

Social Capital

Measurement and Consequences

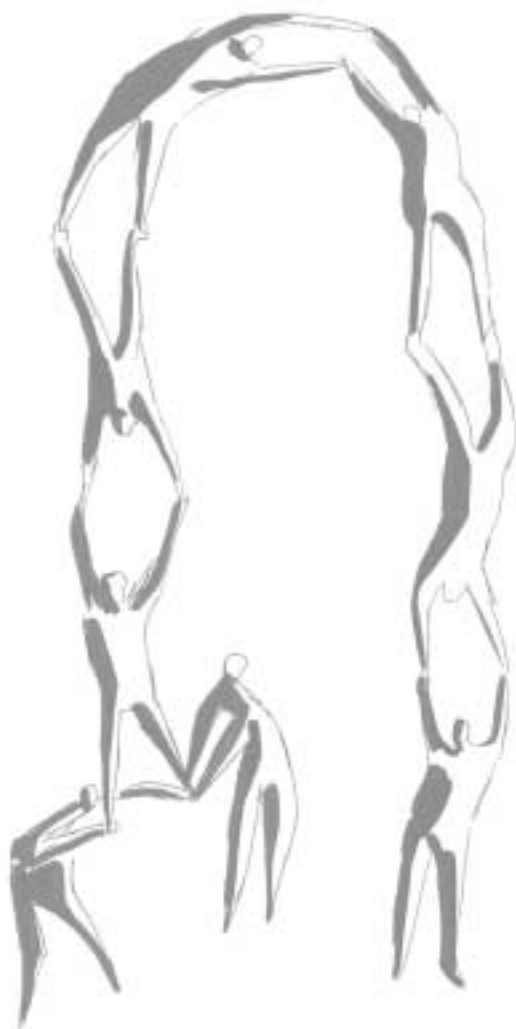
BY **ROBERT PUTNAM**

RÉSUMÉ ► Plusieurs indicateurs portent à croire que le capital social est en nette régression aux États-Unis depuis le milieu des années soixante. Après avoir connu une hausse pendant près des deux tiers du XIX^e siècle, le nombre d'adhérents à des associations et la participation à des organismes civiques, le niveau de confiance et celui des dons de charité ont enregistré un recul notable. Il existe aux États-Unis une corrélation très forte entre les niveaux de capital social et la performance scolaire, la santé, la fraude fiscale et le bien-être que les gens estiment avoir. Il faudrait évidemment analyser ce schéma beaucoup plus en détails, mais il est suffisamment prononcé pour justifier de continuer à s'intéresser au capital social et à ses conséquences potentiellement importantes pour plusieurs domaines de politiques gouvernementales.

ABSTRACT ► A number of indicators suggest that there has been a sharp decline in social capital in the United States since the mid-1960s. After rising for most of the first two thirds of the 19TH century, formal membership and participation in civic organizations, levels of trust, and charitable giving have all seen sharp declines. There is a strong relationship, across American states, between measures of social capital and educational performance, health, tax evasion and self-assessed welfare. Although this pattern still needs far more detailed analysis, it is pronounced enough to justify further attention to social capital and its potentially powerful implications for a range of public policy issues.

THE CENTRAL IDEA OF SOCIAL capital, in my view, is that networks and the associated norms of reciprocity have value. They have value for the people who are in them, and they have, at least in some instances, demonstrable externalities, so that there are both public and private faces of social capital. I focus largely on the external, or public, returns to social capital, but I think that is not at all inconsistent with the idea that there are also private returns. The same is no doubt true of human capital, i.e., there are simultaneously public and private returns.

Like physical capital, social capital is far from homogenous. Some forms of social capital are good for some things and not for others. Accepting that there is no single form of social capital, we need to think about its multiple dimensions.



One of the most important research priorities in this area is the development of theoretically coherent and empirically valid typologies or dimensions along which social capital should vary. Although, I give some examples of how social capital varies, I do not think we are anywhere near a kind of canonical account of the dimensions of social capital.

Some forms of social capital, such as a PTA (Parent-Teacher Association) organization, a national organization of any sort, or a labour union, formally organized with a chairperson, a president and membership dues, are highly formal. Other forms of social capital, such as a group of people gathering at a bar every Thursday evening, are highly informal. And yet, both forms constitute networks in which there can easily develop reciprocity, and in which there can be gains. Some forms of social capital are densely interlaced, like a group of steelworkers who work together every day at the factory, go bowling together on Saturday, and to the same church every Sunday. At another extreme, you have very thin, almost invisible forms of social capital, like the nodding acquaintance you have with the person you occasionally see at the supermarket, while waiting in line.

We must not be too dismissive of such casual forms of social connection. There has been good experimental evidence that if you nod to people in the hall, they are more likely to come to your aid if you should have a seizure or a heart attack, than if you don't nod to them, even if you don't otherwise know them. Merely nodding to someone in the hall generates visible, measurable forms of reciprocity.

I now address issues of measurement, especially of long-run trends, over the course of the 20th century, in social capital in the United States. For many Americans that is an interesting question. In 1995, I wrote an article¹ in which I conjectured that the long-run trends, at least the recent trends, in social capital in the United States were down. In that article I provided preliminary evidence that showed, at least by some measures,

that membership in organizations was down. My recent book² looks in much more detail at the question of trends in social capital in the United States.

For my 1995 article, we constructed market share measures for many major civic organizations in American life, e.g., the percentage of all Jewish women in America belonging to Hadassah; the percentage of Catholic men belonging to the Knights of Columbus; the percentage of rural kids belonging to the 4-H; the percentage of parents belonging to a PTA; or the percentage of all adult men belonging to one of the "animal clubs," that is, men's organizations. ("Animal clubs" is a technical term: I only realized when I began doing this research that all men's clubs in America are named for animals: the Lions club, the Moose club, the Elks club, the Eagles club, and so on.)

