

Urban Amenities, Aging and Social Capital

Sherman Folland
Department of Economics
Oakland University
Rochester, Michigan, USA
folland@oakland.edu

2014 Social Capital Workshop
Toronto, Canada
October 2014

Abstract

The social capital (S) and health literature has made good progress on the acid test: Do improvements in individual and community S bring improvements in health? Likely, yes. Certainly more experiments need to be done, but this progress also raises the question “what can governments do to improve social capital?”

I begin my analysis from a recent paper by Folland, Kaarboe, and Islam (2014). It recognizes that S is not inserted directly into the minds and hearts, for example, parks are not of themselves social capital. People use public parks voluntarily in ways that may lead to social connections, parks and similar public investments are enablers of S. They also require the citizen’s time to enjoy them, this is an opportunity cost at least in lost wages, conflicting therefore with other goals.

The model of the government or city planner’s problem proceeds in much the same way. The possible investments frequently mentioned include: parks; police protection; transportation; street lighting; pleasant market areas, music and athletic venues. Investment tradeoffs in the city budget represent the government’s opportunity costs. The production function for community social capital is the remaining essential part. City investment leads to individual investment and the degree to which these are offset by depreciation determines the steady state equilibrium.

The empirical section applies several data sets. The main urban data can be correlated with marketing data of the firm DDB Chicago; the result consists of 203 observations on city characteristics and Putnam style social capital indicators. These form the Social Capital Index S. Observations on independent variables and other covariates are available in smaller numbers. For example, parks data including “excellence” ratings are only available for 60 cities.

State data in panel over 1978-1998, including the S index allows a test for the effects of changes in the variables, including personal income per capita, percent of the population that has achieved at least a baccalaureate; percent of the population 65 years or older, percentage change in population, percentage of population unemployed, health expenditures per capita, percent of the population in poverty. Several health data rates serve as the dependent variables

This paper addresses the role of social capital in urban areas. The theory asks these questions: 1) how do cities invest in social capital?; 2) how do demographic and city amenities affect the steady state of social capital and health?; and 3) how do social capital and health respond to the election process? The empirical portion of this paper explores urban data as well as searches for similar analytical mechanisms in a panel of state data.

As a starting point, I interpret the social capital and health literature as having generated two facts: One, social capital is correlated beneficially with health, meaning that the correlation is positive and significant. Two, that studies now find that the relationship is causal both ways, meaning the S increments result in health increments, and health increments also improve social capital. I model the problem for urban investments assuming these “facts”, though not all related studies agree. Certainly urban planners and World Bank economists have accepted this view.

Given this, I wish to ask some questions that may be new to the workshop but I think will be of interest. Mainly how is S formed and how can it be encouraged. Social capital is composed of bonds of individuals with family, friends and community as affected by community norms and as pertinent to the demographic character of the community. I think there are researchable economic elements to this problem of how to improve S. The paper attempts to contribute to this line of inquiry by modeling the process of investment in S both by individuals and by urban centers, and it explores empirical metrics for process.

Background

Aging and Social Capital

This discussion of aging draws heavily on “How Social Capital Arises in Populations” by Folland and Iverson in Folland and Rocco eds, “The Economics of Social Capital and Health,” New York: World Scientific, 2014. Glaeser and colleagues (2002) argued that we start life with few social connections but rapidly acquire them up to adulthood. Then in old age we lose the incentive to invest in S because we have shortened years in which to enjoy the fruits of these investments. Their dynamic model implies a U-shaped pattern of investment in S over the lifespan. Their empirical study finds that S measured in memberships in clubs also follows this pattern.

There are some reasons to reserve judgment, however, and some contrary findings. First by measuring S as club memberships we might be forgetting that older people are less mobile. Also, their model assumes a fixed and known lifespan; when treating the lifespan as unknown or “infinite” the U-shaped patterns goes away.

But what is clear from this research is that the net investment behavior of the elderly is the key to understanding the pattern of average S among the elderly. Certainly S depreciates over time: one loses track of old friends and some families dissolve. Investment must depend on the ease of meeting more people and would depend on one’s perception of the neighborhood and of people in general. We often describe “trust” as important for this.

