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BEYOND SES: A RESOURCE MODEL OF POLITICAL PARTICIPATION

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This paper develops a resource model of political participation. The resources considered are time, money, and civic skills—those communications and organizational capacities that are essential to political activity. These skills are not only acquired early in life but developed in the nonpolitical institutional settings of adult life: the workplace, organizations, and churches and synagogues. These resources are distributed differentially among groups defined by socioeconomic status. A two-stage least squares analysis shows these resources have powerful effects on overall political activity, thus explaining why socioeconomic status has traditionally been so powerful in predicting participation. We disaggregate overall activity into three kinds of acts: those that involve giving time, those that entail donating money, and voting. Each requires a different configuration of resources resulting in different patterns of stratification across various political acts.

Why do citizens participate in political life? One way to think about this puzzle is to invert the question and ask why people don't take part in politics. Three answers immediately suggest themselves: because they can't, because they don't want to, or because nobody asked.¹ "They can't" suggests a paucity of necessary resources: time to take part in political activity, money to make contributions, and civic skills (i.e., the communications and organizational skills that facilitate effective participation). "They don't want to" focuses on the absence of psychological engagement with politics—a lack of interest in politics, minimal concern with public issues, a sense that activity makes no difference, and no consciousness of membership in a group with shared political interests. "Nobody asked" implies isolation from the recruitment networks through which citizens are mobilized to politics.²

All three factors help explain political participation, but we focus on the role of resources—time, money, and civic skills³—for explaining political participation in America. Adding resources to the other two explanations permits us to move beyond the "SES model," that is, beyond explanations of political activity based on one or more of the components of socioeconomic status: education, income, and occupation.⁴ By attending to resources conceived at a general level, we can probe the way resources link backward to SES and other social characteristics and forward to political activity. Going backward from resources, we can show that the three resources of money, time, and civic skills vary in their association with SES and other social characteristics. Money and some kinds of civic skills are closely related to SES, but time and other civic skills are less stratified. Civic skills are less stratified by SES partly because social characteristics such as affiliations with "congregational" churches are not highly correlated with SES and these affiliations serve as training grounds for civic skills. As we go forward from resources to political activity we can

show how the importance of a resource depends upon the particular activity. Education, for example, is important for some political activities because it enhances political interest and civic skills while income is important for other activities because of the monetary resources it provides.⁵ By showing how resources differentially available on the basis of SES affect various modes of political activity, we explain not only why some individuals are more active and others less but also why certain kinds of people engage in particular kinds of political activity.

A resource-based approach also has methodological and theoretical advantages, especially in comparison to explanations based solely on psychological engagement with politics, thus yielding a more powerful explanation of participation. We are more confident in our ability to measure resources than in our ability to measure psychological engagement. Reports of attitudes are notoriously fugitive, unreliable, and difficult to compare across respondents (Duncan 1984). As we shall see, the measurement of resources rests on more factual questions for which the metrics used—dollars, hours, and the number of letters written or speeches given—are unlikely to vary in meaning from respondent to respondent. Although responses may suffer from the fallibility of human memory, at least these questions are about concrete, everyday matters. Furthermore, when linking engagement and activity, it is hard to be certain of the direction of the causal arrow. Political interest and political efficacy, for example, certainly facilitate political activity, but activity presumably enhances interest and efficacy as well. Indeed, most measures of psychological engagement with politics are, by their very nature, perilously close to activity itself. This makes them robust predictors of political participation but trivial (and possibly spurious) explanations for participation. Yet despite its apparent "head start" as a predictor of participation, we show that political interest—a standard measure of psychologi-

cal engagement in politics—does not displace resources as a predictor of political participation.

Theoretical considerations lend additional support to the notion that a resource model can provide a powerful explanation of political participation. Unlike psychological engagement in politics, which probably develops along with political activity, the institutional involvements from which citizens acquire resources generally antedate or occur independently of political activity. Obviously, family background and early experiences in school—critical for both the development of resources for politics and for the future institutional commitments that permit the further enhancement of political resources—precede adult activity. In the absence of actual life histories collected over respondents' lifetimes, we cannot be absolutely certain that adult decisions about family, work, organizational involvements, or affiliations with religious institutions are apart from and in advance of choices to take part politically, but these seem plausible assumptions.⁶ In addition, a resource theory has implications for the normative issue of how we construe political inactivity, especially when the politically quiescent have obvious and pressing needs. If individuals eschew politics because they do not care—because they prefer to devote themselves to private rather than public pursuits—then we are apt to dismiss inactivity as a matter of personal choice. If the failure to get involved is the consequence of resource constraints that make it difficult for even those who are politically interested and engaged to take part in political life, then we are likely to be more concerned about political inactivity.

Finally, resource models of political participation tie into two powerful intellectual traditions: stratification theories from sociology and individual choice perspectives from economics. The SES model follows naturally from stratification theories,⁷ which suggest that class and status hierarchies are fundamental features of modern industrial societies that often determine their politics. True to the theory, the SES model does an excellent job predicting political participation.⁸ Yet the SES model fails to specify clearly the mechanism linking social statuses to activity. Rational choice theories, on the other hand, have clearly specified how and why individuals might decide to participate in politics to pursue their self-interest, but these theories have done a very poor job predicting political participation.⁹ Indeed, with respect to SES and participation, at least one variant of the rational choice approach suggests no relationship at all or, if any, that people of high SES (who by virtue of their high levels of education command the intellectual sophistication to comprehend the free-rider problem and who by virtue of their high salaries would find the opportunity cost of participation prohibitive) to be least likely to take part in politics. Instead those with high levels of SES, who are not otherwise known for particular irrationality in the conduct of their lives, are the most likely to be active.¹⁰

The problem is that rational choice approaches have focused on how the benefits of participation

might offset the costs of participation without examining costs very carefully. A resource perspective takes seriously the costs of using resources. In doing so, we apply to politics an important variant of rational choice theory. The Chicago school of economics¹¹ has shown how a powerful theory of choice can be built not upon restrictions on the motives for choice (as the emphasis on self-interest over altruism or duty does) but upon the budget constraints on resources that limit choices. If there are multiple constraints on a series of resources that vary independently in the population, then a formidable theory can be based upon the degree to which each resource constraint is binding in a particular situation. And since resources such as money, time, and skills can be measured and affected by policymakers, it is useful to formulate a theory based on a careful description of how variations in resources flowing from social stratification enable and restrict individual activity.

To develop a resource model of political participation requires four steps. First, we define resources and explicate how we measure them. Second, we show how resources are distributed in the population, in particular, how they relate to SES. Third, we look closely at the resource of civic skills (particularly those acquired as an adult) in order to show that our somewhat indirect indicators of civic skills indeed measure a single dimension of civic skill that is developed in extrapolitical institutional settings and available for political activity. The fourth step is the heart of our enterprise—we show that resources explain political participation and that different resources are related to different activities.

THE CITIZEN PARTICIPATION STUDY

Our data come from a large-scale, two-stage survey of the voluntary activity of the American public. The first stage consisted of over 15,000 telephone interviews of a random sample of the American public conducted during the last six months of 1989. These 20-minute screener interviews provided a profile of political and nonpolitical activity as well as basic demographic information. In the spring of 1990, much longer, in-person interviews were conducted with a subset of 2,517 of the original 15,000 respondents chosen so as to produce a disproportionate number of both activists as well as African-Americans and Latinos. In the following analyses, we have reweighted the follow-up sample so that we have a representative sample. (See Verba, Schlozman, Brady, and Nie 1993 for a description of the sample.)

The study is unusual in focusing on voluntary activity not only in politics but also in churches and organizations. In addition, we construed political participation quite broadly, including not only voting and other forms of electoral activity (e.g., working in campaigns, making financial contributions) but also contacting public officials, attending protests, and getting involved either formally or informally on local

issues. (Appendix A provides a list of the questions used in this paper.)

DEFINING AND MEASURING POLITICAL RESOURCES

We begin by outlining the resources for political participation.

Time and Money

The two prime resources for investment in political participation are time and money. Individuals use time in the service of political action in many ways (e.g., working in a campaign, writing a letter to a public official, attending a community meeting). Money, of course, can be donated to candidates, parties, or innumerable political organizations or causes. We measure money resources by family income from all sources in \$10,000 units.¹² We measure the "free" time available for political activity by the hours, if any, left over after accounting for time spent in an average day doing work for pay, doing necessary household work of all sorts, studying or going to school, and sleeping.¹³ Time and money differ in significant ways as resources. In comparison with money, time is both more constrained and more equally distributed—everyone has only 24 hours in a day. The upper limit on money, of course, is much less constrained, and differences among individuals can be much larger. Time is constrained in another way that affects the way it is distributed. Time not used today cannot be put in the bank. Money, in contrast, can be accumulated for later use.¹⁴

Civic Skills

Civic skills—those communications and organizational capacities that are so essential to political activity—constitute a third resource for participation.¹⁵ Citizens who can speak or write well or who are comfortable organizing and taking part in meetings are likely to be more effective when they get involved in politics. The acquisition of civic skills begins early in life—at home and, especially, in school. However, the process need not cease with the end of schooling but can continue throughout adulthood. Adult civic skills relevant for politics can be acquired and honed in the nonpolitical institutions of adult life—the workplace, voluntary associations, and churches. Managing a reception for new employees and addressing them about company benefits policy, coordinating the volunteers for the Heart Fund drive, or arranging the details for a tour by the church children's choir—all these undertakings represent opportunities in nonpolitical settings to learn, maintain, or improve civic skills.

We measured civic skills in several ways. Since communications and organizational skills are acquired in school, we asked an extensive set of questions about educational attainment.¹⁶ From these we

constructed an eight-point scale ranging from a grammar school education to a Ph.D. or professional degree.¹⁷ In addition, one particular aspect of educational experience—participation in student government in high school—provides a potentially useful measure of civic skills.¹⁸ We measure this by a four-point scale ranging from no activity to very active. Since facility in expression is central to the ability to communicate effectively, we also use two measures of language ability, testing somewhat different notions of how verbal facility matters. American society puts a premium on speaking and understanding English, so we asked our respondents what language they ordinarily speak at home: English (scored as 3), a combination of English and another language (2), or another language (1). We thought that those who did not speak English at home would be less likely to find it easy to participate in politics. In addition, to assess verbal ability, we used the score (number of items correct) on a 10-item vocabulary test that has been used regularly since 1974 on the National Opinion Research Center's General Social Survey.¹⁹ For the 1% of our sample interviewed in Spanish, this test was administered using Spanish words.²⁰ Alwin notes that this vocabulary score is strongly related to schooling (a correlation of .51 in our sample and .54 in Alwin's), but such scores also "correlate highly with tests of general intelligence—usually .8 or higher—and are good indicators of scores on the verbal component of standard tests of general intelligence" (1991, 627).²¹ Years of education and vocabulary score are included in our model to show that both schooling and general intelligence matter for political participation and to provide additional support for our contention that civic skills matter when other factors are controlled.

To measure civic skills developed as an adult, we asked those with jobs and those who reported activity in a church or an organization²² whether as part of their involvement in each sphere, they had, in the past six months, engaged in the following activities: written a letter, gone to a meeting where decisions were made, planned or chaired a meeting, or given a presentation or speech. In each realm (on the job, at church, or in nonpolitical voluntary organizations) we measured civic skills as the number, ranging from zero to four, of these *skill-acts* undertaken by the respondent in the last six months. Those who have an opportunity to do these things in a nonpolitical setting would, presumably, be more willing and able to do them in a political context. In this sense, we expect that these competencies can be used as independent variables to explain political participation. Table 1 presents, both for all respondents and for only those involved in each arena, the frequency with which individuals engage in activities that we expect to produce civic skills. People are most likely to engage in skill-acts at work: 53% of the sample practiced at least one skill on the job in the six months before the survey. Yet 33% of the population engaged in skill-acts in nonpolitical organizations and 20% in churches or synagogues.

TABLE 1

Percent Reporting Various Activities in Nonpolitical Settings

CIVIL SKILL	ON THE JOB		IN NONPOLITICAL ORGANIZATIONS		IN CHURCH OR SYNAGOGUE	
	% OF WHOLE SAMPLE	% OF WORKING ^a	% OF WHOLE SAMPLE	% OF ORGANIZATIONALLY INVOLVED ^b	% OF WHOLE SAMPLE	% OF CHURCH MEMBERS ^c
Attend a meeting where decisions are made	48	70	30	41	18	27
Plan such a meeting	24	36	14	19	9	13
Write a letter	40	58	15	16	6	9
Make a speech or presentation	28	40	15	18	10	15
At least one of the above	53	78	33	44	20	29

Source: Citizen Participation Study.

^aWorking full- or part-time; with a job but not at work due to vacation, illness, etc.

^bMember of or contributor to an organization that does not take stands on public issues.

^cMember of or regular attender of services at a local church or synagogue.

