Civic Engagement and Community Heterogeneity: An Economist's Perspective

By Dora L. Costa and Matthew E. Kahn

> Now many of them [economists] are writing about neighborhood get-togethers, PTAs, Bible study classes, and the like…. *This is not necessarily a good thing.*
>
> —Claude S. Fischer, "*Bowling Alone:* What's the Score?"

Introduction

Economists do bowl with political scientists and sociologists, but in separate lanes. More than ever, economists are recognizing the importance of institutions, such as the judicial system and transparent governance, in determining economic performance.[1] What produces good institutions? A growing number of economists are pointing to social capital. Low levels of trust predict less efficient judiciaries, more corruption, and lower-quality government bureaucracies.[2] High levels of trust predict economic growth[3] and financial development.[4] The absence of social capital may explain low levels of spending on such public goods as education and welfare.[5]

The question then becomes, what produces social capital? According to one definition, social capital refers to aspects of the network structure—such as social norms and sanctions, mutual obligations, trust, and information transmission—that encourage collaboration and coordination between friends and between strangers.[6] Social capital is thus embodied within society. According to another definition, it is a person's social characteristics, including the size of her Rolodex, that help her reap market and nonmarket returns from interactions with others but that cannot be evaluated without knowledge of the social structure in which she operates.[7] Whether an attribute of an individual or of a society, social capital is produced by individuals' decisions about participation. An individual can increase the number and depth of his connections with others, but the value of those network connections depends upon the extent (both quality and quantity) of others' participation. Social capital therefore depends both upon individual socioeconomic and demographic characteristics and upon the characteristics of society.

This article provides an overview of the mushrooming economics literature on how community attributes influence the level of civic engagement. Since 1997, at least 15 empirical papers have investigated the consequences of heterogeneity for social capital. Social capital has been measured using indicators of group participation (such as volunteer activity, organizational membership and activity, entertaining and visiting friends and relatives, and voting), indicators of the strength of network ties (trust, for example), and indicators of community commitment (such as public expenditures and loan repayment to community members). These papers cover different nations, different social-capital measures, and even different centuries. But a common theme emerges: more-homogeneous communities foster greater levels of social-capital production. After we touch upon the literature, we synthesize our past work on volunteering and membership in the United States over the last 20 years with new findings on trust and voting. We also discuss our work on community in the U.S. military during the Civil War.

Why Does Heterogeneity Matter?

The benefits of community diversity have been studied in a variety of contexts. Jane Jacobs observes that cities with different types of industries (as opposed to completely specialized cities) should experience greater rates of growth because the transfer of ideas and learning is greater in a diverse environment.[8] More-diverse cities are better insured against risk. Portfolio risk minimization hinges on diversification—that is, holding dissimilar assets. Edward Glaeser, Hedi Kallal, Jose Scheinkman, and Andrei Shleifer study economic growth in U.S. counties and report evidence supporting the Jacobs hypothesis. William Bowen and Derek Bok report that there were substantial social interactions between white and black students at elite schools and

Dora L. Costa is the Ford Career Development Associate Professor of Economics at the Massachusetts Institute of Technology (costa@mit.edu); she is also a research associate for the National Bureau of Economic Research. Matthew E. Kahn is an associate professor of international economics at the Fletcher School, Tufts University (matt.kahn@tufts.edu). *The authors thank the participants in the Conference on Social Connectedness and Public Activism (Harvard University), where an earlier version of this article was delivered in May 2002; Jennifer Hochschild; and four anonymous reviewers for comments. They also thank NIH grant R01 AG19637. Additionally, Dora Costa thanks NIH grants AG12658 and AG10120.*

that alumni pointed to these college interactions as helping them to relate to members of different racial groups later in life. Ethnic heterogeneity provides many of our major cities with their charm and epicurean variety. Disgust with suburban sprawl is partially generated by the homogeneity of the housing stock.

Diversity also imposes costs. Whether in choosing a college roommate, a residential community, or a place to pray, people tend to self-segregate. They prefer to interact with others like them because of shared interests, socialization to the same cultural norms, and greater empathy toward individuals who remind them of themselves. Members of minority groups may prefer to interact with other minority members if they fear discrimination. The coordination necessary for groups to form and to become active is easier if members speak a common language. When Harvard University began randomized assignment to undergraduate residence halls, minority resident tutors argued that this had destroyed a "supporting and nurturing community… [in which] students of color felt comfortable, academically, socially, personally."[9]

Our focus is not on why people try to self-segregate, but on why they take very different actions when interacting in a "homogeneous" environment versus a "heterogeneous" one.[10] Alberto Alesina and Eliana La Ferrara present a formal model of participation in a heterogeneous society, in which they assume that people prefer to self-segregate. They point out that the face-to-face interactions important for building social capital are only possible when everyone lives in the same physical community or travels from afar to meet. Because travel is costly, a minority group may be too small within a residential area to form its own club. In such a situation, the group can either join a heterogeneous group in which they are the minority or else not participate at all. The Harvard tutors argued that this is a recipe for low levels of participation—"[b]y sprinkling a 'manageable' number of minority students in each of the 12 houses one does not necessarily ensure increased student interaction."[11] If the minority group is too small to form its own club *and* an area's heterogeneity increases, participation will fall. Only if the minority group becomes large enough to form its own club will an increase in the area's heterogeneity lead to an increase in overall participation. Which outcome is most likely is ultimately an empirical issue.