The Investment Game experiments promote empirical measures of trust by age groups. Player A is given a quantity of valuable chips by the game manager. A is then asked to donate a quantity of chips to the Player B, and the quantity chosen is tripled by the manager. B is then

asked to donate some chips back to A and the game is over. A's donation becomes a measure of his trust of B's reciprocity. Findings of replacement experiments show that trust increases among young people up to adulthood but it does not decrease among the elderly (Suther and Koch, 2007; Garbinio and Slavin, 2009).

Social Capital and Urban Amenities

The urban amenities that concern us are those that enable citizens to meet other people, for example safety in walking, police protection, street lighting, open spaces such as parks, recreational facilities such as tennis courts and public meeting areas, and venues for sports and music and entertainment.

In the "amenities and economics" literature, urban amenities have been evaluated in two basic ways: 1) measuring the effects on real estate prices, or 2) detecting their effect on migration. These corroborate the theory that amenities are clearly valued, for example in their effect on prices (Wu, Adams and Plantinga, 2004; Diamond, 1980; Polinsky and Shavell, 1976). Studies also show that locational choice depends on non-market amenities (Ng, 2008; Chan and Rosenthal, 2008), such as natural lakes and coastal views.

This paper contributes to the amenities literature by exploring their relationship with the social capital of the city. Plausibly parks, beaches, and recreational areas offer chances for people to get together. Safe streets with good lighting and good city transportation allow residents to visit one another more easily. Venues for concerts and for sporting events are natural social capital enablers.

The research is reported in several sections. Section 1 models the individual's choices, some of which have consequences for social capital; Section 2 models how urban areas can invest in social capital by offering socializing as urban amenities given the city's budget; Section 3 proposes a connection with the politics of the city and the benefits of social capital; Section 4 examines correlations and regressions on the metrics of social capital and the urban area's investments in amenities and then the graphics forming of the age distribution; Section 5 explores empirical issues further applying a panel of state data; Section 6 offers discussion and conclusions.

Section 1.0: The City's Investment in Social Capital

While individuals can invest in S by seeking out new connecting bonds, a city invests while purchasing elements that encourage and enable that individual choice. Understanding the individual's choices requires a recognition that social capital has opportunity cost (Folland, Kaarboe, and Islam [FKI], 2014). As in FKI, let the individual's choice to be that of utility maximizing the LaGrange utility function.

$$L = \gamma U(S, E, C) + \varphi[w(24 - S) - pC]$$

Where γ is the probability of surviving the period, U is the individual's utility function, S equals social capital, E equals exogenous investment for the city, and C equals some other good to be described.

In economics, we have described this trade-off as a labor/leisure curve, but in health economics we propose that the portion of leisure devoted to social capital has a side effect of improving one's health. We showed in FKI that some of the standard labor/leisure implications

must be amended because of this connection. For example let γ be the probability of surviving through the period and that it is improved with social capital, S . Together the two assumptions featured of this situation are that S improves health but also that S costs time spent at work and thus reduces the wherewithal to buy other goods. Note that some other goods, C , may also be related to health positively (clinic visits) or negatively (cigarette smoking). Let an urban area make an exogenous investment, E , in facilities that enable S (such as parks or recreation areas). Then three cases arrive: 1) $\gamma_c = 0$, $U_{CE}=0$, then the city's goal of more healthy citizens through higher S has no competition and $\frac{\partial S}{\partial E} > 0$ and $\frac{\partial C}{\partial E} < 0$; 2) if $\gamma_c > 0$, $U_{CE} \geq 0$, and $\frac{\partial C}{\partial E} > ? < 0$ and $\frac{\partial S}{\partial E} > ? < 0$, that is C correlates with social capital and 3) if $\gamma_c < 0$, $U_{CE}=0$, (such as when C consists of cigarette consumption), then $\frac{\partial S}{\partial E} > 0$ and $\frac{\partial C}{\partial E} < 0$ and the city achieves both goals.

The simplicity of this model helps to reveal the relationships of key variables. Here, it shows that provided the city investment does not cause reduction in purchase of other goods that compete with social capital then the city goals are enhanced. But as FKI cautions, this simplicity is complicated as more elements are added.