THE DISTRIBUTION OF POLITICAL RESOURCES

As we shall demonstrate, the presence or absence of resources contributes substantially to individual differences in participation. Resources are, in turn, not equally distributed; some socioeconomic groups are better endowed than others. This makes a resource model useful not only for explaining individual differences in political activity but for explaining differences in activity among politically significant social groups, especially differences along SES lines. However, resources vary in the extent to which they are stratified by SES, that is, in the extent to which they are differentially available to those high on the SES scale.

Money and Time

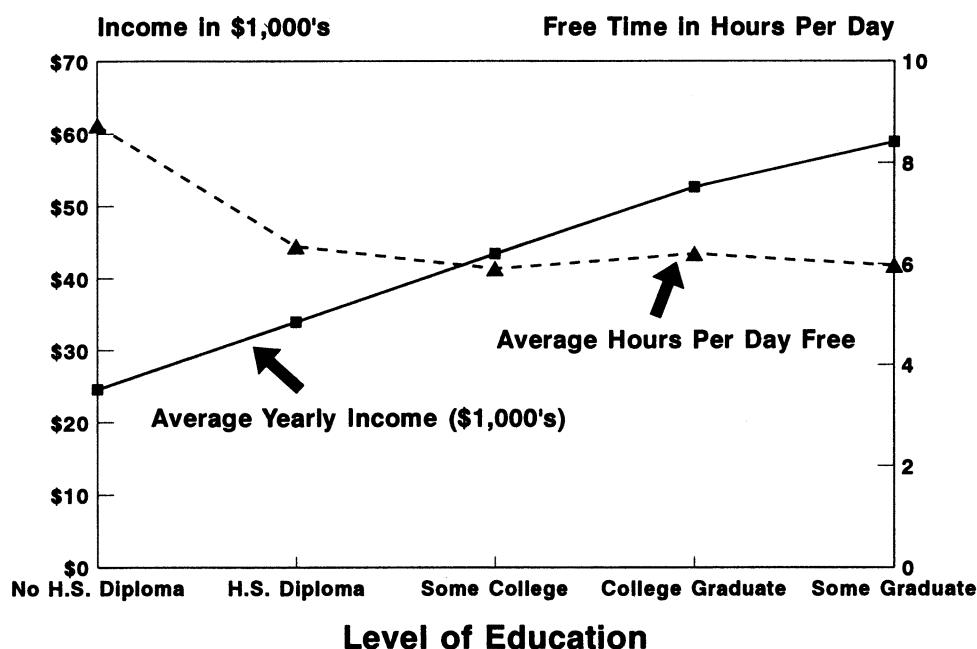
If you want to give money, you must have money; if you want to contribute time, you must have some free time. Income, of course, is one of the components of socioeconomic status. By definition, it is concentrated in the hands of the wealthy; we also know that those with more education and higher-status jobs command a disproportionate share of the wealth. We know less about the distribution of free time in relation to SES. On one hand, the rich might have more free time because they can hire others to do what most people have to do for themselves. On the other, the rich might have less free time because they accumulate their wealth by logging long hours at work. These conjectures reflect the contradictory predictions of economic theory, which holds both that an income effect would produce more leisure for the rich because they are able to purchase it and that a substitution effect would produce less because their higher wages raise the opportunity cost of free time (Mincer 1962). In fact, neither conjecture is correct: free time and SES are unrelated.

Figure 1 shows the very different relationship between money and SES (as measured by educational attainment) and time and SES. As expected, education and family income are strongly related. There is no such consistent pattern of stratification when it comes to time. Those in the least well educated group—a disproportionate number (51%) of whom are retired, keeping house, or permanently disabled—have on average more free time. Beyond this, however, greater educational advantage is associated with neither more nor less free time. If we were to consider another aspect of SES—position on the occupational hierarchy—the contrast between money and time would appear even more clearly. If working respondents are stratified into job levels based on how much formal education and on-the-job training their jobs require, we find, not surprisingly, that family income rises sharply with each step on the occupational ladder. However, this pattern is not repeated for free time: those in the least skilled jobs have almost exactly the same number of hours free time per day as do those in the highest level jobs.

What then affects the availability of free time? The answer is simple. The factors that affect free time are “life circumstances”: having a job, especially a full-time one; having a spouse with a job; and having children at home, especially preschool children—all diminish the amount of free time available. Those working full-time report, on average, six fewer hours free per day; a working spouse reduces free time by about three hours; preschoolers at home reduce free time by about three hours.²³ This finding—that in contrast to money, which is of a piece with SES, the amount of free time available varies with life circumstances rather than with socioeconomic advantage—has implications for American politics. To the extent that citizen politics in America relies increasingly on modes of activity that use money rather than time as a resource, the edge enjoyed by the already-advantaged is enhanced.

FIGURE 1

Educational Stratification of Income and Free Time



Civic Skills

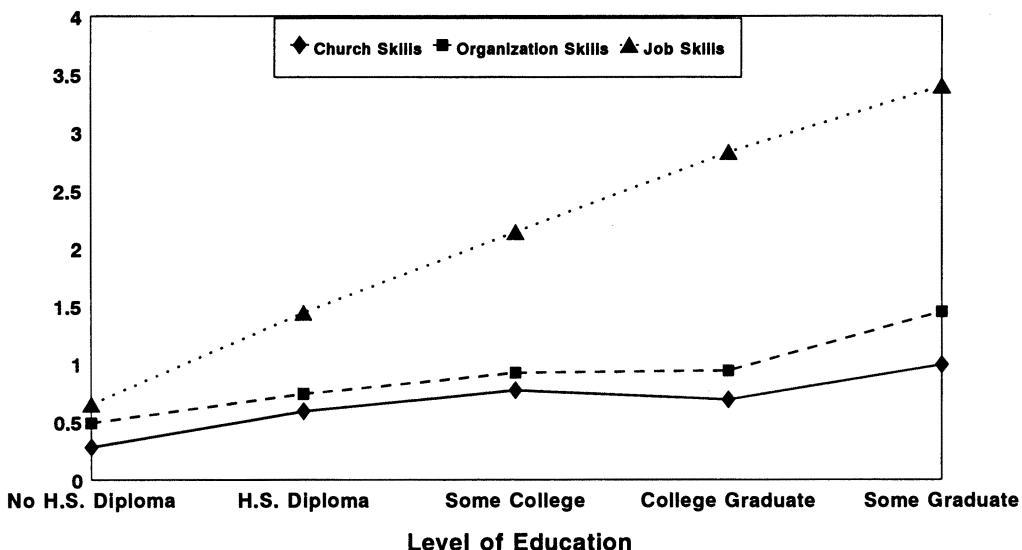
Civic skills are, in general, more likely to be possessed by the socioeconomically advantaged. Those with higher levels of education are more likely to speak English at home, to have better vocabulary skills, and to have taken part in high school government. Civic skills acquired as an adult at work, in organizations, and in church are also stratified by education. The stratification of civic skills by education, however, varies greatly across jobs, organizations, and religious institutions. Figure 2 shows the mean number of skills exercised in each of the three institutional settings for those at various levels of education. (The pattern would be the same if the measure of SES were income or occupational level.) All respondents are included in the computation of average skills whether they are involved in a particular setting or not (i.e., whether they have jobs, are affiliated with an organization, or belong to a church or not). Those who never finished high school receive few skill opportunities anywhere. Those with at least a high school diploma have more opportunities to practice civic skills on the job than in organizations or in church, presumably reflecting the fact that most people spend more time working than engaging in organizational or church activities. The net result is that in providing opportunities to exercise skills, workplaces discriminate most—and churches least—on the basis of educational attainment.

The process by which these results are achieved varies across these institutions. The opportunity to practice civic skills in an institution requires both *involvement* in the institution and a setting that pro-

vides the *chance* to practice some skills. The stratification by education for job-based civic skills comes primarily from differences in chances to practice skills and not from differences in attachments to the labor force. Those with higher education are only slightly more likely to be working than the less well educated, but among those with jobs, the better-educated are much more likely to have chances to practice skills. The stratification of skill opportunities in voluntary associations is somewhat different. The advantage of the educated in this respect comes from the fact that those with high levels of educational attainment are considerably more likely than those at lower levels to be involved with an organization. Among the involved, however, there is less difference among educational groups in the practice of civic skills. Finally, churches are most egalitarian in the civic skill opportunities they afford, and they are egalitarian in two ways: (1) there is no consistent relationship between education and church membership: those with the least education are as likely as those with the most to attend church regularly; and (2) among those who attend church, there is relatively little stratification by education in terms of who makes a speech or organizes a meeting.

The differences across the three institutions are significant for the stratification of participation in American politics. The workplace reinforces initial socioeconomic advantage as the well-educated compound their advantage by developing skills on the job. Since the educated join more organizations, voluntary associations also reinforce earlier advantage. However, organizations offer those affiliated

FIGURE 2

Average Civic Skills Acquired on Job, in a Non-Political Organization, and in Church**Average Number of Skills**

Among all respondents at each educational level

with them chances to practice skills with relatively little regard for educational attainment. Finally, because church attendance is not stratified by SES and because, within the church or synagogue, education plays a smaller role in who is active, religious institutions are the most egalitarian in terms of civic training. Compare, for example, the skill-developing opportunities in *workplace versus church* for a Catholic with a professional or managerial job (53% of whom graduated from college) and a Baptist with a clerical or blue-collar job (only 3% of whom graduated from college). The Catholic professional or manager practices an average of 2.89 skills on the job but only .22 skills in church. Compared to the Catholic professional or manager, the Baptist clerical or blue-collar worker averages fewer skill acts (only 1.11) on the job but much more at church (.84).

To summarize, we have considered several kinds of resources. These resources are distributed differentially across socioeconomic groups. If these resources, acquired outside of politics, affect political activity, we will have a potent explanation of the origin of disparities in participation across social groups. If the various resources are differentially useful for alternative political activities, our model will also explain why some forms of involvement are more stratified than others.

Figure 3 displays the resource model schematically. We shall not discuss it fully here but refer to it as we move through our argument. At this point, let us simply indicate that Figure 3 summarizes the way in which involvement with institutions—first in school and later on the job, in organizations, and in

church—provides opportunities to acquire the resources relevant to political activity. Civic skills are a central—and, we believe, innovative—component of our model. They are also somewhat problematic. We begin our analysis of the resource model with a closer look at civic skills.

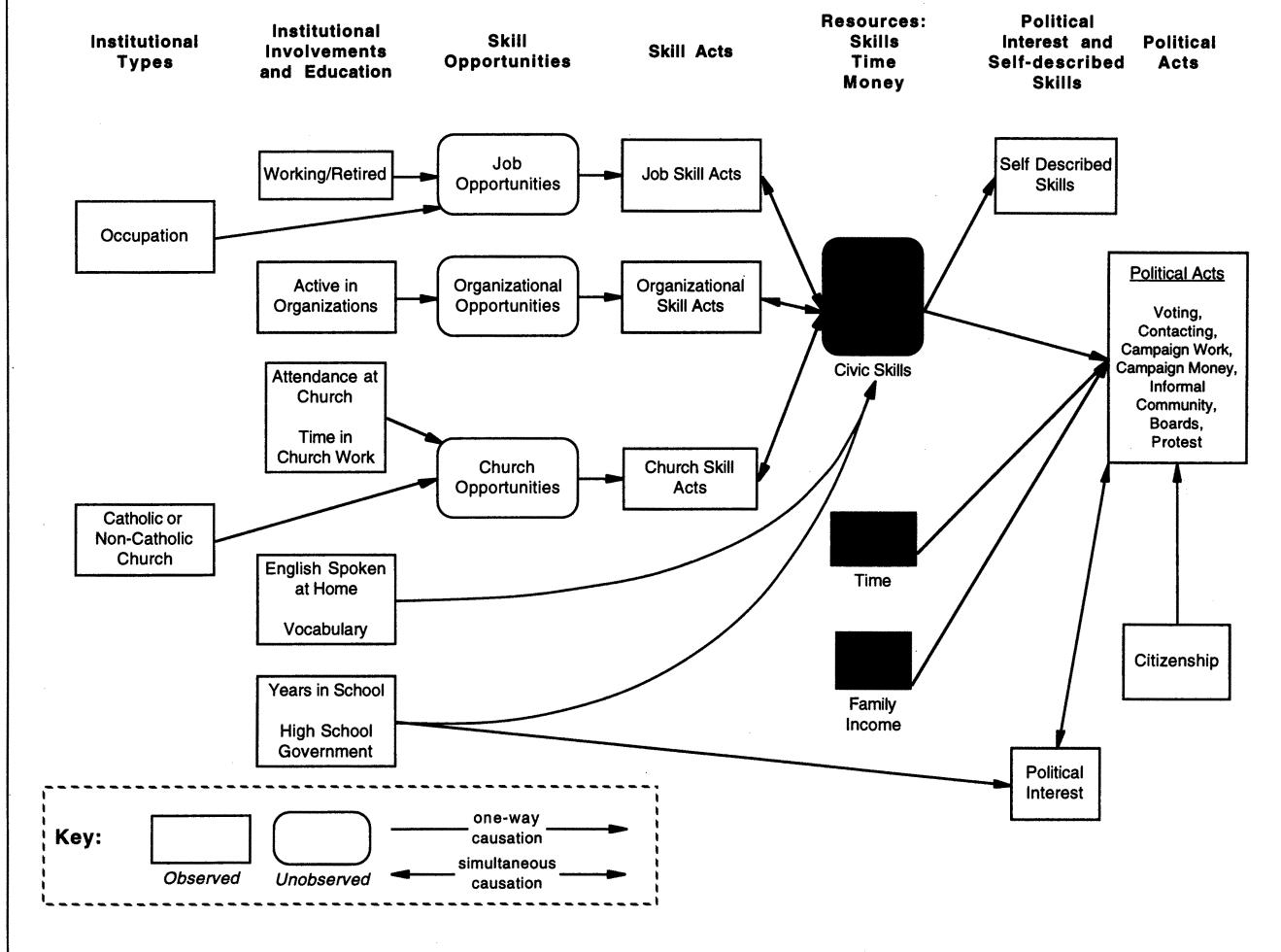
DEVELOPING CIVIC SKILLS: A LEARNING MODEL

Our measures of civic skills—educational attainment, participation in high school government, language ability, and reports on activities in adult institutions—are a disparate and somewhat indirect set. Therefore, we need to demonstrate that these are all indeed measures of civic skills and that these skills are developed or perfected in the institutions we describe. If these conditions hold, we will have a powerful set of variables that can be used to explain political activity. The task is somewhat easier for civic skills learned in the home and in school. It seems reasonable to suppose that education, language abilities, and participation in high school government constitute real measures of skills that can facilitate political participation. And we know that they are temporally prior to adult engagement in politics. However, we wish to demonstrate that civic skills are also developed in adulthood and that these skills then foster political participation.

