

Child Welfare across the States: Does Social Capital Matter?

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Abstract

Robert Putnam's (2000) work, *Bowling Alone*, sparked renewed interest in the measurement, development, and impact of social capital. Recent research has linked social capital to a wide variety of macro-level phenomena such as quality of life and the status of groups such as women and minorities. However, to date, the relationship between social capital and children's welfare has not received the thorough analysis it deserves. This study utilizes data from Putnam and the Annie E. Casey Foundation to examine such relationships. The data suggest that while there is indeed evidence of important, positive relationships between social capital in the states and children's welfare, the relationship is complex, depending on the particular measure of welfare employed.

Introduction: Social Capital and Children's Welfare

In recent years, few concepts have received more attention in the study of American and comparative politics than the notion of social capital (Hero 2007; Skocpol 2003; Dasgupta and Serageldin 2000; Halpern 2005). While basic components of the concept were recognized by de Tocqueville as early as the mid-Nineteenth Century (Tocqueville and Bender 1981), today's growing interest in social capital is attributable, in large measure, to the work of Robert Putnam concerning civil society. Although Putnam's early work on social capital pertained to democracy in Italy (Putnam, Leonardi, and Nanetti 1993), his more recent work has focused on social capital in the United States (Putnam 1995, 2000). Indeed, Putnam's (2000) work, *Bowling Alone*, focusing on declining social capital in the United States, has already become something of a social science "classic."

The concept of social capital is exceedingly complex and has been defined in a wide variety of ways (Field 2003; Halpern 2005; Dasgupta and Serageldin 2000). However, according to Putnam, at its most basic level social capital refers to social connectedness among individuals which foster norms of reciprocity and trustworthiness (Hawes, Rocha, and Meier 2006; Putnam 2000; Dasgupta and Serageldin 2000). These norms, in Putnam's view, are exceedingly important in that they may influence a broad array of political and civic activities including voting, religious involvement, philanthropy, participation in civic groups, and informal contacts between individuals (Calazza and Putnam 2002).

Because of the potential importance of social capital, Putnam's findings pointing to a serious decline of social capital in the United States (Putnam 2000) have sparked considerable scholarly interest. A large number of studies, for example, have sought to measure social capital and/or examine the sources of social capital formation in various settings (Boix and Posner 1999; Gittell et al. 1999; Herreros 2004; Inkeles 2000; Sides 1999; Smidt et al. 1998). Perhaps an even

larger number of studies have examined the potential impact of social capital on both individual behavior such as religious participation (Smidt et al. 1998), civic volunteerism (Verba, Schlozman, and Brady 1995), and parenting practices (Fram 2003) and on collective or organizational behavior such as government performance (Boix and Posner 1999), intergenerational learning (Kerka 2003), organizational effectiveness (Cohen and Prusak 2001), and public policy formation (Johnston and Kay 2007; Boix and Posner 1999).

Although the concept of social capital as conceived by Putnam is primarily rooted in the analysis of social connectedness among individuals, a growing number of scholars have recently attempted to link social capital to larger, macro-level phenomena related to “quality of life” or overall social “well-being.” Although it is still unclear whether social capital affects quality of life directly, through changing individual behavior, or indirectly by affecting institutional or other social phenomena, there is considerable evidence of linkages between levels of social capital and such phenomena. For example, social capital has been linked to such varied, macro-level phenomena as overall citizen well-being (Helliwell and National Bureau of Economic Research. 2005), agricultural productivity (Uphoff and Wijayarama 2000), rates of poverty (Collier 1990; Knack and Keefer 1992), health care (Macinko and Starfield 2001), racial diversity and equality (Hawes, Rocha, and Meier 2006; Hero 1998, 2003; Hero, Tolbert, and McNeal 2002; Letki 2005), and the status of women (Calazza and Putnam 2002; O'Neill and Gidengil 2006).

One “quality of life” issue which has received limited or inadequate attention is the possible impact of social capital on the welfare of children. Given that social capital has been linked to such welfare-related phenomena as education, poverty, and health care, one might well expect that social capital would be positively related to measures of child welfare. Yet, due to a lack of systematic research, our knowledge of the relationship remains inadequate. Perhaps the

richest resource on the subject is Ferguson's (2006) comprehensive review of the international social capital literature on children's well-being. In her review, Ferguson examines 22 studies of possible linkages between social capital and children's welfare (17 focusing on the U.S. and 5 focusing on other countries), finding considerable evidence of positive relationships between the two concepts.

