UNDERSTANDING THE AMERICAN DECLINE IN SOCIAL CAPITAL, 1952-1998

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ABSTRACT

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We evaluate U.S. trends in social capital since 1952 and assess explanations for the observed declines. We examine both social capital centered in the community and in the home and argue that the decline in social capital has been over-stated. Declines in social capital centered in the home have been more pronounced among women relative to men, contemporaneous with the rise in women's labor force participation rates. Rising community heterogeneity (particularly income inequality) explains the fall in social capital produced outside the home.

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1 Introduction

Only eight percent of Americans report never spending the evening with a friend.[1] Such social interactions have attracted the research attentions of economists, political scientists and sociologists whose research uses the term social capital, a concept popularized by Bourdieu (1983) and Coleman (1990). According to Bourdieu (1983: 248),"Social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group." Social capital describes both the relations across and within families. Loury (1977) emphasized the importance of social capital within the home for the development of children. These relations between parents and children and organizations and individuals are valuable because they increase trust between individuals and allow them to work together to achieve common economic and political goals. Toqueville (1840, 1981: 137-141) argued that democratic countries that lost the habit of association would find their very civilizations in peril because they had no other substitutes for reciprocal action. His contention that voluntary associations help democracies function is supported by a large body of empirical research. For example, Brady, Verba, and Schlozman (1995) argue that skills in political participation are acquired in such non-political institutional settings as organizations and churches and synagogues. Brehm and Rahn (1997) find that community involvement increases trust. Trust, in turn, is associated world-wide with more efficient judiciaries, less corruption, higher quality government bureaucracies (La Porta et al. 1997), economic growth (Knack and Keefer 1997), and financial development (Guiso et al. 2000).

Given the importance of social capital to society, declines in social and civic engagement in the United States documented by Putnam (1995; 2000) and Skocpol (1999) have alarmed policy

[1] Estimated from the 1998 General Social Survey.

makers in the United States. European social capital theorists have examined trends in Europe and, finding no declines, have pondered the causes of American exceptionalism (e.g. Rothstein 2001; Hall 1999; Scheeper and Janssen 2001; Freitag 2001). But, has there really been a decline in the United States? A few researchers (e.g. Paxton 1999; Ladd 1996) have contested the claim. However, their evidence is either not systematic or not comprehensive.

This paper evaluates trends in social capital in the United States since 1952 by examining trends in participation in community and family life. To paint a comprehensive picture, it uses a wide array of data sources. The paper examines trends in social capital produced outside the home (volunteering, membership in organizations) and social capital produced within the home (entertaining friends and relatives), finding considerable variation in social capital trends across different indicators. For those indicators for which there has been a decline, the paper assesses explanations for the declines. It investigates whether the decline is greater among women and among the college-educated (two groups that supply many of the nation's volunteer workers (Freeman 1997)) and examines the role of growing income, racial, and ethnic heterogeneity within communities in the decline in social capital since the 1970s. Putnam (2000) argued that television and the aging of the "civic" generations born between 1910 and 1940 are the primary culprits. We argue that the decline in participation is more pronounced among women, contemporaneous with the rise in women's labor force participation, and that rising community heterogeneity, particularly income inequality, is one of the primary explanations for the decline in social capital.

2 Empirical Framework

Coleman (1988: 98) argued that social capital "inheres in the structure of relations between actors and among actors." It is embodied within communities and, according to Coleman, refers to the relations within a group, including social norms and sanctions, mutual obligations, trust, and

information transmission. Social capital within communities is therefore higher when people are more involved and active (see Paxton (1999) for a theoretical model). We examine activities that potentially produce social capital using as our measures 1) volunteer activity, 2) organizational membership and activity, and 3) entertaining and visits with friends, relatives, and neighbors.[2]

We model individuals' decisions to participate as a function of their own characteristics and of those of their communities. Own characteristics such as sex, age, education, race, and marital status could influence individuals' returns to investing in social capital (Glaeser, Laibson, and Sacerdote 2000). Community characteristics include community income, racial, and ethnic heterogeneity. The growth in women's labor force participation could reduce women's involvement in civic activities. Rising income inequality and growing racial and ethnic fragmentation can decrease social capital if people prefer to associate with others like them (Alesina and LaFerrara 2000). Previous empirical work has mainly emphasized the role of racial fragmentation in lowering the *level* of social capital (e.g. Alesina and LaFerrara 2000; Luttmer 2001; Poterba 1997), but there is also evidence of the importance of income inequality and of ethnic fragmentation (Alesina and LaFerrara 2000; Goldin and Katz 1999). We build on this work to explain *trends* in social capital.

Our empirical strategy first establishes the time trend in our measures of social capital and then uses a probit framework to estimate the robustness of this trend to controls for individual and community characteristics. That is, we estimate probit equations of the form,

$$\text{Prob}(V_i = 1) \quad = \quad \Phi(Y_i\beta_Y + \beta_f f_i + X_i\beta_X) \tag{1}$$

[2]Other measures of civic and social involvement include voting and trust. See Paxton (1999), Putnam (2000), and Brehm and Rahn (1997) for details. Because we are looking at individuals' decisions to participate, we do not examine outcomes such as voting or trust. Participating in the labor force might be considered a measure of social capital. Although analyzing schmoozing on the job is beyond the scope of this paper because we do not have information on workplace characteristics, among those in the labor force time spent at work in non-work activities fell between 1965 and 1985 (Costa and Kahn 2001).

$$\text{Prob}(V_i = 1) = \Phi(Y_i\beta_Y + \beta_f f_i + Y_i f_i \beta_{fY} + X_i\beta_X) \quad (2)$$

$$\text{Prob}(V_i = 1) = \Phi(Y_i\beta_Y + \beta_f f_i + Y_i f_i \beta_{fY} + H_i\beta_H + X_i\beta_X)\,, \quad (3)$$

where V_i is an indicator variable equal to one if individual i reported any time spent volunteering, participating in organizations, or visiting family and friends, Y_i is a vector of year dummies, f_i is a dummy equal to one if female, H_i is a vector of community heterogeneity variables, and X_i is a vector of demographic characteristics, such as age, education, race, and marital status. We interact our year dummies with the female dummy to determine whether the decline in social capital has been more pronounced among men or women. We also examine how the coefficients on the year dummies change when we control for the increases in community fragmentation that we have observed over the last twenty years.

Community characteristics should affect social capital within the community (e.g. volunteering and membership), but not social capital produced within the home (e.g. entertaining). Social capital centered in the home is particularly likely to fall among women because of the rise in women's labor force participation rates and careers.

3 Data

We examine trends in social capital and assess explanations for declines in social capital using an exhaustive list of data sets drawn from studies of the labor force, studies of political participation, social surveys, time use studies, marketing studies, and studies of volunteering.[3] Table 1 summa-

[3]We do not use the 1957 and 1976 surveys, Americans Views Their Mental Health (Gurin, Veroff, and Feld 1975; Veroff, Douvan, and Kulka 1982). Although the questions asked in both years were exactly the same, the samples are very non-represenative of the population in terms of membership in labor unions (very low) and amount of time spent with family and friends (very high relative to the General Social Survey). We suspect that willingness to answer a survey on mental health increased between 1957 and 1976 and that this might lead to the decrease in membership in non-union organizations and in ties to family and friends observed between 1957 and 1976.

