCITY = in medium city when 16 equal 1

SUBRB = in suburb when 16 equal 1

LCITY = in large city when 16 equal 1

*Religion*

MAIN = nonfundamentalist Protestant equal 1

JEW = Jew equal 1

CATHOLIC = Catholic equal 1

NOREL = no religion equal 1

OTHREL = minor religions equal 1

**TABLE 4.1.—Continued**

ATTEND = frequency of church attendance	AGECOLYR = interaction of age and number of years of college education
JATT = cross product of Jew and ATTEND	AGENCOLYR = interaction of age and number of years of noncollege education
PATT = cross product of Protestant and ATTEND	MEMNUM = number of organizations to which one belongs
CATT = cross product of Catholic and ATTEND	YEAR = year of observation
FUNDAT = cross product of fundamentalist and ATTEND	<i>N</i> = sample size
FYINCOME = average relative family income of members of one's church	RSQUARE = multiple correlation coefficient squared
FMARRIED = proportion of married people in one's church	MEAN = Mean voter participation
<i>Community Involvement</i>	SIGETHNIC: There are dummy variables for each of 38 ethnic groups specified in Nelson 1994, and this refers to the number of such that were significant at the 5% level or better.
AGE = age	
AGE2 = age squared	
STATMIG = within state migrant equal 1	
CONTMIG = interstate migrant equal 1	

zle that we do not solve. The age-voting relationship is extremely large relative to that relationship for charity, and we suspect the information about voting participation is less than information about charitable contributions.

One alternative hypothesis is that the age-voting relationship is really a cohort effect. There has been a consistent decline in voting participation over time in the United States. If voting participation were habitual, older people would, then, be more likely to have the voting habit. But this cannot explain most of the relationship.<sup>7</sup> Furthermore, the time trends that generate a cohort effect are mostly attributable to the decline in community involvement over time through increased television watching and a decline in the importance of the extended family.

An alternative hypothesis for the age-vote relationship cannot be so easily dismissed. People acquire political information with age, as do their friends. That information could well increase political interest as well as the political interest of their associates. It makes more sense for them to signal their goodness by voting compared to alternative charities. However, as seen in chapter 3, nonvoting charitable contributions increase with age. Clearly, political interest cannot explain both aging's effect on voting and on charity. There is more telling evidence that information has, at best, only a partial role in the age-vote relationship. We have a much better measure of political interest than age: STRONG—the absolute value of the difference between a person's party identification and the party identification of an independent,

where party identification is measured on a seven-value scale with strong Democrat scaled at 0, strong Republican at 6, and independent at 3. STRONG is, indeed, strongly related to voting. However, its  $t$  value of 26.43 is still substantially less than the  $t$  value for the age-voting slope.

There is another variable related to information and political interest: whether the respondent ever reads a newspaper. It is significantly related to VOTER:  $b = .089$  ( $t = 6.10$ ). But, again, the effect is far weaker than the age effect. These results confirm that political interest can only partially explain the age-voting relationship.

Migration is another variable related to community involvement. Migration reduces the number of associates where one presently lives and the power of the extended family and any familial pressure to be "good." Our prediction that migrants vote less frequently is confirmed for both intrastate and interstate migration. For the former the slope is  $-.0295$  ( $t = -4.72$ ); for the latter this slope is  $-.0404$  ( $t = -6.26$ ).<sup>8</sup>

One also expects marriage to have a community involvement component. A couple tends to have more associates than a single person. In the charity case, where charity is measured as charity per family, marriage increased charitable contributions substantially. In the volunteer labor case, where it is measured as volunteer labor per person, marriage has no significant impact. In the voting case, where again it is votes per person, marriage significantly increases the voting frequency of men, but it has no significant impact on the voting frequency of women. In the voting regression the coefficient of the cross-product of marriage (1 if married) and gender (1 if male) is  $.0337$  ( $t = 3.23$ ), while the coefficient on the marriage variable is insignificant:  $-.005$  ( $t = -.352$ ). The latter coefficient measures the effect of marriage on women given the cross-product term in the same regression. (Gender has no impact on the voting behavior of single persons.) This differential gender effect of marriage on voting could be attributable to the relative specialization of married women in child- and home-related activities, where reputation is less relevant.<sup>9</sup> Glaeser, Laibson, and Sacerdote (2000) provide some support. They show that males have more community involvement than females in the sense that the former belong to more organizations. So at least this type of community involvement is gender specific.

