TRENDS IN INFORMAL SOCIAL PARTICIPATION, 1974-2008

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BACKGROUND

Analysts and commentators periodically raise the prospect that large-scale social changes might substantially alter patterns of interpersonal relations, often for the worse. Among putative sources of such disruptions to the social fabric are industrialization, urbanization and the development and expansion of mass media. Wirth (1938), for example, wrote about consequences of a rapid rural-urban transition for modes of life, including declines in kinship bonds, neighborliness, and personal acquaintanceship (p. 11), and substitution of secondary for primary social ties. Sociological analyses suggested that "mass society" entails a general reduction in the number of communal relationships, together with diminished functionality for those that remain; such atomization, it was feared, would render large numbers of people open to manipulation by elites and susceptible to mass appeals (Kornhauser, 1968). Wellman (1979) terms these "community lost" perspectives.

Many mid-20th century empirical studies suggested that informal social ties were highly resilient to such changes, although few of these studies assessed trends. For example, Bell and Boat (1957) reported that over 60% of men in four varied San Francisco census tracts had informal social contacts at least weekly, while Hunter (1975) found that neighboring in a Rochester, NY neighborhood was significantly higher in 1974 than in 1949. Residents of a Toronto district maintained numerous intimate relationships with kin and nonkin, many of whom resided elsewhere in the metropolitan area rather than in the immediate locality; nearly a quarter of these ties were with persons outside Toronto. A substantial minority of the relationships were potential sources of everyday and emergency assistance (Wellman, 1979). These studies and others like them demonstrated that informal social ties had hardly vanished, notwithstanding the considerable macroscopic changes thought to have threatened them.

While less focused on the spatial aspect of "community" than earlier work, more recent discussions of downward trends in "social capital" raised parallel worries about declining social integration. Informal interpersonal ties are, of course, only one aspect of this multifaceted concept which can also encompass connections to voluntary groups, social trust, and civic engagement, among other things. Putnam (2000: p. 115) asserts

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¹ See, however, Fischer (2011).

that there has been "a striking diminution of regular contacts with our friends and neighbors." He cites several factors as contributors to reduced connectedness: changing family and household structures; suburbanization, residential mobility and spatial dispersion; electronic entertainment, especially television; and the replacement of a highly civic cohort born before 1940 by Baby Boomers and Generation X.

Comparing two GSS samples separated by about 20 years, McPherson, Smith-Lovin and Brashears (2006) reported a particularly dramatic fall in the number of confiding relationships available to U.S. adults, from a 1985 average of 3.0 to a 2004 figure of 2.1; an estimated 22.6% of the 2004 sample reported no such confidant, compared to 8.0% in 1985—indicating an appreciable rise in isolation from this form of contact.² The decline in nonkin confidants was especially notable. Controversy about the validity of these findings has arisen, revolving largely around methodological questions (Fischer, 2009; McPherson, Smith-Lovin and Brashears, 2009), but even McPherson et al. (2006) express concern that the findings may overstate the extent of any decline.³ McPherson et al. also (2006: p. 372) raise the prospect that a falling number of confidants represents part of a trend toward what might be termed "network bifurcation"—contraction of intimate "core" networks, accompanied by growth in the number of weaker, dispersed contacts.⁴ They suggest that shifting patterns in employment, spatial dispersion, recreation, and communication technologies might be responsible for this development.

Others outside the academic world make similar observations. Market trend analysts and consultants call attention to "cocooning," a "trend that sees individuals socializing less and retreating into their home more." An increase in cocooning would open opportunities for entrepreneurs who can bring goods and services to consumers in their homes, as opposed to serving them in stores, showrooms or offices. Some observe

² These figures differ in detail from those that appear in McPherson et al. (2006) because they take account of a data error discovered after that paper was published; see McPherson, Smith-Lovin and Brashears (2008a).

³ Data from a 2008 telephone survey reported by Hampton, Sessions, and Her (2011) suggest a decline in the size of core networks by comparison with the 1985 GSS estimate, but no change in social isolation. Hampton et al. conjecture that social media have increased the specialization of close ties.

⁴ See also Dunkelman (2011), who suggests that recent changes have given rise to a "cluster-networked system" with more "inner-ring" and "outer-ring" relationships and fewer "middle-ring" ones.

5 "Cocooning—a steady trend." http://www.predictivedomaining.com/2009/01/26/cocooning-a-steady-

trend/, accessed July 12, 2010.

that a rise in online socializing accompanies cocooning; the phenomenon would appear to imply a general decline in face-to-face interactions, however.

Continued attention to trends in informal social contact, then, is warranted. This chapter assesses such trends over a 34-year period beginning in 1974, focusing on four forms of informal socializing measured regularly by the GSS. To our knowledge these are the longest available survey time series that include standardized measurements of interpersonal interactions. We introduce the data in the next section, and then describe overall time trends in socializing. Next, we ask whether any changes in socializing might be due to population aging and cohort circulation, and decompose the trends into age-, cohort-, and period-related components. Thereafter, we examine the extent to which the changing composition of the U.S. adult population—in terms of family structure, residential location, education, and other factors—might account for trends in socializing, and briefly examine trends in "never" socializing. In the conclusion, we highlight implications of our analyses for claims that social networks have shrunk or transformed, as well as their limitations.

MEASURING INFORMAL SOCIAL CONTACTS

Our analysis focuses on four types of informal socializing measured in 21 GSSs between 1974 and 2008, for just over 30,000 respondents. The survey questions ask about the frequency of informal social contacts with others, not the size or structure of social networks. A broad decline in social integration should, however, imply declines in the frequency of social contact as well as in the number of such contacts.

The GSS measures of socializing we study are:

Would you use this card and tell me which answer comes closest to how often you do the following things?

- A. Spend a social evening with relatives
- B. Spend a social evening with friends who live outside the neighborhood
- C. Spend a social evening with someone who lives in your neighborhood
- D. Go to a bar or tayern.

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⁶ Prior studies have examined one or more of these series over shorter intervals, including Putnam (2000), for 1974-1998; Paxton (1999), for 1974-1994; and Guest and Wierzbicki (1999), for 1974-1996. See also Fischer (2011).