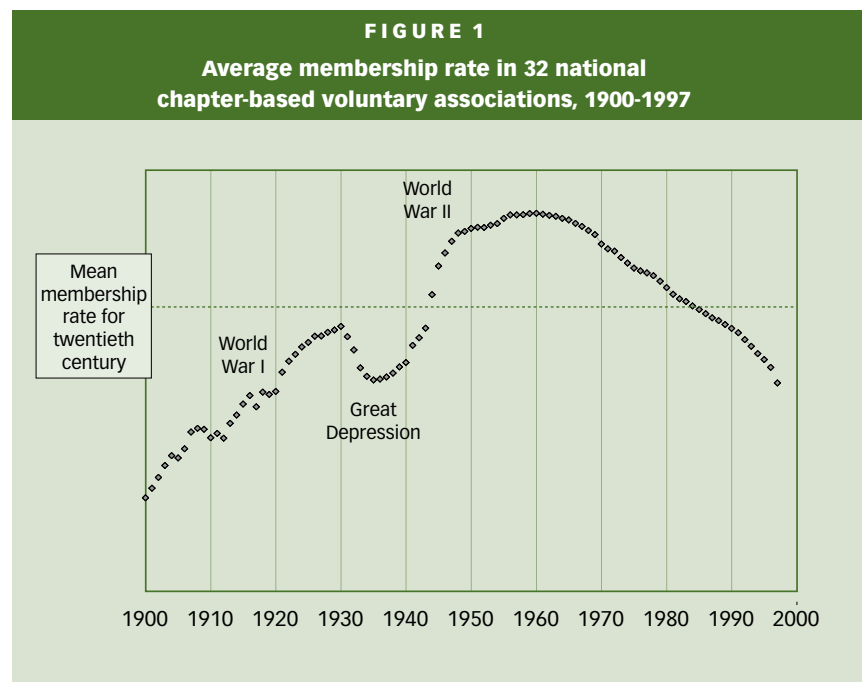
In all, over 30 large organizations were examined. Virtually all of the individual graphs look like Figure 1, which in fact shows the average membership rates for 32 national chapter-based voluntary associations for almost the entire 20th century. An almost identical graph applies to professional organizations, e.g., doctors who are members of the

American Medical Association (AMA), or electronic engineers belonging to the Institute of Electrical and Electronics Engineers (IEEE).

Graphs for the various organizations tell a similar story. Membership market shares rise for the first two thirds of the century, with the exception of the Great Depression when many organizations lost half their membership between 1930 and 1935. Thereafter, there was a long period of very rapid growth, doubling market share, on average.

The period between 1940 and 1965 was arguably the most rapid period of civic revival in American history. Figure 1 does not prove that, but I believe it was the case.

And then suddenly, silently, inexplicably, all of those organizations began to experience levelling market shares and then decline in market shares, and gradually the decline in market shares became so great that they began to experience a decline in the absolute number of members. By 1997, the average organization was back to Depression levels in terms of membership market shares. Not all organizations' membership fell at the same time. The AMA actually was the first to peak in terms of its market share. Appropriately, the last of the



organizations we looked at to peak and begin to fall was the Optimists. The Optimists did not begin falling until 1980, but then they really plummeted and are now back down in terms of their market share to below what they were in the 1930s.

But there are two reasons to doubt the adequacy of the membership data as a sufficient measure of social connectedness. First of all, it is based on membership in fixed organizations. I wanted to know membership across the whole of the century, so I needed some measures that would last across the whole century. But there might have been another shadow universe of organizations that was growing while these were declining, so perhaps this graph represents just changes in the pecking order of organizations, and not a universal pattern.

Second—and I want to underline this because there has been some misunderstanding of my own position on this—I do not believe, nor have I ever believed, that associations were some privileged form of social capital, except in the sense that associations tend to gather data on themselves and, therefore, it is easier to gather data on associations. Beyond this greater ease of measurement, there is nothing canonically su-

perior about formal associations as forms of social networks.

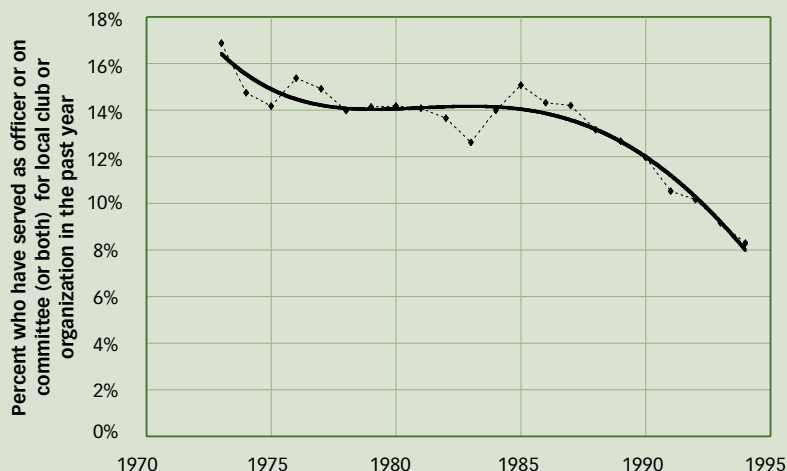
Of course it could be true that associations were becoming less common in America but that we were hanging out in bars more, that we were having more picnics, that we were seeing folks at our home at night more often, and those forms of informal social capital can be quite important. But I could not figure out where the picnic register in American society was located. Where would I go to find out about trends in picnics over time?

Both of these possible shortcomings of the membership data were solved when I discovered two massive new archives of data in the United States. One of them, the Roper survey, has asked national samples of Americans, every month over the last 25 years and continuing still, questions of the following form: In the course of the last year, did you do any of the following things: sign a petition, write a letter to your congressman, attend a local meeting, serve as an official of a local club, serve on a committee of any local organization, work for a political party, and so on. By political science standards, the Roper database is huge—more than 400,000 surveys—and it shows unequivocally a

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FIGURE 2

Active organizational involvement, 1973-1994



States
where children
watch less
TV have
higher levels
of social
capital.