A brief overview of the American studies identified by Ferguson can be found in the Appendix to this paper. As the Appendix demonstrates, most of the American studies tend to suffer methodologically in one or more key respects, including a lack of consensus on defining social capital (virtually none share the same definition), limited sample sizes (Johnson 1999; Gabarino and Sherman 1980; Marcoby and Church 1958), narrow substantive foci (Johnson 1999; Marcoby and Church 1958; Stevenson 1998; Teachman, Paasch, and Carver 1996), exceedingly limited demographic and/or geographical scope (Coleman and Hoffer 1987; Falk 2000; Portney and Berry 1997; Runyan et al. 1998; Swanson 2001) and dated data sources (Boisjoly, Duncan, and Hofferth 1995; Brehm and Rahn 1997; Furstenberg and Hughes 1995; Teachman, Paasch, and Carver 1997).

In addition, few studies of social capital and children's welfare utilize the states as their primary units of analysis. This is unfortunate in that, in the United States, the fifty states, along with the local and federal governments, play major roles in child protection and the provision of services to children and families (Donovan, Mooney, and Smith 2009). Given this important feature of American federalism, as well as the fact that children live most if their lives embedded in and influenced by their state and community contexts, one would expect to find positive relationships between state-level phenomena and children's welfare.

Fortunately, at least one study, Putnam's ground-breaking (2000) work, *Bowling Alone*, does indeed use the states as the primary unit of analysis. In *Bowling Alone*, Putnam provides

important evidence that social capital (particularly as defined in terms of informal social relationships) is positively related to certain measures of children's welfare in the American states. Specifically, Putnam found that social capital is very helpful in explaining overall children's welfare in the states and is also linked to students' scores on standardized tests across the states (Putnam 2000). Putnam argues that student achievement scores tend to be higher in high social capital states for two reasons. First, civic engagement is linked to parental support and lower levels of student misconduct. And second, civic engagement is associated with lower levels of television watching (Putnam 2000: 301-302).

While Putnam's findings are exceedingly useful, they also limited in certain key respects. First, Putnam's data on children's welfare were collected in the mid-1990s and could profitably be updated. More importantly, his measures of children's welfare do not thoroughly tap a variety of important dimensions of child welfare, including such areas as health, housing, family structure and economic well-being. What is needed, then, is state-level measures of children's welfare which are current and which focus, in detailed fashion, on a variety of components of such welfare.

The primary goal of this study is to systematically examine the relationship between social capital and children's welfare, using the states as the primary units of analysis. Independent variables utilized in the analysis are drawn primarily from Putnam (2000) and U.S. Census data while dependent variables pertaining to children's welfare in the states are drawn from data collected by the Annie E. Casey Foundation (Casey 2008), one of the nation's foremost child welfare advocacy organizations. The research design utilized is based on that employed by Calazza and Putnam (2002) in their study of women's status across the states as well as that employed by Putnam (2000). In this sense the paper can be viewed as a type of "replication" analysis, but with a different and/or more complete set of dependent variables.

Putnam's Composite Index of State Social Capital

Putnam's concept of social capital, as presented in *Bowling Alone* (2000) is a complex and multi-faceted concept with both public and private dimensions. That is, to Putnam, social capital can refer to both personal relationships among individuals (e.g. friends, contacts, personal networks) as well as to more formal types of civic engagement such as membership in voluntary associations (e.g. churches, fraternal and philanthropic associations). In addition, social capital can also have both individual and collective benefits. For example, as Calazza and Putnam (2002) point out, strong social networks can help an individual advance his or her career. In addition, such networks can benefit the broader society by, for example, helping to reduce crime rates or enhance student achievement. Thus, social capital may promote the overall well-being of society..

Because the concept of social capital is complex and multi-faceted, Putnam utilized a multi-faceted measure of social capital in *Bowling Alone*. In particular, Putnam created a Comprehensive Index of Social Capital across the states, using measures of both public and private capital. As Table 1 indicates, Putnam's Comprehensive Index contains measures of social capital across five areas: community organizational life (e.g. group memberships), engagement in public affairs (e.g. voting and attending meetings), community volunteerism (e.g. working on community projects), informal sociability (e.g. spending time visiting friends), and social trust (e.g. agreement that people are honest and trustworthy). The resulting index was then used by Putnam to compare all of the states (except Alaska and Hawaii) in terms of social capital or, if you will, levels of social connectedness. Putnam's ranking of the states (scores), reported in Table 2, constitutes the primary independent variable utilized in this study.