Respondents select one of seven frequency levels for each item: almost every day, once or twice a week, several times a month, about once a month, several times a year, about once a year, and never.

Three of these questions refer to spending a "social evening" with relatives, friends outside one's neighborhood, and neighbors, respectively. Most such social evenings, we presume, involve face-to-face contact during shared meals, parties, or joint outings to attend movies, sports events, and the like. Respondents might, however, choose to deem events that are not face-to-face—for instance, sessions in Internet chat rooms—to be "social evenings." Social evenings may—but do not necessarily—involve especially close ties, and they involve sociability—what Krause (2006) calls "companionship" and Putnam (2000) terms "schmoozing"—rather than flows of social support like counseling or practical aid. The fourth item about socializing in bars or taverns could refer to social interactions in establishments that range from neighborhood taverns to sports bars and upscale cocktail lounges. We conjecture that the others seen in such settings are typically weaker ties than those with whom social evenings are spent. Some who visit bars or taverns, however, do so in order to drink, converse and relax with an ongoing group of "regulars" found there.

For simplicity in presentation, most of our analyses focus on whether respondents report a given type of socializing "several times a month" or more, as opposed to about once a month or less. Trends in socializing assessed at other thresholds (e.g., "once or twice a week" or more) resemble, in the main, those based on more-than-monthly contact. Toward the end of the chapter, we contribute to discussions of trends in social isolation by briefly assessing trends in non-participation in each of the four forms of socializing, distinguishing those who "never" have a form of contact and those reporting some of it.

OVERALL SOCIALIZING TRENDS

Over the 1974-2008 period, over half (55%) of GSS respondents said that they spent a social evening with relatives more than once per month. More-than-monthly informal social contacts with friends outside the neighborhood (42.3%) or neighbors (35.1%) were less common, while only 16.3% of respondents visited a bar or tavern more

than once a month.^{7,8} Just over a fifth of those interviewed (20.5%) said that they do not have more-than-monthly contact with others in any of these four ways.

These forms of socializing are positively, but—at most—moderately, associated with each other. Generally speaking, someone who socializes more than once a month in one way is about 10 percentage points more likely to do so in a second way. Socializing with friends and visiting bars correspond most closely: of those who spend an evening with friends outside the neighborhood more than once a month, an estimated 25.9% also visit a bar or tavern that often, compared to 9.2% of those who socialize with friends once a month or less. Respondents who see relatives more often than monthly, though, are neither more nor less apt to visit bars multiple times per month than those who see their relatives less frequently. Guest and Wierzbicki (1999) report that the correspondence between frequently socializing with friends and often seeing neighbors has weakened over time.

Figure 1 depicts over-time trends in informal socializing. Plot symbols show, for each year, estimated proportions of respondents who socialize more often than monthly, while lines illustrate smoothed time trends. Socializing with relatives remained relatively steady between 1974 and 2008. At the beginning of the period, nearly 58% of respondents stated that they socialized with relatives more than once a month; this fell to around 52% in the mid-1990s, but rose after that to almost 59% in 2006 and 2008. If anything, the number of people who spent evenings with friends outside the neighborhood more often than monthly increased slightly during these years, from about 40% in the mid-1970s to roughly 43% after 2008.

Socializing with neighbors exhibits the clearest downward trend. In 1974, nearly 44% of GSS respondents said that they spent a social evening with neighbors more than once a month—a higher percentage than then saw friends from outside the neighborhood

black oversample, did not measure the socializing items).

All statistics presented in this chapter are weighted for the number of adults in the household, sampling phase (after 2002), and oversampling of black respondents in 1982 (the 1987 GSS, which also includes a

⁸ The socializing items were first administered in a nationally representative survey on anti-Semitism in the United States conducted by NORC in 1964. In that study, an estimated 53% of respondents said that they spent social evenings with relatives more than once per month, while 41% and 36% did so with friends and neighbors, respectively. About 15% of the 1964 respondents said that they visited a bar or tavern more often than monthly. These figures are quite close to the average levels during the GSS years, though the level of neighboring is somewhat lower than that measured in early GSSs. They suggest relatively little change in socializing levels between the mid-1960s and mid-1970s.

that often. This fell to 36% by 1985, 33% by 2000, and just over 31% in 2008. Visiting bars or taverns fell less notably, from about 19% in the mid-1970s and early 1980s to roughly 14% after 2004.

Insert Figure 1 and Table 1 about here

Table 1 shows that the downward movements in seeing neighbors and visiting bars or taverns are statistically significant but relatively small, as is the upward trend in socializing with friends. The odds of socializing more often than monthly with a neighbor or at a bar fall by about 1% per year, while those of spending evenings with friends rise by a smaller factor. 9

ACCOUNTS FOR CHANGES IN SOCIALIZING

Analyses contending that social networks have shrunk attribute such contraction to a variety of changes that have taken place during recent years, such as rising media use, or suburbanization and the population dispersion attendant to it. We consider some of these accounts below; here we observe that many of them refer to phenomena linked to the periods of time during which network change is thought to have occurred.

Two demographic mechanisms that have received relatively little attention in discussions of network contraction are the aging of the U.S. population and cohort turnover. It is well-established that the typical U.S. adult is somewhat older now than in past decades (e.g. Treas and Torrecilha, 1995; Meyer, 2001). Using one GSS cross-section, Marsden (1987) reported that network size fell with age, at an increasing rate, as did Fischer's (1982) study of Northern Californians. Cornwell, Laumann, and Schumm (2008) too found smaller social networks among older adults, citing social disengagement theory—the gradual abandonment of social roles—as one basis for this (p. 186); Krause (2006) suggests that it might reflect preferences of older people for fewer, but more emotionally meaningful, social ties. One might reasonably conjecture that the frequency of socializing also declines with age. If so, then population aging alone might produce some decline in socializing.

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⁹ The linear trend in socializing with relatives is statistically insignificant, as shown in Table 1, but a polynomial regression (not reported) indicates that this form of socializing was significantly less common in mid-period.