Section 2.0 : A Dynamic Model of Social Capital, Age, Amenities, and Health

Let the city invest in social capital by purchasing amenities that enable the individual to invest in it directly. Investment is a dynamic concept coupled with depreciation, thus we benefit from a dynamic model that incorporates both. A suitable construction is a modification of the Solow growth model.

Figure 1 About Here

Figure 1 shows social capital per capita, S/N , as the sole input to health per capita, H/N , which function exhibits diminishing marginal returns. The depreciation rate, δ , indicates that bonds between people sometimes fade, we lose old friends. The n describes the growth rate in population, thus the linear function shown depicts the decay of S/N due depreciation and population growth. The function I describes investment in S encouraged by the feedback of health, which provides for greater mobility of people to get around to the others. As previously discussed, city's purchase of amenities enhances the ability of investments to invest in S . Age of the population may have an effect on investment as well. We should reserve judgment of the direction of its effect, as conflicting theories exist.

The steady state equilibrium in Figure 1 exists while the rate of decay in S/N equils the rate of investment at point SS defining an equilibrium level of S_0/N and of health per capita at H_0/N . If amenities change favorably to I' , then the new steady state moves to SS' .

Figure 2 Goes About Here

Figure 2 depicts the effect on an increase in the rate of growth in population, from n to n' . This rotates the decay function from $(n+\delta)(S/N)$ to $(n'+\delta)(S/N)$. This change causes a shift from SS to SS' point to the left, implying a lower level in both social capital per capita and health per capita.

These theoretical considerations imply the following predictions:

- A. Increased amenities*: $\Delta \frac{S}{N} > 0$; $\Delta \frac{H}{N} > 0$
- B. Increased aging: $\Delta \frac{S}{N} >? < 0$; $\Delta \frac{H}{N} >? < 0$
- C. Increased population: $\Delta \frac{S}{N} < 0$; $\Delta \frac{H}{N} < 0$

*However, see Section1 for one possible contradictory case.

Section 3.0: City Governments Decision Problem

Let the “mayor” stand for the city decision making unit. The mayor’s sole goal is to be reelected, thus it makes choices of city amenity investments, A, and city practical services, P, to maximize the votes it gets. Practical services include things like water, lights, streets, crime control, legal services, and others. The mayor’s problem is thus to maximize the LaGrangean function:

$$(2) L = V[S/N(A, Age), P] + \lambda(B - p_A A - p_P P)$$

Where B equals the votes the mayor receives in the next election; S equals the social capital in the city; A equals the amenities to be purchased; Age is the age distribution of the population; P equals the practical city services; λ is the LaGrangean multiplier; B is the city budget; p are the prices.

The first order conditions are:

$$(3) L_A = V_S S_A - \lambda p_A = 0$$

$$(4) L_P = V_P - \lambda p_P = 0$$

$$(5) L_\lambda = B - p_A A - p_P P = 0$$

This common economic result emphasizes that the equilibrium levels of amenities chosen depend on the tradeoffs with practical services at the relative prices.

$$(6) \frac{V_S S_A}{V_P} = \frac{p_A}{p_P}$$

This construction provides several cautions when attempting empirical measures:

a) Economic efficiency requires that the mayor choose vote getting inputs so that the marginal product per dollar is equal for all inputs. Thus other inputs will compete with amenities for their vote getting productivity as well as their prices.

b) Natural amenities as lakes, mountain views, seascapes – occur at lower prices. Natural beauty competes with or complements conventional city amenities like lighting and public safety.

c) Police services may be better vote getters in periods of high levels of crime. But police behavior also causes disorders.

d) The budget depends on the tax base. If the mayor can bring in new industry this could benefit the tax base but detracts if the tax abatements overcome those benefits.

e) Happiness. Glaeser and colleagues (2014) studies US cities by applying survey data now available in the Center for Disease Control. The paper titled “Unhappy Cities” not only ranks the urban areas by this measurement but also applies the scoring in spatial models. Their most striking finding is that happiness is not equated on the margin in migration between cities, thus it does not serve the same function in spatial models as does utility.

Section 4.0: Urban Amenities, Aging, and Social Capital

The effect of an increase in the percent of the population over 65 is more blurred. Our first look at these ideas empirically considers urban data.

Data

Several research relevant data items are rarely seen in health economic literature. I will begin with extended descriptive statistics in Table 4.1.

Table 4.1 goes about here.