Table 1: Data Sets Used in This Paper

Data set	Variables	Survey Years	MSA Identified	Use T=Trends A=Analysis
American National Election Study	Organization membership	1952, 1972	Y	T,A
Americans' Use of Time	Time visiting friends; at parties	1964-1965, 1985	N	T,A
	Time spent in organizational activity			T,A
Current Population Survey (CPS)	Any volunteer work in past year/week	1974, 1989	Y	T,A
	Hours volunteered in past year (grouped)			T,A
DDB Life Style Survey (DDB)	Frequency entertained in past year	1975-1998	Y	T,A
	Frequency volunteering in past year			T,A
	Frequency family eats dinner together	1977-1998		T
The Five Nation Study	Organization membership	1960	N	T
General Social Survey (GSS)	Frequency spent evening with friends	Selected years	Y	T
	Frequency spent evening with neighbors	1974-1998		T
	Frequency spent evening with relatives			T
	Organization membership			T,A
Giving and Volunteering in the United States (Gallup)	Any volunteer work in past year	biennual 1988-1996	N	T
The NPD Group Time Study Data (NPD)	Time spent volunteering	1992-1999	Y	T
	Time visiting family/friends			T,A
Political Participation in America	Organization membership	1967	N	T
Time Use in Economic and Social Accounts	Time visiting friends; at parties	1975-1976	Y	T,A
	Time spent in organizational activity			T,A

rizes the data sets that we use and provides a brief description of the social capital variables. The Data Appendix provides more complete details.

We examine trends in volunteer activity using data from the United States Bureau of the Census' April 1974 and May 1989 Current Population Surveys (CPS), the annual 1975-1998 DDB Life Style Survey (DDB) produced by DDB Worldwide and used by Putnam (2000), the biennual 1988-1996 Giving and Volunteering in the United States done by the Gallup Organization for the Independent Sector, and the annual 1992-1999 The NPD Group Time Study Data. Because individuals in the latter data set recorded activities during a half hour block in a 24 hour day, we construct a variable indicating whether the individual spent any time volunteering. The other

data sets provide information on an annual basis. We therefore construct a variable indicating whether a person did any volunteer activity in the past 12 months. As noted by Hayghe (1991), the 1990 Giving and Volunteering in the United States (Gallup) reports that about 54 percent of Americans older than 17 report having done some volunteer work during the 12 months prior to the survey, whereas the 1989 CPS reports that only 20 percent of the population over age 15 did some volunteer work in the prior year. Differences in volunteering rates are attributable to differences in survey response rates, in the way each survey was conducted, and in the kinds of questions asked (see the Data Appendix for further details).

We study membership in organizations using political participation studies – the 1952 and 1972 American National Election Study (Campbell, Gurin, et al. 1999; Miller, Miller, et al. 1999), the 1960 Five Nation Study (Almond and Verba 1968), and the 1967 Political Participation in America (Verba and Nie 1976), and using the 1974-1998 General Social Survey (Davis and Smith 1999). The advantage of the General Social Survey (GSS) is that exactly the same questions on membership were asked in each year. For this survey we construct a variable that is equal to one if the individual was a member of any group. Because response rates increased in the GSS (Smith 1994), then, if the less civic minded became more likely to answer the survey, our variable may overstate the decline in membership. For the political participation studies we restrict ourselves to membership in non-church organizations, because of differences in the phrasing of questions across earlier surveys. Such differences are particularly likely to affect reporting of membership in church groups (e.g. church choirs) because of a context effect on membership in church groups (Smith 1990). We analyze the determinants of trends in the earlier surveys using only the 1952 and 1972 American National Election Studies because these are the only surveys to identify metropolitan areas.

We study time spent in an organizational activity using the 1965 and 1985 Americans' Use of Time (Converse and Robinson 1980; Robinson 1993) and the 1975 Time Use in Economic

and Social Accounts (Juster et al. 1979). Our variable consists of whether an individual recorded any time spent in an organizational activity in a 24 hour day. These data also allow us to study time spent in entertainment activity. Our variable is based upon an individual recording in a 24 hour day any time spent 1) entertaining or visiting friends, 2) at a party or reception (with meals) given by or for the respondent, and 3) at a party or reception, without meals, or in other social life. These data sets do not identify metropolitan area. We also use the time diary information in the 1992-1999 NPD data and construct a variable equal to one if the individual recorded any time spent visiting friends or relatives.

We also examine social capital produced inside the home, using data from the GSS and the DDB. From the DDB we construct a dummy variable equal to one if an individual reported that she "entertained people in my home" 12-24 times in the last 12 months and a dummy variable equal to one if an individual agrees with the statement "our whole family usually eats dinner together." These measures proxy for the socialization of children and young adults. From the GSS we construct three dummy variables equal to one if an individual reported that at least several times a month he spent a social evening with relatives, neighbors, and friends, respectively.

We create variables of metropolitan area characteristics from the integrated public use census samples (Ruggles and Sobek 1997). We calculate, by metropolitan area, the Gini coefficient of weekly wages for full-time, full-year men age 21 to 64. We also calculate racial and birthplace fragmentation indexes. 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. As discussed in the Appendix, our birthplace

fragmentation index is similarly constructed. We also created a variable that is the logarithm of metropolitan area population and a variable that is equal to the average weekly wage for full-time, full-year men age 21 to 64 by metropolitan area because community involvement is lower in major metropolitan areas (Putnam 2000: 206) and because wealthier communities may have less of a need for the insurance component of social capital.

Our other control variables consist of dummies indicating year, sex, whether the individual is white, whether the individual is married, whether the individual is in the labor force (when the dependent variable is not volunteering), age (using 5 year age dummies), education (less than high school, high school, some college, post-college), and 9 regional dummies. When possible we control for number of children in the household.

We restrict all data to individuals age 25 to 54 both to obtain a narrower cohort and to focus on individuals in their prime working ages. However, we also examine trends among older individuals as a robustness check. We restrict all of the DDB data to married individuals because only married individuals were interviewed in the early years of the survey.

4 Trends

4.1 Economic Trends

Micro-economic trends since 1950 in women's labor force participation rates and in weekly hours worked may decrease participation in activities that build social capital. The labor force participation rate of married women rose from 24 percent in 1950 to 43 percent in 1970 and by 1990 stood at 71 percent. Women's fertility reached a peak in 1970 and then declined sharply. Although average work hours have remained unchanged, the distribution of hours has changed. In 1950 the work week of the college-educated and of those with less than a college education was similar. By the century's end, the college-educated were working the longest work week (see

Table 2: Trends in Metropolitan Area Characteristics, 1950-1990

	1950	1970	1980	1990
Gini coefficient, wages full-time, full-year men	0.239	0.266	0.284	0.333
Racial fragmentation	0.162	0.254	0.296	0.282
Fraction black	0.092	0.121	0.125	0.132
Birthplace fragmentation	0.187	0.128	0.149	0.191
Fraction foreign born	0.111	0.075	0.087	0.113

Based upon the population weighted mean over all metropolitan areas. All measures are calculated from the integrated public use census samples (Ruggles and Sobek 1997). All identified metropolitan areas are included. Restricting the data to metropolitan areas that are identified in all years does not change the results.

Coleman and Pencavel 1993a, 1993b and Costa 2000).

Time diaries show that rising work hours, commute times, and TV watching are unlikely to contributers to any declines in social capital among American men and women age 25 to 54.[4] In contrast to self-reports, the work hours of men fell by 54 minutes from 1965 to 1985 and then fell again in the 1990s. Women's work hours have risen, but their combined market and non-market work time fell by 34 minutes between 1965 and 1985 and also fell in the 1990s. Travel time (whether for work or errands) has remained unchanged, suggesting that increases in sprawl cannot explain declines in social capital. Men's TV watching has been rising, but women's has remained unchanged since 1975, suggesting that declines in social capital among women since the 1970s cannot be attributed to television. The amount of non-work time spent at work has fallen, suggesting that there has not been substitution of socialization to the workplace from the community.