Recent Economic Literature

Over the past five years, at least 15 different empirical economic papers have studied the consequences of community heterogeneity, and all of these studies have the same punch line: heterogeneity reduces civic engagement. In more-diverse communities, people participate less as measured by how they allocate their time, their money, their voting, and their willingness to take risks to help others. The appendix to this article provides an outline of these studies. It is arranged into three broad categories: the contemporary United States, international studies, and historical U.S studies.

U.S studies have focused on three different measures of civic engagement: group participation, state spending, and trust. Using General Social Survey data, Alesina and La Ferrara find that organizational membership is lower in metropolitan areas that feature greater racial and ethnic diversity and higher income inequality. Jacob Vigdor reports that in counties featuring higher levels of ethnic fragmentation, the rate of response to the 2000 Census form is lower, suggesting reduced willingness to provide a public good (information about oneself that determines the community's receipt of federal funds).

A second measure of civic engagement is the willingness to redistribute income. Erzo Luttmer, using data from the General Social Survey and from California ballot initiatives, finds that support for redistribution is higher when the recipients are from the same racial group. Researchers have found a similar result for support of public education. Amy Rehder Harris, William Evans, and Robert Schwab, and James Poterba, report evidence of a "Florida effect" in states' public-school expenditures. In Florida the "average" taxpayer is a white senior citizen, while the typical public school student is Hispanic. In this diverse environment, there is less support for public-school expenditures than in states where the students and the taxpayers are of the same ethnicity. Claudia Goldin and Lawrence Katz find that a similar pattern prevailed in the past—racial, ethnic, and religious diversity and income inequality predicted state educational expenditures. Data from U.S. cities, metropolitan areas, and urban counties show that the share of spending on such productive public goods as education, roads, sewers, and trash pickup is inversely related to the area's ethnic fragmentation, even after controlling for other socioeconomic and demographic characteristics.[12] Not only are participation and expenditure lower in more-diverse settings, but so is trust. Self-reported levels of trust[13] and experimental evidence[14] document that when individuals interact with people who look like them, levels of trust in the community are higher.

Recently, development economists have used new data sets to investigate social-capital production abroad. A distinguishing characteristic of these papers is developing new empirical proxies for the presence of social capital. Papers that examine developed countries rely heavily on membership, volunteering, and trust as proxies for social capital. While it is intuitive that such indicators are correlated with social capital, our confidence in our ability to measure social capital would be raised if we had more indicators. One of the most interesting indicators in the development literature is default rates on micro-finance loans, an important source of funds for the poor. If there is strong social capital within the group providing and receiving loans, then default is lower because altruism, peer pressure, and social sanctions enforce repayment. Dean Karlan reports evidence from Peru that cultural similarity within the community of loan recipients lowers default rates. Edward Miguel and Mary Kay Gugerty report evidence of lower school funding in communities that are more ethnically diverse—a finding similar in spirit to the U.S research on public expenditure patterns. There is also evidence that income inequality lowers civic participation and community expenditure.[15]

Civic Participation and Community Heterogeneity: Evidence

Heterogeneity may be measured in several ways, including race, ethnicity, income, educational or work experiences, and religion. We will focus mainly on race, ethnicity, and income. Our measures of distance are for the most part calculated for metropolitan

Table 1
Impact of Community Heterogeneity on Probability of Participation and Trust, 25- to 54-Year-Olds

	Volunteering	Volunteering	Membership	Membership	Trust
	Current Population Survey 1974–1989 $\frac{\partial P}{\partial x}$	DDB Lifestyle Survey 1975–1998 $\frac{\partial P}{\partial x}$	American National Election Survey 1952–1972 $\frac{\partial P}{\partial x}$	General Social Survey 1974–1994 $\frac{\partial P}{\partial x}$	General Social Survey 1972–1998 $\frac{\partial P}{\partial x}$
Probability of participation/trust	0.247	0.536	0.642	0.720	0.409
Gini coefficient	–0.472†	–0.478‡	–0.594	–0.540*	–0.439*
	(0.202)	(0.191)	(1.424)	(0.287)	(0.270)
Birthplace fragmentation	–0.174‡	–0.011	–0.109	–0.173‡	–0.064
	(0.049)	(0.045)	(0.196)	(0.003)	(0.083)
Racial fragmentation	–0.052	–0.129‡	–0.450†	0.069	–0.081
	(0.038)	(0.044)	(0.214)	(0.052)	(0.073)
Pseudo R^2	0.089	0.042	0.098	0.083	0.100