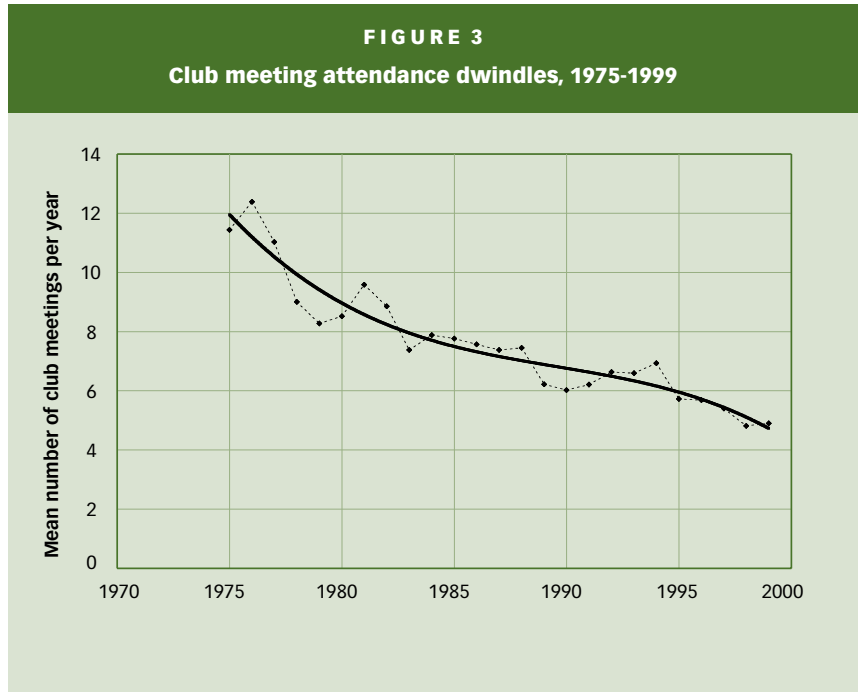
decline in all these forms of civic participation. Figure 2, which happens to be the graph of the Roper data for the percentage of Americans who had, in the course of the last year, served either as officer of a local organization or as a committee member of a local organization— any organization, not just one of my 32 national organizations—shows a quite dramatic drop, basically a cut in half, over these years. Every one of the 12 different kinds of connectedness covered in the survey shows the same decline.

The most novel data, however, come as a by-product from systematic surveys by DDB Needham, a commercial marketing firm in Chicago. Every month over more than 25 years the firm has surveyed very large samples of Americans, mainly on their consumer behaviour, e.g., do you prefer Nike or Adidas? Do you prefer Yoplait or Danone yoghurt? And so on—but they began to have the idea 25 years ago that it would be helpful to gather information about their respondents beyond their yoghurt-eating habits. If you are trying to write an ad for yoghurt, it would be useful to have in your mind something else about these people besides the fact they eat yoghurt.

Thus DDB began asking a broader range of questions. The questions included: How many times in the course of the last year did you go to church? Did you go to a club meeting? Did you volunteer? Did you work on a committee project? Did you have friends over to the house? Did you go on a picnic? At last I had found the picnic register! The answer, by the way, turns out to be that in 1975 the average American went out to a picnic five times per year. In 1999, the average American went on two picnics per year. Reductions of that order characterize almost every single measure of social activity in this survey: playing cards, having friends over to the house, dinner parties, having dinner with your family, going to club meetings, card games, and so on.

It gets boring after a while because all the graphs look the same. Figure 3 provides a typical example of the DDB data. In 1975, the average American went to 12 club meetings a year. By 1999, the average American went to five club meetings a year.

I have thus far described one set of indicators: formal membership and participation in many different forms of informal networks. Another form of evidence that fits perfectly with this picture comes from data on social



trust. I am in agreement with Michael Woolcock that social trust is not part of the definition of social capital but it is certainly a close consequence, and therefore could be easily thought of as a proxy. Figure 4 shows what the trend is, based on many surveys asking the same question: basically, do you trust other people? The graph shows that there has been a 40-year steady decline, and a decline that is actually greater among American youth than among adults. Other analysis has shown very clearly that the decline in social trust in America is entirely generational, that is, if you look at any birth cohort, average trust has not changed over time, but each successive birth cohort over the last 30 to 40 years has reached adulthood with a lower level of social trust.

A slightly less direct measure comes from data on organized altruism. Altruism (doing good for other people) is not part of the definition of social capital in my view, but it turns out empirically, at least in the United States and probably elsewhere, that a very strong predictor of altruism is social connectedness. That is, the people who give blood, give money and have volunteered their time are people who are more connected. By far the best predictor of philanthropy, for example, is not how much money you have, but how many clubs you go to or how often you go to church. There is a very strong affinity between social connectedness and altruism. Therefore, it would be very interesting to ask about trends in philanthropy, or for that matter volunteering or blood-giving over time.

The best data comes from data on philanthropy over time. The metric used here is not absolute number of dollars given, because of course that rises every year, but what fraction of their income Americans give to all forms of charity. Figure 5 shows the results. Not accidentally, it has exactly the same profile over time as does the membership data quoted above. It rises steadily until 1964—the 1930s, jump by the way is a change in the denominator, not the numerator. Even though people had less income during the Great

Depression, they continued to give, which drags the fraction up. But basically, through both the Great Depression and then through the post-war boom, Americans gave an increasing percentage of their income, until 1964. Since then there has been a steady decline. There is a little bump in the late 1980s and that is driven

entirely by the Reagan tax cut, a one-year change in deductibility, which pushed donations into that one year and out of the two adjacent years. Essentially the same graph applies to giving to the Catholic Church, protestant churches and the United Way. If you were to look at all these graphs, you would see that it can not be any-