Metropolitan areas have become more fragmented by income, race, and ethnicity since the 1970s, suggesting that social capital may have declined. Wage (and also household income)

[4]For details, see the table presented in Costa and Kahn (2001).

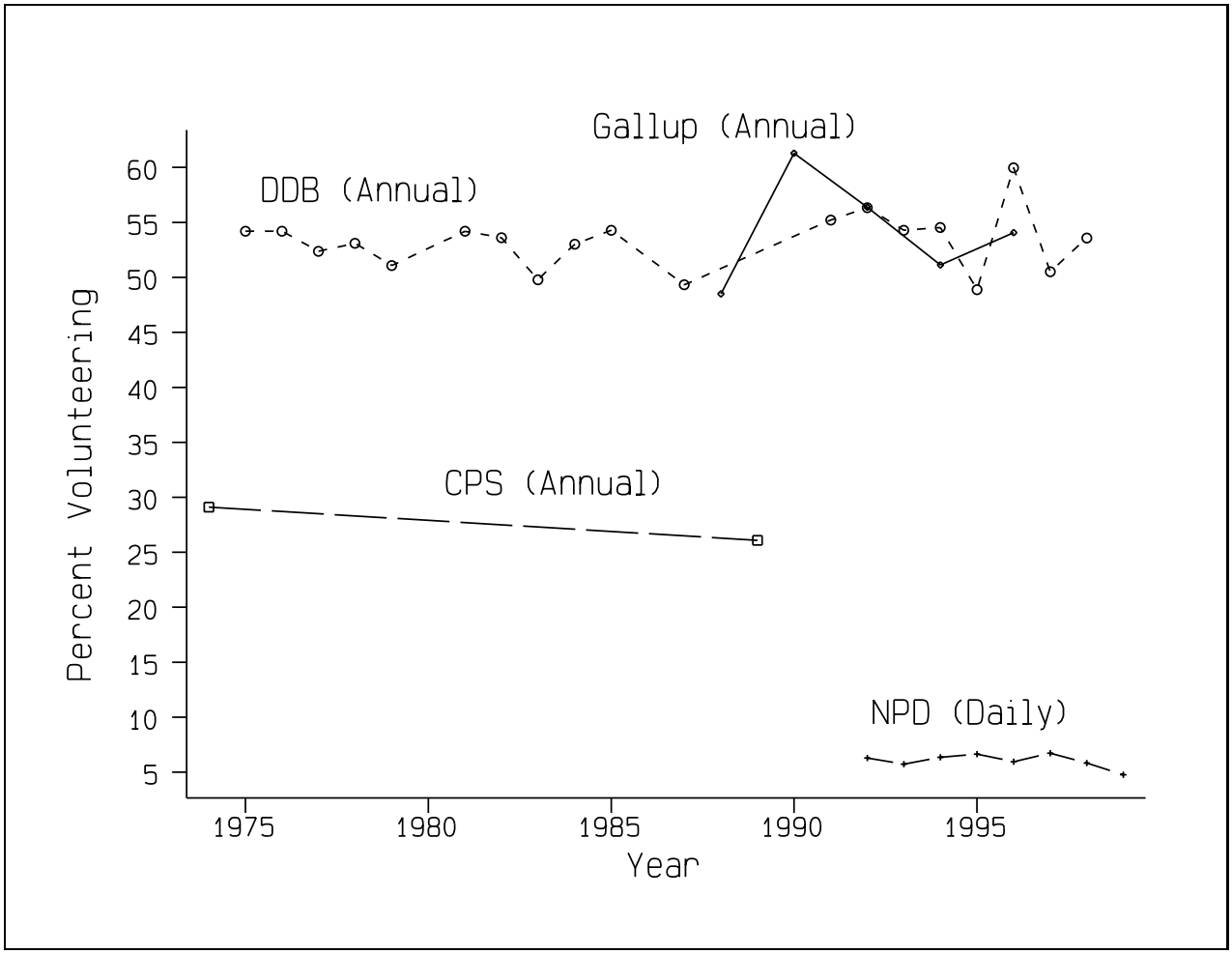
inequality rose slightly from 1950 to 1970 and then substantially from 1970 to 1990. Racial fragmentation rose sharply between 1950 and 1970, peaked in 1980, and then fell in 1990. Birthplace fragmentation decreased between 1950 and 1970 and then rose back to 1950 levels in 1990 as the fraction of the foreign-born population increased. If rising community heterogeneity leads to declines in social capital, then trends in racial fragmentation predict declines from 1950 to 1970 and trends in birthplace fragmentation increases from 1950 to 1970 and declines since 1970. Trends in wage inequality imply that social capital should have fallen from 1970 to 1990, but not necessarily from 1950 to 1970. Because the returns to education and wage inequality increased sharply between 1980 and 1983 (Katz and Murphy 1992), the sharpest declines in social capital are likely to have occurred from the late 1970s to the early 1980s.[5]

4.2 Social Capital Trends

By some measures social capital has declined and by others it has not. Consider first the trend in the proportion of 25 to 54 year olds volunteering in the past year (see Figure 1). In the CPS the fraction who did any volunteer work in the past year fell from 29 percent in 1974 to 26 percent in 1989. Volunteer rates are higher in the DDB data and show that the fraction of married men and women with any volunteer activity in the past year fell by 3 percentage points in the 1970s, but by 1998 was back at its 1975 level. The Independent Sector survey shows a decline in volunteering in the 1990s, but not from 1988 to 1996. The NPD data show that from 1992 to 1998 the proportion reporting any volunteer activity in a given day remained constant, but fell in 1999. When we examined time spent volunteering conditional on being a volunteer, we found increases in the

[5]Income segregation within metropolitan areas increased between 1970 and 1990 (Jargowsky 1996). However, we do not find that Jargowsky's measures of income sorting by census tract predicted social capital. If cars and falling transportation costs have effectively expanded the size of people's communities then the metropolitan area becomes the appropriate measure of community.

Figure 1: Fraction of 25-54 Year Olds Volunteering, 1974-1998



Note. CPS=Current Population Survey, DDB=DDB Needham Life Style Survey, NPD=The NPD Group Time Study Data, Gallup=Giving and Volunteering in the United States, Gallup Organization for the Independent Sector. The CPS, DDB, and Gallup data indicate any volunteer activity in the past year. The NPD data indicate any volunteer activity in the day. The DDB data is restricted to married individuals only.

CPS data and no change in the DDB data.[6]

There have been declines in the proportion of 25 to 54 year olds who are members of organizations (see Figure 2). Membership in non-church organizations fell slightly from 1952 to 1972.[7] The GSS shows that membership in all organizations fell from 77 to 72 percent between 1974 and 1994. The decline in church groups was highest, falling from 40 to 31 percent between 1974 and 1994. Membership in professional groups rose from 15 to 23 percent. The total decline in non-church memberships was only 1 percentage point. The fraction reporting spending any time during the day in organizational activity first rose slightly from its level of 8 percent in 1965 but by 1985 fell to 5 percent.

The sharpest declines in social capital are for entertainment and the family eating dinner together (see Figures 3 and 4). Among married individuals age 25 to 54 in the DDB data, the proportion reporting that the family eats dinner together fell from 44% in 1977 to 26% in 1998. The fraction reporting entertaining at home at least 12-24 times in the past year fell from 41 percent in 1975 to 20 percent in 1998. The fraction of all men and women in the same age group visiting with friends or going to parties in a 24 hour period fell from 41 percent in 1965 to 27 percent in 1985. The fraction reporting visiting friends or relatives in a 24 hour period in the NPD data fell from 23 percent in 1992 to 21 percent in 1999. The fraction in the General Social Survey reporting spending more than one social evening once a month with neighbors fell from 43 percent in 1974 to 30 percent in 1998. However, there was no decline in the fraction reporting spending a social evening more than once a month with relatives or friends.