Source: Costa and Kahn (forthcoming, b) and authors' calculations from General Social Survey. Derivatives from probit regression are given. Robust standard errors are in parentheses. The symbols *, †, and ‡ indicate significance at 10, 5, and 1 percent, respectively. The dependent variable in the Current Population Survey and the DDB Lifestyle Survey is a dummy equal to one if an individual did any volunteer work in the past 12 months. Reported volunteering differs across surveys. The dependent variable in the American National Election Survey is a dummy equal to one if the individual was a member of a nonchurch organization. The dependent variable in the General Social Survey for membership is a dummy equal to one if an individual reported membership in any organization. The dependent variable for trust is a dummy equal to one if an individual reported that most people can be trusted. Additional controls include age, sex, race, education, region of residence, and year of survey. The samples are restricted to individuals in identifiable metropolitan areas.

areas and include the Gini coefficient of weekly wages for full-time, full-year men ages 21–64, as well as fragmentation indexes for race and birthplace. Recall that the Gini coefficient measures the extent of departure from a perfectly even distribution of income, with a Gini of 0 indicating perfect equality and a Gini of 1 perfect inequality. In the case of fragmentation indexes, a value of 0 indicates complete homogeneity and a value of 1 complete heterogeneity. For example, our racial fragmentation index for each metropolitan area, i, is

$$f_i = 1 - \sum_k S_{ki}^2$$

where k represents the categories (white, black, American Indian, Asian, and other) and where s_{ki} is the share of race k in metropolitan area i. Our birthplace fragmentation index is similarly constructed.[16]

Evidence from the United States today

Our evidence for the impact of metropolitan-area heterogeneity on civic engagement comes from examining volunteering in the 1974 and 1989 Current Population Survey (CPS) and in the 1975–1998 DDB Lifestyle Survey (DDB), membership in nonchurch organizations in the 1952 and 1972 American National Election Survey (ANES) and in all organizations in the 1974–1994 General Social Survey (GSS), and trust in the 1972–1998 GSS. In addition, we examine the impact of ethnic heterogeneity among registered voters within a census tract on voter turnout. One of the benefits of group membership is that through participation, relations among individuals are transformed into positive ties—that is, into trust.[17] Many scholars have therefore used trust as an aggregate measure of social capital.

Table 1 shows that volunteering, membership, and trust among 25- to 54-year-olds are lower in heterogeneous communities, particularly those in which wage inequality is high. An increase in the Gini coefficient of 0.058 (such as occurred between the mid-1970s and 1990) lowers the probability of volunteering in the CPS and DDB, and of organizational membership and trust in the GSS, by 0.03.[18] Although the Gini coefficient is not a significant predictor of membership in the ANES, an increase in the Gini coefficient of 0.027 (such as occurred between 1950 and 1970) lowers the probability of membership by 0.02. Birthplace fragmentation is a significant predictor of volunteering in the CPS and of membership in the GSS. The increase of 0.053 in birthplace fragmentation that occurred between the mid-1970s and 1990 predicts that the probability of volunteering in the CPS and membership in the GSS should fall by 0.01. Racial fragmentation is a significant predictor of volunteering in the DDB and of membership in the ANES. The increase of 0.007 in racial fragmentation from the mid-1970s to 1990 predicts imperceptible declines in volunteering in the DDB. The increase of 0.092 in the racial fragmentation index from 1950 to 1970 predicts a decline in nonchurch group membership in the ANES of 0.04.

We do not expect that all groups will react similarly to changes in their community. For Americans older than 64, birthplace fragmentation was the most important predictor of volunteering,

Table 2
Impact of Community Heterogeneity on Probability of Participation and Trust, Age 65+

	Volunteering	Volunteering	Membership	Trust
	Current Population Survey 1974–1989 $\frac{\partial P}{\partial x}$	DDB Lifestyle Survey 1975–1998 $\frac{\partial P}{\partial x}$	General Social Survey 1974–1994 $\frac{\partial P}{\partial x}$	General Social Survey 1972–1998 $\frac{\partial P}{\partial x}$
Probability of participation and trust	0.160	0.518	0.705	0.406
Gini coefficient	0.023	0.004	–0.322	0.307
	(0.213)	(0.339)	(0.557)	(0.330)
Birthplace fragmentation	–0.122‡	–0.143†	–0.288†	–0.208†
	(0.041)	(0.069)	(0.131)	(0.098)
Racial fragmentation	0.006	–0.215‡	0.055	–0.132
	(0.036)	(0.069)	(0.113)	(0.097)
Pseudo R^2	0.076	0.027	0.064	0.069

Source: Authors' calculations. Derivatives from probit regression are given. Robust standard errors are in parentheses. The symbols *, †, and ‡ indicate significance at 10, 5, and 1 percent, respectively. The dependent variable in the Current Population Survey and the DDB Lifestyle Survey is a dummy equal to one if an individual did any volunteer work in the past 12 months. Reported volunteering differs across surveys. The dependent variable in the General Social Survey for membership is a dummy equal to one if an individual reported membership in any organization. The dependent variables in the General Social Survey for trust is a dummy equal to one if an individual reported that most people can be trusted. Additional controls include age, sex, race, education, region of residence, and year of survey. The samples are restricted to individuals in identifiable metropolitan areas. We did not include a measure of age 65+ membership from the American National Election Survey because there were too few observations to be statistically reliable.

membership, and trust (see Table 2). The Gini coefficient for wage income was an insignificant predictor, and racial fragmentation was a significant predictor only of volunteering in the DDB. The increase in birthplace fragmentation from the mid-1970s to 1990 predicts a decline among older Americans of 0.01 in the probability of volunteering and trust and of 0.02 in the probability of membership. For African Americans (not shown), we found smaller declines in volunteering in the CPS than for whites. While birthplace fragmentation had predictive power in explaining both the level and the trend of black volunteering rates, the Gini coefficient did not.