Table 1
Components of Putnam's *Bowling Alone* Social Capital Index

<p>Measures of Community Organizational Life</p> <ul style="list-style-type: none"> Served on committee of local organization in last year (percent) Served as officer of some club or organization in last year (percent) Civic and social organizations per 1000 population Mean number of club meetings attended in last year Mean number of Group memberships
<p>Measures of Engagement in Public Affairs</p> <ul style="list-style-type: none"> Turnout in presidential elections, 1988 and 1992 Attended public meeting on town or school affairs in last year (percent)
<p>Measures of Community Volunteerism</p> <ul style="list-style-type: none"> Number of nonprofit (501[c]3) organizations per 1000 residents Mean number of times worked on community project in last year Mean number of times did volunteer work in last year
<p>Measures of Informal Sociability</p> <ul style="list-style-type: none"> Agree that "I spend a lot of time visiting friends" Mean number of times entertained in home in last year
<p>Measures of Social Trust</p> <ul style="list-style-type: none"> Agree that "Most people can be trusted" Agree that "Most people are honest"
<p>Source: Calazza and Putnam (2002): 2.</p>

Table 2
States Ranked for *Bowling Alone* Social Capital

Rank	State	Score	Rank	State	Score
1	North Dakota	1.76	26	Oklahoma	-0.14
2	South Dakota	1.70	27	Ohio	-0.19
3	Minnesota	1.36	28	Pennsylvania	-0.19
4	Vermont	1.32	29	California	-0.21
5	Montana	1.27	30	Illinois	-0.23
6	Nebraska	1.17	31	Maryland	-0.26
7	Iowa	1.02	32	Virginia	-0.29
8	Wisconsin	0.72	33	New Mexico	-0.34
9	Washington	0.69	34	New York	-0.43
10	New Hampshire	0.68	35	New Jersey	-0.45
11	Utah	0.61	36	Arkansas	-0.50
12	Wisconsin	0.61	37	Florida	-0.50
13	Oregon	0.57	38	Texas	-0.54
14	Maine	0.54	39	Kentucky	-0.78
15	Kansas	0.40	40	North Carolina	-0.80
16	Colorado	0.38	41	West Virginia	-0.84
17	Idaho	0.22	42	South Carolina	-0.88
18	Connecticut	0.19	43	Tennessee	-0.97
19	Massachusetts	0.15	44	Louisiana	-0.98
20	Missouri	0.06	45	Alabama	-1.09
21	Arizona	0.02	46	Georgia	-1.12
22	Michigan	0.00	47	Mississippi	-1.15
23	Delaware	-0.04	48	Nevada	-1.39
24	Indiana	-0.09	49	Alaska	---
25	Rhode Island	-0.12	50	Hawaii	---

Source: Analysis by Robert Putnam for *Bowling Alone*

The Status of Children in the States

Just as measuring social capital is complex, so too is measuring the status or welfare of children in the states. The concept of child welfare embodies a variety of dimensions, including health, education, family status, economic well-being, and housing. Collecting solid data on such disparate dimensions can be a daunting task. Fortunately, however, the Annie E. Casey Foundation, one of the nation's leading child advocacy organizations, has collected data on a wide variety of child welfare variables which are used here to assess the status of children in the states. Specifically, the Casey data are used to create five child welfare indices, reported in Table 3, focusing on children's education, family structure, health and physical well-being, poverty and economic well-being, and housing.¹ Each index represents the mean percentage score of states for the respective category being examined. Since Putnam's social capital index data were largely drawn from the 1990-2000 period, an effort was made to utilize data collected in or around the year 2000. Most of the Casey variables are included in the indices, although a number were excluded because they were deemed redundant and/or did not fit well in the various categories.²

In addition to collecting data on a wide variety of child welfare issues, the Casey Foundation also compiles an annual "Kid's Count" overall ranking of the states (also used by Putnam 2000), based on ten variables: low birth-weight babies, infant mortality, child deaths, teen deaths, teen births, high school dropouts, teens not attending school and not working, children living in families with no employed adults, children in poverty, and children living in single-parent families. The state rankings for the Casey overall index for the years 2000-01 are presented in Table 4.³ In general, the data reveal that children tend to be best off in the