Putnam (2000) suggests that some over-time changes in social capital might be due to the replacement of active cohorts by less active ones. He notes (p. 283), however, that effects of generational succession are less notable for private "schmoozing" than for other more "public" forms of social capital such as political or civic participation. Such a pattern of cohort turnover would yield lower levels of socializing, irrespective of other changes underway. If aging and/or cohort turnover affect socializing, these processes might obscure differences linked to period-related factors.

Because overall trends in socializing might reflect population aging, cohortrelated factors, and period-linked differences, we next present an age-period-cohort interpretation of socializing trends, to reveal whether period-related trends are evident after taking these population processes into account. Thereafter, we adjust for several additional period-related changes in population composition.

Age, Cohort, and Period Differences in Socializing

It is widely understood that separating influences of age, period, and cohort on social phenomena requires the introduction of some assumptions that are not subject to empirical verification, owing to the functional interdependence among the three constructs (Fienberg and Mason, 1978). The appendix outlines and illustrates the methods we use to parse the three. Our principal assumption is that age and cohort effects on socializing are relatively smooth: they do not differ greatly between proximate age groups or birth cohorts. We approximate age- and cohort-related trends by equating coefficients within sets of adjacent age and cohort groups, and then conduct successive tests that ask whether disaggregating these groupings into narrower intervals would improve model fit; this procedure yields different sets of age and cohort groupings for each form of socializing. We do not constrain period differences because they are of central interest in this chapter.

We present the results of our analyses graphically. Figures 2-4 present estimated proportions socializing more often than monthly by age, cohort, and year, respectively. Each figure displays proportions calculated while holding the other two factors at average levels: those in Figure 2, for example, give the estimated fractions of adults in each age group who socialize more than monthly, for an average year and an average cohort.

Smoothed trend lines run through each set of adjusted proportions to illustrate the general pattern of age, cohort, and year differences for each of the four forms of socializing.

Table 2 displays results of statistical tests for age, period, and cohort differences. High test statistics and low p values offer strong evidence against the hypothesis of no age differences for all four forms of socializing. Cohort differences are detectable at the conventional 0.05 significance level for three of the four forms of socializing, relatively modest evidence given the large sample size. Adjusting for age and cohort differences, socializing with relatives and neighbors also appear to vary by year, as does visiting bars,. We do not detect significant year-related differences in spending social evenings with friends outside the neighborhood, however.

Insert Table 2 about here

Age Differences. Age differences in socializing appear substantial, as illustrated by the adjusted proportions for age groups shown in Figure 2. Plot symbols show the estimated proportion at the midpoint of each age group. The adjusted proportion of adults who spend social evenings more than once a month with relatives falls steadily with age. Socializing with friends declines rapidly among the young and middle-aged; beyond the early forties it continues to fall with age, but much more gently.

Insert Figure 2 about here

Socializing with neighbors more often than monthly also declines with age among the young, but levels off among adults in their forties and fifties. Mirroring a finding of Cornwell et al. (2008: p. 197), however, spending more than one social evening per month with neighbors rises somewhat after age 60, after which it falls off slightly. Among those over age 70, socializing with neighbors is a little more common than with friends. These patterns may reflect age-related factors such as retirement, widowhood, and reduced mobility.

Socializing in bars is highly concentrated among the young. The adjusted proportion visiting a bar or tavern more than once a month rises rapidly with age among young adults, peaking among 23-year-olds, just above the legal US drinking age (21). It then falls rapidly until the early thirties, and more gently but steadily thereafter.

Taken together, age differences in socializing appear appreciable. To the extent that demographic processes have shifted greater fractions of US adults into older age

groups, these differences imply downward over-time movement in all four forms of socializing.

<u>Cohort Differences</u>. By comparison, differences in socializing across birth cohorts appear quite modest, though detectable (Table 2). Figure 3 depicts them. What movement in socializing there is across cohorts seems to be generally upward, with the exception of socializing with relatives. Cohort differences in seeing friends appear most pronounced: the adjusted proportion doing so more often than monthly rises visibly in Figure 3 across the cohort groups we distinguish. The proportion seeing neighbors more often than monthly also rises slightly for more recent cohorts, as does that for visiting bars or taverns. More-than-monthly socializing with relatives appears to be somewhat less common in later cohorts.

Insert Figure 3 about here

The direction of these cohort differences, apart from those for relatives, would imply increases, not decreases, in socializing. Because their magnitude is generally small, however, their implications for overall trends are also modest.

Period (Year) Differences. Figure 4 displays the period-related differences in socializing. These are, in essence, adjusted versions of the overall trends in Figure 1 that take differences we have attributed to aging and cohort turnover into account. By and large, the patterns shown in Figure 4 resemble those in Figure 1. One difference is that the slightly upward-sloping year-related trend line for contact with friends seen in Figure 1 flattens: the adjusted proportion of adults who socialize with friends more often than monthly stays relatively steady throughout this period, with no statistically detectable differences across years (Table 2). The flattening evidently reflects adjustment for somewhat greater socializing with friends on the part of younger cohorts (Figure 3).

Insert Figure 4 about here

Socializing with relatives falls slightly during the first half of the period, before rising slightly in the most recent GSSs. Steadier downward trends across years are evident for socializing with neighbors and in bars/taverns. Variation across years in these patterns is slightly less than that shown in Figure 1, reflecting the fact that portions of the overall trends can be attributed to aging and age differences in socializing (Figure 2).

Net of aging and cohort change, then, period-related differences in socializing largely resemble the overall patterns. Taken together, they do not suggest dramatic change in informal social contact. The clearest downward movement is in neighboring, but even that is modest. Contact with friends has remained steady, while the fraction spending evenings with relatives more often than monthly seems to have risen slightly since the early 1990s.

Compositional Change and Socializing

"Demographic explanations" hold that change within a population in a phenomenon such as socializing is partially or entirely attributable to changes in the population's composition in terms of characteristics associated with the phenomenon (Davis, 2001). Accounts that suggest recent declines in informal social contacts call attention to several such compositional features. This section reassesses socializing trends after making statistical adjustments for features of population composition that the GSS has measured regularly. We note at the outset that the four forms of socializing examined here may be related to such features in different ways.