We explain only a small proportion of total variance, but we would expect that, since there are many traits affecting a person's level of trust or engagement that we cannot measure here. Such traits include a person's affability or altruism, both of which are not captured in these surveys. Nevertheless, the results are meaningful. The data show, overall, a relatively small decline in social capital from the 1970s to 1990—and rising heterogeneity explains these declines very well.

Community heterogeneity explains not only the level of civic engagement at a point in time, but also changes in the level of civic engagement over time. Metropolitan areas in the United States have become more fragmented by income, race, and ethnicity since the 1970s. Our measures of the Gini coefficient for full-time male workers, racial fragmentation, and fraction black increase from 1950 to 1990. Our measures of birthplace fragmentation and foreign-born fragmentation decrease from 1950 to 1970, then increase until 1990.[19]

Table 3 demonstrates the impact of changes in community heterogeneity on trends in social capital, controlling for demographic and socioeconomic characteristics.

Note that not all surveys show declines in social capital in identifiable metropolitan areas. The declines for people ages 25 to 54 are in volunteering in the CPS (particularly among women) and in membership and trust in the GSS. Membership declined sharply in the early 1980s relative to the 1970s (not shown), precisely mirroring the sharp increase in inequality, but then leveled. The Gini coefficient was a particularly important predictor for membership in sports, youth, church, literary, and hobby clubs, but not in professional organizations, suggesting that when interpersonal contact is high, people prefer to be with others like them. Controlling for heterogeneity explains anywhere from one-third to almost all of the declines in volunteering, membership, and trust among people ages 25 to 54. Among older Americans, both membership and trust declined, with the largest declines in membership occurring in the late 1980s, thus coinciding with increases in immigration. Only the decline in membership can be explained by heterogeneity.

Voting rates provide another measure of community participation at a point in time. Since voting is costly, but one's vote "doesn't matter," economists wonder why everyone does not free ride. In a community with more social capital and more of a civic sense, voting rates are likely to be higher as residents do not pursue only their own narrow self-interest. The Institute of Government Studies at the University of California at Berkeley has created a database by census tract on voter turnout rates (as a fraction of registered voters) and tract demographics (based on registered voters). We use data from the 1998 primaries and the 2000 general election. Controlling for county fixed effects and the age and sex distribution of a census tract, we study whether census tracts featuring higher levels of ethnic fragmentation have lower voter turnout rates. Our ethnic fragmentation measure is based on the following categories: Latino, Jewish, Korean, Japanese, Chinese,

Table 3
Declines in Probability of Participation, Controlling for Demographic and Socioeconomic Characteristics, and Fraction of Decline Explained by Heterogeneity

	Volunteering	Membership	Trust
	Current Population Survey 1974–1989	General Social Survey 1974–1994	General Social Survey 1972–1998
Age 25–54			
Decline among men	0.031	0.105	0.148
% decline explained by heterogeneity	90%	40%	32%
Decline among women	0.063	0.105	0.148
% decline explained by heterogeneity	56%	40%	32%
Age 65+			
Decline among men	None	0.047	0.149
% explained by heterogeneity		66%	None
Decline among women	None	0.047	0.149
% explained by heterogeneity		66%	None

Source: Costa and Kahn (forthcoming, b) and authors' calculations. The dependent variable in the Current Population Survey is a dummy equal to one if an individual did any volunteer work in the past 12 months. Reported volunteering differs across surveys. The dependent variable in the General Social Survey for membership is a dummy equal to one if an individual reported membership in any organization. The dependent variable in the General Social Survey for trust is a dummy equal to one if an individual reported that most people can be trusted. Demographic and socioeconomic controls include age, race, education, region of residence, and year of survey. The samples are restricted to individuals in identifiable metropolitan areas.