Extended definitions.

Parkscore: The Trust for Public Land evaluates parks in 60 of the largest U.S. cities. The scale, from 0 to 100, is based on their amount of a) acreage; b) service and investment; c) accessibility.

ParkPop: Measures the city's expenditure on parks per resident

Source: website 2012 City Park Facts from The Trust For Public Land.

Pctparkland: The percentage of city land acreage dedicated to parks.

Source: website 2012 City Park Facts from The Trust For Public Land.

Walkscore: Measures the amount of area that is walkable and accessible to city transportation.

“WalkScore” is the corporate brand name with a copyrighted website accessed August 2014.

WalkUP: Stands for walkability of urban places

Source: Cristopher B. Leinburger and Patrick Lynch, George Washington University School of Business Center for Real Estate and Urban Analysis website August 2014.

Happiness: Index derived from the “Behavioral Risk Factors Surveillance System” (FBRFSS of CDC) by Edward Glaeser, Joshua Gottlieb, and Oren Ziv, “Unhappy Cities” NBER

working paper 20291 July 2014.

VCrime: Violent crime per 100,000 populations, FBI uniform crime report website August 2014.

PoliceCap: Active police offers per 10,000 population.

Source: Governing website August 2014.

City Populations: 1980, 1990, US Bureau Census website 2014.

In addition, three social capital indexes were derived from a merger of data from six Putnam style social capital indices and from the Chicago-based marketing company DDB with the National Longitudinal Survey of Youth 79. These variables with their means include frequencies for the year study: club meetings (clubmeet, 7.39), engagement in community projects (commproj, 2.76), entertaining friends in your home (enthome, 11.74), volunteering in the community (volunt, 3.38), mean scores on the question of whether one believes that people are mostly honest (honest, 3.80), frequency of visiting friends (visfrd, 3.00).

The index used for this paper applies the regression weights from fitting these indicators to Putnam's Social Capital Index 1994. That results in the following:

$$S = -6.604 + \text{clubmeet} * 0.2.65 + \text{commproj} * 0.462 + \text{enthome} * 0.180 + \text{volunt} * 0.162 + \text{honest} * 0.013 + \text{visfrd} * 0.098 \quad \text{Rsquare} = 0.802 \quad \text{Prob} > F \quad 0.0000$$

This is split into two parts: 1) Social capital measures for each city in 1986, 1990, and 1994 were added together and the sums shifted to the positive quadrant; and 2) the social capital index for 1998 was calculated the same way and left un-shifted. The third measure was taken as the trust measure for surveyed individuals within each city in 2008. Trust is measure of response to the question: “I think most people can be trusted,” Do you strongly agree, 5, or strongly disagree, 1, or parts between.

You will note that the correlations are based on different length series, some quite small. Series of adequate size often don’t match well with their paired series. The park variables appear to overcome this, ParkScore and ParkPop, and this may reflect their importance in the public view. ParkScore, the Trust For Public Land evaluation of 60 US city parks, and ParkPop, the (same source) estimates of each city’s parks expenditure per resident, correlate significantly with the social capital measures. So far these measures are not contemporaneous, however, trust and the parks measures are nearly so. Trust surveys were taken 2008 and the parks measures in 2012. The trust correlates are positive but not strong. Each Table 4.3 that follows, list the correlation coefficient, the number of observations, and the t statistic.

Table 4.2A Parks

S8694	S98	S8694	S98	Trust	Trust
ParkScore	ParkScore	ParkPop	ParkPop	ParkScore	ParkPop
.562	.195	.338	.369	.082	.202
42	28	43	29	35	35
3.77	1.01	2.30	2.06	.473	1.185

In the next group, measures based on walkability are weakly positive while we cannot conclude for the hypothesis in the majority of cases it's noteworthy that all but one are positive as the model suggests. This by itself is information for the model.

Table 4.2B Walking:

S8694	S98	S8694	S98	Trust	Trust
WalkUP	WalkUP	WalkScore	WalkScore	WalkScore	WalkUP
.178	.087	.117	.070	-.138	.127
26	22	38	38	46	27
.88	.39	.7	.42	.924	.640

The model predicts that an incremental rise in the population itself will tend to reduce social capital per capita and as shown in Figure 2, the percentage growth from population from 1980 to 1990, ch8090, is contemporaneous with the social capital measures, sc8694 and sc98. The extremely weak t value requires us to accept the null, however we find a different result in the next section.