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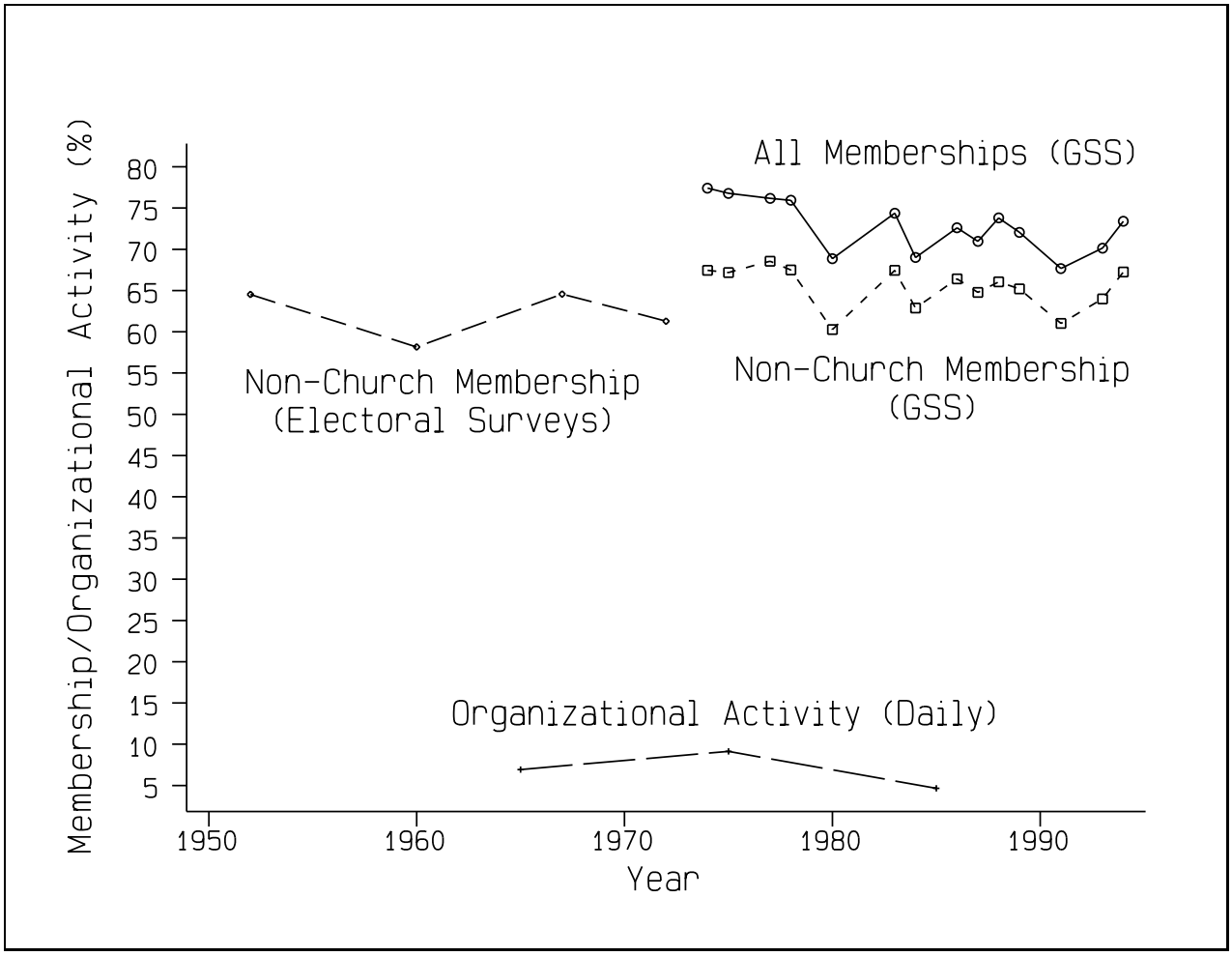
[6] Among volunteers participation in church groups was the most common form of volunteer activity in both 1974 and 1989 (for 41 and 36 percent, respectively, of individuals). The second and third most popular volunteer activities were participation in civic and political groups and in recreational groups in 1974 and in school and education groups and civic and political groups in 1989.

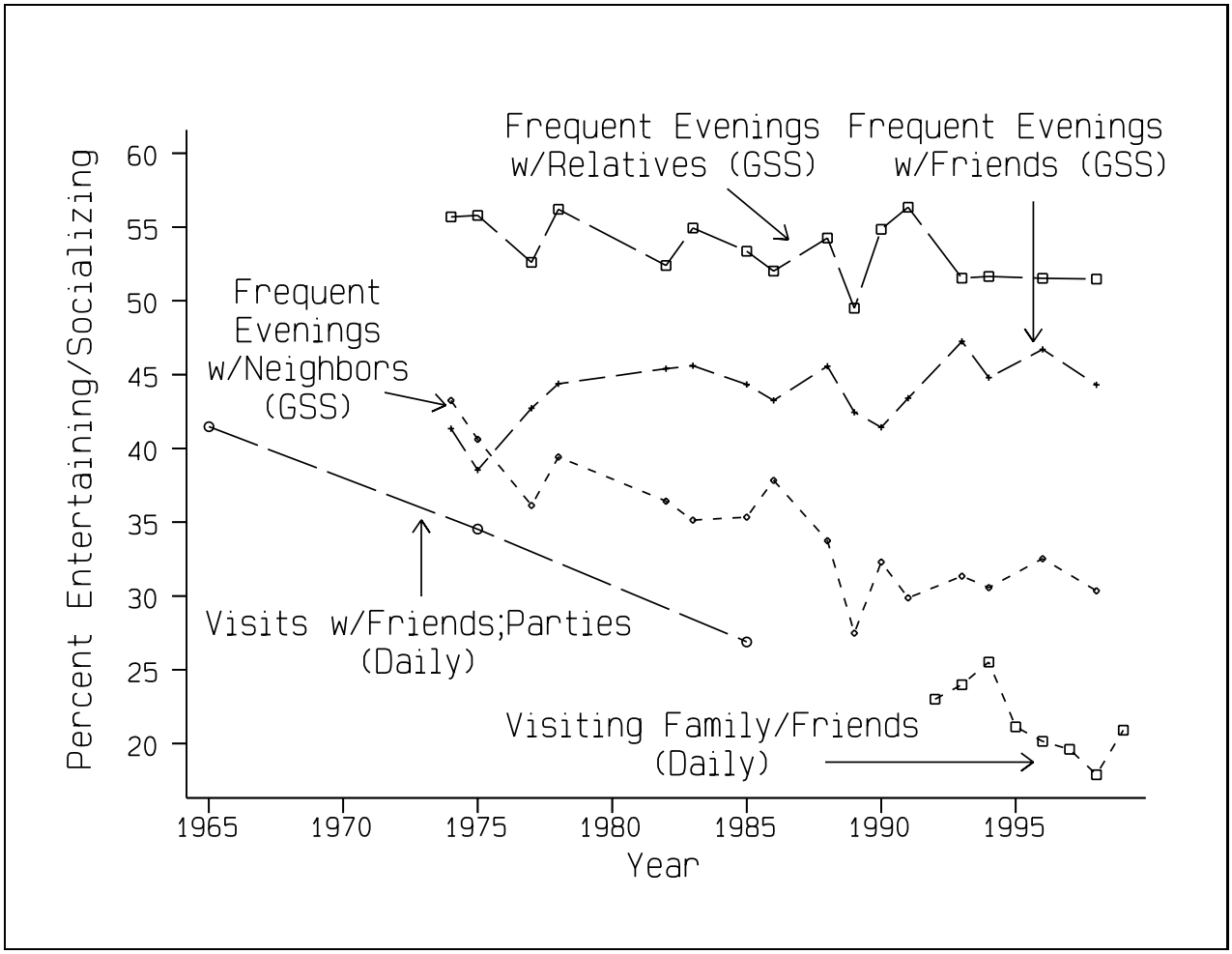
[7] As discussed in the Data Appendix, the 1967 survey may overestimate membership relative to the other surveys. All of the political surveys underestimate membership relative to the GSS.