Asian-Indian, Vietnamese, Filipino, and other.[20] In both statistical models (1998 primaries and 2000 general election), we find evidence that, all else being equal, increased ethnic fragmentation lowers voter turnout rates. Based on the year 2000 regression model, increasing a census tract's ethnic fragmentation by one standard deviation lowers voter turnout rates by two percentage points.[21]

International evidence

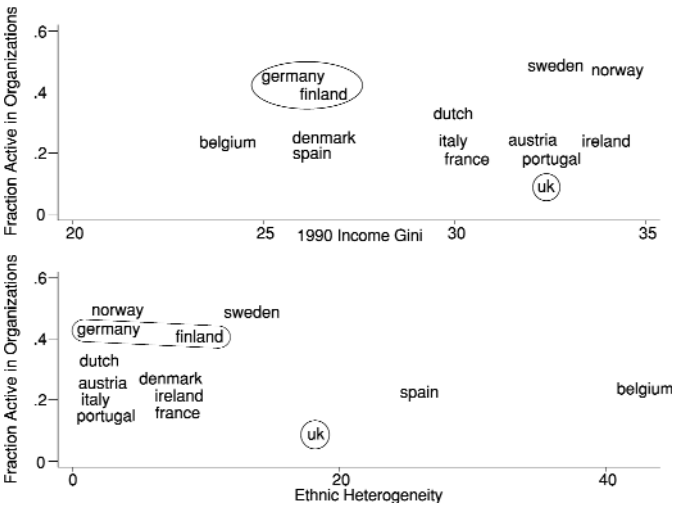
Both high income inequality and high ethnic heterogeneity predict low membership across some, though not all, western European countries (see Figure 1). The fraction of the population participating actively in a group is very high in Finland and Germany, both of which have relatively low income inequality and ethnic heterogeneity. Similarly, the fraction of the population participating actively in a group is low in the United Kingdom, which has relatively high heterogeneity of income and ethnicity. These fit our hypothesis. Sweden, despite its high level of income inequality and relatively high level of ethnic heterogeneity, has a high level of participation. Other countries, such as Belgium and Norway, fit our hypothesis along one measure of heterogeneity but not the other.

Figure 1 poses the interesting riddle of what other factors, besides community heterogeneity, help to determine civic engagement. Unfortunately, we cannot do much on this question with our few data points and the kind of evidence we have available.

Evidence from the past

Looking to the past provides us with the opportunity to study the role of heterogeneity in civic engagement in a very different environment. However, there are no large surveys on membership, volunteering, or trust. Theda Skocpol, Marshall Ganz, and Ziad Munson identified the large voluntary associations from the colonial period to the 1940s and discovered that they operated as an amalgam of national authority and local involvement, modeled on the U.S. Constitution. A unique data set on 303 Union Army infantry companies (with each company containing 100 men) allows us to study the effect of both "local" and "national" factors on civic engagement during the war as measured by the probability of desertion, absence without leave (AWOL), and arrest.[22] Company heterogeneity is our "local" variable. Our "national" variables are morale and ideology.

Figure 1
Participation and Income Inequality and Ethnic Homogeneity Across Western Europe, 1990–1997



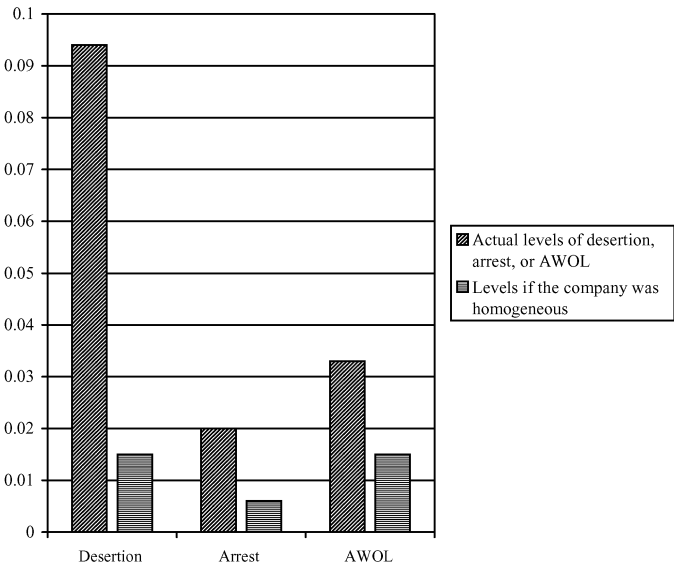
Source: Estimated from *World Values Surveys and European Values Surveys, 1990–1993, 1995–1997*. Participation rates are for all adults and are averaged across all survey years. The Gini coefficients are from *Measuring Income Inequality: A New Database* (Deininger and Squire, at www.worldbank.org). Note that other studies have found that inequality in the United Kingdom and in Spain is closer to the levels observed in Portugal (e.g., Ercolani and Jenkins 1998). However, for consistency we use Gini coefficients from one database. Ethnic homogeneity indexes are from Knack and Keefer 1997.

The Union Army data have two main advantages over survey data. One is that the measure of community is much narrower. Our measure of community is not the commonly used metropolitan area, but a company that consists of 100 men in close and constant contact. The second advantage is that our measure of participation, unlike membership in many organizations, was not "cheap talk." Shirking in the Civil War was costly to one's comrades, but it was also expensive for individual soldiers *not* to shirk. One out of every five white men participating in the Civil War died, over half of them from disease. The combatants faced death, the hardships and monotony of camp life, and distance from loved ones, all for low and irregular pay. One soldier wrote, "I have cursed the day I have enlisted for what benifit [sic] will I ever drive [sic] from being a Soldier. [T]he common Soldier will not reap the Harvest of Victories but it is some other men that will gain all Praise Honor and Wealth."[23] Had he deserted, he would have faced only a 40 percent chance of being caught and a negligible risk of death if arrested.[24] A self-interested soldier would have deserted. But more than 90 percent of all Union Army soldiers did not;[25] and among Union Army soldiers whose three-year enlistment terms were up, half of them re-enlisted.[26] Was social capital the glue that kept men loyal to the Union? What role did homogeneity play in building this social capital? Men in homogeneous units may have felt more altruism toward their fellow soldiers, desired their esteem, and feared their social sanctions.