Another variable related to community involvement is city size. The smaller the city, the more likely people will be involved with each other. Our study yields mixed results with respect to this variable. Living in a rural area increases the probability of voting relative to each of

the other city size categories, but there are no other significant city size effects.

On balance, the results of this section correspond closely with the results for private charity (chap. 3). The same community involvement variables that play an important role there play an important role in determining voting, even though the alternative hypotheses that might also explain these phenomena are quite different. Voting and charity also share the same major disappointment. City size results are not convincing in either case.<sup>10</sup>

### **Income**

Just as in the case of age, it is all too well known that voting frequency increases with income, and our results confirm the obvious.<sup>11</sup> In the voting regression the slope of the logarithm of relative family income at the average value of relevant other variables is .0419 ( $t = 9.66$ ).

In contrast to the age case, though, there is a standard explanation for this result: simple self-interest. "Higher income people have more to lose or gain in dollar terms by the political process, and, hence, they are more likely to vote." But that explanation is not convincing. The costs of voting, private costs, also go up with income because these costs are primarily time costs. In contrast, the outcome returns that increase with income are public returns and will be miniscule to the individual because of the free-rider problem. In chapter 5 we will see that the small self-interest effect when shared by a person's associates can get multiplied into a big effect, so that self-interest variables play a significant role in explaining voter positions. However, in this case this simple multiplication will produce a negative relationship between voting and income, which will be magnified through the imitative process.

To explain the positive effect of income on voting we must find a source of private returns to voting that increases with it. The conscience and reputational returns to voting might very well fill that bill. Reputational returns increase with income because one knows more people the larger one's income, and the value of what is exchanged in reciprocal relations is also likely to increase with income.<sup>12</sup> Since income is a reputational variable, increases in income will tend to strengthen conscience. We, again, do not know a priori whether that is sufficient to outweigh the increase in costs associated with income, but it is possible. The simple self-interest story is not because of the free-rider problem.

If the private returns increase with income, then imitation can mul-

tiply that positive effect. One of our variables shows that effect at work. Holding individual income constant, the likelihood of voting increases as the income of one's church associates increases. The vote-FINCOME slope is .099 ( $t = 3.62$ ), where FINCOME is defined as the estimated average relative family income of the members of the narrowly defined church denomination of the respondent, where that income is estimated by the income of those in the NORC sample.<sup>13</sup>

When costs of voting do not increase with a variable, but benefits do—even when those benefits are public benefits—the imitative process will be sufficient to produce a discernable positive effect on voting. Being a member of a union or having a spouse that is a member (DUNY) increases the probability of voting:  $b = .015$  ( $t = 2.82$ ). Other self-interest variables fare less well. If one is a government employee other than a teacher, policeman, fireman, or member of the armed forces, one's probability of voting declines insignificantly:  $b = -.028$  ( $t = -1.53$ ). For protective government workers the  $b$  is significantly positive:  $b = .050$  ( $t = 3.04$ ), and for noncollege teachers  $b = .011$  ( $t = 0.96$ ).<sup>14</sup>

In addition, there is a dramatic case where self-interest does not work. Welfare recipients form one of the groups most affected by government policy. They also have one of the lowest time costs of voting. However, being a welfare recipient, holding other variables constant including income, lowers the probability of voting:  $b = -.020$  ( $t = -2.18$ ).