FIGURE 4
Four decades of dwindling trust Adults and teenagers, 1960-1999

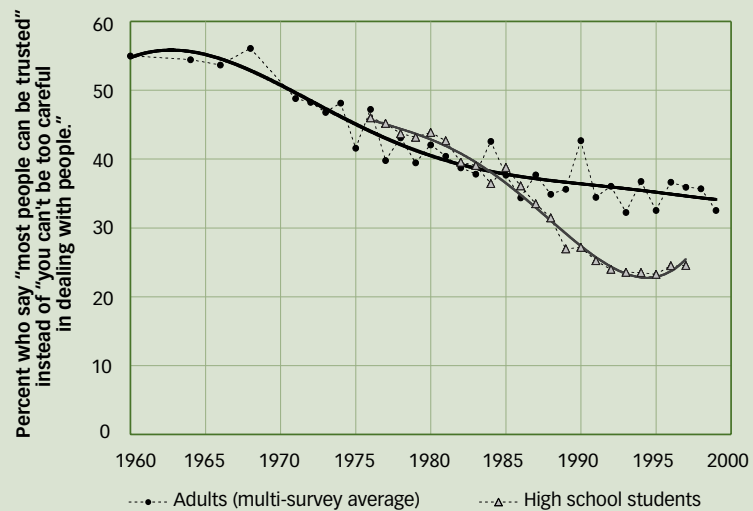


FIGURE 5
The rise and fall of philanthropic generosity, 1929-1998

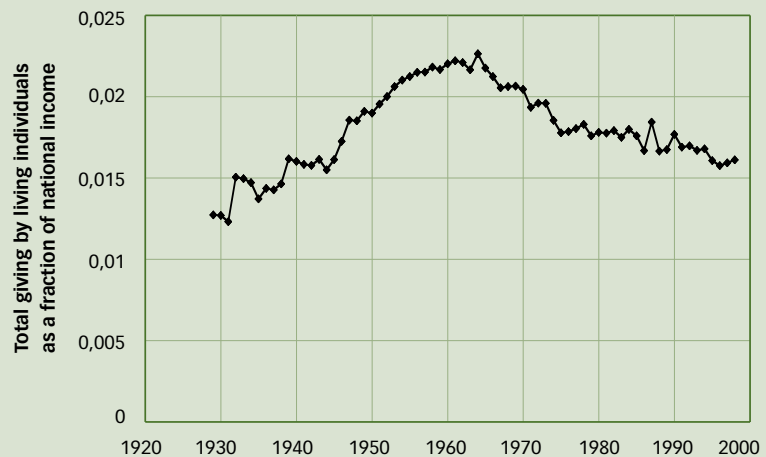
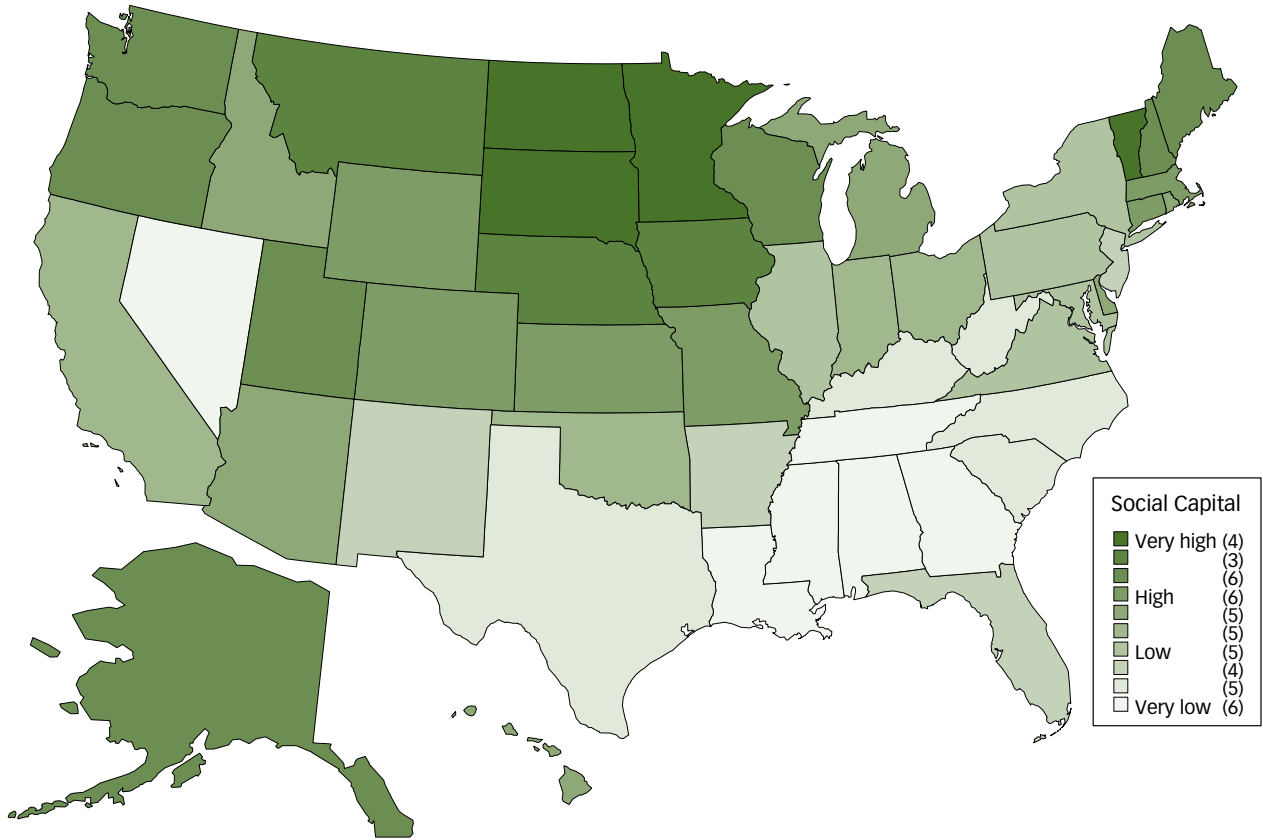
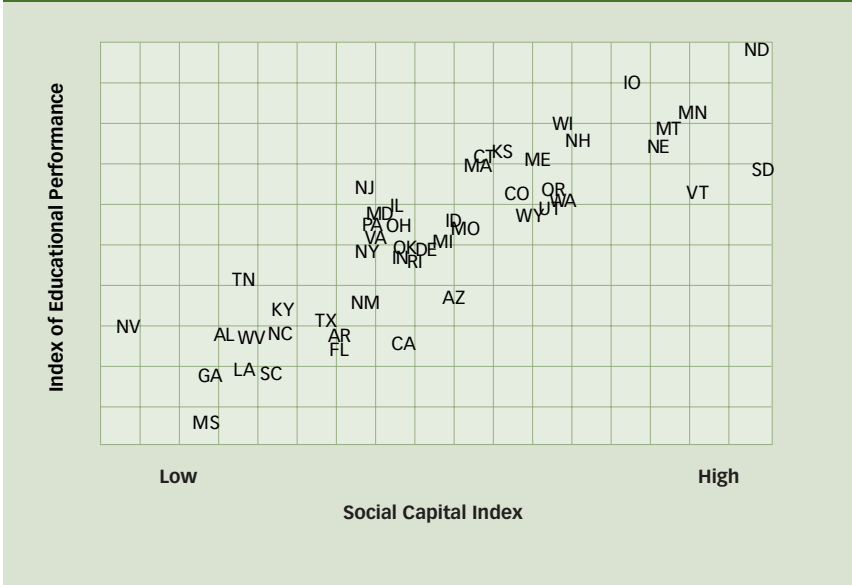