We created community variables for each company by constructing birthplace and occupational fragmentation indexes and by estimating the coefficient of variation of age, an indicator of age diversity.[27] Another community variable is population in city of enlistment, an indicator of peer pressure. We control for such individual characteristics as age, birthplace, height, personal property wealth in 1860, illiteracy, and marital status. We control for ideology using year of muster (because men who enlisted after 1862, when the draft was in place and when enlistment bounties were offered, were labeled unpatriotic), volunteer status, and voting in the 1860 presidential election. We also control for gyrations in morale over the course of the war.[28]

Figure 2 shows predicted desertion, arrest, and AWOL rates holding socioeconomic and demographic characteristics, ideology, and morale constant under two scenarios: one uses the true company characteristics and the other assumes complete company homogeneity. In the case of desertion, the most important variables were age and occupational diversity within the company. In the case of arrests, birthplace and occupational fragmentation were also important. Birthplace diversity and age diversity were the most important predictors of AWOL. Compared to variables such as morale and ideology, our heterogeneity measures (company socioeconomic and demographic characteristics) were more important predictors of social capital (proxied by desertion, arrest, and AWOL), even in one of the more ideological wars in our country's history.[29]

Figure 2
Predicted Probabilities of Desertion, Arrest, and AWOL in Union Army, by Company Heterogeneity



Source: Costa and Kahn (forthcoming, a). Desertion, AWOL, and arrest probabilities are predicted from competing risks models, which control for individual demographic and socioeconomic characteristics, morale, and ideology. A homogeneous community refers to a community with birthplace fragmentation, occupational fragmentation, and the coefficient of variation for age equal to zero and a population in city of enlistment equal to 2,500.

Conclusion

Economists love to measure capital stocks. Adam Smith and Karl Marx encouraged us to look at capital flows. Theodore Schultz and Gary Becker emphasized the importance of human capital. Michael Grossman and Victor Fuchs focused our attention on health capital. Robert Putnam's work has now turned our interest to social capital. Although it is harder to measure than physical, financial, human, or health capital, economists have become fascinated by social capital.

This article has documented an empirical regularity: civic engagement is lower in more-heterogeneous communities. While a large number of applied-economics papers are independently generating this finding, a number of questions remain. Ideally, we would want to study how civic engagement changes as we move people into different types of communities. But what is an individual's community? Because of data limitations, researchers are using the metropolitan area as the measure of community, not the nearest neighbors or coworkers. Even if we had narrower measures of community, we would still wonder whether being in a particular neighborhood leads to greater activity or whether those more likely to be involved picked that neighborhood. Ideally, we would want to follow individuals over time and observe their response to random exogenous shocks that change their community, such as immigration increases into a border port or European labor market integration.

If homogeneity increases civic participation, why are so many in our society pushing for diversity in the workplace and in communities? This tension reflects a classic externality problem. Social capital is an unusual commodity. No one can buy or sell it in the marketplace. It is a by-product of individuals' collective choices on how to allocate their scarce time. Volunteers compare their own private costs and benefits of donating their time; they rarely consider the long-run social benefits of having diverse groups interact—which

may be economic as well as social. Firms with diverse leadership may be better positioned to take advantage of opportunities in different markets and to find skilled workers from different backgrounds. They may need to introduce heterogeneity into their workforce to find workers whose skills complement one another's.[30] From society's perspective, racial and ethnic equality and equality of access may be more important values than achieving greater civic participation.

Can diversity ever increase civic engagement in community organizations that cut across ethnic, racial, or income divisions? If people realize that their skills are complements, then they will seek out individuals different from themselves to work together to achieve a common goal more effectively. If a community fair will generate more revenue for the local school when there are food offerings from many cultures, instead of endless Apple Betties, then more parents will be pressured to become involved and more will agree to do so.[31]

Future research that draws on the insights of many disciplines may reveal the mechanisms through which heterogeneity lowers social capital. Social capital could thus serve as a bridge between the social sciences. Hopefully, civic engagement among social-capital scholars will continue to rise despite the increase in intellectual community heterogeneity brought about by the entry of economists.