Fischer (2011) inventories several types of accounts that have been put forward as bases for anticipating network decline and transformation, including technological, demographic, economic, and cultural sources of change; he notes that few empirical indicators for the cultural category are readily available. Technological accounts stress the use of media that either compete with interpersonal relationships (e.g. television, video games) or facilitate their formation (e.g. social networking websites). Among these, only television viewing is consistently measured over time in the GSS.¹⁰

Many changes in demographic factors alter family and household structures. Among these are falling rates of entry into marriage, increases in divorce and separation, and decreased childbearing, which have served to reduce family size (Spain and Bianchi, 1996; Elliott and Umberson, 2004). As well, increases in life spans make it increasingly likely that people will live alone as widows or widowers for some years (Fischer and

between 2002 and 2007.

¹⁰ Extended GSS topical modules on the "Information Society" in 2000, 2002 and 2004 measured Internet, electronic mail, and computer use (including participation in chatrooms), and asked about acquaintances first met online. Use of social networking websites became widespread after the last of these modules was administered. See Wang and Wellman (2010) for a discussion of Internet use and friendship network size

Hout (2006). Reduced family sizes and smaller households reduce opportunities for socializing with relatives, and perhaps make people more apt to spend time with unrelated others (Putnam, 2000). Our measures reflecting family size and structure include marital status (currently married, formerly married, never married), number of children, and number of siblings.

Allied to demographic factors is residential location. Fischer and Hout (2006) highlight suburbanization as the principal recent trend in U.S. residential patterns; Putnam (2000) includes suburbanization, sprawl, and commuting among the factors that increase time pressures on adults, and may limit their engagement with others. In urban settings, the others one may prefer to see may be more readily accessible, while in dispersed suburban locations neighbors may be less apt to encounter one another. Our analysis distinguishes respondents who live in urban, suburban, and rural settings.

The primary economic factor we consider is employment status, on the reasoning that work commitments make it less likely that people will socialize with others. Putnam (2000) notes this as one of several factors related to recent increases in time and financial pressures, especially on women (see also Jacobs and Gerson, 2004).

Our analyses also adjust for three additional sociodemographic factors: sex, race (white, black, neither black nor white), and years of education. We included all of these compositional measures together with age, cohort, and period differences in logistic regression analyses. Odds ratios for compositional explanatory variables are displayed in Table 3; Figure 5 presents, for each year, adjusted proportions of respondents who socialize more often than monthly.¹¹

Insert Table 3 about here

More-than-monthly socializing with relatives is linked to family status: it is more common among currently-married adults than the never-married, and especially common among the formerly married. It is also greater among those with larger numbers of children or siblings. Compositional changes due to declining marriage rates and smaller families should thus reduce monthly socializing with relatives. The never-married and those with fewer children are more apt to socialize with friends, with neighbors, and in

12

¹¹ Age and cohort patterns in the analyses that include compositional indicators closely resemble those in Figures 3 and 4, so we do not reiterate them here.

bars; over-time compositional changes in family status should promote increases in these forms of informal social contact.

Urban and suburban residents tend to socialize with friends and in bars more often than adults who live in rural areas. Those living outside of metropolitan regions, on the other hand, are more apt to see both relatives and neighbors socially than are residents of cities or suburbs. These findings are consistent with what Fischer (1982) reports based on his much more extensive study of the social networks of Northern Californians. Other things being equal, neighboring is lowest in suburban settings. Trends in settlement patterns that concentrate people in metropolitan areas (Fischer and Hout, 2006), then, imply upward movements in socializing with friends and at bars, and downward ones in the other two forms.

Employment is linked to less frequent socializing with neighbors, but also to visiting bars and taverns somewhat more often—perhaps as an after-work leisure activity, or in connection with after-hours work obligations. Employed adults are neither more nor less likely than those outside the labor force to socialize with friends and relatives.

We found no statistically significant differences in socializing by television viewing, adjusting for the other compositional factors considered. Moreover, the average number of hours of television viewing reported by GSS respondents has remained relatively steady at around 3 hours over the past three decades. Perhaps using other communication media (not measured in the GSS) competes with interpersonal socializing. Our admittedly limited analyses on this point yield no evidence suggesting an influence of technological factors, however.

None of the compositional factors we introduce has a consistent association with all four forms of socializing. More educated adults tend to spend more social time with friends and in bars or taverns, but a little less with relatives. Black adults are slightly more apt than nonblacks to see relatives and neighbors, while whites report more visits to bars and taverns than comparable nonwhites. Consistent with an image of women as "kin-keepers" (Moore, 1990), women are more apt than comparable men to report more-

13

¹² Because the GSS did not begin measuring it until 1975, we do not report odds ratios for television viewing in Table 3. They are statistically negligible in parallel analyses that cover the 1975-2008 period. Bivariate analyses show that watching more television is inversely related to socializing with friends and in bars, but directly associated with seeing relatives and neighbors. This suggests that some social evenings with relatives and neighbors might be spent watching television.

than-monthly socializing with relatives, but less so to say that they see neighbors or (especially) visit bars.

If trends in these compositional measures could account entirely for over-time differences in socializing, then the trend lines shown in Figure 4 would flatten after adjustments for compositional change. Figure 5 presents differences in socializing by year, net of age differences, cohort differences, and compositional trends. Considered jointly, the compositional factors in Table 3 made socializing with friends and in bars a little more likely during the period of time covered here. Changes such as movement toward metropolitan areas, smaller families, and more never-married people imply some reduction in socializing with relatives. Adjusting for compositional factors alters trends in socializing with neighbors only negligibly.

Insert Figure 5 about here

The aggregate implications of compositional change are not large, however, so the adjusted trend lines in Figure 5 are generally similar to the respective lines in Figure 4, which adjust only for age and cohort differences. The recent upward movement in socializing with relatives appears somewhat more pronounced in Figure 5, since the downward influence of compositional change on this form of socializing has been removed. There is a hint, then, that factors not measured in our analyses have made adults somewhat more disposed to see their relatives socially than they were two decades ago.