There are three obstacles to making this case for civic skills in general and for adult civic skills in particular. First, there is a *measurement problem*. We

FIGURE 3

The Resource Model



measure civic skills acquired before adulthood indirectly by asking about educational experiences and language abilities. It is not certain that those with high levels of educational attainment, experience in high school government, high vocabulary scores, or the ability to speak English have the capacity to communicate in political settings or to organize political activities. A similar but more severe problem applies to civic skills developed in adulthood. It seems likely that respondents who report engaging in an activity such as writing a letter or organizing a meeting have the skill to do so. However, the converse is not necessarily true; all those with the skill to write letters do not necessarily do so at work. Our measure of adult civic skills, then, really measures engaging in activities that require skills, what we shall call *skill-acts*. Our claim that skill acts measure civic skills amounts to arguing there must be at least some correlation between civic skills and the three skill-acts variables at the center of Figure 3.

Second, correlation is not enough. Even if some measure of civic skills is correlated with skill-acts,

there might be a *spurious correlation problem*. A third variable (e.g., a general taste for activity) may lead individuals both to practice skills in nonpolitical institutions and to have civic skills. There may be no causal relationship between skill-acts and civic skills, and we should not draw causal arrows between skill-acts and civic skills as we do on Figure 3. Finally, there is the *locus of development problem*, the issue of where skills are developed. Even if the correlation between skill acts and civic skills is not the result of some third variable, the relationship may be due to the fact that civic skills lead to the performance of skill-acts, not vice versa. Individuals may perform skill-acts in a particular institutional setting because they brought skills with them, perhaps innate skills or skills learned elsewhere. If this is the case, civic skills will not be developed in nonpolitical institutions through skill-acts. The exercise of skill-acts in a particular institutional setting will not imply that civic skills are obtained or enhanced in that setting.

In short, to establish the proposed links between civic skills and political participation we must dem-

onstrate that our measures indeed measure real skills; that there is no unspecified additional factor (e.g., a taste for involvement) responsible for both the performance of skill acts and political activity; and that these skills were developed or enhanced in the non-political institutions where they are exercised.

One response to the measurement problem is that our measures have a good deal of face validity. This is certainly the case for education and language ability. It also applies to the exercise of skills in adult institutions. Because those who perform a skill-act are presumably learning a new skill or maintaining and improving a preexisting one by practicing it, the measure of skill-acts is very likely to be an indicator of the existence of civic skills.²⁴ Moreover, because we ask about skill-acts in three major secondary institutions, we capture the main opportunities people have to practice such skills. Despite these arguments in their favor, the questions about skill-acts have what might seem at first to be a disconcerting feature. Responses to them are not all highly correlated across the three domains of job, organization, and church.²⁵ How can these questions measure a coherent one-dimensional concept like civic skills if a person who reports performing skill-acts in one domain is not very likely to do so in another? Answering this question requires some careful modeling of how opportunities to exercise skills interact with the skills individuals already possess to produce the kinds of skill-acts our respondents report.

With some extensions, a model can also provide the basis for meeting the other two problems we have delineated. We must show that the performance of skill-acts in each domain represents an *exercise* of civic skills (not merely the reflection of some third variable) and that those who perform skill-acts thereby *develop* civic skills as well. In other words, people use preexisting civic skills (education-based organizational and communications skills as well as innate skills) to perform skill-acts. In turn, when they perform skill-acts in one institution they increase their skills so that they can engage in still more skill-acts in that or some other domain. Establishing this kind of reciprocal causation is usually very difficult in cross-sectional studies without making some arbitrary "exclusion" restrictions on which variables affect other ones but we have leverage on this problem because we have asked people about their activities in three different domains that cover most of the major opportunities adults have to gain skills. Within each domain, it is obvious that the type of institution and the level of involvement in it should affect skill-acts in that domain but not in the other domains. This provides some obvious exclusion restrictions.

Figure 3 displays what we believe to be the reciprocal causation between civic skills and skill-acts in the three domains of work, organizations, and church. We propose that an individual's preexisting *civic skills* represented by the shaded rounded box at the upper right of Figure 3 combine with *opportunities to practice skills* in each domain listed in the third column to produce the *skill-acts* listed in the fourth

column. For example, such preexisting civic skills as the ability to write a letter combine with opportunities on the job to write letters to produce job skill-acts captured by our questions. In turn, these skill-acts (as shown by the arrow going from skill-acts to civic skills) develop and enhance civic skills.

As indicated by the rounded boxes on Figure 3, we do not have direct measures for several of the key variables, skill opportunities, and civic skills. Therefore, we must find proxies for them. Whether an individual gets the opportunity to practice a civic skill at work, in an organization, or at church depends upon several things. Obviously, it depends upon the *institutional involvements* listed in the second column in Figure 3—having a job or being affiliated with a voluntary association or religious institution. We measure workplace involvement by a three-point scale of employment status (not working scored as 0, part-time as 1, and full-time as 2); attachment to organizations by a three-point scale (ranging from no involvement, scored as 1, to attending meetings, scored as 3); and involvement in religious institutions by a nine-point measure of frequency of religious attendance and a six-point measure of the number of hours devoted to church activities. Beyond institutional involvements, the opportunity to practice skills also depends on the *type of institution* listed in the first column in Figure 3. Occupations, voluntary organizations, and churches differ substantially in the extent to which they afford opportunities to exercise skills germane to politics. Someone who works in a consulting firm rather than a dry-cleaning shop, who is involved in a fraternal organization rather than softball league, or who is active in a congregationally organized, rather than a hierarchically organized, church is more likely to have an opportunity to develop civic skills. For jobs we describe the type of institution by a nine-point occupation scale²⁶ in which higher values indicate higher-status jobs, which presumably provide more opportunities for skill-acts, and for religious institutions we use a dummy variable for belonging to a Catholic church, which provides fewer opportunities for skill-acts, presumably because of its hierarchical structure.

Obviously, it would have been preferable to have direct measures of *civic skills*, but we could hardly follow our respondents around to observe their skill in making public statements or organizing meetings. As substitute measures, we use our respondents' subjective reports of their civic skills. *Self-described skills* (the box in the upper right-hand corner of Figure 3) are measured by questions as to whether respondents believe they could write a convincing letter on a public matter, could talk well at a meeting, and would be taken seriously if they made a public statement. These three items are correlated about .32 with each other and form a reasonable eight-point scale. There are, however, potential problems with this measure. For one thing, it raises the same questions we discussed earlier with respect to measures of political efficacy (which, in fact, it resembles); that is, high self-assessments of civic skills could be the result

as well as the cause of political activity. This limits the usefulness of the measure for explaining political participation but does not affect its usefulness for understanding the relationship among civic skills, skill-acts, and opportunities to exercise skills.²⁷ A second potential defect is of greater concern: people's self-assessments are unlikely to be fully accurate as measures of their real talents. At worst, however, the measurement error inherent in respondents' subjective reports of their civic skills would probably depress our estimates of the relationships between civic skills and skill-acts. Therefore, in this context, self-described skills are a reasonable measure of civic skills.

Estimates of the learning model for civic skills are in Appendix B. We show that there is a single dimension of "civic skills" underlying the various measures of civic skills—the three measures of adult skill-acts, the two educational experiences, and language ability. Moreover, people develop civic skills through their involvement in the institutions of adult life. Engaging in skill-acts (planning meetings, making speeches, etc.) develops civic skills that are potentially transferable to politics. We also show that the nature of the institution itself affects the number of skills exercised there—even after a number of individual characteristics that might affect the performance of skill-acts have been taken into account. This supports the notion that we are observing a real process of skill development within institutions, not merely the consequences of the attributes that people bring with them. The analysis in Appendix B demonstrates in a concrete way how churches, jobs, and organizations can serve as potential training grounds for political activity and how nonpolitical choices about jobs, organizations, and church attendance may affect political life. To demonstrate that they do, in fact, have such an effect is our next, and most fundamental, task.

POLITICAL PARTICIPATION AND RESOURCES

We have shown that accidents of birth combine with choices about jobs, family, and organizational and religious involvement to determine the resources of time, money, and skills that individuals bring to politics. We now inquire about the links between these resources and political activity. We construe political participation quite broadly and include the following in the scale:

- voting in the 1988 presidential election (70% of the population)
- contacting at federal or local level in last year (34%)
- giving campaign money between January 1988 and the interview in Spring 1990 (24%)
- working informally with others on community problems in the last year (17%)
- campaign work between January 1988 and the interview in Spring 1990 (9%)

protesting during the last two years (5%)
board membership or regular meeting attender during last two years (5%)

These participatory acts vary along many dimensions. Some require the investment of time, some money. Some require skill, others do not. Some are ongoing, others episodic. And some are considered mainstream, others less so. Our survey has questions about several other activities such as voting in local elections, participating in political organizations, and phoning in to radio talk shows, but the activities listed above cover the major dimensions of political activity. Our survey also includes detailed information on the time and money devoted to political acts. Later we will use this additional information, but for the moment, we score each of these seven activities as 1 for people who engage in it and 0 otherwise. Then a simple sum²⁸ of the number of acts yields an average of 1.63 activities in the sample (with a standard deviation of 1.35). This suggests that the average person votes and performs part of another act. In fact, the frequency distribution of acts is skewed with 21% performing no acts, 33% one, 21% two, 14% three, 7% four, 3% five, and 1% or less six or seven acts.²⁹ Thus, three-quarters of the population performs between zero and two acts, and the remaining quarter is concentrated at three or four acts.

Estimating the Model

We presented the complete resource model in Figure 3, in which such resources as free time, family income, and civic skills, along with citizenship status and political interest, explain the level of political participation. We do not observe civic skills directly but have shown that they can be represented by skill-acts, language abilities, and formal educational experiences. This suggests that we can use ordinary least squares (OLS) to regress political acts on free time, family income, skill-acts, language abilities, and formal educational experiences. Proceeding in this way, however, depends upon our faith in the exogeneity and reliability of the resource measures and our willingness to make assumptions about what affects political participation. We have argued that one of the advantages of a resource explanation for political participation is that resources result from decisions about life circumstances, jobs, joining organizations, and attending church that are temporally prior to political participation. This seems obviously true for family income and free time, and it seems very likely true for adult civic skills developed at work, in church, and in nonpolitical organizations. If so, resources can be considered exogenous and OLS can be used to estimate the resource model.

This leaves us with one possible problem. If some omitted variable (e.g., a taste for participation) is correlated with both the accumulation of resources (most likely civic skills as measured by skill-acts) and political participation, then ordinary least squares will yield biased estimates. There are good reasons to

believe that this might not be much of a problem in our model. First, the inclusion of participation in high school governance probably helps control for pre-existing tastes for political activity. Second, we do not believe that the process that leads to involvement in a church, for example, has much to do with a taste for political participation. Yet we do believe that psychological engagement with politics matters for political participation, so that it seems sensible to add an additional control for *tastes* in the participation equation by including the sum of interest in local and national political affairs.³⁰ This has the virtue of allowing us to compare the relative importance of resources and psychological engagement. It has the defect, however, that it may introduce another problem. As we have discussed, political interest may be as much an effect as a cause of political activity: it may be endogenous. This may require using two-stage least squares (2SLS) to correct for biases created by the endogeneity of political interest.