Appendix
Civic Engagement and Heterogeneity: Economics Literature Review

Contemporary U.S.		
Alesina et al. 1999	Entire U.S.	Public goods expenditure inversely related to area's ethnic fragmentation
Alesina and La Ferrara 2000	Entire U.S.	Group participation lower when ethnic, racial, and income fragmentation higher
Alesina and La Ferrara (forthcoming)	Entire U.S.	Trust lower when racial and income fragmentation higher
Costa and Kahn (forthcoming, b)	Entire U.S.	Group participation lower when ethnic, racial, and especially income fragmentation higher
Glaeser et al. 2000	Harvard undergraduates	Trust higher when race and nationality same
Harris et al. 2001	Entire U.S.	State spending on education lower when share of elderly rising
Luttmer 2001	Entire U.S.	Support for welfare spending higher if greater share of welfare recipients from own racial group
Poterba 1997	Entire U.S.	State spending on education lower when share of elderly rising and from different racial group than schoolchildren
Vigdor 2001	Entire U.S.	Census response rate lower in counties where higher ethnic fragmentation
International		
Karlan 2002	Peru	Cultural similarity reduces NGO loan default rates
La Ferrara 2002	Tanzania	Income inequality reduces group membership
Lindert 1996	OECD	Income inequality reduces expenditures on social programs
Miguel and Gugerty 2002	Kenya	Lower school funding and quality and poor water well maintenance in more ethnically diverse communities
Historical U.S.		
Costa and Kahn (forthcoming, a)	Union Army (Civil War)	Desertion higher when age and occupational diversity in company greater
Goldin and Katz 1999	Entire U.S.	High school expansion greater when income, ethnic, and religious homogeneity higher

References

Alesina, Alberto, Reza Baqir, and William Easterly. 1999. Public goods and ethnic divisions. *Quarterly Journal of Economics* 114:4, 1,243–84.

Alesina, Alberto, and Eliana La Ferrara. 2000. Participation in heterogeneous communities. *Quarterly Journal of Economics* 115:3, 847–904.

Alesina, Alberto, and Eliana La Ferrara. 2002. Who trusts others? *Journal of Public Economics* 85:2, 207–34.

Athey, Susan, Chris Avery, and Peter Zemsky. 2000. Mentoring and diversity. *American Economic Review* 90:4, 765–86.

Bourdieu, Pierre. 1986. Forms of capital. In *Handbook of Theory and Research for the Sociology of Education,* ed. John G. Richardson. Westport, Conn.: Greenwood Press, 241–60.

Bowen, William G., and Derek Bok. 1998. *The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions.* Princeton: Princeton University Press.

Brady, Henry E., Kay Lehman Schlozman, and Sidney Verba. 1995. Beyond SES: A resource model of political participation. *American Political Science Review* 89:2, 271–94.

Coleman, James. 1990. *Foundations of Social Theory.* Cambridge: Harvard University Press.

Costa, Dora L., and Matthew E. Kahn. Cowards and heroes: Group loyalty in the American Civil War. *Quarterly Journal of Economics*. Forthcoming, a. Available at web.mit.edu/costa/www/papers.html.

———. Understanding the American decline in social capital, 1952–1998. *Kyklos.* Forthcoming, b. Available at web.mit.edu/costa/www/papers.html.

Dolgonos, Sarah A., and Daniela J. Lamas. 2000. Many protested randomization, but minority groups were among the most vocal. *The Harvard Crimson,* 8 June. Available at www.thecrimson.com.

Easterly, William, and Ross Levine. 1997. Africa's growth tragedy: Policies and ethnic divisions. *Quarterly Journal of Economics* 112:4, 1,203–50.

Ercolani, Marco G., and Stephen P. Jenkins. 1998. The polarisation of work and the distribution of income in Britain. Institute for Labour Research Working Paper No. 98/20. University of Essex.

Fischer, Claude S. 2001. *Bowling Alone*: What's the score? Unpublished manuscript. University of California, Berkeley.

Glaeser, Edward L., Hedi D. Kallal, Jose A. Scheinkman, and Andrei Shleifer. 1992. Growth in cities. *Journal of Political Economy* 100:6, 1,126–52.

Glaeser, Edward L., David I. Laibson, Jose A. Scheinkman, and Christine L. Soutter. 2000. Measuring trust. *Quarterly Journal of Economics* 115:3, 811–46.

Goldin, Claudia, and Lawrence F. Katz. 1999. Human capital and social capital: The rise of secondary schooling in America, 1910 to 1940. *Journal of Interdisciplinary History* 29:4, 683–723.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2000. The role of social capital in financial development. National Bureau of Economic Research Working Paper 7563.

Harris, Amy Rehder, William N. Evans, and Robert M. Schwab. 2001. Education spending in an aging America. *Journal of Public Economics* 81:3, 449–72.

Jacobs, Jane. 1969. *The Economy of Cities.* New York: Vintage Books.

Karlan, Dean. 2003. Social capital and group banking. Unpublished manuscript. Cambridge: Massachusetts Institute of Technology. Available at www.wws.princeton.edu/~dkarlan/papers.html. Accessed 10 February 2003.

Knack, Stephen, and Philip Keefer. 1997. Does social capital have an economic payoff? A cross-country investigation. *Quarterly Journal of Economics* 112:4, 1,251–88.