Table 3
Composite Indices and Indicators from Anne E. Casey Foundation

Composite Children's Education Index

- Percent of 4th graders who scored at or above proficient math level, 2000
- Percent of 4th graders who scored at or above proficient reading level, 2000
- Percent of 4th graders who scored at or above proficient science level, 2000
- Percent of 4th graders who scored at or above proficient writing level, 2000
- Percent of children enrolled in nursery school, preschool or kindergarten, 2000

Composite Family Structure Index

- Percent of children in single-parent families, 2000
- Percent of children living with neither parent, 2000
- Percent of children under age 18 in foster care at any time in the year, 2004
- Percent of grandchildren in the care of grandparents, 2000
- Percent of births to females less than 20 years of age, 2000
- Percent of teen births to women who were already mothers, 2000
- Percent of births to unmarried women, 2000
- Percent of births to mothers with less than 12 years of education, 2000

Composite Health and Physical Well-Being Index

- Percent of 2-year-olds who were immunized, 2000
- Percent of births to women receiving late or no prenatal care, 2000
- Infant mortality: Rate per 1000, 2000
- Child deaths: Rate per 1000, 2000
- Percent low birth-weight babies, 2000
- Percent pre-term births, 2000
- Percent of children with asthma problems, 2003
- Percent of children 17 and below without health insurance, 2000

Composite Poverty and Economic Well-Being Index

- Percent of children in poverty, 2000
- Percent of families with related children that are below poverty, 2000
- Median family income, 2000
- Percent of children in families where no parent has full-time, year-around work, 2000
- Percent of children in low-income households where no adults work, 2000
- Percent of children under age 6 with no parent in the labor force, 2000

Composite Housing Index

- Percent of children living in crowded housing, 2000
- Percent of children in low-income families in households without a telephone, 2000
- Percent of children without a computer at home, 2000
- Percent of children without internet access at home, 2000

Source: Annie E. Casey Foundation (2008)

Table 4
States Ranked for Casey Foundation Kids Count Overall Rank, 2000-01

Rank	State	Rank	State
1	New Hampshire	26	Colorado
2	Minnesota	27	Michigan
3	Massachusetts	28	Ohio
4	Utah	29	Illinois
5	New Jersey	30	Indiana
6	Iowa	31	Nevada
7	Connecticut	32	Montana
8	Maine	33	Florida
9	Vermont	34	Missouri
10	North Dakota	35	Texas
11	South Dakota	36	Kentucky
12	Washington	37	Delaware
13	Nebraska	38	Alaska
14	Wisconsin	39	Arizona
15	Kansas	40	Oklahoma
16	Virginia	41	West Virginia
17	Pennsylvania	42	Georgia
18	Rhode Island	43	New Mexico
19	Maryland	44	South Carolina
20	Oregon	45	North Carolina
21	Hawaii	46	Arkansas
22	California	47	Tennessee
23	Idaho	48	Alabama
24	Wyoming	49	Louisiana
25	New York	50	Mississippi

Anne E. Casey Foundation: Rank based on 10 indicators: low-birthweight babies, infant mortality, child deaths, teen deaths, teen births, high school dropouts, teens not attending school and not working, children living in families with no employed adults, children in poverty, children living in single-parent families

Northeastern states and worst off in southern states. Indeed, five of the top ten states are found in New England (New Hampshire, Massachusetts, Connecticut, Maine, Vermont) while eight of the bottom ten states are located in the South (Mississippi, Louisiana, Alabama, Tennessee, Arkansas, North Carolina, South Carolina, and Georgia).