Ordinary Least Squares Estimates

Before going to 2SLS estimates, it is instructive to consider the OLS estimates in Table 2, which reports regression coefficients, standard errors, and beta weights³¹ for the impact of various resources in a linear model.³² The only difference between the left- and right-hand set of columns is the inclusion of political interest in the latter equation. The results clearly demonstrate the importance of resources. Except for speaking English at home, the measures of civic skills acquired early in life (education, participation in high school government,³³ and vocabulary ability) are positively related to political activity. When citizenship is left out of the equation, speaking English at home appears to have an impact, but our analyses suggest that this is merely because it spuriously picks up the impact of citizenship with which it is correlated at .48. Citizenship must be included in the equation because it is a prerequisite for voting and might affect other kinds of participation as well. Civic skills acquired as an adult in nonpolitical institutions are also significant, making clear the role of the social institutions of civil society in creating a competent and active citizenry. Family income also matters a great deal. The only resource measure that does not have a significant effect is free time. As we shall see, when we purge free time of error, it too emerges as a significant factor in explaining political activity.

Now consider the right-hand columns reporting the equation that includes political interest. Note that with the exception of retirement, neither the degree of institutional involvement nor the type of institution is more than modestly important in determining participation. Time spent in educational, charitable, or social activities associated with a church has a small impact that is barely statistically significant but none of the rest of the institutional involvements has a statistically significant impact on political participation. Simply being involved with nonpolitical institu-

TABLE 2

Determinants of Overall Political Participation: Ordinary Least Squares Estimation

INDEPENDENT VARIABLE	OVERALL POLITICAL PARTICIPATION MEASURE			
	MODEL W/O INTEREST COEFF. (SE)	BETA WT.	MODEL WITH INTEREST COEFF. (SE)	BETA WT.
Political Interest	—	—	.261** .015	.304
<i>Adult skill-acts</i>				
Job	.087** (.022)	.101	.057** .021	.066
Organizational	.137** (.029)	.106	.123** .027	.095
Church	.118** (.033)	.088	.096** .031	.072
<i>Time and money</i>				
Free time	.000 (.007)	.002	.004 .006	.013
Family income	.051** (.009)	.112	.047** .008	.104
<i>Institutional involvements</i>				
Working	-.045 (.038)	-.030	-.008 .036	-.006
Retired	.388** (.090)	.090	.313** .085	.073
Organizational	.070 (.036)	.043	.031 .034	.019
Attendance at church	.010 (.011)	.021	.001 .010	.002
Time in church work	.049 (.028)	.043	.053 .027*	.047
<i>Institutional types</i>				
Occupation	.020 (.011)	.040	.021* .010	.042
Catholic church	.061 (.055)	.020	.086 .052	.028
<i>Formal education</i>				
Years of education	.145** (.021)	.164	.120** .020	.136
High school governance	.178** (.025)	.130	.118** .024	.086
<i>Language ability</i>				
Speaking English at home	.045 (.077)	.011	.056 .073	.014
Vocabulary score	.062** (.013)	.099	.032* .012	.051
Citizenship	.889** (.158)	.109	.790** .150	.097
Constant	-1.380** (.193)	—	-2.281** .190	—
R ²		.301		.377
Sample size		2,438		2,429

Source: Data from Citizen Participation Survey.

Note: COEFF. refers to the regression coefficient and SE to its standard error. BETA WT. refers to the standardized regression coefficient.

*p ≤ .05.

**p ≤ .01.

tions does not foster political activity. What counts is what happens there—in particular, whether there are opportunities to learn, improve, or maintain skills. This result elaborates in an important way our understanding of the role of nonpolitical institutions in stimulating political activity.

That political interest is related to political activity is, in itself, not very illuminating. As we have pointed out, political interest is likely to be a consequence as well as a cause of political activity. Even if we consider it only as a cause of activity, however, it is hardly astonishing that those who are interested in politics are also active.³⁴ What is important is that its inclusion does not supplant the effects of civic skills and family income. The relationship between resources and activity remains even with this powerful predictor of political activity in the equation.

Problems of Endogeneity

There is still room for worry, however. If political interest is endogenous, then the OLS estimates may be biased. Even if political interest is not endogenous, OLS estimates may still be biased if some unmeasured variable not captured by political interest affects both the accumulation of resources and political participation.³⁵ One approach to this problem (Achen 1986) is to find exogenous variables that explain skill-acts but are not also proxies for the tastes that directly cause political participation. These can then be used as instrumental variables to purge the measures of civic skills of this taste factor.

Two-stage least squares is the most efficient method for combining the instrumental variables that we need for civic skills and political interest. It is also useful for correcting for error in free time and income.³⁶ It requires the availability of good instruments—exogenous variables that are highly correlated with the included endogenous variables. It also requires that enough instruments be excluded from each equation to produce identification. Because we have a theory in which institutional involvements and institutional types have no direct impact on citizen participation (see Appendix B), we can use these variables as instruments in the participation equation. After all, our theory says that institutional involvements and types should be omitted from the participation equation. One might, however, wonder whether institutional involvements might also proxy a taste for participation. This suggests that it would be interesting to include these measures in the equation to see if they have an impact beyond resources. Unfortunately, this may leave us with a meager and weak set of instruments.

Our solution is to proceed in two complementary ways. We use 2SLS to estimate a model in which institutional involvements are excluded and used as instruments. Then we use 2SLS to estimate a model that excludes institutional type and religious attendance to ensure identification but that includes measures of institutional involvement for jobs, organizations, and church. These two approaches and the

OLS results converge on a common interpretation in which resources and psychological engagements drive political participation.

Two-Stage Least Squares Estimates

Whereas the OLS model incorporates the possibility of direct effects from institutional involvements and types to political participation, our first 2SLS model assumes that these paths are zero. We assume this because our resource model suggests that these paths should be zero. This provides a substantial set of variables that were in the OLS equations but are excluded from the 2SLS model and used as instrumental variables: *working*, *retired*, *occupation*, *organizational involvement*, *attendance at church*, *time devoted to church work*, and *Catholic*. In addition, we include in the equation (and treat as exogenous) *family income*, *participation in high school governance*, *speaking English at home*, *formal educational experience*, *vocabulary score*, and *citizenship status*. This means that the three skill-acts measures and free time are treated as endogenous. Finally, we also use a set of individual characteristics that are clearly exogenous as instruments: *race* (African-American and all others), *ethnicity* (Latino and all others), *parents' education average* on a nine-point scale, *gender*, *number of children at home*, whether any children are of *preschool age*, and whether the spouse works full-time, part-time, or not at all.³⁷ For the equation with political interest in it, we use one additional instrument: the respondent's *political interest* as reported on a screener interview completed 6 to 12 months before the final interview.³⁸

Table 3 presents data from a 2SLS analysis in which institutional involvements and types (as well as the set of demographic attributes and life circumstances listed) are used as instruments but excluded from the equation. This approach should avoid the problem of possible bias in the OLS estimates. The result for the resource model are very similar to what we found in Table 3 except that free time, now that it is purged of error, is also significant. Somewhat surprisingly, political interest and adult civic skills matter even more in the 2SLS equation than in the OLS version. We believe this is because political interest and adult civic skills are measured with error and 2SLS corrects not only for endogeneity but also for unreliability.³⁹ In this case, it appears that unreliability has depressed the OLS estimates.

The similarity of the coefficients for the three kinds of adult civic skills is especially striking. If the skill-act measures really measure skills and if the resources model is correct, then we would expect that skills exercised at work, in nonpolitical organizations, and in church would be transferable to politics at about the same rate. If either of these hypotheses fail, it would seem unlikely that the coefficients would be equal to one another. A test for equality of the coefficients strongly supports the conclusion that the three coefficients can be treated as equal to one another.⁴⁰ We impose this restriction on the skill-acts in the third column, and this shows that simply

TABLE 3

**Determinants of Overall Political Participation:
Two-Stage Least Squares Estimation**

INDEPENDENT VARIABLES	OVERALL POLITICAL PARTICIPATION MEASURE			
	WITH ADULT CIVIC SKILLS SEPARATE		WITH SUM OF ADULT CIVIC SKILLS	
	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.
Political interest	.420 (.030)	.489	.399** (.031)	.465
<i>Adult skill-acts</i>				
Job	.163** (.047)	.189	—	—
Organizational	.091** (.040)	.070	—	—
Church	.177** (.036)	.131	—	—
Sum of adult civic skills	—	—	.154** (.021)	.303
<i>Time and money</i>				
Free time	.044** (.012)	.150	.042** (.008)	.142
Family income	.037** (.009)	.082	.032** (.008)	.072
<i>Formal educational experiences</i>				
Years of education	.089** (.023)	.101	.079** (.020)	.090
High school governance	.073** (.026)	.053	.070** (.025)	.051
<i>Language ability</i>				
Speaking English at home	.034 (.076)	.009	.039 (.074)	.010
Vocabulary score	.010 (.013)	.016	.011 (.013)	.017
U.S. citizenship	.699** (.156)	.085	.686** (.153)	.084
Constant	-2.862** (.202)	—	-2.721** (.200)	—
R ²	.337		.345	
Sample size	2,427		2,430	

Source: Data from Citizen Participation Survey.

Note: COEFF. refers to the regression coefficient and SE to its standard error. BETA WT. refers to the standardized regression coefficient. Instrumental variables for 2SLS estimation are working at job, retired or not, occupational type, degree of organizational involvement, attendance at church, time in church activities, Catholic, years of education, involvement in high school governance, speaking English at home, vocabulary score, family income, black, Hispanic, education of parents, number of kids, preschool kids, sex, spouse work full-time, spouse work part-time, citizen, and interest in politics from the screener. The endogenous variables are therefore political interest, job skill-acts, organizational skill-acts, church skill-acts (or the sum of these three), and free time.

* $p \leq .05$.** $p \leq .01$.

taking the sum of skill-acts yields a highly significant coefficient with a beta weight (.303) roughly comparable to the impact of political interest (.465).

Although we do not report the details here, we have also estimated this model with institutional involvements (working, retired, organizational involvement, attendance at church, and time in church activity) included as independent exogenous variables meant to represent tastes for participation. The sum of skill-acts is still highly significant, with a t-statistic of 3.46 and a beta weight of .394. Moreover, the coefficients for the institutional involvements in the equation are, with the exception of the effects of being retired and working, insignificant or of the wrong sign.⁴¹ This suggests, once again, that it is civic skills that matter for political participation, not institutional involvements. In sum, our several modes of estimation show political resources to be potent for political activity.⁴²

We can still conjure up other possible nuisances that could explain our results, but we believe that we have tried systematically to eliminate as many alternative explanations as possible with the data and techniques at hand. We show, for example, that skill-acts measure civic skills, that skills are developed in adult institutions, that civic skills predict participation even with controls for political interest and other confounding variables, and that a theoretically generated set of instrumental variables produce the same result. In addition, we have tried systematically, with zeal and thoroughness, to make our results evaporate by estimating many other models. For example, we have included age, length of residence, intensity of party identification, and many other variables in other specifications not reported here, and tried many nonlinear specifications. The results we report are typical of what we get; and in no case have we been able to eliminate—or even reduce much—the strong and significant results of civic skills and money.⁴³

**POLITICAL RESOURCES AND
SPECIFIC POLITICAL ACTS**

The resource model works very well for an overall measure of political participation. However, a summary activity measure presumably masks significant differences among political acts, differences that might be related to resources. We distinguish three kinds of activity: acts requiring an investment of money (through contributions to campaigns and political causes); acts requiring an investment of time (by, e.g., working in a campaign or on a community issue, taking part in a protest, contacting an official); and voting. We would expect these to differ in their resource requirements. Making a contribution obviously demands money but should require little in the way of free time and may not require skills. The time-based acts obviously demand some free time and probably require, on average, a higher level of civic skills. As the easiest political act, voting ought not to require much in the way of resources except, perhaps, some free time to get to the polls. Political

interest might be especially important for voting because there are so few concrete payoffs to voting.

Voting

We begin with what is seemingly the least demanding form of political activity, voting. To construct the dependent variable, we combine two questions—one each about how often the respondent votes in local and national elections—to yield a nine-point scale. To simplify the presentation of the effects of the independent variables, we combine the three adult civic skills measures into one measure by simply taking their sum for each person.⁴⁴ The left-hand columns of Table 4 presents the results of a 2SLS analysis in which we regress the nine-point voting scale on average adult civic skills and other variables in the resource model. We use the same instruments as before. Political interest has by far the most substantial impact, with free time and citizenship also significant.⁴⁵ (The beta weights are .54, .23, and .15, respectively.) Income has no impact and civic skills have less impact (a beta weight of .21) than they do with the full participation index (where they have a beta weight of .30).