Table 4.2C Change in Population:

	SCX	SC98
Variable	CH8090	CH8090
Correlation coeff	.019	.019
Obs	61	46
T statistic	.146	.126

Note also that popold, the percent of the population 65 years or older is negatively correlated with trust. Though not significant at the 5% level.

Table 4.2D Older Population Percent:

	Popold	Popold	Trust
Variable	S8690	S98	Popold
Correlation coeff	.073	.174	-.129
Obs	67	51	67
T statistic	.59	.124	1.050

Finally, do parks reduce violent crime? These data find negative correlations for the quality of the parks and the park expenditures per resident, thus only a few observations were available and these were not significant. Police per capita and violent crime rates naturally rise together and it is not surprising that each has a similar correlation with trust levels. These correlations are fairly strong.

Table 4.2E Crime and Police:

ParkScore	ParkPop	Trust	Trust
VCrime	VCrime	Cops	VCrime
-.144	-.193	-.261	-.231
32	33	44	31
.79	1.09	1.752	1.279

I have also estimated a regression on selected variables and it explores alternative results.

Table 4.3 goes About Here

Again the parks variables stand out, while the walkscore takes the opposite direction. Note the the percent of elderly in these urban data doesn't register. This smaller additional explorations seems only to emphasize the role of parks.

Section 5.0: Panel Data of the 48 Contiguous US States

The States, though farther from our focus on the urban issues, features many of the same dynamics of social capital, age, and amenities. The panel also offers multiple looks at the data and to its dynamics.

The panel describes state aggregate values collected every four years from 1978 to 1998, each of these years includes the six social capital indicators described in Section 4.0 for each state from marketing data of the company DDB Chicago. Social capital, S , in each state is calculated in an analogous manner as was done for the urban social capital.

Other variables of interest include: illness rates (total mortality rates, infant mortality rates, rate of low-weight births, the suicide rate), personal income per capita ($persinc$), percent of population with a baccalaureate degree (BA), the unemployed rate ($unempct$), percent in poverty ($povpop$), change in population ($chpop$), percent voting ($pctvoting$) and health expenditures per capita ($hexpop$). The descriptive statistics for these variables are provided in Table 5.1.

Table 5.1 goes About Here

In Table 5.2, we look first on the effects of these variables on the illness rates applying period effects regression.

Table 5.2 goes about here

Other variables in this panel give us a look at what contributes to social capital; A panel analysis with time period effects. Social capital does well for each illness category. The percent of elderly plays a significant role. That it increases the total mortality rate is no mystery, but it reduces other illness rates suggesting helpful roles in the community. That poverty increases death rates in several categories is now widely known.

Table 5.3 goes about here

This equation predicting social capital reveals what we might have expected. BA: college may generate contacts with other people, and it probably generates understanding of other ethnics, role of religion (Folland and Iverson, 2014). Income has multiple avenues to affect both health and social bonds. Voting is an indicator from Putnam's 14 indicators, but it is not one of the six I have used here. Popold is a focus of our workshop and the presence of this age group suggests a benefit to social stability. Finally, my model predicts that the increased rate of population growth would tend to decrease the social connections in the community, and this result seems to support that view although partially.

Section 6.0: Discussion and Conclusions

We have found some support for the view that amenities are beneficial to a community not just in terms of real estate values but in terms of social capital. The parks and support for the

parks were particularly effective in this. Walkability and walking in urban places did not give as much support, but they too were positive. So these data should be augmented to include longer series and look for some more significant results. However, the panel offers much larger series of observations and though it's less directly related to urban areas it does suggest a similar value to social capital in these states and it suggests some means by which social capital in a group situation is improved or produced.

This paper is an exploration of a new area. While it illustrates many gaps in our knowledge, it reveals the potential benefits of future research in the intersection of health economics and the literatures of urban planning and of regional science. It should be possible to value urban social capital and to identify the inputs needed to increase it. Many researchers in the other disciplines are working to improve the measurements and expand the coverage. They are natural partners with economists studying social capital and health.