The Relationship Between Social Capital and Children's Welfare

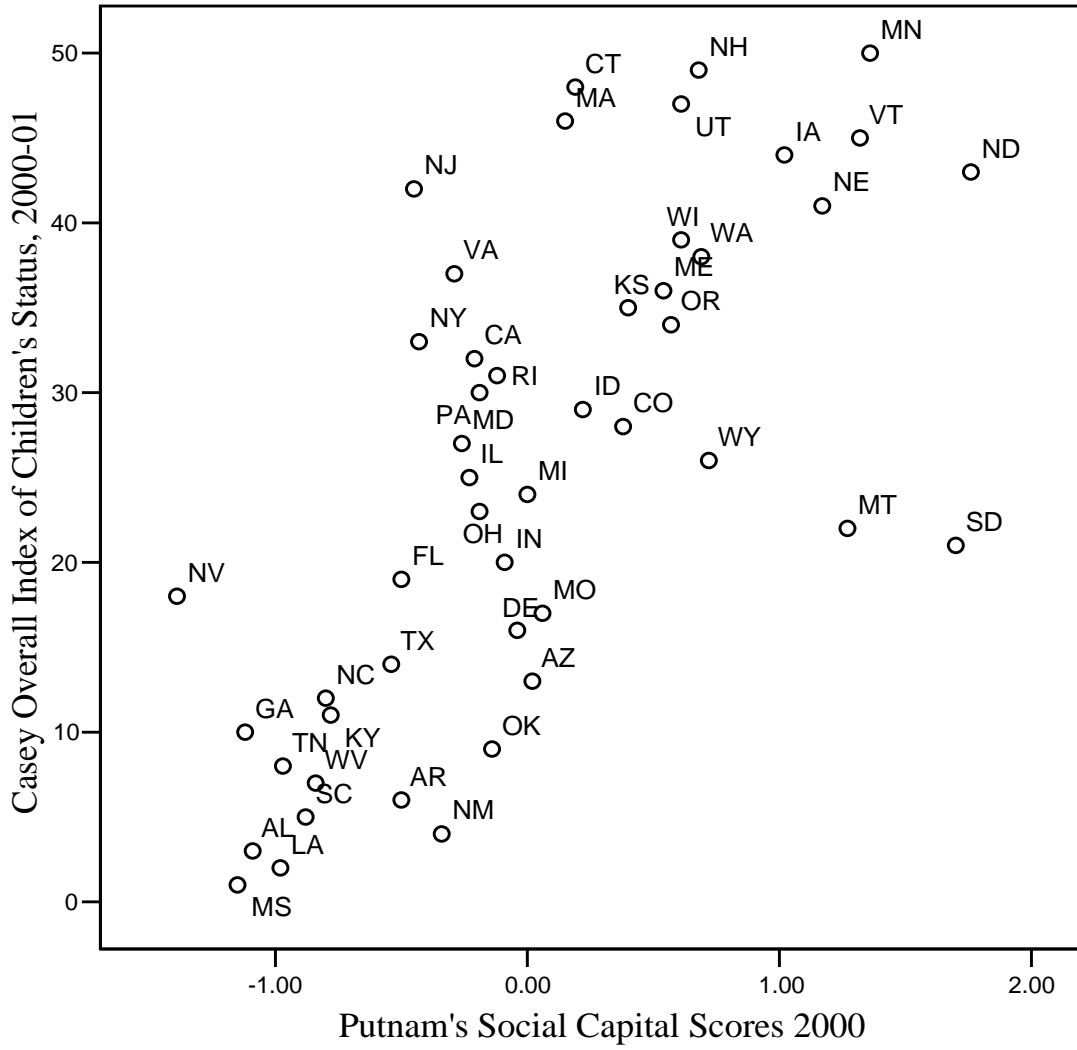
Do children tend to fare better in states with high levels of social capital? An initial effort to answer this question involved examining correlations between Putnam's state index of social capital and the various composite indices discussed above. The results, reported in Table 5, suggest that there is indeed a positive relationship between state social capital and children's welfare. Indeed, a strong, statistically significant relationship was found between social capital and virtually all of the six composite indices (education, family, poverty and economic well-being, health and physical well-being, housing, and overall well-being). The only relationship which did not prove statistically significant at the .01 level was between social capital and the poverty and/economic well-being index, and even that relationship was significant at the .05 level.