A NOTE ON TRENDS IN NON-SOCIALIZING

Much of the discussion that ensued after McPherson et al. (2006) reported a dramatic contraction in the size of confiding networks focused on the especially large rise between 1985 and 2004 in the percentage of U.S. adults saying that they do not discuss important matters with anyone (McPherson, Smith-Lovin and Brashears, 2008b; Fischer, 2009). This section describes the comparable trends in the GSS data on socializing, asking whether "never" socializing has risen notably since 1974. We note that relationships with confidants are generally stronger than those with others one sees socially, so these data do not bear directly on the issue of whether confiding networks per se have grown smaller. If, however, a more general rise in social disconnectedness is

underway, we would expect trends in "never" socializing to parallel those in the absence of confidants. Indeed, if non-socializing with comparatively weak ties is on the rise, it might be viewed as especially worrisome because such activities may involve only modest interpersonal commitment.

Across the 1974-2008 period, estimates based on the GSS data indicate that just under 4% of adults do not ever see relatives, and that fewer than 10% never socialize with friends. The percentage who never spend a social evening with neighbors is larger (just under 27%), while about half of adults say that they never visit bars or taverns. Only 1% of respondents report that they never engage in any of these four forms of socializing. By this standard, utter isolation from informal social contact is quite rare.

Figure 6 depicts overall trends in the proportion "never" socializing across the period. For relatives, the trend line is level at around 0.04. Likewise, there is little movement in non-socializing with friends: if anything, the proportion of respondents reporting that they never see friends fell slightly during this interval, from between 0.10 and 0.11 in the 1970s to under 0.09 by the middle 2000s. Consistent with our earlier findings for more-than-monthly socializing, the proportion of adults who never see their neighbors socially rose, from just over 0.20 in the 1970s to nearly 0.30 in the 2000s. More adults than in the 1970s, however, now visit bars or taverns at least occasionally: the proportion never doing so fell from above 0.55 to around 0.47 during this interval. ¹³

Insert Figure 6 about here

We asked whether the patterns shown in Figure 6 would be notably altered by the adjustments made in our above analyses focused on more-than-monthly socializing—for age and cohort differences, as well as trends in population composition. Introducing such statistical controls modifies some details of the trend lines in non-socializing, but does not alter the main conclusions we reach. Taken together, our analyses suggest no dramatic change in extreme social disconnectedness. They do indicate a fall in neighboring, but this may well be made up by increasing social contact in other venues. We do not wish to downplay the negative consequences of social isolation in its different

15

¹³ The declining number of adults who never visit establishments that serve alcohol does not reflect a downward trend in abstention from alcohol use. The GSS does not measure use of alcohol after 1994, but Gallup polls indicate that the percentage of U.S. adults classified as "total abstainers" rose from about 30% in the mid-1970s to 36% in 2009 (Saad, 2009).

aspects (e.g. Wilson, 1987; Cacioppo and Hawkley, 2003), but these data on non-socializing do not suggest a sharp increase in isolation during recent years.

CONCLUSION

This chapter contributes to recent debates about possible social network contraction by analyzing trends in items that measure the frequency of informal socializing in 21 GSS surveys spanning a 35-year period. We identify some modest overall trends in socializing since the 1970s, but these are neither large nor consistent in direction. The lower frequency of contact with neighbors reported here and by others (Guest and Wierzbicki, 1999; Putnam, 2000) provides the clearest evidence of shrinkage. This is balanced to some extent by a discernable rise in social contact with relatives since the 1990s, and tempered by stable or slightly increasing levels of contact with friends outside one's neighborhood (Figure 1).

We examined the contributions of aging and cohort turnover to socializing trends. Spending social evenings with others and visiting bars and taverns prove to be considerably more common among the young (Figure 2), perhaps to a greater extent than other types of social ties such as confiding. Adjustments for population aging and cohort turnover do not substantially alter our conclusions about over-time trends in informal social participation, however (Figure 4). Nor does taking other important compositional shifts that have taken place in recent decades—especially in family structures and residential location—into account (Figure 5).

While these data are not consistent with a hypothesis of general social network shrinkage, they do offer at least suggestive evidence of "network reconfiguration," since tendencies to socialize with different types of others seem to have shifted in different directions. We note Guest and Wierzbicki's (1999) finding that tendencies to socialize with friends and with neighbors have grown increasingly independent of one another over time. That neighbors are seen less frequently, and friends perhaps more often, may mark a rise in the extent to which one's associates are chosen rather than constrained by availability (Wellman, 1979; Fischer, 1982).

The recent rise in socializing with relatives, on the other hand, resonates with the notion of network bifurcation suggested by McPherson et al. (2006), involving an

intensification of contact with a small number of very close associates, accompanied by a proliferation of weaker narrow-purpose ties. The rise in seeing relatives is of special interest in that it has taken place while families have been growing smaller and the fraction of married adults has been falling—compositional trends that decrease the availability of relatives.

Our analyses are subject to a number of limitations that should be considered when assessing their bearing on debates surrounding declines in social connectedness. First, we study only informal socializing, an important but far from comprehensive indicator of social ties. It is possible that over-time trends in other types of interpersonal relationships—such as those that offer counseling support or tangible interpersonal assistance—might differ from those observed here. ¹⁴ Notably, our analyses do not incorporate possible expansion in social relationships facilitated by electronically mediated communication and cellular telephones, which vastly reduce the costs of forming and maintaining ties with others (see Wang and Wellman, 2010). Our data refer to socializing in predominantly face-to-face settings.

As well, the GSS measurements of socializing are based on respondent reports on the frequency of socializing with different types of others. They differ from the "name generator" methods for measuring social network size on which the McPherson et al. (2006) findings are based. Our measurements do not capture trends in important dimensions of social networks such as the number of contacts, the intensity of ties, the breadth of relationships, or closure and clustering. And, of course, our efforts to adjust estimated time trends for cohort turnover and population aging are conditional on the assumptions we introduced in doing so, as all efforts to separate age-, period- and cohort-related elements of change are.