FIGURE 6
Social capital in the American States

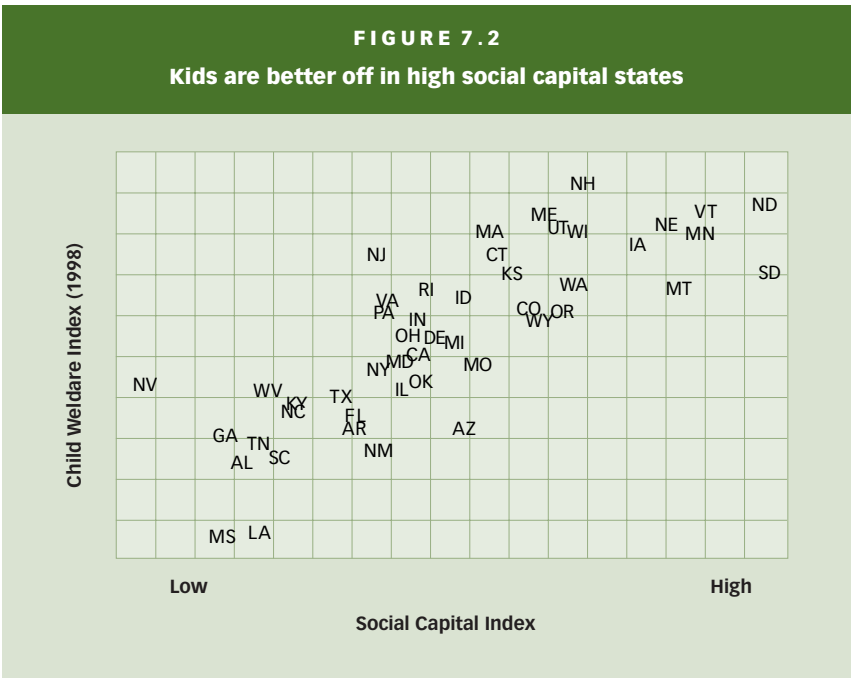


The period between 1940 and 1965 was arguably the most rapid period of civic revival in American history. Then suddenly, all of those organizations declined.

FIGURE 7.1
Schools work better in high social capital states



American States	
Alabama	AL
Alaska	AK
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
Florida	FL
Georgia	GA
Hawaii	HI
Idaho	ID
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA
Maine	ME
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO
Montana	MT
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Ohio	OH
Oklahoma	OK
Oregon	OR
Pennsylvania	PA
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Vermont	VT
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY



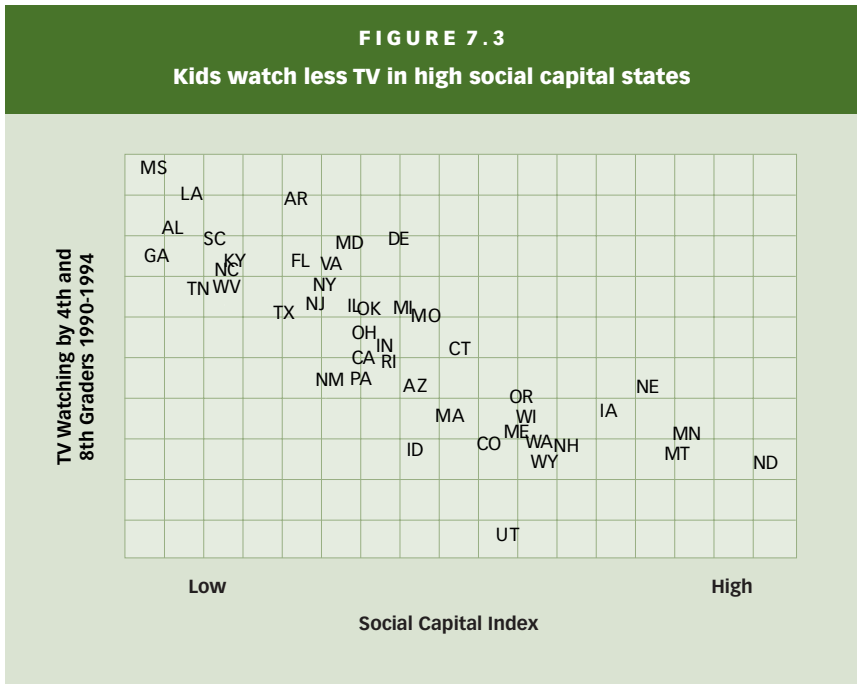
thing to do with any particular recipient organization because the same general patterns applies across all.

It is reasonable to think that social capital and institutional enforcement might be in some sense alternative ways of providing social order. Social capital does facilitate informal contract enforcement—the logic of that derives from the basic theory of social capital, that is game theory: if I have dense ties and networks of reciprocity with other people then I do not actually have to have a contract with my neighbour; both he and I are going to rake the leaves. We just do it without a contract and I don't sue him if he doesn't rake his leaves. Thus, if social capital is declining in the United States, it might have implications for other forms of contract enforcement. So I thought I would look at the relative share of lawyering in the American economy as a whole and how this fraction has changed through time. In 1900, there were 41 lawyers per every 10,000 employees in the United States. In 1970, there were 39. This was a little known Putnam's constant: historically there were about 40 lawyers, plus or minus one, for every 10,000 employees in

America. This number was rock-steady over the first 70 years of this century. And then this number started to increase, just as trust and social capital started to decline, so that by now lawyers' share in the workforce has more than doubled.

A corollary to Putnam's law was that there should be one doctor for every lawyer, or one lawyer for every doctor, in America. But that too has changed, because the post-1970 jump in lawyering has not been matched by an increase in the number of doctors in America. Thus the jump in lawyers per capita is not simply a reflection of a general increase in professionals in America; it is unique to lawyers. In fact, over most of the century, the ratio of engineers to lawyers shifted sharply in the direction of more engineers per lawyer, but since 1970 that trend has reversed. You would think that as a country becomes more technologically intensive, more and more of its workforce would be trained engineers, but since 1970 that trend has completely reversed.