References

- Cy, J., and W. Chen, 2009, Value of scenic views. *Landscape and Urban Planning*, 91: 226-234.
- Diamond, D. 1980, The relationship between amenities and urban land prices. *Land Economics*, 56:
- Folland, S., O. Kaarboe, and K. Islam, 2014, How do we invest in social capital? In *The Economics of Social Capital and Health*, Folland and Rocco eds. New York: World Scientific.
- Garbino, E. and R. Slovin, 2009, The robustness of trust and reciprocity among heterogeneous populations. *Journal of Economics Business and Organization*, 66: 226-293.
- Glaeser, E., D. Laibson, and B. Sacerdote, 2002, An economic approach to social capital. *The Economic Journal*, 112: F437-F458.

Glaeser, E., J. Gottlieb, and O. Ziv, 2014, Unhappy cities. NBER Working Paper 20291

Leinburger, C., and Patrick Lynch, Ranking walkable urban places in America's largest cities, George Washington School of Business website August 2014.

Polinsky, M., and S. Shavell, 1976, Amenities and property values in a model of an urban area. *Journal of Public Economics*: 119-129.

Saffer, M., and Kocher, 2007, Trust and reciprocity in many different age groups, *Games and Economic Behavior*, 59: 364-384.

Wu, A., R. Adams and A. Plantinga. 2003. Amenities in an urban equilibrium model. *Land Economics*, 80: 19-32.

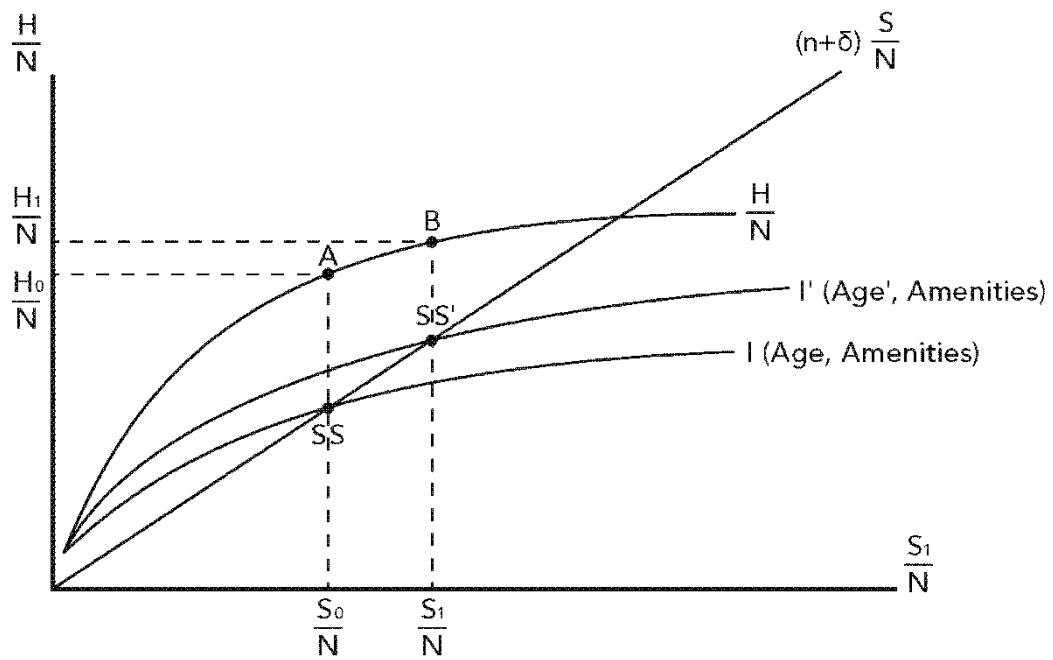


Figure 1.0 How Age and Urban Amenities Affect Steady State Social Capital and Health per Capita