Figure 2: Organizational Membership and Activity of 25-54 Year Olds, 1952-1998



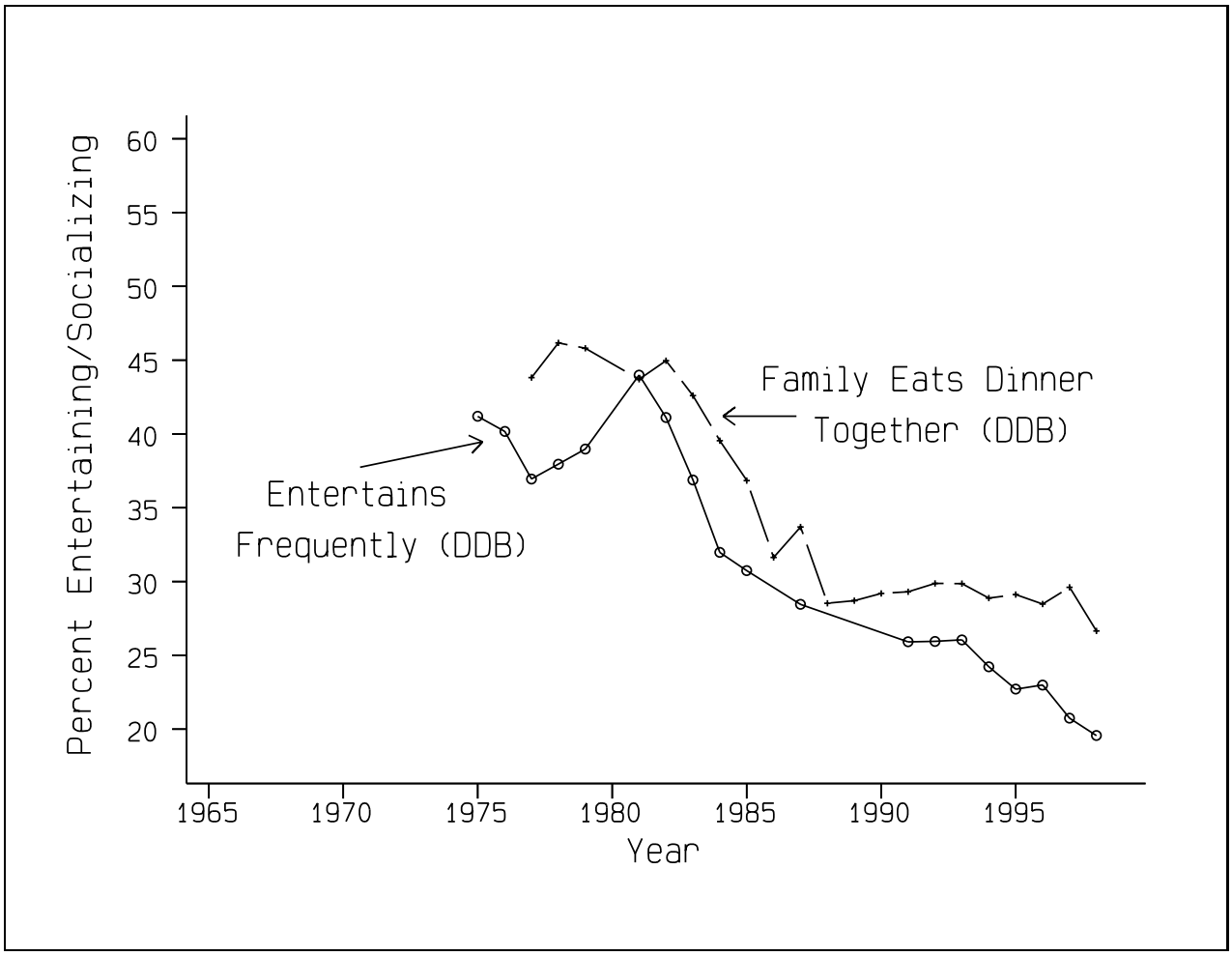
Note. GSS=General Social Survey, 1974-1996. The Electoral Surveys consist of the 1952 and 1972 American National Election Studies, the 1960 Five Nation Study (Almond and Verba 1968), and the 1967 Political Participation in American (Verba and Nie 1967). The 1960 datapoint is for ages 26-50. Organizational Activity indicates whether an individual participated in any organizational activity during one 24 hour day and is from the 1965, 1975, and 1985 time use studies.

Figure 3: Percent of 25-54 Year Olds Entertaining/Socializing, 1965-1998



Note. GSS=General Social Survey, 1974-1998. Frequent is defined as several times a month or more. Daily "visits w/friends; parties" and "visiting family/friends" refers to one 24 hour day and could be either at home or away from home visits. Data are from the 1965, 1975, and 1985 time use studies and for 1992-1999 from The NPD Group Time Study Data.

Figure 4: Percent of 25-54 Year Olds Entertaining/Socializing, 1965-1998



Note. DDB=DDB Life Style Survey, 1975-1998. Entertains frequently is defined as entertained at home 12-24 times in the last 12 months. "Family eats dinner together" indicates the fraction who definitely agree with the statement "our whole family usually eats dinner together." The DDB data is restricted to married individuals only.

5 Results

We have shown that there have been small declines in the proportion of Americans reporting any time spent volunteering or any organizational membership and there have been large declines in the proportion visiting friends and relatives. We now run regressions of the form of Equations 1 through 3 to examine whether these declines persist when we control for basic demographic characteristics, differential trends by education, differential trends by sex, and community heterogeneity. Because our interest is determining why some indicators of social capital declined, we present tables only for those measures of social capital in which there is evidence of a time trend.

5.1 Volunteering

Table 3 shows that controlling for socioeconomic and demographic characteristics the probability of volunteering fell by 0.05 (equivalent to a 5 percentage point drop) between 1974 and 1989 and that the decline in volunteering was twice as large among women as among men. However, metropolitan area wage inequality explains almost all of the decline in volunteering among men and more than half of the decline among women.[8] When we examined volunteering trends by individual characteristics more closely we found that volunteering declined only among married women, not among single women. We found no differential trends in volunteering by education among men, but among women we found increases among the married college-educated and decreases among the single college-educated. Controlling for the growth in metropolitan area employment did not affect the results. We also found that conditional on volunteering,time spent volunteering increased controlling for demographic and community characteristics and is not

[8]Instrumenting for Gini with the manufacturing and public administration shares yields similar coefficients (and one of -0.560 on Gini), but the standard error on Gini becomes very large (0.073) and the coefficient statistically insignificant. Although a Hausman test rejected endogeneity ($\chi^2(25) = 0.36$), the results are inconclusive because of the size of the standard error.