Does declining social capital matter?
What I claim to have shown so far is that by a variety of different measures



there has been a massive transformation of social bonds in America over our lifetime. (My latest book deals with the extent, causes and consequences of these changes in much more detail). In this section, I argue that there are measurable consequences to social capital. In making my case, I take advantage of the fact that in the United States we have 50 states, which hold some things constant but not others. Across all the American states, I have developed 13 different measures of social capital. Many of these I have already described: the percentage of people in the state who had in the previous year served on a committee of some local organization or as an officer of a local organization, the number of club meetings attended, the number of club memberships, the turnout at the presidential election, the number of public meetings attended, and so on.

I have, for the sake of simplicity, combined all of those measures, via factor analysis, into a single measure. You can think of that as the latent variable that is measured by the overlap among all these individual indicators. Operationally what I mean by social capital in what follows is the degree to which a given state is either high or low in the number of meetings

citizens go to, the level of social trust its citizens have, the degree to which they spend time visiting one another at home, the frequency with which they vote, the frequency with which they do volunteering, and so on.

Figure 6 provides a social capital map of the United States. Canadians might find it interesting to note that the best single predictor of the level of

social capital in American states is distance to the Canadian border. Being closer to the Canadian border means more social capital. Actually, if you looked at that graph in more detail you would see that it can be described in terms of a barometric map with one high, centred over Minneapolis-St. Paul, and one low, centred over Baton Rouge, Louisiana. There are probably deep historical roots for that pattern. It is not an accident that the low social capital is very clearly associated with the depth of slavery in the 19th century, because slavery as a system and the post-slavery reconstruction period were institutionally designed to destroy social capital. This is what slavery was about; it was about destroying social capital, because social capital, among Blacks at least, and later in post-slavery, social connection between Blacks and poor Whites, would have threatened the structure of power. I am sure it is not an accident that there is a strong correlation between past slavery and current levels of social capital.

There are a few outliers to the general pattern. Nevada is lower than where it should be; perhaps if you know something about Nevada you have guesses as to why this might be true. Utah is higher than where it

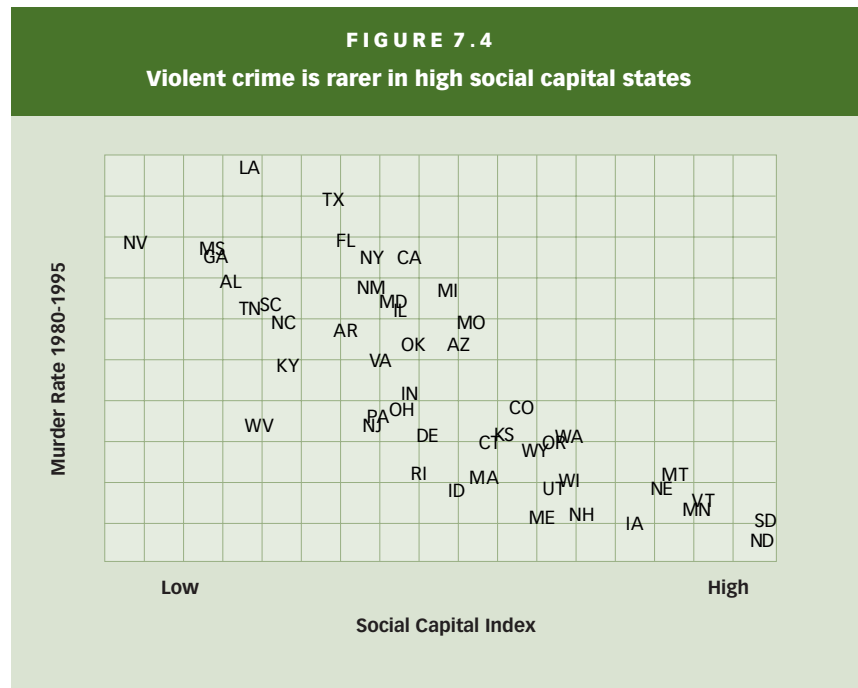
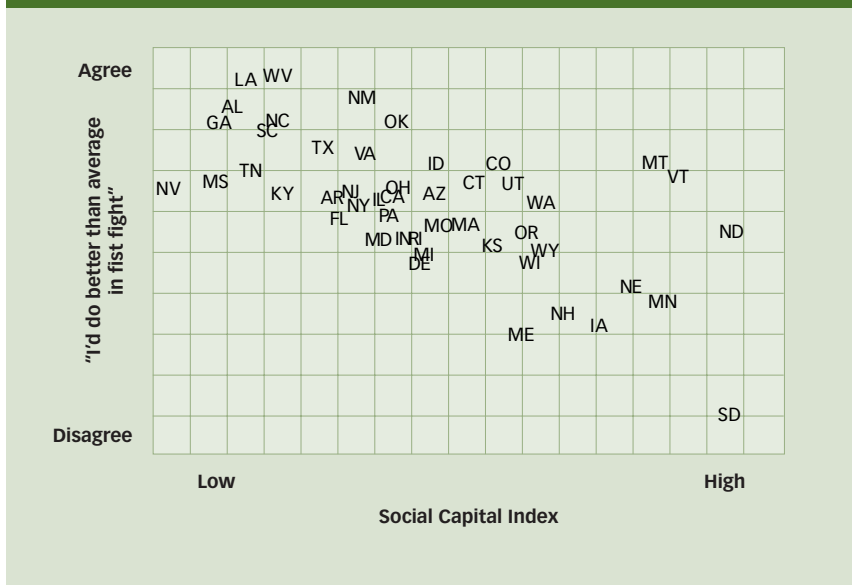


FIGURE 7.5

States high in social capital are less pugnacious



should be, and this is quite explicable because of the Mormon Church.

The other variable that strongly predicts social capital across the American states is the pattern of immigration. The best single migration-based positive determinant of social capital is the fraction of the population that is of Scandinavian descent. Another fact is that if you rank Americans today by their level of social capital or social trust or social connectedness, and you rank the countries from which their ancestors come, even as long ago as two or three generations, those two rankings are perfectly correlated, even though the connection between those two streams is on average two or three generations old. If you think of the causal mechanism that must underline that, the concordance is stunning.

The various panels of Figure 7 display a number of pair-wise relations between the index of social capital and a number of important social and economic outcomes. These are all partial relations based on multivariate regressions in which everything possible has been held constant because states differ in so many ways.