But this result is predicted by our model. Those on welfare have one of the smallest reputational returns from prosocial behavior, since their income is not dependent on what others think and they have relatively few associates. An explanation in more popular language: welfare recipients are alienated from society, and, hence, see no need to perform any voluntary social duties. Both explanations are community involvement stories. The latter goes from emotion to voting response. The former goes from returns to response. One suspects that if the former were not true, people would learn that the emotional response did not pay and revise it accordingly.

### Partisanship

Concern with reputation not only affects one's total investment in reputation, but the way in which that investment is distributed. One is more likely to vote the more likely others find out that one does. Conversations about politics, which can lead to questions about whether

one voted, are more likely to occur among the most partisan. A person is also more likely to be driven to vote by conscience the more important she and her friends believe the outcome of the election to be, even though she recognizes the impotence of a single vote in determining election outcomes. Her sense of duty is determined largely by what her group regards as her duty. Partisanship should increase this sense of importance of election outcomes and, hence, increase the probability of voting. Indeed, earlier in this chapter we saw that a measure of partisanship—STRONG—strongly increases the probability of voting with a  $t$  value of 26.43. Next to age it is the most significant determinant of voting participation.

### **Expressive Voting**

The behavior of STRONG seemingly contradicts the expressive voting hypothesis of Brennan and Buchanan (1984). They maintain that voters with extreme views will “cheer” less and hence vote less because they identify less with candidates, who because of electoral pressures are forced toward the center. In chapter 5 we will criticize that proposition. In this chapter we can examine relevant evidence. The STRONG variable is not an ideal variable to test expressive voting. However moderate candidates are, they are usually either strongly Republican or Democratic.

Instead, however, of using party identification to identify extreme positions, we can use people’s self-classification by liberal and conservative categories. There are seven categories from strong liberal through moderate to strong conservative. In a regression where STRONG is not included we use dummy variables for all these categories except moderate, which is the control group. In the voting participation regression we observe the following regression coefficients (with  $t$  values in parenthesis): strong liberal, .057 (3.05); medium liberal, .051 (5.66); leaning liberal, .035 (4.27); leaning conservative, .033 (4.38); medium conservative, .031 (3.78); strong conservative, .017 (1.02). Since the average self-classification for those voting Republican or Democrat was 3.65 and 4.53 respectively, the candidates were appealing to someone with a score between 4 and these values. That is, we expect candidates to position themselves somewhere between the position best suited to win in the primary (3.65 and 4.53 respectively) and the position best suited to win in the general election (4). Brennan and Hamlin would predict the coefficients should be significantly

smaller for the strong relative to the moderate relative to the weak. They are not. None of the differences in regression coefficients between these categories is significant. There is no evidence to support their form of the expressive voting hypothesis. The only significant result is that moderates vote less than other categories for the obvious reason that they and their friends are less interested in politics than are the other categories.<sup>15</sup>

### The Self-Employed

Probably no group has a greater stake in its reputation than the self-employed. This group includes many professionals like doctors and lawyers whose reputations are the essence of their business and entrepreneurs whose trustworthiness is of particular concern to customers. It is no wonder, then, that the self-employed vote more frequently than others, just as they contribute more to charity. In the voting regression the dummy variable for self-employment has a  $b = .015$  ( $t = 2.14$ ). There is, however, an alternative self-interest explanation for this result. The self-employed are probably affected more by government policy than other groups. They, certainly, can see the effect more easily than others, since they are often directly affected by policies that affect others only indirectly. This simple self-interest story when magnified by the imitation effect could produce the higher voting probability of the self-employed.

### Education

In the United States the voting-education relationship is quite substantially positive with larger  $t$  values than that for the income slope even though we divide the educational effect into two components. The slope of the less than college education variable taken at the means of relevant other variables is  $.031$  ( $t = 12.43$ ). For college education this slope is  $.019$  ( $t = 9.87$ ).