Figure 1 reinforces this conclusion by providing a scatter plot of the relationship between Putnam's social capital index and the Casey Foundation Overall Index for the years 2000-2001.⁴ From Figure 1 it is apparent that high social capital states such as Vermont, North Dakota, Iowa and Minnesota tend to also score high on the overall children's welfare index while the opposite is true of states such as Mississippi, Alabama, South Carolina and Louisiana which tend to have relatively low social capital scores. Of course, there are a few "outliers," states with high social capital and relatively low overall child welfare scores (e.g. South Dakota and Montana) as well

Table 5
 Relationship between Social Capital and Composite Indices of Child Welfare

	Correlation Coefficient
Composite Children's Education Index	.525**
Composite Family Structure Index	.734**
Composite Health and Physical Well-Being Index	.580**
Composite Poverty and Economic Well-Being Index	..360*
Composite Housing Index	.711**
Casey Overall "Kids Count" Index	.692**
* p > .05 ** p > .01	
Source: Author's analysis based on data from Putnam, <i>Bowling Alone</i> (2000) and the Annie E. Casey Foundation (2008).	

Figure 1
Social Capital and Overall Children's Status



as states with low social capital and relatively high child welfare scores (e.g. New Jersey and Virginia). Nevertheless, Figure 1 demonstrates that the data tend to be ordered in a linear fashion with a strong, positive relationship between state social capital and overall children's welfare.

Of course, one cannot conclude that the correlations found in Table 5 necessarily imply causal relationships between social capital the various measure of children's welfare in the states. The findings reported Table 5 and Figure 1 could simply represent co-occurrence rather than meaningful relationships (Calazza and Putnam 2002). It is possible, for example, that the correlations are spurious, caused by some common factor such as race, region, population density, or religion.

To address this possibility and develop a clearer understanding of the possible relationships between social capital and children's welfare, eight additional variables are considered: (1) the proportion of the population that is white (2) the overall poverty rate (3) the GINI index of income inequality (4) personal income per capita (5) the percentage of residents with a high school education or more (6) whether or not a state was a member of the southern Confederacy (7) the percent of residents attending church weekly or almost weekly and (8) population per square mile. These variables were selected primarily because they closely parallel the control variables employed by Calazza and Putnam in their (2002) study of social capital and women's status and because they are commonly employed variables with considerable face validity.

Table 6 reports the results obtained in six OLS regression models, using the six indices as dependent variables and Putnam's social capital index and the eight control variables as independent variables.⁵ When one examines Table 6, one sees that social capital made little

contribution to explaining variance in the education, poverty and economic well-being, and housing indices. With respect to education, the most important contributions were made by the percent of population that is white, personal income per capita, and population per square mile. The most important contributors to variance in the poverty and economic well-being index were the percent of a state's population attending church on a weekly or almost weekly basis and (as one would expect) the overall poverty rate. The percent of population that is white and population density contributed significantly in the housing model.

On the other hand, Putnam's social capital index did prove to be significantly related to the other three indices ---the family structure index, the health and physical well-being index, and the overall index of children's welfare. With respect to the family structure index, social capital shared top billing with the percentage of the population that is white while, with respect to the health index, social capital and overall poverty rate proved most important. Moreover, the social capital index proved to be the only variable which contributed significantly to the overall children's welfare model.

The fact that the social capital index was related (.001 level) to the overall index of children's welfare would seem to be particularly notable in that this is arguably the most comprehensive index employed in this study. In general, then, the data suggest that while social capital is not the only important explanatory variable in the six models, social capital, along with percent white population and overall poverty rate, it does indeed prove to be among the most useful.

Table 6
Results of Regression Analysis

	Standardized Beta Coefficients					
	Education	Family Structure	Health	Poverty	Housing	Children's Overall Welfare
Social Capital Index	.209	.379*	.485***	.069	.071	.490***
Percent of Population That is White, 2000	.499**	.316*	.231	-.006	.392**	.098
Overall Poverty Rate, 2000	-.097	.362	.712**	.581***	.257	.399
GINI Index of Income Inequality, 2000	.013	.015	.310	-.115	-.139	.105
Personal Income Per Capita, 2000	.586*	.043	-.075	.255	.109	.225
Percent High School Grads. or More, 2000	.228	.046	-.310	.178	.189	-.031
Was State a Member of the Confederacy?	-.229	-.068	-.051	.075	-.131	-.032
Percent Weekly/Almost Weekly Church Attendance	.144	.047	-.152	.194**	-.062	-.075
Population Per Square Mile, 2000	.318*	.128	-.119	.082	.296**	.064
R Square	.786	.776	.738	.911	.812	.818
SE	2.915	1.356	1.014	1.098	2.590	6.927

* Significant at $p < .05$ ** Significant at $p < .01$ *** Significant at $p < .001$

Sources: Author's analysis based on data from Putnam (2000), the Anne E. Casey Foundation (2008), and the U.S. Census (2000-01).