The general pattern is that social capital drives out other possible competing variables in regression analy-

sis. There is no way to be entirely sure in which direction causality runs. I cannot be sure there is no other causal variable, but I have gone through many potential variables that could make this spurious. That is relevant because the horizontal axis in Figure 7.1 is the social capital index, and the vertical axis a composite measure of educational performance (SAT

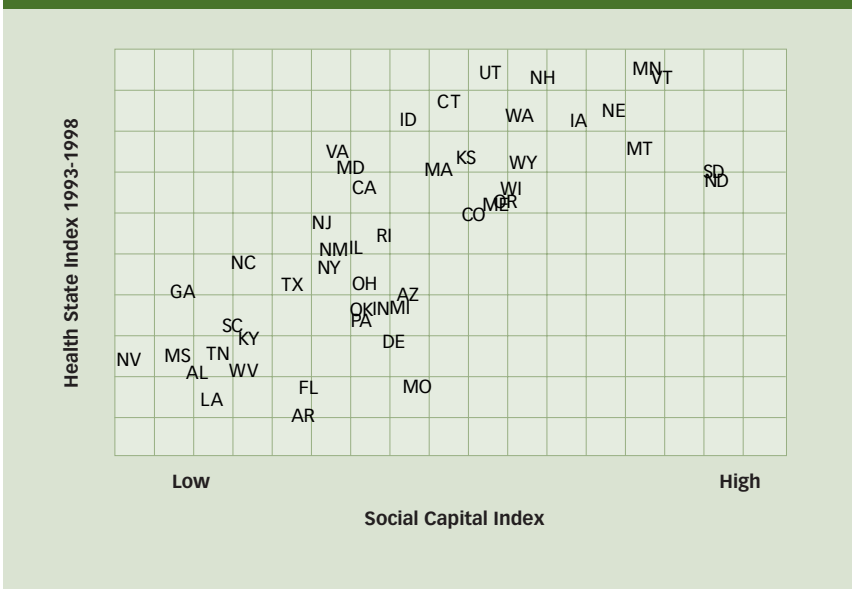
scores, test scores, high school dropout rate). This is an extremely robust finding; it does not depend at all on which particular measure you use. The relationship shown is strong enough to pass what is known in political science as the inter-ocular trauma test—it strikes one between the eyes.

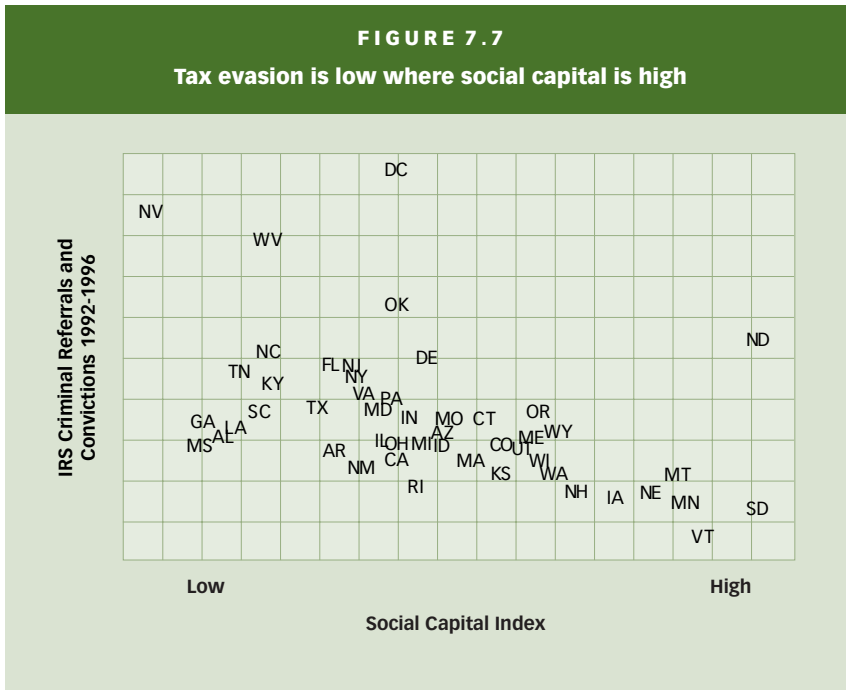
The relationship between educational performance and social capital is much stronger, two orders of magnitude stronger than, for example—again controlling for everything else—spending on schools or teacher/pupil ratios or any of the obvious things that are usually thought to increase educational performance. Figure 7.2 shows a composite measure of child welfare (it includes teen pregnancy, infant mortality and a variety of other measures of how well kids do) and again there is a very strong relationship showing that, in general, the welfare of children is higher where social capital is higher. Figure 7.3 shows that states where children watch less TV have higher levels of social capital, a relationship I study in much more detail in my book.

Crime is strongly negatively predicted by social capital; this is true at the state level, but it is also true at the

FIGURE 7.6

Health is better in high social capital states





community and neighbourhood levels. Once again the strongest predictor of the murder rate is a low level of social capital. It is stronger than poverty; it is stronger than other plausible measures. Figure 7.4 shows that murder rates are lower in states where social capital is higher, and Figure 7.5 shows that people are generally less pugnacious where social capital is high.

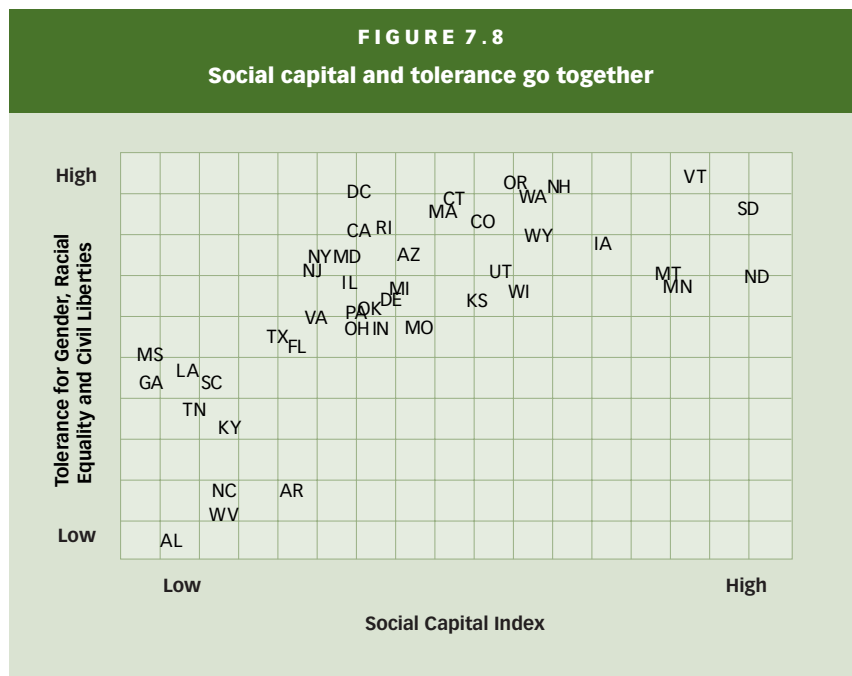
As Michael Woolcock and other authors have pointed out, there is very strong evidence of powerful health effects of social connectedness. The evidence is strong not only in American states, but also in Finland, Japan and other countries. Controlling for your blood chemistry, age, gender, whether or not you jog, and for all other risk factors, your chance of dying over the course of the next year are cut in half by joining one group, and cut to a quarter by joining two groups. This is not cheating; these are prospective studies. It is not that people who are healthy become joiners; it is clear from the studies that the arrow runs in the other direction, from joining to health. These are big effects, as can be seen in Figure 7.6. Once again, these same results are confirmed by a multitude of individual-level, over-time studies.