A consistent finding in the literature is the substantial impact of education on voting (Wolfinger and Rosenstone 1980; Teixeira 1992). Consequently, the statistically insignificant and incorrectly signed impact of education on turnout is especially surprising, but we believe that it is correct. Because past work has not treated political interest as a possibly unreliable and endogenous measure, we believe it has substantially underestimated the impact of interest and overestimated the direct impact of education. Indeed, we have replicated our results using National Election Studies data and validated and self-reported votes.⁴⁶ This does not mean, however, that education is unimportant. When we regress political interest on formal educational experiences and language abilities, we find that the impact of education on voting is funnelled entirely through political interest. Educational attainment (beta = .17), participation in high school government (.19), and vocabulary (.17) all have an effect on political interest. (The effect on political interest of speaking English at home (.03) is much smaller.) In summary, our work leads to a revised picture of voting as an act that is driven very strongly by political interest and that requires little in the way of money. Indeed, political interest is much more important than resources if our main project is to explain voting turnout.

Money

Our interest, of course, extends beyond voting. Making political contributions is an increasingly important mode of citizen participation (Sorauf 1988). When it comes to explaining contributions, the resource model provides striking results. We asked our respondents whether they had made contributions to electoral campaigns or, in response to direct-mail

requests, to any political cause. If they had, we asked how much they gave. By adding the amounts given to campaigns and causes, we develop a measure of the amount donated to politics. The middle columns of Table 4 present the results of a 2SLS analysis in which this variable is regressed on the variables in the resource model. The results are unambiguous: the major determinant of giving money is having money. Years of education also matter, but neither free time nor civic skills⁴⁷ affect monetary contributions. Strikingly, even political interest has only a modest impact (beta weight of .08) on the amount donated to politics. In short, it is easy to explain the amount given: a contributor needs money—and little else in the way of civic skills or political interest—to give money.

Time

The impact of resources on the forms of political activity that require giving time (working in a campaign, contacting government officials, protesting, engaging in informal community activity, serving on a local governing board or attending board meetings) is quite different from the pattern we observed for voting or monetary contributions. In the right-hand column of Table 4, we present the results of an estimation of the resource model with the dependent variable as the number of time-based acts performed by the respondent. Political interest clearly matters (beta weight of .33), as does free time (beta of .09). Family income does not matter, but civic skills clearly have a significant impact. Adult civic skills exercised in nonpolitical institutions⁴⁸ (beta of .30) and participation in high school government (beta of .09) both matter. Educational attainment has only a weak impact, but this is because so much of its impact is funneled through adult civic skills and political interest. (Educational attainment is correlated at .48 with the average of adult civic skills and at .33 with political interest.)

The contrasting patterns for voting and performing time-based acts, particularly in relation to skills and interest, bear elaboration. Because formal education simultaneously stimulates political interest and inculcates civic skills, both interest and skills have significant positive bivariate relationships with two forms of participation: voting and performing time-based acts. However, these equations demonstrate that while voting appears to require interest but much less in the way of civic skills, time-based acts depend on civic skills as well as interest. In short, education affects voting not so much by imparting skills as by increasing political interest. In contrast, education and participation in high school government have an impact on the performance of time-based acts by enhancing skills.

Free time is also worth more consideration. For each of three of the time-based acts (working in a campaign, getting involved informally on a community issue or problem, and serving on a local community board or attending its meetings), we asked activists the number of hours they give to the activity

TABLE 4

Determinants of Different Types of Acts (Two-Stage Least Squares Estimations)

INDEPENDENT VARIABLES	VOTING (0-8) ^a		POLITICAL MONEY (\$0-\$5,500) ^b		ACTS TAKING TIME (0-5) ^c	
	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.
Political interest	.884** (.065)	.542	16.0* (8.1)	.081	.191** (.023)	.326
Sum of adult civic skills	.200** (.044)	.209	-5.5 (5.5)	-.047	.103** (.016)	.298
<i>Time and money</i>						
Free time	.129** (.018)	.232	3.1 (2.2)	.045	.018** (.006)	.091
Family income	.013 (.018)	.015	34.9** (2.2)	.341	.009 (.006)	.031
<i>Educational experiences</i>						
Years of education	-.042 (.044)	-.025	12.2* (5.4)	.060	.027 (.015)	.045
High school governance	.003 (.054)	.001	5.4 (6.6)	.017	.081** (.019)	.087
<i>Language ability</i>						
Speaking English at home	-.025 (.174)	-.003	-13.3 (19.5)	-.015	.066 (.055)	.025
Vocabulary score	.058* (.027)	.049	.8 (3.3)	.006	-.009 (.009)	-.020
Citizenship	4.110** (.575)	.147	26.1 (40.3)	.014	-.002 (.115)	-.000
Constant	-3.563** (.593)	—	-236.5** (52.5)	—	-1.168 (.149)	—
R ²	.235		.138		.202	
Sample size	2,322		2,430		2,430	

Source: Data from Citizen Participation Survey.

Note: COEFF. refers to the regression coefficient and SE to its standard error. BETA WT. refers to the standardized regression coefficient. Instrumental variables for 2SLS estimation are working at job, retired or not, occupational type, degree of organizational involvement, attendance at church, time in church activities, Catholic, years of education, involvement in high school governance, speaking English at home, vocabulary score, family income, black, Hispanic, education of parents, number of kids, preschool kids, sex, spouse work full-time, spouse work part-time, citizen, and interest in politics from the screener. The endogenous variables are therefore political interest, sum of adult civic skills, and free time.

^aNational and local.

^bCampaign and mail.

^cBoard or meetings, informal, campaign, contact, and protest.

**p* ≤ .05.

***p* ≤ .01.

each week. When we limit the analysis to the 16% of our respondents who devote an hour or more per week to one of these activities (*n* = 393), we find a very strong relationship between the total number of hours given and the amount of free time available. Roughly speaking, each additional hour of free time per day leads to about one-third more hour of political activity per week.⁴⁹ Thus the amount of free time available seems especially important for the amount of time people give to activities. What we observe, then, is a two-stage process of political activation. Political interest and resources like adult civic skills have a major impact on the decision to participate (free time has a minor impact as well), but constraints on free time control the amount of the time-based political activity once this decision is made. Interestingly,

the pattern for making political contributions is quite different. Income is determinative for the decision to donate, as well as the size of the contribution.

The different effects of political interest, civic skills, time, and money on participatory acts provide part of the explanation for the well-known multidimensionality of political participation (Verba and Nie 1972). Because different acts require different kinds of resources and more or less political interest, they form distinct clusters. Our model provides a way of explaining the existence of these clusters. It also demonstrates why formal education is so highly correlated with virtually every political act. Education affects political participation in at least two separate ways: for some activities, especially voting, education instills political interest and participatory motiva-

tions; for others, especially those that require time, education leads to skills that facilitate activity.⁵⁰

THE IMPACT OF RESOURCES ON POLITICAL ACTIVITY

While it is beyond our scope here to describe the many ways that differences in resources contribute to different rates of participation across groups distinguished by income, race, ethnicity, or other characteristics, we can give a few illustrations of the effects on political activity of changes in resources.

Church Involvement. Consider an otherwise average person who has no involvement with a religious institution. If he or she joins a church and begins to attend services weekly and to devote an additional three hours a week to other church activity, this person will perform approximately two more church skill-acts (for the coefficients for church activity and attendance at church, see Table A-1), which will produce an increase of political acts from the average of 1.63 to 2.0 (see the left-hand column of Table 3). This increase represents over 25% of the standard deviation (1.35) of the summary acts measure.

Income. Consider an otherwise average person whose income goes up by \$10,000. The middle columns of Table 4 suggest that in consequence, this person's political contributions will increase over 50% from an average of \$66 to \$101.

Free Time. Finally, consider the impact of children. If there are preschool children at home, a person loses 3½ hours of free time each day. This means, based upon the preceding analysis, that among those people who are already putting in at least an hour a week in political activities, the addition of preschool children will reduce their total time spent on informal community activity, campaign work, board membership, or attending meetings by about an hour per week.⁵¹

In each of these cases, the ordinary changes that people experience in their lives (joining a church and attending a Bible-study class, getting a large raise, or having a baby) affect the amount of political resources available and thus lead to significant changes in political participation. Most importantly from the perspective of understanding patterns of participation, changes in life circumstances have different impacts on time, money, and civic skills; and these resources, in turn, have different links to each kind of political act.

CONCLUSION

The model developed here demonstrates that motivations such as interest in politics are not enough to explain political participation. The resources of time, money, and skills are also powerful predictors of

political participation in America. A model that includes resources has several advantages in explaining political activity. Resources can be measured more reliably than is possible with the motivations (e.g., efficacy or political interest) that often are used to explain activity. Furthermore, they are causally prior to political activity, deriving from home and school, choices about jobs and family, and involvements in nonpolitical organizations and churches. The civic skills that facilitate participation are not only acquired in childhood but cultivated throughout the life cycle in the major secondary institutions of adult life. In this way, the institutions of civil society operate, as Tocqueville noted, as the school of democracy.

The resource model permits us to go beyond the "standard SES model" in two ways. First, by moving to a more general level and specifying the resources derived from socioeconomic position that can be applied to politics, the model establishes the mechanisms that link SES to participation. In addition, by moving beyond SES and encompassing other resources not based on socioeconomic position (e.g., patterns of religious affiliation or involvement in nonpolitical organizations), we move toward an understanding of the disparities in activity among politically relevant groups distinguished by characteristics (e.g., race, ethnicity, or gender) in addition to SES.

Finally, the resource model illuminates American politics. We have seen that different resources are differentially available to various politically relevant groups and differentially critical for various kinds of activity. To give a reductionist version of our findings—political interest is especially important for turnout; civic skills, for acts requiring an investment of time; and money, for acts involving an investment of money. To the extent that money is the least equally distributed resource and to the extent that making contributions has become in recent decades an increasingly important citizen activity, the character of American politics is profoundly altered.

APPENDIX A: THE QUESTIONS

SES and Social Characteristics

Income. Which of the income groups listed on this card includes the total 1989 income before taxes of all members of your family living in your home? Please include all salaries, wages, pensions, dividends, interest, and all other income. (If uncertain,) What would be your best guess?

Education.

What is the highest grade of regular school that you have completed and gotten credit for? (If necessary, add.) By regular school we mean a school which can be counted toward an elementary or high school diploma or a college or university degree.

Did you get a high school diploma or pass a high school equivalency test?

What is the highest degree you have earned?

Which of the categories on this card best describes the highest educational level (mother/father) completed and got credit for?

Race and Ethnicity. Do you consider yourself Hispanic or Latino? What is your race?

Citizenship. Were you born in the United States? (If no,) Are you an American citizen?

Work.

Last week, were you working full-time for pay, working part-time for pay, going to school, keeping house, or something else? (Before you retired/In the last five years,) did you ever work for as long as one full year?

What kind of work (do you/did you) normally do? That is, what (is/was) your job called? (If necessary, probe,) What (are/were) your main duties?

Here is a list of things that people sometimes have to do as part of their jobs. After I read each one, please tell me whether or not you have engaged in that activity in the last six months as part of your job. Have you

- A. written a letter
- B. gone to a meeting where you took part in making decisions
- C. planned or chaired a meeting
- D. given a presentation or speech
- E. contacted a government official?

Is your (husband/wife/partner) currently working part-time for pay, going to school, keeping house, or something else?

Family Structure.

How many children do you have *living at home* with you? Please include step- and adopted children living in your household. Is this child under age 5? How many of these children are under age 5?

Language. What language do you usually speak at home—English or something else?

Institutional Involvements and Skills

High School Government. How active were you in school government? Were you very active, somewhat active, not very active, or not at all active?

Time.

About how many hours per day do you spend on necessary work for your home and family, including cooking, cleaning, taking care of children or other relatives, shopping, house and yard chores, and so forth? About how many hours in total do you spend in an average day on such necessary activities for home and family?

About how many hours do you spend on gainful employment in an average day, including commuting and work that you take home?

About how many hours do you spend studying for a degree or enrolled in courses for a degree in an average day?

About how many hours of sleep do you average a night?

Organizational Involvements.

Here is a list of organizations. Please read through this list and when you have finished, I'll have some questions. Are you a member of _____?

Have you attended a meeting of the organization in the past twelve months?

Does this organization sometimes take stands on any public issues—either locally or nationally?

Here is a list of things that people sometimes have to do as part of their involvement with organizations. After I read each one, please tell me whether or not you have engaged in that activity in the last six months as part of your involvement with this organization. Have you

- A. written a letter
- B. gone to a meeting where you took part in making decisions
- C. planned or chaired a meeting

- D. given a presentation or speech
- E. contacted a government official?

Religious Organizations.

Now on a different subject, what is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion? What specific denomination is that, if any?

Now I would like to ask you some questions about your religious activity. How often do you attend religious services?

If you average across the last twelve months, about how many hours per week did you give to (church/synagogue) work—aside from attending services?

Here is a list of things that people sometimes have to do as part of their church/synagogue) activities. After I read each one, please tell me whether or not you have engaged in that activity in the last six months as part of your (church/synagogue) activities. Have you

- A. written a letter
- B. gone to a meeting where you took part in making decisions
- C. planned or chaired a meeting
- D. given a presentation or speech
- E. contacted a government official?