Conclusions

The concept of social capital is exceedingly complex but has been found to be related to a wide variety of individual and collective variables in the American states. One relationship worthy of additional scholarly attention is that between social capital and children's welfare. This paper represents an effort to address this issue.

The overall findings reported here are mixed. Correlations suggest that there is indeed a strong, positive relationship between state social capital and all six of the indices of children's welfare. Indeed, only the relationship between social capital and health proved to be less than statistically significant (.05 level).

The OLS regression analysis, however, suggests a more nuanced relationship between social capital and children's welfare in the states. With the addition of eight control variables, social capital made a significant difference in three of the six models --- family structure, health and physical well-being, and children's overall status. The fact that social capital was the only variable significantly related to children's overall status is particularly noteworthy in that the overall status index is the most comprehensive index used in this study. The fact that social capital was relatively unrelated to three of the six indices, however, also suggests the need for further research, carefully delineating the precise ways (and areas) in which social capital operates.

Future research, for example, might involve efforts to develop additional, possibly more precise indices of children's welfare. It is interesting to note, for example, that although all of the indices used here proved to be highly reliable as measured by alpha values, Putnam's Social Capital Index proved most strongly related to those indices containing the largest numbers of

variables. This suggests the possibility that the findings reported here might be enhanced with the addition of more precise indices.

In addition, recent research by Hero (2003), suggests the value of examining the impact of social capital in terms of equity or inequalities rather than simply in terms of the overall impact of social capital. Indeed, Putnam himself (2000: 299) suggests that social capital might be particularly useful in enhancing the welfare of “at risk” children. The use of the GINI index of inequality in this paper represents an attempt to account for this but additional efforts in that direction might be useful. Finally, other research (Hawes, Rocha, and Meier 2006) demonstrates the potential value of examining the impact of social capital over time rather than in a cross sectional fashion. Nevertheless, the data presented here suggest that social capital is a useful variable which contributes in important ways to our understanding of children’s social welfare in the states.

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Appendix
U.S. Studies of Family or Community Social Capital and Children's Welfare

Study	Year of Survey	Region	Purpose of Study	Definition/ Measure of SC	Research Method	Sample Method	Sample Size	Method of Analysis
Bois-joly et al. 1995	1980	U.S.	Explore patterns of access to social capital by family and community	Emergency access to money/time from non-household members	Secondary data analysis; longitudinal household survey	All PSID (national sample) members in 1980	3,311	T-tests, logistic regression explaining perceived access
Brehm and Rahn, 1997	1972-1994	U.S.	Reciprocal relationships among individuals and aggregate-level social capital	Reciprocal relationship between civic engagement and interpersonal trust	Secondary analysis of pooled GSS data	GSS cumulative file from 1972-1994	32,380	Structural equation model: civic engagement, interpersonal trust, conf. in govt., life satisfaction
Butler, Flora, and Flora, 2000	1994-1995	Rural U.S.	Compare levels of ESI among rural communities	ESI= Entrepreneurial Social Infrastructure	Mail survey	Randomly selected sample; cluster sampling	718	In-depth case studies, network analysis
Coleman and Hoffer, 1987	1969	U.S.	Impact of family on educational outcomes of children	Relations between parents and children; time parents spend with children	Survey design within public schools	Random national sample of public school students	4000	Logistic model, controlled for family human and financial capital
Falk and Kilpatrick, 2000	N.A.	Rural U.S.	Impact of interactive productivity between local networks and rural communities	Product of social interactions contributing to economic or civic well-being	Whole community case study using ethnography techniques	Purposive technique using demographic variables	Interviews= 10, tapes= 11, diaries =29, meetings= 10	Conversation analysis, frequency of mention, and linguistic principles

Appendix (continued)
U.S. Studies of Family or Community Social Capital and Children's Welfare