Table 3: Determinants of Probability Volunteering Among 25-54 Year Olds in the Current Population Survey, 1974-1989

	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$
Dummy=1 if				
year=1989	-0.049‡	-0.031‡	-0.027‡	-0.003
	(0.007)	(0.011)	(0.011)	(0.015)
female	0.069‡	0.097‡	0.098‡	0.098‡
	(0.004)	(0.012)	(0.012)	(0.010)
married	0.083‡	0.083‡	0.079‡	0.079‡
	(0.004)	(0.004)	(0.006)	(0.006)
Female*year 1989		-0.032†	-0.032†	-0.032‡
		(0.013)	(0.013)	(0.009)
Gini coefficient				-0.472†
				(0.202)
Racial fragmentation			-0.063‡	-0.052
			(0.020)	(0.038)
Birthplace fragmentation			-0.237‡	-0.174‡
			(0.019)	(0.049)
Pseudo R^2	0.083	0.083	0.089	0.089

42,134 observations. Data for 1974 and 1989 are pooled and are restricted to individuals in identified MSAs. Robust standard errors in parentheses. The symbols $*$, †, and ‡ indicate significance at the 10, 5, and 1 percent level, respectively. The dependent variable is a dummy equal to one if the individual did any volunteer work in the past 12 months. Additional control variables include 5 year age dummies (with age 35-40 as the omitted variable), a dummy indicating that race is white, education dummies (less than high school, high school, some college, college, post-college, with less than high school as the omitted variable), and 9 regional dummies (New England is omitted). We cannot control for the number of children in the household. Community heterogeneity measures are interpolated from the 1970 and 1980 censuses for the 1974 sample and are from the 1990 census for the 1989 sample. Controlling for MSA population and for the average MSA wage did not change the results.

predicted by community characteristics.

The DDB data show that volunteering was statistically significantly higher in the 1970s than in the late 1990s, but that there were no statistically significant differences in metropolitan areas (results are reported in Costa and Kahn 2001). Neither changing community characteristics nor differential trends by individual characteristics affect the time trend, even though the Gini coefficient was a strong predictor of volunteering.[9] We cannot detect a time trend in the NPD data even controlling for demographic characteristics.

The Gini coefficient was the community characteristic that best predicts volunteering among those age 25 to 54, but among those older than 64 birthplace fragmentation was the best predictor in both the CPS and the DDB. Although it did not affect volunteering trends, ethnic fragmentation may be more important to seniors. Controlling for demographic characteristics, there was no statistically significant change in the CPS in seniors' probability of volunteering and in the DDB volunteering first increased in the 1980s and early 1990s and then decreased.

5.2 Memberships

Since the 1970s rising income inequality and growing birthplace fragmentation have been the primary determinants of declining organization membership controlling for education (see Table 4).[10] The Gini coefficient and birthplace fragmentation combined decreased the coefficients on the year dummies for 1984-89 and 1990-4 from -0.11 to -0.06, respectively.[11] Membership declined sharply in the early 1980s relative to the 1970s, precisely mirroring the sharp increase

[9]When we instrument for Gini we obtain a large but statistically insignificant coefficient of -0.770 but the time trend remains unchanged.

[10]Not controlling for education leads to somewhat smaller declines. Examining only non-church membership yields smaller but still significant declines. Excluding union membership does not affect the magnitude of the decline.

[11]When we instrumented for Gini we obtained an insignificant coefficient of -1.607.

Table 4: Determinants of Membership among 25-54 Year Olds, General Social Survey, 1974-1994

	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$
Dummy if 1 if year is			
1974-79			
1980-84	-0.085‡	-0.087‡	-0.078‡
	(0.013)	(0.017)	(0.017)
1984-89	-0.072‡	-0.069‡	-0.048‡
	(0.013)	(0.014)	(0.016)
1990-94	-0.105‡	-0.097‡	-0.063‡
	(0.017)	(0.018)	(0.022)
Gini coefficient			-0.540*
			(0.287)
Racial fragmentation		0.047	0.069
		(0.052)	(0.052)
Birthplace fragmentation		-0.258‡	-0.173‡
		(0.046)	(0.003)
Pseudo R^2	0.079	0.083	0.083

7,230 observations. Data are restricted to known MSAs only. Robust standard errors in parentheses. The symbols $*$, †, and ‡ indicate significance at the 10, 5, and 1 percent level, respectively. The dependent variable is equal to one if the individuals reported membership in any organization. Additional control variables include four dummies equal to one if the individual is married, female, or white, 5 year age dummies (with age 35-40 as the omitted variable), education dummies (less than high school, high school, some college, college, post-college, with less than high school as the omitted variable), and 9 regional dummies (New England is omitted). Controlling for MSA population and for average MSA wage did not change the results. The GSS is weighted using population weights.

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 of professional organizations, suggesting that when interpersonal contact is high, people prefer to be with others like them. Among Americans older than 64 we found that again birthplace fragmentation was the only community characteristic that statistically significantly predicted membership but that there was no statistically significant change in membership since the 1970s. When we examined trends by individual characteristics we found no differential trend between women and men or the college-educated and those with less than a college education. However, when we restricted the sample to women we found a statistically significant and substantial increase in membership among the college-educated, largely because of an increase in professional memberships. When we dropped the year dummmies and instead included birth year, we found that birth year was a statistically significant predictor of membership, but that including our fragmentation measures (particularly birthplace) reduced the size of the coefficient on birth year.

We predicted that because wage inequality rose only slightly between 1952 and 1972, membership trends should remain unchanged. Although the American Election studies showed that there was a statistically significant decline in non-church memberships for the country as a whole, there was no decline in memberships for metropolitan areas (see Costa and Kahn 2001). In metropolitan areas racial fragmentation was the only community characteristic that was a statistically significant predictor of membership, but membership increased (though not statistically significantly) despite sharply rising racial fragmentation. The effect of the Gini coefficient was large (and decreased membership), but statistically insignificant.

The time use diaries provide evidence that the decline in organizational activity has been more pronounced among women (see Table 5). When the sample was restricted to men, we found no evidence of a time trend. When we restricted to women we found that the probability of spending time in organizational activity first rose by 0.02 between 1965 and 1975 and then fell by

Table 5: Determinants of Probability Spending Time in Organization Activity Among 25-54 Year Olds, Time Use Studies, 1965-1985

	All		Men	Women
	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$
Dummy=1 if year is				
1965				
1975	0.012	0.003	0.000	0.019
	(0.012)	(0.019)	(0.016)	(0.019)
1985	-0.044‡	-0.028*	-0.021	-0.063‡
	(0.012)	(0.017)	(0.012)	(0.018)
Dummy=1 if female	0.025	0.035†		
	(0.007)	(0.016)		
Female*year 1975		0.013		
		(0.026)		
Female*year 1985		-0.021		
		(0.017)		
Pseudo R^2	0.052	0.054	0.035	0.062

3,816 total observations. 1,704 observations on men. 2,112 observations on women. The symbols $*$, †, and ‡ indicate significance at the 10, 5, and 1 percent level, respectively. The dependent variable is equal to one if the individuals reported any time spent in organizational activities in a 24 hour day. Additional control variables include three dummies equal to one if the individual is married, lives in a standard metropolitan area, or reported hours on a weekend, the number of children in the household, 5 year age dummies (with age 35-40 as the omitted variable), and education dummies (less than high school, high school, some college, college, post-college, with less than high school as the omitted variable). It was not possible to control for race or region.