Implications of these findings for arguments about declining social capital should be drawn with even greater caution. Informal social networks represent only one facet of social capital, though one that many (e.g. Lin, 2001) regard as vital. Even so, the socializing on which we have focused seems more likely to represent what Putnam (2000) terms "bonding" social capital, which undergirds relationships with similar others,

17

¹⁴ See, however, Fischer's (2011) assessment of available over-time data on a variety of interpersonal ties, which suggests that few notable changes in connectedness have taken place.

than "bridging" social capital that facilitates ties with others. Our data do not reflect on trends in the latter.

Notwithstanding these limitations, the findings presented in this chapter, taken together, suggest that the informal social participation levels of U.S. adults have undergone limited change, at most, during recent decades. An earlier wave of research suggested that urbanization transformed social networks, rather than diminishing them. Perhaps investigations into the effects of more contemporary social changes on social connectedness will reach a similar conclusion.

Appendix: Tactics for separating age, period, and cohort influences on socializing

We construct an age, period, and cohort interpretation of trends in socializing using a variation on Fienberg and Mason's (1978) fixed-effect approach to separating age, period, and cohort (APC) components of change in repeated cross-sectional survey data. The essence of the APC identification problem resides in the interdependency among the linear components of age, period, and cohort effects (Fienberg and Mason, 1978: p. 23).

The fixed-effect approach estimates a regression model of the form:

where Y_{ijk} is a response measured for a respondent of age i, period (year) j, and birth

$$f(Y_{ijk}) = b_0 + a_i + p_j + c_k + e_{ijk}$$

cohort k, b_0 is a constant term, a_i , p_j , and c_k are (respectively) coefficients for age i, period j, and cohort k, and e_{ijk} is a stochastic error. Let there be A distinct ages, P distinct periods, and C distinct cohorts. It is common to set one each of the $\{a_i\}$, $\{p_j\}$, and $\{c_k\}$ to 0, or to constrain the sum of each set of coefficients to 0 (e.g. $\sum_{i=1}^{A} a_i = 0$); even so, one of the remaining C-1 cohort contrasts is an exact linear function of the A-1 age contrasts and P-1 period contrasts. One approach to breaking this linear determinacy is to constrain a single pair of adjacent age, period, or cohort coefficients to be equal (e.g., Fienberg and Mason, 1978: p. 24); this yields a just-identified model. Glenn (2005), however, shows that estimates thus obtained can vary widely, depending on which of the many possible such constraints an analyst selects.

APC analyses of repeated cross-sectional data often group observed ages, periods, and cohorts into ranges, e.g. by combining persons age 18-29 or those born during a given decade. Data sometimes are available only in aggregated form (e.g. Fienberg and Mason, 1978: p. 44), but such categorization is also common when age, period, and cohort are measured to the year (as, e.g., in Yang and Land's (2008) analyses of GSS data). When measurements to the year are available, using broad categories constrains the effects of those ages, periods, and cohorts grouped together to be equal, thereby imposing multiple equality constraints that serve to resolve the APC identification problem. Such grouping models age, period and cohort effects as step functions, and usually results in a substantially over-identified model.

The analyses we present in this chapter also group adjacent ages and cohorts, assuming that these effects are locally similar to one another; we leave period (year) disaggregated because of that dimension's central interest here. Rather than assuming groupings ex ante, however, we begin with broad groupings and disaggregate them, guided by Wald tests of the equality constraints they imply. If model fit improves by splitting a broad grouping into two narrower ones, we tentatively accept the narrower groupings, and in turn ask if additional splitting can further improve model fit. We stop narrowing groupings when Wald tests indicate that further disaggregation does not further improve model fit.¹⁵

Our procedure fits step functions to the data, none of which is exactly collinear with the linear component of age or cohort effects. It adjusts the groupings to patterns in the data, including any nonlinearities that may be present, and usually results in groupings having unequal width. The groupings reached differ for the four different forms of socializing we study. Our search procedure does not necessarily locate the unque sets of groupings that best fit the data. Imposing multiple equality constraints simultaneously rather relying than only one, however, makes our estimates less subject to chance fluctuations in particular data sets. By testing to see if fit can be improved by relaxing the equality constraints implied by our groupings, we ensure that they do not unduly distort the data.

Example: Monthly Socializing with Friends

We illustrate our model selection procedure for studying age, period, and cohort differences with an analysis of more-than-monthly socializing with friends outside the neighborhood, using logistic regression to model the dichotomous response. Table A.1 presents some statistics from these analyses.

Because period (year) differences are of principal interest here, we chose not to group years. Model 1 includes highly aggregated age and cohort groups: 7 10-year-width age groupings (18-29, 30-39, ... 80-89) and 7 10-year-width birth cohort

¹⁵ We rely on Wald tests because we weight to take the GSS sample design into account. Were weighting not necessary, we could further establish the plausibility of our groupings by comparing our final, over-identified, model to a just-identified model using a likelihood ratio test, the Akaike Information Criterion (AIC), or other indicators of model fit.

groupings (pre-1920, 1930s, . . . post-1970). Model 2 disaggregates these into 5-year intervals.

Table A.1 presents Wald tests comparing the goodness of fit for these two models. Each 10-year grouping in Model 1 constrains the coefficients corresponding to two 5-year groupings in Model 2 to equal one another. The test statistics in the top panel of Table A.1 examine whether loosening each of the constraints on the age differences by disaggregating the 10-year groups into 5-year groups significantly improves model fit. We see that it does so for the younger age groups (where the p values for the Wald statistics are very small), but not for the older ones, where 5-year groupings do not appear to improve fit over 10-year ones. The last line of the top panel shows that taken together, the 5-year age intervals yield a better fit to the data than do the 10-year ones ($X^2 = 73.30$, 7 df, p<0.0001). The bottom panel shows, in contrast, that disaggregating 10-year birth cohort intervals into shorter ones does not appear to improve the fit of the model ($X^2 = 5.40$, 7 df, p=0.61).

We considered further disaggregation of the intervals by specifying still shorter (2-3 year) age and cohort intervals, and made similar comparisons of model fit. These indicated that 10-year intervals appeared sufficient for grouping cohorts, whereas age groupings required considerable disaggregation into unequal-length intervals: shorter at younger ages, longer at older ones. Based on these comparisons, we selected a model that includes the 7 10-year cohort groups and 17 unequal-interval age groups (18-19, 20-21, 22-23, 24-25, 26-27, 28-29, 30-31, 32-33, 34-35, 36-39, 40-49, 50-59, 60-64, 65-67, 68-69, 70-79, 80+). Results presented in Figure 2 are based on this model.