Study	Year of Survey	Region	Purpose of Study	Definition/ Measure of SC	Research Method	Sample Method	Sample Size	Method of Analysis
Fursten-burg and Hughes 1995	1987	U.S.	Impact of social capital on disadvantaged youth	Outcomes of relationships between parents and youth	Secondary analysis of Baltimore study of young mothers and kids	Purposive sample of pregnant Black teens	252	Logistic regression
Gabarino and Sherman, 1980	N.A.	U.S.	Examine social impoverishment in high-risk family environments	Social impoverishment in neighborhoods	Semi-structured interviews with key informants plus family surveys	Random selection of families plus canvassing	48 families	Content analysis plus descriptive statistics
Johnson, 1999	N.A.	U.S.	Impact of social systems on youth violence	Youths' relation to family; neighborhood quality	Interviews with African-American youth	Volunteer sample of H.S. freshmen	200	Multiple regression
Mac-coby, Johnson and Church, 1958	1954	U.S.	Impact of community disintegration juvenile delinquency	Religious homogeneity, neighborhood stability, social networks	Interviews with families in various types of neighborhoods	Sample selected from two census tracts in Cambridge, MA	236	Descriptive statistics between two groups
Portney and Berry, 1997	1986-1987	U.S.	Impact of political organization on mobilizing minorities in city politics	Institutions giving opportunities; citizens' willingness to cooperate	Survey Design	Cities with strong neighborhood associations	1,100 in each of five cities	Chi-square comparisons among neighborhoods

Appendix (continued)
U.S. Studies of Family or Community Social Capital and Children's Welfare

Study	Year of Survey	Region	Purpose of Study	Definition/ Measure of SC	Research Method	Sample Method	Sample Size	Method of Analysis
Putnam 2000	1992-2000	U.S.	Determine causes of U.S. civic disengagement	Connections among individuals; social networks & norms of reciprocity	Analysis of multiple sources of secondary data	Compare as many different data sources as possible	U.S. public from 1990-2000	Multiple regression and descriptive statistics
Runyan et al., 1998	N.A.	U.S.	Impact of social capital on high risk children	Benefits that accrue from social relationships in families and communities	Secondary data analysis; two groups of children in longitudinal study	LONG-SCAN children with environments putting them at-risk	667 2-5 year olds	Chi-square, logistic regression
Sampson, Morenoff, and Earls, 1999	1995	U.S.	Examine social interactions, exchange and informal social control	Intergenerational closure, social exchange at neighborhood level	Community survey	City blocks and dwelling units sampled; one adult/household	8,782	Bivariate correlations, multiple regression
Stevenson, 1998	N.A.	U.S.	Impact of social support and fear on emotional development	Youths' perception of neighborhood and family social support	Survey design	Non-probability purposive sample	160 students	ANOVA, multiple regression
Swanson and Ernst, 2001	1995	U.S.	Neighborhood structure and child maltreatment in a suburban county	Formal and informal networks in a county	Secondary analysis of census tract data	Population; county with 159 census tracts	159 census tracts	Factor analysis, regression

Appendix (continued)
U.S. Studies of Family or Community Social Capital and Children's Welfare

Study	Year of Survey	Region	Purpose of Study	Definition/ Measure of SC	Research Method	Sample Method	Sample Size	Method of Analysis
Teachman et al., 1996	1988 with follow-ups in 1990 and 1992	U.S.	Impact of varying measures of social capital on school drop-out rate	Density of interaction among parents, children, and schools	Secondary analysis of National Education -al Longitudinal Survey	Three waves: 1988, 1990, and 1992	16,014 eighth graders	Factor analysis, regression
Teachman et al., 1997	1988 with follow-ups in 1990 and 1992	U.S.	Test whether social capital mediates impact of parental factors on drop-out rate	Filter through which parental financial and human capital are transmitted to children	Secondary analysis of National Education -al Longitudinal Survey	Three waves: 1988, 1990, and 1992	10,889	Logistic regression
Source: Adapted from Ferguson (2006), 11-18								

Notes

- 1 Tests revealed relatively high degrees of reliability for the indices with alpha values as follows: Education (.791), family (.794), health (.705), poverty (.839), and housing (.769).
- 2 The variables used in the indices were coded so that higher percentage values signified more positive outcomes.
- 3 Unfortunately, the Casey web site provides little information on the precise method(s) used in creating the overall index, although an examination of the data suggests that it is some form of additive index.
- 4 Putnam (2000: 300) produces a similar scatterplot, using 1990-96 Kids Count data.
- 5 To correct for possible leverage issues associated with outliers, the OLS reported here was repeated using STATA's robust OLS function. These results are not reported here since they tended to be remarkably similar to the regular OLS results.