Table 6: Determinants of Probability Spending Time Visiting or at Parties, Among 25-54 Year Olds, Time Use Studies, 1965-1985

	All		Men	Women
	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$	$\frac{\partial P}{\partial x}$
Dummy=1 if year is				
1965				
1975	-0.076‡	-0.042	-0.047	-0.097‡
	(0.024)	(0.038)	(0.034)	(0.033)
1985	-0.196‡	-0.135‡	-0.129‡	-0.246‡
	(0.024)	(0.034)	(0.036)	(0.032)
Dummy=1 if female	0.072‡	0.174‡		
	(0.016)	(0.034)		
Female*year 1975		-0.063		
		(0.047)		
Female*year 1985		-0.098†		
		(0.039)		
Pseudo R^2	0.049	0.050	0.066	0.038

3,816 total observations. 1,704 observations on men. 2,112 observations on women. The symbols $*$, †, and ‡ indicate significance at the 10, 5, and 1 percent level, respectively. The dependent variable is equal to one if the individual reported any time spent visiting friends or at parties. Additional control variables include three dummies equal to one if the individual is married, lives in a standard metropolitan area, or reported hours on a weekend, the number of children in the household, 5 year age dummies (with age 35-40 as the omitted variable), and education dummies (less than high school, high school, some college, college, post-college, with less than high school as the omitted variable). It was not possible to control for race or region.

0.063 by 1985. We also found that being in the labor force was a statistically significant, negative predictor of membership. Most of the decline in membership was observed among non-working women, but this may reflect selection or the shift of memberships from community-oriented to workplace-oriented.

5.3 Entertaining and Visiting

The time use studies reveal differential trends between men and women in time spent visiting (see Tables 6). Between 1965 and 1975 the probability of visiting friends or being at parties fell

by 0.10 among women but by only 0.05 among men. Between 1965 and 1985 the probability among women fell by 0.25 and among men by 0.13. The 1965 to 1985 decline between men and women was statistically significantly different.[12] The NPD data (for results see Costa and Kahn 2001) show that compared to 1992 women's probability of visiting friends or relatives was substantially (and statistically significantly) lower in each year after 1995, whereas men experienced little change. Controlling for demographic and socioeconomic variables, women's probability of spending time visiting family or friends fell by 0.053 ($\hat{\sigma}$=0.017) between 1992 and 1999. There was no differential trend by labor force participation status among women. Among Americans older than 64 there were no statistically significant changes in the probability of visiting friends and relatives in the 1990s.

Among married 25 to 54 year olds the probability of entertaining at home at least 12 to 24 times in the past year, as reported in the DDB Life Style Survey, fell sharply between 1975 and 1998, with the largest declines among women (see Costa and Kahn (2001) for details). Controlling for socieconomic and demographic characteristics, we found that men's probability fell by 0.144 ($\hat{\sigma}$=0.010) and women's by an additional 0.053 ($\hat{\sigma}$=0.015) between 1975-79 and 1995-98. The biggest declines among women were among those women in the labor force. Among Americans older than 64 there was also a decline in the probability of entertaining, but there were no statistically significant differences between men and women. As expected, community characteristics (with the exception of a positive and significant sign on birthplace fragmentation) were statistically insignificant and did not affect the trend. When we examined the probability of the family eating dinner together we found no differential trends by sex nor by labor force status among women not any effect of community characteristics on the time trend.

Using the GSS we found that controlling for demographic characteristics there was no

[12]Surprisingly, the time diaries show that the biggest decline occurred among non-working women. Selection is a potential explanation.

decline in men's or women's probability of spending a social evening with friends or relatives at least several times a month.[13] There was a significant decline in both men's and women's probabilities of spending a social evening with a neighbor at least several times a month, but this could neither be explained by differential trends between men and women or between the college-educated and the less than college-educated nor by rising metropolitan area heterogeneity. Our findings of no decline in the probability of spending a social evening with a friend suggests that although formal entertainment in the home has fallen, men and women still maintain contact with their friends.

5.4 Summary

Table 7 summarizes our results on trends in social capital in the United States controlling for demographic and socioeconomic characteristics. We find small declines in the probability of volunteering, larger declines in the probability of being a member of a group, and still larger declines in the probability of entertaining at home. There have been no declines in the probability of spending frequent evenings with friends or relatives, but time diaries suggest that the probability of visiting friends or relatives has fallen. We find that rising community heterogeneity (particularly wage inequality) was the best predictor of declines in social capital produced outside the home, but that women experienced a decline beyond that attributable to community heterogeneity. Rising wage inequality explained up to 77 percent of the decline in volunteering among men between 1974 and 1989. The decline in social capital centered in home has been especially large among women, explaining all of the decline in time spent visiting family or friends in the 1990s, suggesting that women's greater labor force attachment may play a role.

[13]These findings do not necessarily contradict those from the time diaries – the phrasing of the questions in the time diaries may have led some to only count entertainment at home.

Table 7: Change in Probability of Participation Controlling for Demographic and Socioeconomic Characteristics and Fraction Decline Explained by Heterogeneity

Participation Measure and Dataset	Year	Change	% decline due to rising heterogeneity in Wages	% decline due to rising heterogeneity in All measures
Probability Volunteering				
CPS	1974-89			
Men		-0.031	77%	90%
Women		-0.063	50%	56%
DDB	1975-98			
All areas		-0.027	N/A	N/A
Metropolitan areas		-0.010	none	none
Independent Sector	1988-96	none		
NPD	1992-99	none		
Probability Membership or Membership Activity				
GSS	1974-98	-.105	32%	40%
Americans' Use of Time	1965-85			
Men		-0.021	N/A	N/A
Women		-0.063	N/A	N/A
ANES	1952-72			
All areas		-0.056	N/A	N/A
Metropolitan areas		none		
Probability Socializing				
Americans' Use of Time	1965-85			
Men		-0.129		
Women		-0.248		
DDB, entertaining at home	1975-98			
Men		-0.144		
Women		-0.197		
DDB, family eats together		-0.171		
NPD	1992-99			
Men		-0.008		
Women		-0.053		
GSS, neighbors	1974-98	-0.103		
GSS, friends and relatives				

N/A indicates that community heterogeneity measures are unavailable either because the metropolitan area was not identified or because we cannot create heterogeneity for non-metropolitan areas comparable to those for metropolitan areas. As expected, metropolitan areas characteristics were not predictors of socializing.

Table 8: Papers on Trends in Community Participation

Paper	Country	Time period	Measure	Trend
Baumgartner and Walker (1988)	USA	1952-1984	membership	+
Smith (1990)	USA	1952-1984	membership	0
Putnam (1995; 2000)	USA	1930s-1998	many measures	-
Ladd (1996)	USA	1950s-1990s	many measures	0
Paxton (1999)	USA	1975-1994	combined measures	0
Costa and Kahn (this paper)	USA	1952-1998	many measures	-/0
Hall (1999)	Britain	1951-1991	many measures	+
Rothstein (2001)	Sweden	1955-1994	membership	+
Scheeper and Janssen (2001)	Netherlands	1970-1988	many measures	0

How do we reconcile our findings with those of other researchers? Table 8 lists papers on trends in social capital as measured by memberships and volunteering. Baumgartner and Walker (1988) found an increase in membership rates using the American National Election Surveys, but Smith (1990) argued that the survey questions are not comparable. Neither study corrected for socioeconomic and demographic characteristics. Putnam (1995; 2000) found evidence of a decline in social capital, using a wide array of data and of measures, including volunteering, voting, trust, and memberships. Ladd (1996) critiqued his 1995 study, pointing out that declines in voting turnout were sensitive to end points and that some surveys, such as those carried out by the Independent Sector, showed no evidence of an aggregate decline in volunteering. Paxton (1999) using the GSS and a factor analysis model found no evidence of a decline in associations (measured by using group memberships and evenings spent with friends or neighbors), but does find evidence of a decline in trust.[14] Our work differs from that done for Europe because we

[14]When we analyzed trust using the GSS we found a decline, 32 percent of which could be explained by rising community heterogeneity. Papers that examine the decline in trust in the United States include Rahn and Transue (1998). Trust in other people has declined in Britain (Hall 1999), but has risen in Sweden and in Switzerland even though trust in political institutions has fallen (Rothstein 2001; Freitag 2001).

control for socioeconomic and demographic characteristics. When we do not control for education we find smaller declines in group membership and in volunteering.