Vocabulary. Now we would like to know something about how people go about guessing words they do not know. On this card are listed some words—you may know some of them, and you may not know quite a few of them. On each line the first word is in capital letters—like BEAST. Then there are five other words. Tell me the number of the word that comes *closest* to the meaning of the word in capital letters. For example, if the word in capital letters is BEAST, you would say "4" since "animal" comes closer to BEAST than any of the other words. If you wish, I will read the words to you. These words are difficult for almost everyone—just give me your best guess if you are not sure of the answer.

Self-described Skills.

Imagine you went to a community meeting and people were making comments and statements. Do you think you speak well enough to make an effective statement in public at such a meeting?

If you did speak up, do you think people would pay a lot of attention to what you said, some attention, very little attention, or none at all?

Suppose you wanted to write a letter to someone in the government—perhaps your member of Congress or a local city official—on some issue or problem that concerned you. Do you feel that you write well enough to write a convincing letter expressing your point or do you feel that you do not?

Political Interest and Political Activities

Interest in Politics.

Thinking about your *local* community, how interested are you in *local* community politics and local community affairs? How interested are you in *national* politics and *national* affairs? [Screener item] How interested are you in politics?

Voting.

In talking to people about elections, we find that they are sometimes not able to vote because they're not registered, they don't have time, or they have difficulty getting to the polls.

Think about the presidential elections since you were old enough to vote. Have you voted in all of them, in most of them, in some of them, rarely voted in them, or have you never voted in a presidential election?

Thinking back to the national election in November 1988, when the presidential candidates were Michael Dukakis, the Democrat, and George Bush, the Republican, did you happen to vote in that election?

Campaign Work. Since January 1988, the start of the last national election year, have you worked as a volunteer—that is, for no pay at all or only for a token amount—for a candidate running for national, state, or local office?

Campaign Money.

Since January 1988, did you contribute money—to an individual candidate, a party group, a political action committee, or any other organization that supported candidates?

In your best estimate, about how much money in total did you contribute since January 1988?

Contacting.

In the past twelve months, have you initiated any contacts with a *federal elected official* or someone on the staff of such an official: I mean someone in the White House or a Congressional or Senate Office?

What about a nonelected official in a *federal government agency*? Have you initiated a contact with such a person in the last twelve months?

What about an *elected official on the state or local level*—a governor or mayor or a member of the state legislature or a city or town council—or someone on the staff of such an elected official?

And what about a nonelected official in a *state or local government agency or board*? Have you initiated a contact with such a person in the last twelve months?

Protesting. In the past two years, since (current month 1988), have you taken part in a protest, march, or demonstration on some national or local issue (other than a strike against your employer)?

Board Membership. Now some questions about your role in your community. In the past two years, since (current month 1988), have you served in a voluntary capacity—that is, for no pay at all or for only a token amount—on any official issues such as a town council, a school board, a zoning board, a planning board, or the like?

Attend Meetings. Have you attended a meeting of such an official local government board or council in the past twelve months?

Informal Community Work. Aside from membership on a board or council or attendance at meetings, I'd like to ask also about informal activity in your community or neighborhood. In the past twelve months, have you gotten together *informally* with or worked with others in your community or neighborhood to try to deal with some community issue or problem? (If you have mentioned this activity elsewhere, perhaps in connection with your church or synagogue, or an organization or local campaign, don't repeat it here.)

APPENDIX B: A LEARNING MODEL FOR CIVIC SKILLS

Production of Skill-Acts

People engage in skill-acts when they are presented with opportunities on the job, in organizations, or in church to write a letter, make a speech, organize a meeting, or participate in a meeting and when they have enough preexisting skills to respond positively to the opportunity. If they lack either preexisting skills or opportunities to exercise them, then they cannot carry out the activity. For each domain j , skill-acts are the joint result of skill opportunities and preexisting skills:

$$\text{Skill-Acts } j = a_j + b_j (\text{Skill-Opportunities } j) + c_j (\text{Skills}) + \text{error}, \quad (\text{A-1})$$

where a_j is a constant and b_j and c_j indicate how skill-opportunities and preexisting skills are converted into skill-acts. This equation shows why all three measures of skill-acts can be useful indicators of skills even though they may not be highly correlated with one another. To the extent that individual opportunities to exercise skills

in jobs, organizations, and churches are not highly correlated with one another, skill acts will not be highly correlated even though they are partly determined by individual skills. And there is no reason to expect a high correlation among institutionally based opportunities to engage in skill acts. Though skills are transferable and may be carried from one institutional setting to another, there is little reason to expect that an individual involved in one type of institution (e.g., having a job) would be more likely to be involved in a different one (e.g., to attend church).

If skills are converted into skill-acts at the same rate across all three institutional domains, then all c_1 , c_2 , and c_3 will be equal. This might be true, but it will only show up in our data if we have exactly the correct functional form for equation A-1. This seems unlikely.⁵² It is asking too much for the c_j to equal one another, but it is not asking too much to have the c_j differ significantly from zero. If a c_j is zero, then skills would not be a cause of skill-acts in that domain even though, as we shall see shortly, skills might still be a consequence of skill-acts. It seems unlikely to us, however, that skill-acts would produce civic skills without also being a product of civic skills. Therefore, the first requirement for our model is that all c_j differ from zero.

Developing Skills

A central assertion of the resource model is that skills result from a "learning process." Not only do people engage in skill-acts because they have civic skills, they also develop skills because they perform skill-acts. When they write letters or organize meetings, people become more adept at these activities: their civic skills increase. Language ability (vocabulary score and speaking English at home) and formal educational experiences (educational attainment and participation in student government) also provide skills:

$$\begin{aligned} \text{Skills} = & e + d_1 (\text{Skill-Acts 1}) + d_2 (\text{Skill-Acts 2}) \\ & + d_3 (\text{Skill-Acts 3}) + d_4 (\text{Language Ability}) \\ & + d_5 (\text{Formal Educational Experiences}) + \text{error}, \end{aligned} \quad (\text{A-2})$$

where e is a constant and d_1 through d_5 indicate how skill-acts, language ability, and educational experiences are converted into civic skills. This equation will almost certainly be misspecified if we omit major institutional settings that create skills because we would expect a correlation between skill-acts in that domain and skill-acts in another domain. Thus it is of great importance that workplaces, organizations, and, churches encompass the major institutional settings where civic skills can be learned in adulthood.

If all skill-acts were turned into skills at the same rate, we would expect d_1 , d_2 , and d_3 to be equal. This seems unlikely, however, for several reasons: the functional form is uncertain, our measures of skill-acts miss the frequency with which people practice skills in each domain, and we did not ask in detail about the skill-acts performed. For example, we might expect those who practice skill-acts on the job to be more likely to learn from them because they spend so much time at their jobs. However, if the skill-acts performed on the job are merely routine, they would be less productive of skills. In any case, because we believe that engaging in skill-acts develops skills, we expect d_1 , d_2 , and d_3 to be positive but not necessarily equal.

Skill Opportunities from Institutional Involvements

Opportunities for individuals to perform skill-acts in an institution depend upon institutional involvements and institutional types:

$$\begin{aligned} \text{Skill Opportunities } j = & f_j (\text{Involvement } j) \\ & + g_j (\text{Type } j) + \text{error}, \end{aligned} \quad (\text{A-3})$$

where the intercept is zero to determine the mean of the unobserved skill opportunities measure.

Defining the Variables

To estimate the equations for the development of civic skills requires measures of skill-acts, skill opportunities in adult institu-

TABLE A-1

Determinants of Each Adult Civic Skill: Two-Stage Least Squares Estimations

INDEPENDENT VARIABLES	ADULT CIVIC SKILLS					
	JOB SKILLS-ACTS		ORGANIZATION SKILL-ACTS		CHURCH SKILL-ACTS	
	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.
Self-described skills	.595** (.045)	.561	.286** (.034)	.337	.135** (.020)	.200
<i>Involvements in institutions</i>						
Working at job	.742** (.034)	.434	—	—	—	—
Retired from job	-.178* (.095)	—	—	—	—	—
Organizational involvement	—	—	.731** (.032)	.458	—	—
Attendance at church	—	—	—	—	.063** (.007)	.167
Time in church work	—	—	—	—	.479** (.015)	.564
<i>Institutional types</i>						
Occupational type	.110** (.012)	.187	—	—	—	—
Hierarchical church	—	—	—	—	-.235** (.034)	-.104
Constant	-3.746** (.255)	—	-2.630 (.189)	—	-.987** (.133)	—
R ²	.433		.301		.484	
Sample size	2,448		2,445		2,448	

Source: Data from Citizen Participation Survey.

Note: COEFF. refers to the regression coefficient and SE to its standard error. BETA WT. refers to the standardized regression coefficient. Instrumental variables for 2SLS estimation are working at job, retired or not, occupational type, degree of organizational involvement, attendance at church, time in church activities, Catholic, years of education, involvement in high school governance, speaking English at home, vocabulary score, family income, black, Hispanic, education of parents, number of kids, preschool kids, sex, spouse work full-time, and spouse work part-time. The endogenous variable in all three equations is self-described skills.

* $p \leq .05$.

** $p \leq .01$.

tions, language ability, formal educational experiences, as well as a measure of civic skills themselves. The performance of skill-acts in each of three domains is measured by a five-point scale (0–4) as described earlier.⁵³ We did not measure skill opportunities directly, but use as proxies institutional involvements and types described, along with all the other variables in our model, in the main text.

Estimating the Equations

Equations A-1 and A-2 are basic to a model of skill development in which skill-acts are the result of having skills and getting the opportunities to exercise them; and skills, in turn, are the result of engaging in skill-acts, language ability, and formal educational experiences. They form a system of equations in which self-described civic skills and skill-acts appear on both sides of the equations; these measures, then, are endogenous. A standard way to estimate equations of this sort is 2SLS (Hanushek and Jackson 1977). This requires finding exogenous variables excluded from each equation that can be used as instruments. These are easy to find in this system of equations. For the three skill-acts equations formed by substituting equation A-3 into A-1, we can use the measures of institutional involvements and institutional types that are not in the current equation and the measures of language ability and formal educational experiences. For example, for the equation for skill-acts on the job, we can use the measure of organizational affiliations, attendance at church, time devoted to

church activities, the dummy for a Catholic church, and the measures of language skills and formal educational experiences. For the single skills equation A-2, we can use all the measures of institutional involvements and types as instruments. In addition to the instrumental variables that arise naturally from the system of equations, we also use a set of individual characteristics that are clearly exogenous. These are race (African American and all others), ethnicity (Latino and all others), family income in thousands of dollars, the average of parents' education on a nine-point scale, gender, number of children at home, whether any children are of preschool age, and whether or not the spouse is working full or part time.

Table A-1 reports the results of 2SLS estimations of the three skill-acts equations formed by substituting equation A-3 into A-1. The first row shows the impact of self-described skills on each kind of skill-act. All three regression coefficients are highly significant, ranging from .13 to .59. A change of 1.5 in self-described skills (about one standard deviation) leads to .9 more job skill-acts, .4 more organizational skill-acts, and .2 more church skill-acts. These are significant effects for self-described civic skills measured on five-point scales, and they amount to .56, .34, and .20 standard deviation changes ("beta weights") in job skill-acts, organizational skill-acts, and church skill-acts respectively.

Not surprisingly, the degree of involvement in an institution (e.g., working full-time, rather than part-time) has a lot to do with engaging in skill acts. In addition, it is striking how much the type of institution—working in a higher-status occupation or attending

TABLE A-2

Two-Stage Least Squares Estimates of Determinants of Self-Described Skills

INDEPENDENT VARIABLES	RESPONDENT'S SELF-DESCRIBED CIVIC SKILLS					
	FIRST EQUATION		SECOND EQUATION		THIRD EQUATION	
	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.	COEFF. (SE)	BETA WT.
<i>Adult skill-acts</i>						
Job	.216** (.030)	.229	.236** (.029)	.251	—	—
Organizational	.148** (.046)	.126				
Church	.043 (.041)	.029	.093* (.038)	.063	—	—
Sum	—	—	—	—	.146** (.018)	.262
<i>Formal educational experiences</i>						
Years of education	.080** (.025)	.083	.102** (.024)	.105	.108** (.024)	.111
High school governance	.172** (.029)	.114	.189** (.028)	.126	.164** (.029)	.109
<i>Language ability</i>						
Speaking English at home	.119 (.078)	.027	.120 (.078)	.028	.129 (.078)	.030
Vocabulary score	.149** (.014)	.217	.152** (.014)	.222	.150** (.014)	.218
Constant	4.065** (.171)	—	4.008** (.171)	—	4.006** (.170)	—
R ²		.234		.231		.218
Sample size		2,448		2,448		2,448

Source: Data from Citizen Participation Survey.

Note: COEFF. refers to the regression coefficient and SE to its standard error. BETA WT. refers to the standardized regression coefficient. Instrumental variables for 2SLS estimation are working at job, retired or not, occupational type, degree of organizational involvement, attendance at church, time in church activities, Catholic, years of education, involvement in high school governance, speaking English at home, vocabulary score, family income, black, Hispanic, education of parents, number of kids, preschool kids, sex, spouse work full-time, and spouse work part-time. The endogenous variables are the adult civic skills (job skill-acts, organizational skill-acts, church skill-acts, and sum of skill-acts).