There are three obvious processes that could produce a positive relationship between education and voting. (1) The educated have lower rates of time preference than others, and, hence are willing to invest more in their reputation. (2) The educated have more political information than others, and, hence, greater interest. We have already discussed the impact of information and interest on voting. (3) The educated have had a longer exposure to those proclaiming the virtues of

voting—the socialization effect. The conscience of voters is a function of the investment that others make in developing that conscience. Larger investments are made in the case of the more educated.

There is some evidence suggesting that the third hypothesis has at least some power. The impact of both college and noncollege education on voting declines with age. For the cross-product of age and noncollege education,  $b$  is  $-.00062$  ( $t = -5.40$ );  $b$  for the cross-product of age and college education is  $-.0012$  ( $t = -12.09$ ). This decline in the effect of education on voting occurs in an environment where the continual exposure of the more educated to higher-income people would tend to increase their voting propensities. It does appear that education has an indoctrinating effect on civic virtues that dissipates substantially over time. (In the case of college education the positive education effect is completely gone by the age of sixty-two.)

The education of both one's father and one's mother increases the probability of a person's voting. The regression coefficient for father's education is  $.0035$  ( $t = 3.65$ ), and for mother's education it is  $.0026$  ( $t = 2.47$ ). This could be attributed to either the indoctrinating effect of parents in creating a conscience or the relationship between one's current associates and parental associates.

### **Occupations**

Our theory leads to two predictions about the effect of broad occupational categories on voting. (1) Those occupations with steeper age-earnings profiles have a greater incentive to vote. Low rates of time preference increase the gains to reciprocity, and hence the gains to reputation-enhancing behavior. (2) Members of occupations who associate more with people with higher incomes and education should vote more because of the importance of imitation in determining their votes.

What we find is that all broad white-collar occupations vote more frequently than do all of the blue-collar occupations. Three of these white-collar occupations have about the same voting propensities. Managers vote less frequently than the others, so this evidence does not support the first hypothesis about the relationship of age-earnings slopes and voting, and it provides only mixed support for the imitation hypothesis. White-collar workers associate more with each other than with blue-collar workers. The lifestyles of the two groups are somewhat different. However, it is likely that high-income professionals will do more associating with lower-income professionals than they do

with clerks with the same lower income. We expect, for example, high-income doctors to associate more with low-income doctors, if such there be, and low-income lawyers than with low-income shipping clerks. Yet holding individual incomes and education constant, professionals do not vote more frequently than clerks. This conflicts with the predictions of the second hypothesis that those who associate more with higher income and education groups should vote more frequently.

### **Ethnicity**

We expect a respondent's ethnicity to have a significant effect on his probability of voting. A person tends to associate with members of his ethnic group, and he imitates the behavior of those associates. These associations could be more or less intense because of variation in geographic concentration, language, and other barriers to assimilation. Indeed, the coefficients of many of the ethnic group dummies are significant, far more than can be attributable to chance. There are nine ethnic dummies out of thirty-eight that are significant at the 5 percent level. Testing the hypothesis that this result is attributable to chance,  $t = 5.29$ .

There is a more interesting hypothesis about ethnicity. Those ethnic groups whose members' characteristics increase voting probabilities, should vote more, even taking into account the effect of those characteristics on individual voting. We found a significant positive effect on voting of the proportion of the ethnic group born in the United States. However, we did not find a significant relationship to voting for the ethnic group's education, income, or political partisanship, all variables that on the individual level have a substantial impact on voting.<sup>16</sup>

There is some evidence that supports either the role of the average education or income of an ethnic group in increasing voting participation. In spite of appearances to the contrary, the main low-income, low-education group, DRAN, has lower voting participation than whites in general.<sup>17</sup>

Our results in general strongly support the role of reputational variables in determining voting participation, we believe dominantly through the operation of conscience. Alternative hypotheses, like voting out of narrow self-interest or because of identification with candidates, fare less well.