Figure A.1 depicts the age effects in the selected model graphically. The solid line displays the step function fit by the model, showing predicted probabilities of monthly socializing by age calculated for persons in an "average" year and an "average" cohort. The dashed line overlaid on this is a running mean smoother.¹⁶ Both lines show a relatively rapid decline between youth and middle age in the predicted probability of more-than-monthly socializing with friends, from over 0.7 among persons in their late

21

¹⁶ To limit clutter, the figures in the text present only dots indicating the midpoint of each step of the step function, and the smoothed trend.

teens to about 0.4 among those in their late 30s. Thereafter, socializing with friends continues to decline with age, but at a gentler rate.

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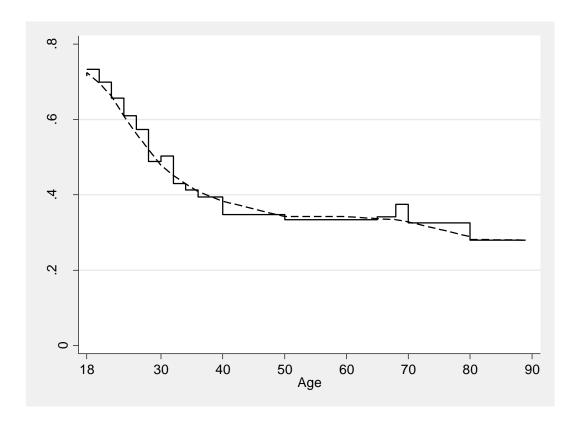
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Table A.1. Comparison of fit of Model 1 (~10-year groupings) and Model 2 (~5-year groupings) for More-than-Monthly Socializing with Friends

Age effects equated in Model 2	Wald X^2 (df)	p value
		_
<25 and 25-29	62.7 (1)	< 0.0001
30-34 and 35-39	12.8 (1)	< 0.0001
40-44 and 45-49	0.2(1)	0.67
50-54 and 55-59	3.3 (1)	0.07
60-64 and 65-69	0.5(1)	0.50
70-74 and 75-79	0.0(1)	0.93
80-84 and 85+	0.0(1)	0.95
10-year groupings vs. 5-year groupings	73.3 (7)	< 0.0001
Cohort contrasts equated in Model 2	_	
<1900 and 1900-1919	0.7 (1)	0.40
1920-24 and 1925-29	1.1 (1)	0.29
1930-34 and 1935-39	1.9(1)	0.17
1940-44 and 1945-49	0.0(1)	0.94
1950-54 and 1955-59	0.2(1)	0.68
1960-64 and 1965-69	0.0(1)	0.98
1970-74 and >1974	2.0(1)	0.16
10-year groupings vs. 5-year groupings	5.4 (7)	0.61

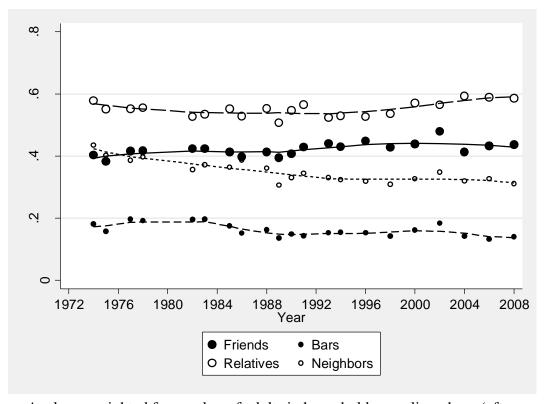
Note: Analyses weighted for number of adults in household, sampling phase (after 2002), and oversampling of blacks in 1982, with robust standard errors. Both models include 20 contrasts for year.

Figure A.1. Predicted Probabilities of More-than-Monthly Socializing by Age in Selected Model



Note: Predicted probabilities calculated for persons in an "average" cohort and an "average" year. Solid line shows step function fit by model, dashed line is a running-mean smoother.

Figure 1. Overall Socializing Trends



Note: Analyses weighted for number of adults in household, sampling phase (after 2002), and oversampling of blacks in 1982.

Table 1. Overall Socializing Trends

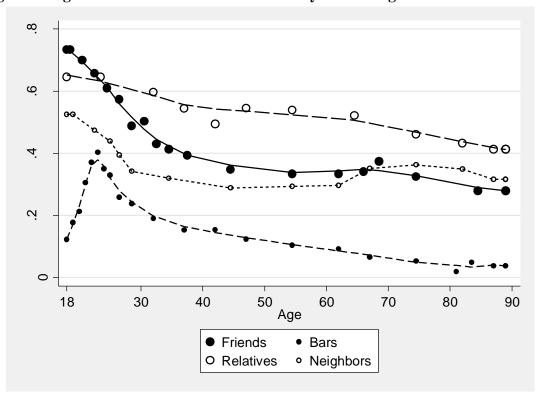
	Test for Overall	Logit Regression Coefficient		
Form of	Trend:	For Linear Annual Trend	Odds	
Socializing	$X^2(20)$, p value	(Standard Error)	Ratio	(N)
Friends	33.8, 0.028	0.005** (0.002)	1.005	(30,077)
Relatives	40.3, 0.005	0.003 (0.002)	1.003	(30,097)
Neighbors	93.1, < 0.001	-0.013*** (0.002)	0.987	(30,066)
Bars	51.3, < 0.001	-0.011*** (0.003)	0.989	(30,043)

^{*} p<0.05; ** p<0.01; *** p<0.001

Table 2. Wald Tests for Age, Period and Cohort Differences in More-than-Monthly Socializing

Form of Socializing Effect Friends Relatives Neighbors Bars $X^{2}(16)=336.1$, $X^{2}(20)=213.7$, $X^{2}(9)=109.9$ $X^{2}(12)=231.3$ Age p<0.001 p<0.001 p<0.001 p<0.001 Cohort $X^{2}(7)=14.4$, $X^{2}(7)=13.8$, $X^{2}(11)=25.0$, $X^{2}(12)=21.4$ p=0.044p=0.054p=0.044p=0.009 $X^{2}(20)=27.2$, $X^{2}(20)=37.2$, $X^{2}(20)=56.2$, $X^{2}(20)=37.4$ Period p=0.129 p=0.010p=0.011p<0.001 (N) (29,974)(29,994)(29,963)(29,939)

Figure 2. Age Differences in More-than-Monthly Socializing



Note: Proportions calculated for persons in an "average" cohort in an "average" year.