* $p \leq .05$.

** $p \leq .01$.

a Catholic church—matters for job skill-acts and church skill-acts respectively. In fact, moving from a Catholic to a non-Catholic church has about the same impact on church skill-acts as a one-standard-deviation increase in self-described skills, and moving from the lowest to the highest rung on the nine-point occupational ladder has a greater impact than a one-standard-deviation increase in self-described skills.

The results in Table A-1 show that self-described civic skills and skill opportunities lead to skill-acts. This means that we can use skill-acts as a rough measure of civic skills. It does not, however, prove that people actually learn such skills through their involvement in adult institutions.

Using the same instruments as in Table A-1, Table A-2 establishes this important point by showing that the three measures of skill-acts help explain self-described civic skills. Consider the results for the first equation. The coefficients for job skill-acts and organizational skill-acts are highly significant. The coefficient for church skill-acts is disappointing, but an examination of the correlation matrix for the coefficients reveals that there is a high correlation between the estimate for the impact of organizational skill-acts and church skill-acts. The correlation of -.38 between these two coefficients means that the estimation procedure found it hard to distinguish one from the other. This suggests that if we dropped one of them, the other one will "take up the slack." In the second equation, we drop the organizational skill-acts variable, and the impact of church skill-acts becomes much larger and

statistically significant. When we omit both the organizational and church skill-act measures (not reported), the regression sum of squares becomes significantly smaller than when we include both in the first equation. An F-test rejects the notion that we should drop both variables. Finally, when we return to the first equation and do a t-test to assess whether the coefficients for organizational skill-acts and church skill-acts are equal, we find that despite the apparent difference, we cannot reject the hypothesis that they are identical.⁵⁴

Taken together, these results imply that the joint effect of organizational skill-acts and church skill-acts is not zero and that the two kinds of skill-acts have identical impacts. There is good reason, then, to believe that all three skill-act variables are important determinants of civic skills. The third equation imposes the constraint that all three skill-acts have the same impact by substituting their average for each of them individually. An F-test implies that this is too strong an assumption, but the R-squared and other statistics suggest that it is not a bad approximation to the truth.

Table A-1 shows how having skills leads to skill-acts, and Table A-2 shows how engaging in skill-acts leads to having more skills. Table A-2 contains an additional important finding. With the exception of the measure of speaking English at home, the other quite varied measures of civic skills (formal education, vocabulary score, and participation in high school government) all relate significantly to self-described skills. This gives us confidence that

we are measuring a coherent phenomenon that can be called civic skills.

Notes

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1. People also avoid politics because "they aren't allowed to participate." This was a major reason for nonparticipation in the United States at one time and it remains important in many countries.

2. Using an impressive time series of surveys, Rosenstone and Hansen (1993) emphasize the importance of mobilization by political leaders, mobilization around issues, and mobilization by political opportunities. Their data are especially well suited for showing how the changing political environment encourages or discourages political participation. Our data are especially appropriate for describing the linkages from SES to resources to participation. A complete theory of political participation must synthesize both perspectives.

3. Our approach has strong affinities with resource mobilization theory in sociology, although we concentrate upon the resources available to individuals instead of the resources available to social movement organizations. Social movement theorists argue that organizations mobilize people by the skillful use of resources; we argue that resources are a necessary condition for people becoming involved in politics. The two theories converge in their emphasis upon the crucial role of resources for political participation and in their description of the relevant resources. McCarthy and Zald (1977), for example, consider time and money and "skills in lobbying, accounting, and fund raising" as the most basic resources (pp. 1224, 1234).

4. The SES-participation relationship is well documented; the finding appears "with monotonous regularity" (Nagel 1987, 59). For citations of relevant literature, see Bennett and Bennett 1986, 183-186; Conway 1991, 21-27; and Milbrath and Goel 1977, 92. The SES-activity connection has been elaborated in multiple ways, including (1) differentiation among political acts, usually distinguishing between voting and "more difficult" political acts, with the SES-participation relationship more potent for the latter (Verba and Nie 1972; Verba, Nie, and Kim 1978); (2) analyses of the links between SES and activity, usually focusing on such motivating attitudes as political interest and efficacy (Almond and Verba 1963; Barnes and Kaase 1979; Kaase and Marsh 1979; Verba and Nie 1972; Verba, Nie, and Kim 1978) or on the different impacts of components of SES (Rosenstone and Hansen 1993; Wolfinger and Rosenstone 1980); (3) analyses of factors that diminish the impact of SES, often focusing on the mobilizing effects of organizational affiliations or such attitudes as group consciousness (Olsen 1982; Verba and Nie 1972).

5. After noting that "remarkably little effort has been devoted to explaining why certain resources matter and others do not," Wolfinger and Rosenstone unpack SES into its constituent parts and demonstrate that it is education, rather than income or occupation, that has consequences for voting; but they can go no farther than to say, "We cannot measure all resources directly; instead, we infer them from the individual's demographic characteristics" (1980, 9). This makes it hard for them to explain exactly how education has an impact on turnout. We shall follow their lead by elaborating resources and extending the analysis to forms of participation other than voting.

6. Huckfeldt and Sprague take a similar position in their careful review of the literature on contextual effects in politics.

They express skepticism about "simple versions of the self-selection argument. To what extent do people choose their location in the social structure? How many of us really choose our workplace colleagues, our coreligionists, our neighbors? To the extent that we are able to exercise control over our surroundings, do we use political criteria in exercising such choice? Or do we choose a job because it pays well? A church because our parents raised us in it? And then we take the politics that accompanies the choice" (1993, 294). There is still the possibility that some resources may be produced through political activity. Although it is hard to see how political activity would generate rather than consume free time, it can produce more income (e.g., if activists gain patronage jobs or favorable treatment for their businesses). Similarly, those who take part in politics may develop political skills "on the job," that is, learn and improve political skills through their political activity. Although some activists do generate political resources through their voluntary participation, politics is such a small part of the lives of even the most active citizens that most of their income and skills must be amassed outside it.

7. Stratification theory describes the distribution of class, status, and power, and their consequences for the operation of society (e.g., Bendix and Lipset 1966; Wright 1985). We shall show how money, time, and skills flow from class and status and how these resources are converted into political participation.

8. Milbrath and Goel note: "No matter how class is measured, studies consistently show that *higher class persons are more likely to participate in politics than lower class persons*. . . . This proposition has been confirmed in numerous countries" (1977, 92; emphasis original).

9. Contrary to the logic of the theory, many people vote and join organizations even though they cannot possibly hope to recoup their costs through their gains to self-interest. If the range of self-interested benefits is, as it must be, expanded to encompass such psychic benefits as the satisfaction of doing one's civic duty, then the theory becomes much less potent.

10. Another rational choice approach dating back at least to Downs (1957) argues that lower information and transaction costs for well-educated people means that they will be more likely to engage in politics. Not much has been done to elucidate this approach. Our concept of civic skills, however, explains why transaction and information costs might be lower among the well-educated.

11. The Chicago school takes into account constraints on time as well as money (Becker 1965, 1976), the production of commodities by the household (Michael 1973; Michael and Becker 1973), and investment in human capital (Becker 1975). In this theory, individual behavior is constrained by income, time, and household production capabilities. Household production functions vary from person to person depending upon accumulated skills, but production capabilities can be improved through the investment of time and goods in human capital. This is exactly the argument we make here.

12. The question was on total income from all sources for the family. With the exception of the lowest of the 16 categories (which was scored at two-thirds of the range) and the highest (which was scored at one-and-a-half), responses were scored at the midpoint of the range in thousands of dollars.

13. We would have been able to generate more precise data if we had asked respondents to keep time-budgets instead of asking about a typical day, but this would have been too complicated and costly in a survey designed to cover a wide range of concerns. In fact, the results based on our approximations accord very well with the results contained in the literature on time use (e.g., Hill 1985). We did not ask about "free time" directly because pretesting indicated that this concept had no clear-cut meaning to respondents, whereas the time spent working, doing household work, studying and sleeping seemed meaningful to them. We concluded that there would be much more error in an ambiguous query about free time than in the total error across all of our easily understood questions.

14. On the similarities and contrasts between time and money, see Sharp 1981 and Mincer 1962.

15. There is precedent for considering the role of civic skills in facilitating participation. Strate and his colleagues (1989) demonstrate the importance of "civic competence" for voting turnout. However, the variables included in their measure of civic competence (e.g., attentiveness to politics and level of political information) are explicitly political. Therefore, we cannot be sure that they are not also a result as well as a source of activity. Wald mentions the extent to which "congregational organizations may serve as leadership training institutes for people who lack other means of exposure to organizational skills" and cites studies that find a strong relationship between attendance at church services and electoral turnout but not between religious attendance and other forms of political activity (1992, 35). In his study of parish-connected, non-Latino Catholics, Lege (1988) finds a relationship between parish activity and political activity and discusses the potential of parish activity for developing the kinds of skills we measure here.

16. Schooling affects participation in several ways: it fosters values conducive to participation, broadens social networks, and creates income-producing occupational opportunities. We shall return to these themes. Here, we focus on the skill-creating aspect of education.

17. The eight categories and their scores were (1) grammar school or less, (2) some high school, (3) high school graduate or GED, (4) some college, (5) college graduate, (6) some graduate work, (7) master's degree, and (8) PhD. or professional degree. Not much is gained by cluttering our equations with dummy variables for these categories, so we have used this eight-point scale throughout.

18. Participation in high school governance might also measure a "taste" for participation. A close relationship between "tastes" and "skills" is predicted by George Stigler and Gary Becker (1977), who argue that as people develop skills in an area (e.g., baseball, music, politics), they will be more likely to prefer the activity because they can derive more and more pleasure from it at the same cost. Whether it measures tastes or skills, participation in high school governance belongs in our model.

19. Thorndike and Gallup describe this test as a "test of verbal intelligence. . . [that assesses] the nature of past learnings and not the ability to make novel adaptations" (1944, 78–79). The mean of 6.20 (with standard deviation of 2.15) on our vocabulary score is close to the mean of 6.51 (with standard deviation of 2.25) reported by Alwin for the 1989 GSS, which covered a slightly different population (1991, 628, table 1).

20. The vocabulary test may not be a very good measure of verbal ability for a very small fraction of our sample. The 1.8% of the sample who sometimes or always spoke another language at home besides English or Spanish (and therefore did not have the choice of being interviewed in their own language) might have done better if they had been interviewed in their native language. Our results, however, are not affected by excluding these people so we have left them in our analysis.

21. These facts suggest that the vocabulary score measures something more than just schooling, but for our purposes the exact relationship between vocabulary score and education is not important. What is important is that the vocabulary score allows us to control for verbal ability wherever or however it has been obtained.

22. Voluntary associations vary substantially in the extent to which they are involved in politics. We isolated affiliations with nonpolitical organizations as follows. Respondents were presented a comprehensive list of 20 kinds of voluntary organizations (e.g., unions, professional associations, fraternal groups, block clubs, political issue organizations). For each category for which the respondent indicated an organizational affiliation, we asked a series of follow-up questions about that organization (or, if more than one, about the one with which the respondent was most involved). Among these questions was whether the organization takes stands on public issues. We consider any organization that does not take

stands on public issues to be nonpolitical. Unless otherwise specified, we are referring in our discussion to these nonpolitical organizations.

23. There is an interaction with gender: in families where both spouses work full-time, preschoolers reduce the hours at home for a woman by 1.5 hours more than they reduce the hours at home for a man.

24. The skill-act items have several attractive features consistent with the conclusion that they measure the acquisition of transferable skills. For one thing, in each domain the four items form similar Guttman scales (with differences explainable by variations in chances to perform the skill from one domain to another) indicating that they measure something common across institutions, not something specific to a particular institution. In addition, one activity—contacting a government official—included in the list asked in each domain (though we did consider it not an opportunity to gain a civic skill but an actual political act) does not scale with the other activities, whether one uses Cronbach's alpha as a criterion, loadings or communalities in a factor analysis, or the coefficient of determination for a Guttman scale. For example, the *lowest* loading for the four items in factor analyses of each domain is .527 while the loadings for contacting are .279, .446, and .385. This too is consistent with the hypothesis that these activities are a common set.

25. The correlations are .30 between job skill-acts and organization skill-acts, .09 between job skill-acts and church skill-acts, and .29 between organization skill-acts and church skill-acts.

26. By using these scales in our regressions, we are assuming a linear relationship between our dependent variables and each one of them. This turns out to be close to the truth in every case. We have tried numerous specifications where we use dummy variables for each occupation, workplace status, level of attachment to organizations, and every other independent variable defined by a scale. The results are very close to those reported here, and using the scales simplifies the reporting of results.

27. All that matters for our purposes is that self-described skills measure civic skills. Then our demonstration that self-described skills are related to the exercise of skill-acts implies that civic skills are related to skill-acts.