Our conclusion for why social capital declined in the United States differs from that of Putnam (2000) who argued that up to half of the decline in social capital controlling for education was due to the aging of the civic generation and up to one quarter to television. We presented results by year not by cohort because our datasets span such different years. When we examined the probability of volunteering at age 34 to 48 in the CPS, we found that controlling for demographic characteristics and education the probability of volunteering was lower by 8 percentage points among the cohort born 1941 to 1955 compared to members of the civic generation born 1926 to 1940. Once we controlled for rising income inequality, this decline was halved. Averaging over our measures of social capital centered in the community we attribute roughly one third of the predicted decline to reductions among women and one half to growing community heterogeneity. Averaging over our measures of social capital centered in the home we find that declines among women explain 40 percent of the predicted decline. The aging of the civic generation and television could therefore account for at most 22 to 60 percent of the decline. The exact decomposition depends upon the type of social capital that is examined and upon the data sources used.

6 Conclusion

Social capital is an unusual economic concept. 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. Given the growing macro-economic literature on the importance of social capital to a well-functioning society (e.g. Knack and Keefer 1997), we need to study in what environments social capital is produced and trends in social capital. Our examination of U.S. trends in social capital produced

both inside the community and the home showed that on the whole, both types of social capital have fallen, with the biggest declines among those produced inside the home and moderate declines in those produced within the community. Whether the magnitude of the decline social capital produced within the community is large enough to cause alarm is in the eye of the beholder. We argued that declines among women accounted for most of the declines in social capital centered in the home. Women's growing committment to careers may therefore play a role in declines in social capital. The most important factor explaining the decline in social capital centered in the community was rising income inequality, but growing ethnic heterogeneity and declines among women played roles as well.

Our findings have implications not just for the United States, but for other countries as well. Both high income inequality and low ethnic homogeneity predicts low membership across western European countries.[15] The fraction of the population participating actively in a group is very high in such countries as Norway, Sweden, and Finland, and Germany, all of which have relatively low income inequality and high ethnic homogeneity. Although membership rates have been rising in most western European countries, our findings suggest that in the future they will fall. Immigration into western Europe from eastern Europe and from developing countries has increased. As labor markets become more competitive income inequality may rise in Europe as well.

[15]We used the *World Values Surveys and Values Surveys, 1990-1993, 1995-1997* (Inglehart et al. (2000)). We averaged participation rates for all adults and across all survey years and used Knack and Keefer's (1997) ethnic homogeneity indexex and 1990 Gini coefficients from *Measuring Income Inequality: A New Database* (Deininger and Squire, http://www.worldbank.org). A median regression for 14 western European nations yielded a coefficient of 0.006 ($\hat{\sigma}$=.003) on ethnic homogeneity and a coefficient of -0.033 ($\hat{\sigma}$=.011) on the Gini coefficient. The standard deviation was 12.1 and 3.37 for ethnic homogeneity and the Gini coefficient, respectively.

Data Appendix

This appendix describes both our social capital variables, our community heterogeneity variables, and our demographic variables. Details on the wording of the questions are available in the NBER Working Paper 8295.

Social Capital Variables

1. *Volunteering*. Our volunteering variable is a dummy equal to one if the individual did any volunteer work in the past 12 months. As previously noted, differences in volunteering rates arise from differences in response rates, survey methodology, and the types of questions asked. Response rates in the Current Population Survey in 1974 and 1989 were roughly 95 percent (see *Handbook of Labor Statistics*.) In contrast, response rates to the Gallup survey were roughly 20 percent.[16] The CPS used proxy respondents and may not have provided enough details to prompt recall of marginal or infrequent volunteer activity (Hayghe 1991).

2. *Membership*. Our membership variable consists of non-church membership in the political participation studies and of all membership in the GSS. We examine only non-church membership in the political participation studies because of differences in phrasing and because there is some evidence of a context effect on church membership in the GSS (Smith 1990). When we examined data on union membership from the Bureau of Labor Statistics and from the Current Population Survey, we found that the GSS most closely matches the official union membership data, that the 1952-1972 ANES follow the trend closely but underestimate levels, and that the 1967 Political Participation in America is off of the trend line.

3. *Daily Activities*.

   (a) *Americans' Use of Time, 1954-1965, 1985* and *Time Use in Economic and Social Accounts*
   Our constructed organizational activity variable is based upon whether an individual records any minutes spent in 1) participating as member of a party, union, etc.; 2) voluntary activity as an elected official of an organization; other organizational participation; 3) volunteer work for a civic purpose; 4) participating as member of a religious club; 5) participating in factory or worker's councils or committees (union-management); 6) participating in other organizations (family, parent, military, etc.);

[16] Personal communication from the Independent Sector. The other surveys have better response rates. Response rates to the DDB was roughly 70 to 80 percent (Putnam 2000: 421) and those to the NPD were roughly 60 percent (personal communication from The NPD Group).

and, 7) other. We do not include religious practice or attending church services or ceremonies in our definition. Our entertainment activity variable is based upon 1) entertaining friends or visiting friends, 2) party or reception (with meals) given by or for R, and 3) party or reception, without meals; other social life.

(b) *The NPD Group Time Study Data, 1992-1999*.
Our volunteering variable is based upon whether an individual records in any half hour interval that time spent in volunteer work was the primary activity. Our entertainment variable is based upon time spent visiting family/friends.

4. *Entertaining and Socializing*. Our constructed variable of high frequency in entertaining in the DDB is based upon whether an individual reported that he or she "entertained people in my home" 12-24 times in the last 12 months. Our constructed variable of family eats dinner together in the DDB is based upon the whether an individual reported that "our whole family usually eats dinner together." Using the GSS we constructed variables equal to one if an individual reported spending several times a month or more 1) spending a social evening with relatives, 2) spending a social evening with a neighbor, 3) spending a social evening with a friend who lives outside the neighborhood.

Metropolitan Area Characteristics

1. *Gini coefficient*. We calculated, by metropolitan area and census year, the Gini coefficient of weekly wages of men age 21 to 64 working at least 35 hours a week in the census week and at least 52 weeks a year in the past year. Weekly wage is estimated as last year's income divided by the number of weeks worked in the past year.

2. *Racial fragmentation*. We calculated, by metropolitan area and census year, the fraction of whites, blacks, American Indians, asians, and other.

3. *Birthplace fragmentation*. 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.

Metropolitan area characteristics are estimated from the Integrated Public Use Census Samples for 1950, 1970, 1980, and 1990 (Ruggles and Sobek 1997).

Demographic Variables

1. *Education*. Education refers to highest level of education completed.

2. *Marital status*. In *DDB Life Style Survey* only married individuals were questioned prior to 1985. Because information is not provided on marital status in 1986, 1988, 1989, and 1990 those years are excluded from the analysis.

3. *Age*. Age is generally given as age in years. It is intervalled in the 1960 *Five Nation Study* (18-25, 26-30, 31-35, 36-40, 41-50, 51-60, and 60+) and the 1992-1992 *The NPD Group Time Study* (Under 25, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-64, 65+).

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