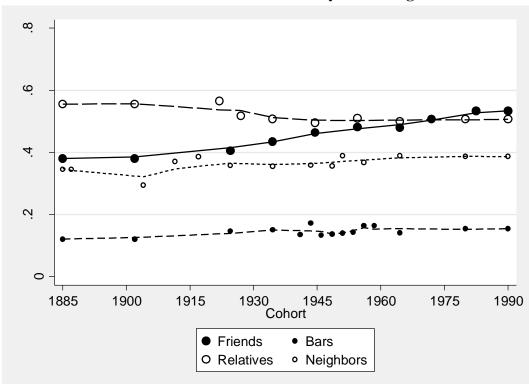


Figure 3. Cohort Differences in More-than-Monthly Socializing

Note: Proportions calculated for persons of an "average" age in an "average" year.

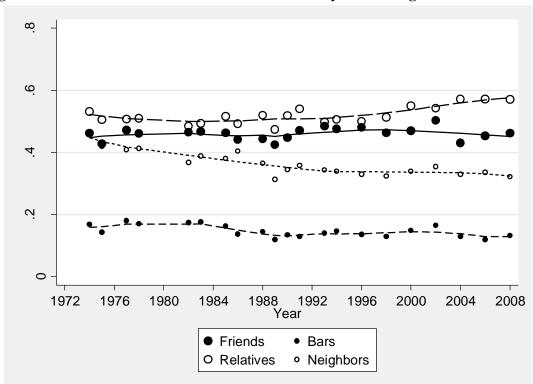


Figure 4. Period Differences in More-than-Monthly Socializing

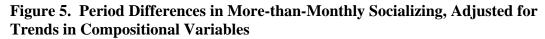
Note: Proportions calculated for persons of an "average" age in an "average" cohort.

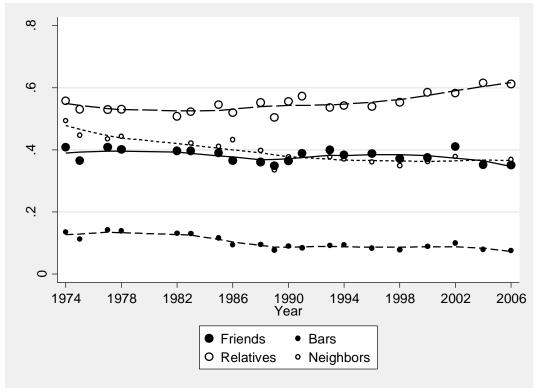
Table 3: Odds Ratios for Compositional Predictors of Socializing

		Friends	Relatives	Neighbors	Bars
	** 1	1 1 0 0 de de de	0.000	O OO Adadadada	4 4 5 4 11
	Urban	1.180***	0.930**	0.884***	1.154*
	~	(0.031)	(0.024)	(0.020)	(0.080)
Residential	Suburban	1.150***	0.935	0.806***	1.074
Location		(0.046)	(0.038)	(0.033)	(0.087)
	Rural	0.737***	1.149*	1.404***	0.806
		(0.042)	(0.065)	(0.076)	(0.114)
	Married	0.748***	0.998	0.824***	0.631***
		(0.013)	(0.017)	(0.014)	(0.016)
Marital	Never	1.489***	0.788***	1.384***	2.051***
Status	Married	(0.064)	(0.036)	(0.061)	(0.110)
	Formerly	0.898*	1.272***	0.877**	0.773***
	Married	(0.043)	(0.065)	(0.044)	(0.048)
	Number of	0.995	1.012*	1.009	0.991
	Siblings	(0.005)	(0.005)	(0.005)	(0.007)
Family Size	Number of	0.930***	1.049***	0.978*	0.973
	Children	(0.009)	(0.010)	(0.009)	(0.015)
	Cimaren	(0.007)	(0.010)	(0.00)	(0.013)
Education	Years of	1.040***	0.963***	0.998	1.018*
	Education	(0.006)	(0.005)	(0.005)	(0.008)
Race	Black	0.969	1.121***	1.084***	0.799***
		(0.021)	(0.025)	(0.024)	(0.025)
	Nonblack,	0.911	0.991	0.835*	0.661***
	nonwhite	(0.059)	(0.079)	(0.063)	(0.065)
	White	1.132	0.900	1.105	1.895***
		(0.072)	(0.068)	(0.084)	(0.187)
Gender	Female	0.981	1.133***	0.924***	0.652***
	Temale	(0.014)	(0.015)	(0.013)	(0.013)
	Male	1.019	0.883***	1.082***	1.534***
	Maie	(0.015)	(0.012)	(0.016)	(0.030)
		(0.013)	(0.012)	(0.010)	(0.030)
Employment	Employed	1.005	1.011	0.835***	1.112***
		(0.016)	(0.015)	(0.013)	(0.027)
Status	Not	0.995	0.989	1.197***	0.900***
-	Employed	(0.016)	(0.015)	(0.018)	(0.022)
	(N)	(29,756)	(29,773)	(29,744)	(29,722)

^{*} p<0.05; ** p<0.01; *** p<0.001; Standard errors in parentheses.

Note: Categorical predictors (rural/urban residence, marital status, race, sex, employment) are effect-coded; we report odds ratios for all categories, but they are constrained such that their product across categories is 1.0, and interpreted as differences from an average across the categories. Analyses also include contrasts for age, period, and cohort groupings.





Note: Calculated for persons of an "average" age in an "average" cohort, with predictors in Table 3 set at "average" levels.