28. A count of activities is a simple and straightforward measure that simplifies the initial presentation and analysis. The extensive literature on the multiple dimensions of participation (Verba and Nie 1972) suggests the importance of disaggregating this simple measure, and one of the strengths of the resource model is its ability to predict separate dimensions of participation, such as who is likely to give money, work in campaigns, or engage in some other activities. The resource model does this by considering what is common across people (i.e., resource constraints) while lumping together acts with varying issue content. As with standard turnout models that typically do not take into account the multifarious issues that impel voters to go to the polls (e.g., Wolfinger and Rosenstone 1980), we assume for the resource model that it makes sense to consign to the error term the many issues that might motivate people to participate. On average, we suppose that these issue considerations are uncorrelated with the resources that constrain or enable their activity. Because we asked our respondents whether any specific issue motivated their participation, we have, however, been able to show (in work available upon request) that the resource model works for specific issue areas, as well as a heterogeneous collection of them.

29. A number of papers have noted that respondents typically overreport forms of participation like these because of a *social desirability bias* "in which cognitive dissonance can lead to a rather consistent distortion of memory in order to reinforce continued perception of oneself as a good citizen" (Cahalan 1968; see Anderson and Silver 1986; Hill and Hurely 1984; Katosh and Traugott 1981; Silver, Anderson, and Abramson 1986; Volgy and Schwarz 1984; Weiss 1986). One explanation for our results could be that these same biases inflate reports of involvement in high school governance, church attendance, and other activities leading to a spurious

correlation with political participation. We worried about this possibility but rejected it for several reasons. First, social desirability bias has to enter in a very specific way so that some subgroups are more prone to it than others for it to produce spurious results (Brady 1986). Second, the evidence we have reviewed is consistent with the notion that social desirability bias is a general human trait that is uncorrelated with specific characteristics of the respondents. This means that it would not bias our results at all (except for the intercept of our regressions because of overall overreporting). Third, if there are different forms of social desirability (some people think that church attendance is desirable, others do not), then social desirability may lead to an underestimation of the importance of some factors because of what amounts to a classic errors in variables situation. Fourth, our questions were designed to maximize true recall and to minimize false reporting by asking details of each act so that we have tried to minimize social desirability bias to begin with. Fifth, the most crucial part of our model is the relationship between skills and participation; but if all of our skills are socially desirable, then they should correlate because of this common fact. In fact, the correlations are .30 between job skill-acts and organization skill-acts, .09 between job skill-acts and church skill-acts, and .29 between organizational skill-acts and church skill-acts. The lowest of these numbers is the upper bound on the possible amount of common social desirability bias. It is hard to believe that a correlation of .09 could account for all of our results. A detailed memorandum available from the authors elaborates upon this points.

30. The sum goes from 2 (not at all interested in either local or national affairs) to 8 (very interested in both). The Pearson correlation of .54 between the two items compares favorably with the correlation of .55 between interest in national politics and a general interest in politics question on the screener. (Interest in local politics and the screener question correlate at .50.)

31. Beta weights are not a perfect way to measure the importance of a variable (Achen 1982), but they are convenient for making comparisons across variables.

32. An alternative to the linear form would be the assumption that participation requires the interaction (or product) of political interest and resources, but the logarithm of this functional form would be a linear form in the logarithms of each variable. It might be worth testing this functional form if the measures in the equation had a known metric (e.g., quantities or prices in a typical economics problem); but almost all the measures in the equation have an unknown metric, so we cannot be sure that we should take their logarithms. Our approach to this problem is to stick with the simple linear form in the text. Another approach is to include an interaction term of, say, political interest and the sum of civic skills to see if it matters. In fact, it does, with a highly significant *t*-statistic of 5.93; but we do not believe that this really takes us beyond what we already know from the linear formulation that can be considered the first term in a Taylor series approximation of a product. Still another approach is to try out many alternative functional forms including the logarithm of participation, a Poisson regression, logarithms of some of the independent variables (e.g., family income), and dummy variable versions of scales for occupation, education, work status, and many other variables. Our results remain the same under these alternative specifications.

33. Measures of involvement in high school sports or having taken high school civics courses, by the way, had no impact on political participation or on the development of civic skills as reported in Appendix B.

34. Nevertheless, when we consider various political acts separately, we shall see that political interest is not uniform in its impact on all modes of participation.

35. This describes a "triangular" system of causation in which participation is explained by resources and some other exogenous variables and resources, in turn, are explained only by the other exogenous variables. It is well known that triangular systems can be estimated consistently by OLS only if the error terms are uncorrelated. If there is some unobserved factor such as a taste for organizational activity that

affects both resources and participation, then the error terms will obviously be correlated and the resources variables in the participation equation will be correlated with the error term in the equation, which leads to specification bias (Achen 1986, chap. 2).

36. So far, we have argued that we must include political interest in the participation equation and treat skill-acts and political interest as endogenous. Family income and free time also present special problems. It seems likely that our measures of these resources contain error, and this means that OLS estimates of their coefficients will be biased in unpredictable ways. The conventional wisdom is that their coefficients will be biased toward zero and that other "proxies" will pick up some of their effect. This is probably often true, but other things can happen (see Achen 1985). We solve this problem for the family income measure by using the income question on the screener to calculate the reliability of the income measure. This is then used to construct a new measure of income that is corrected for error. The family income measure that we use in all the regressions here is the predicted value from a regression of the follow-up measure on the screener measure. This amounts to a correction for attenuation. (We used the screener value for family income in the small number of cases where only the screener variables was available.) Although a reasonable measure, family income measured in this way is clearly only an approximation of the money available to an individual to use for political or other contributions. To solve this problem for free time, we treat it as endogenous and we use family size, preschool children, work status, and other variables as instruments to purge it of error.

37. The computer code and the data for all of our runs are available from the authors upon request and will be archived at the ICPSR at the University of Michigan.

38. We model the simultaneity between political interest and political participation by assuming that current participation depends directly upon current interest (and other factors, of course), which, in turn, depends upon current participation and past interest. Past interest is measured by a question on a screener interview 6 to 12 months before the final interview. In this setup, even if both interest items are measured with error, 2SLS provides consistent estimates for the participation equation. We can supply this proof upon request.

39. Another possibility is that interest and skills are picking up the effects of variables that appear in the OLS estimation but are omitted from the 2SLS version based upon our theoretical assumptions. If our theory is right, then they should be omitted. If our theory is wrong, then they should be included, but this leaves us with no instruments for solving the endogeneity problem. If endogeneity is not a problem, of course, then the OLS estimation suggests that these variables should be omitted. We are stymied, then, only in the case when endogeneity is a problem and our theoretical assumptions are wrong.

40. The appropriate χ^2 test is described by Judge and his colleagues, and the value of 1.92 with two degrees of freedom (highly insignificant with a probability value of about .35) strongly supports the null hypothesis that the coefficients are equal to one another (1985, 614).

41. The impact of free time becomes insignificant when we include dummy variables for working and retirement in the equation because these two variables are so highly correlated with free time. This suggests the fragility of this result, but it also raises questions about how we should think about the impact of work and retirement on participation. It seems likely that work increases participation through the development of skills (job skills and working are correlated at .605) and decreases participation by reducing free time (free time and working are correlated at -.626). These seem to be the main routes by which working can have an impact so that once job skills and free time are included in an equation for participation, working (and retirement) should be excluded. When we do include working in an equation with job skills, free time, and many other variables, we find that it has a negative coefficient and that free time appears to have no impact. Yet we can think of no consequence of working, other

than its reduction of free time, which would cause its coefficient to be negative. Moreover, the estimated coefficients for working and for free time are correlated at .609 with one another, suggesting that working is acting in place of free time. Of all our results, the impact of free time is the most fragile; but there is strong evidence (discussed later) that free time, at the very least, affects the number of hours given to time-intensive participation once the decision to participate is made.

42. Another test of our model would be to include measures of recruitment to politics and measures of psychological engagement other than interest. In other work (Verba, Schlozman, and Brady 1995), we have estimated both OLS and 2SLS versions of our models after adding political efficacy, partisan strength, political interest, political information, and a measure of recruitment to politics. We found no substantial change in our results.

43. In the language of econometrics (Granger 1990; Leamer 1990), we have investigated the "fragility" of our results regarding civic skills and income and found that alternative specifications lead to the same result. As noted in n. 41, our results regarding free time are more fragile than the others.

44. A χ^2 test where the null hypothesis is the equality of the three coefficients for the skills variables in the voting equation yields a value of 3.36 which is not even significant at the .10 level so that we cannot reject the null hypothesis (Judge et al. 1985, 614).

45. The impact of citizenship is, of course, to be expected. We include it, rather than running the equation for citizens only (which might seem appropriate), because it enables us to see the impact of the resources over and above this obviously potent variable. In addition, we want to compare the role of citizenship in connection with voting with its impact on other acts for which it is not a requisite.

46. This becomes apparent using the 1990–93 National Election Studies panel. An OLS regression of self-reported vote for 1992 on education and interest in the campaign (there was no general interest question in 1992) yields beta coefficients of .22 and .34 respectively. Because interest in the campaign is likely to be unreliable and endogenous, the 1990 campaign interest measure is used as an instrumental variable for it, and then the beta weights go to .08 for education and .90 for interest. (The regression coefficient on education is barely significant at the .05 level in a sample of 1,242.) The 1990 campaign interest measure is an excellent instrument for 1992 campaign interest if the only problem with interest is due to its unreliability. If campaign interest is also endogenous, then we need a still better set of instruments like those used here. Nevertheless, using lagged campaign interest at least solves the reliability problem, and it must be considered better than using simple OLS, which has typically been done in the literature. We get similar results when we use self-reports about voting in 1988 from the same data set with betas of .11 for education and .44 for campaign interest. Finally, because self-reports of voting might be strongly driven by interest whereas validated votes might not be (perhaps because of some social desirability bias), we also used validated vote in 1988. (Our data file did not have validated vote for 1992.) The results were a beta of .03 for education (with a standard error larger than the regression coefficient) and .43 for campaign interest.

47. A χ^2 test where the null hypothesis is the equality of the coefficients for the three skills variables in the political money equation yields a value of 1.53, which has a probability value of about .50 (Judge et al., 1985, 614). Moreover, a χ^2 test for all three equaling zero yields 1.59 with three degrees of freedom which has a probability value of about .60. Finally, the *t*-statistic for the sum of the skill acts reported in Table 5 is –1.00 with a probability value of .32. The evidence is overwhelming that civic skills have nothing to do with giving money.

48. A χ^2 test where the null hypothesis is the equality of the coefficients for the three skills variables in the equation for acts requiring time yields a value of 4.35, which has a probability value of about .15, so that we cannot reject the null hypothesis (Judge et al. 1985, 614).

49. A regression of the total number of hours spent working on a campaign, getting involved informally on a community issue, and serving on a local community board or attending its meetings for just those with nonzero time on the independent variables of resources (time, income, the sum of adult civic skills, participation in high school governance, education, vocabulary score, speaking English at home), political interest, and citizenship shows that only free time matters. Skeptics might suggest that this result might be produced by some artifact in the way we measure time. Perhaps some people consistently under- or overestimate how much time they spend on activities in politics and in other parts of their lives. In fact, if this were the case, it would create a negative correlation between free time (which is measured as 24 minus the hours devoted to paid work, household maintenance tasks and child care, school, and sleep) and political activity.

50. The impact of education is broader still, affecting the networks people are in, as well as the likelihood that they will be in high-paying jobs. We explore these connections in later publications.

51. In this case, it matters whether our average person is male or female. Since a working woman loses more free time than a man when there is a preschooler at home, the impact on the amount of time she gives to time-based political activities will be that much greater.

52. It seems unlikely for two reasons. First, it seems improbable that we have hit upon the ideal way to measure skill-acts in our first try. There are probably some difficulties comparing our measures across domains. Second, equation A-1 is basically a "production function" for skill-acts from skills and opportunities. This suggests alternative functional forms. For example, skill-acts might be a function of the product (or interaction) of skills and opportunities as in a Cobb-Douglas production function, but by simply taking logarithms we could get the linear form in the text. Knowing as little as we do about the proper functional forms, it is better to stay with the simple linear formulations.

53. Those not involved in an institution were scored at zero. However, those scored at zero are not necessarily completely without skills. Hence, our observation of skills is censored by whether or not the person was involved in a particular institution. One of the reasons for constructing the model in the text is to overcome this difficulty by including the major institutions in which someone might develop skills. In this section only, we measure skill-acts in all kinds of organizations; elsewhere we refer to nonpolitical organizations only. For the job skill-acts we imputed some missing data. Description of the method and code used to impute these data can be obtained from the authors.

54. This test involves asking whether the difference between the coefficients for organization skill-acts and church skill-acts is zero. The test requires knowing the covariance between the estimates of these two coefficients, ascertained from their correlation and the standard errors for each coefficient as reported in the table. The value for the *t*-test is 1.45, well short of statistical significance.

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