La Ferrara, Eliana. 2002. Inequality and group participation: Theory and evidence from rural Tanzania. *Journal of Public Economics* 85:2, 235–73.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny. 1997. Trust in large organizations. *American Economic Review* 87:2, 333–38.

Linderman, Gerald F. 1987. *Embattled Courage: The Experience of Combat in the American Civil War.* New York: The Free Press.

Lindert, Peter H. 1996. What limits social spending? *Explorations in Economic History* 33:1, 1–34.

Luttmer, Erzo F.P. 2001. Group loyalty and the taste for redistribution. *Journal of Political Economy* 109:3, 500–28.

McPherson, James M. 1997. *For Cause and Comrades: Why Men Fought in the Civil War*. Oxford: Oxford University Press.

Miguel, Edward, and Mary Kay Gugerty. 2002. Ethnic diversity, social sanctions, and public goods in Kenya. Unpublished manuscript. University of California, Berkeley.

Poterba, James M. 1997. Demographic structure and the political economy of public education. *Journal of Policy Analysis and Management* 16:1, 48–66.

Skocpol, Theda, Marshall Ganz, and Ziad Munson. 2000. A nation of organizers: The institutional origins of civic voluntarism in the United States. *American Political Science Review* 94:3, 527–46.

Verba, Sidney, Kay Lehman Schlozman, and Henry E. Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge: Harvard University Press.

Vigdor, Jacob L. 2001. Community composition and collective action: Analyzing initial mail response to the 2000 census. Unpublished manuscript. Duke University.

World Bank. 2002. *World Development Report 2002: Building Institutions for Markets.* Available at econ.worldbank.org/wdr. Accessed September 2002.

Notes

1 For example, World Bank 2002.
2 La Porta et al. 1997.
3 Knack and Keefer 1997; Easterly and Levine 1997.
4 Guiso et al. 2000.
5 Alesina et al. 1999; Harris et al. 2001; Luttmer 2001; Poterba 1997; Miguel and Gugerty 2002; Goldin and Katz 1999.
6 Coleman 1990.
7 Bourdieu 1986; Glaeser et al. 2000.
8 Jacobs 1969.
9 Dolgonos and Lamas 2000.
10 We are assuming that individuals are assigned a peer group and then we ask how the collective characteristics of this peer group affect individual choices on civic engagement.
11 Dolgonos and Lamas 2000.
12 Alesina et al. 1999.

13 Alesina and La Ferrara (forthcoming).
14 Glaeser, Laibson, Scheinkman, and Soutter 2000.
15 La Ferrara 2002 and Lindert 1996.
16 We calculated, by metropolitan area, the fraction of individuals born in the United States, Puerto Rico, Latin America, Cuba, white English speaking nations, Scandinavia, northern Europe, southern Europe, eastern Europe, east Asia, southeast Asia, the Mideast, Africa, and other areas. Metropolitan area characteristics are estimated from the Integrated Public Use Census Samples for 1950, 1970, 1980, and 1990.
17 Another benefit of group participation is, of course, its observed correlation with political participation (e.g., Verba et al. 1995).
18 We arrive at the figure of 0.03 by multiplying the increase in the Gini coefficient (in this case, 0.06 from the mid-1970s to 1990) by the reported slope of the regression coefficients in the table (in this case, 0.5).
19 Costa and Kahn (forthcoming, a).
20 The data set does not contain information on the racial composition of census tracts.
21 Source: authors' calculations from data at swdb.berkeley.edu/data/. Sample size equals 6,891 for the 1998 primaries and 7,052 for the 2000 general election. The regressions are weighted by total number of registered voters within a census tract. Ordinary least squares regression coefficients are −0.071 and −0.141 for the 1998 primaries and the 2000 general election, respectively. Robust standard errors are 0.006 and 0.007. Adjusted R^2 for the 1998 primaries is 0.561 and for the 2000 general election is 0.564.
22 The data were collected by Robert Fogel and are available at www.cpe.uchicago.edu. The data set contains 31,854 white enlisted men, representing roughly 1.3 percent of all whites mustered into the Union Army and 8 percent of all regiments that comprised the Union Army. The data are based upon a cluster sample (drawn at the company level) of 331 companies and 100 percent sampling within each company. Ninety-one percent of the sample consists of volunteers, with the remainder evenly divided between draftees and substitutes. A black sample of companies is currently being collected.
23 Letter of John S. Voltz to his brother, 10 February 1865, University Libraries of Virginia Tech. Available at scholar2.lib.vt.edu/spec/voltz.
24 Linderman 1987, 174, 176.
25 Linderman 1987.
26 McPherson 1997, 81–2.
27 Our birthplaces are the United States, Germany, Ireland, Great Britain, and other. Our occupations are farmer, high and low class professional or proprietor, artisan, and high and low skilled laborer.
28 See Costa and Kahn (forthcoming, a) for details.
29 The same result will not necessarily hold true for black Civil War soldiers, because they may have been more committed to the cause and because, after the massacre at Fort Pillow, surrender to the enemy was not an option.
30 Athey et al. 2000.
31 A more real-world example may be a community developing many religious congregations that later engage in ecumenical exchanges.