Figure 7.7 shows that interstate variance in the percentage of tax evasion, as measured by the IRS (Internal Revenue Service), is strongly related to differences in social capital at the state level. No other variable does as well at explaining why states differ in tax evasion. In other words, where people are connected by dense networks of engagement and reciprocity, they are more likely to comply with the law,

very probably because they are more confident that others will, too, so they will not be “suckers” in this dilemma of collective action. Figure 7.8 shows that states where people are more connected with each other are also marked by greater tolerance.

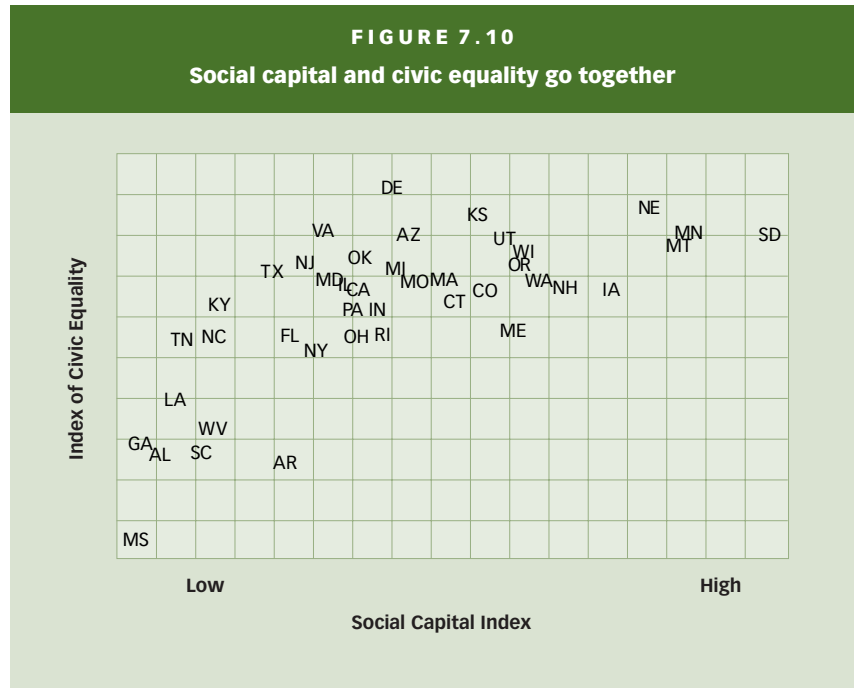
Figures 7.9 and 7.10 show that economic inequality and civic inequality are less in states with higher values of the social capital index. Here the causal arrows are likely to run in both directions, with citizens in high social capital states likely to do more to reduce inequalities, and inequalities themselves likely to be socially divisive.

Finally, I can add some preliminary new evidence to connect social capital to self-assessments of individual welfare. Using a combination of the DDB replies to four questions asking individuals for a self-assessment of their own happiness, I have discovered that happiness increases with both their own and their state’s measure of social capital. By contrast, an individual’s measure of happiness rises if his or her income is higher but falls if the average state income is higher. Thus, although people value their own income more when their neighbours earn less money, people feel better off when either they or their neighbours have higher levels of social capital. At the state level, one’s own level of ed-



ucation has a strong positive effect on happiness, but there is no effect from average state levels of education. At the county level, both individual and average education levels have a significant positive effect on happiness. At the county level, the social capital index keeps its strong individual effect, but the general level becomes insignificant, probably because of the increasing measurement error at the county level. The fact that community levels of human and social capital appear to increase happiness, while the reverse is true for income, suggests to me that returns from human and social capital are far broader than whatever positive effects they may have on material standards of living.

But it is important to end with a note of caution. Despite this very wide range of promising results, suggesting that social capital has a multitude of measurable consequences, I am not yet in a position to rule out all other explanations for these patterns. All the relationships in American states that I have shown are quite robust, in the normal statistical sense, that is they do not depend on which particular measure or which particular year you use. Moreover, virtually all these state-level studies are consistent with individual- and community-level studies by other researchers. However, we are in the



early days of this research. We have got to pummel a lot of different datasets. We must look at lots of micro-level data, not just at the very aggregated level of states. We must also compare data across countries, and we have to do experimental work.

In many of my examples, one could reverse the arrow of the effects of social capital, and tell a story where the arrow runs to social capital

instead of from social capital. In the end, it is only going to be through detailed empirical research that the relative importance of the two possible directions of causation can be established. What I hope to have established so far is that this is plausible enough to warrant further attention.

But it will be a long time, in my view, before we get to a level of cross-national, reliable measurement of social capital that will allow us to do for social capital what Robert Barro and others have done for human capital. We are nowhere near having the same clear metric as years of education is for human capital and we are certainly not near having that kind of data over time. I do not think the case is closed that social capital is a strong predictor of everything. But I think it is probably a powerful predictor of many things, enough to make it well worth our attention.

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Endnotes

1. R. Putnam, "Bowling Alone: America's Declining Social Capital," *Journal of Democracy*, Vol. 6, no. 1 (1995), pp. 65-78.
2. R. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon and Schuster, 2000).