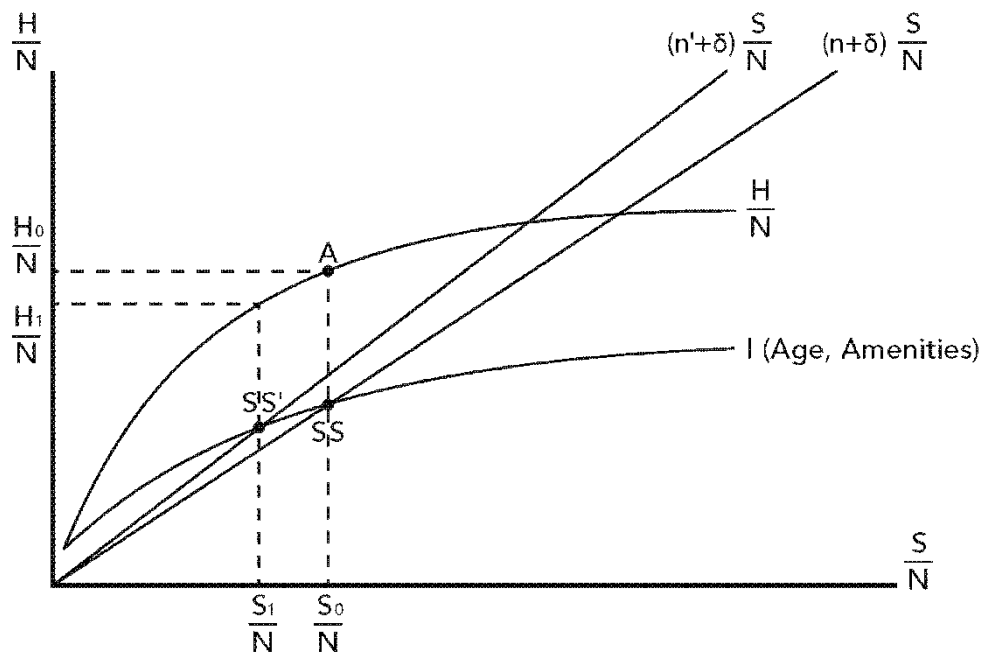


Figure 2.0 How Increased Rates of Population Growth Affect Steady State Social Capital and Health per Capita

Table 4.1 Descriptive Statistics for the Urban Variables

Variable	Observation	Mean	SDev	Min	Max
Trust	73	.355	.117	.063	.685
Soc8694	76	9.55	2.57	1.15	17.27
Soc98	61	-.849	1.28	-3.81	2.37
WalkUP	27	17.4	9.68	5	43
WalkScore	65	47.3	16.6	18	87.6
ParkScore	45	51.2	14.2	26	82
Pop2010	165	1246	2211	81	19567
Happiness	25	-.003	.084	-.147	.144
Pop1990	108	436	813	100	7322
Pop1980	108	413	783	80	7071
Parkpop	46	98.3	65.2	22.8	353
PoliceCap	103	21.6	8.99	9.4	47.4
Pctland	46	10.5	5.66	2.2	26.4
VCrime	50	846	408	352	2123
Chpct8090	108	9.01	17.8	-23.1	65.7

Table 4.3 Regression of urban values predicting social capital, soc8694.

adj R² 0.211 Prob > F = 0.024 Obs = 35

Variable	Coefficient	T Values
ParkScore	.048	1.70
ParkPop	.008	1.27
WalkScore	-.009	.44
PopOld	.034	.18
Constant	6.415	3.00

Table 5.1 Descriptive Statistics for the State Panel Analyses

Variable	Obs	Mean	Std Dev.	Min	Max
S	288	.1608476	1.20605	-3.55905	4.239226
BA	288	18.84549	4.923003	9.1	34
unempct	288	6.155208	2.249314	2.2	15.5
pct65over	288	12.1875	1.89839	7.6	18.4
poverty	288	.1281433	.0372103	.0595564	.2638889
hexpop	288	2.057283	1.091393	.0375372	4.91264
persinc	288	.0164634	.0065149	.0059484	.0373244
chpop	240	4.374152	5.265842	-9.270217	33.63636
pctvoting	288	55.00036	7.031564	38.95694	72.5363

Table 5.2: Panel Regression of Illness Rates, with Period Effects

Variables	Total Mortality Rate	Infant Mortality Rate	Percent Low-Weight Births	Suicide Rate
S	-0.912 (2.55)	-0.241 (2.61)	-0.266 (3.86)	-0.360 (1.71)
unempct	0.167 (0.76)	-0.050 (0.90)	-0.033 (0.80)	-0.027 (0.21)
pct65over	0.471 (22.3)	-0.068 (1.25)	-0.860 (2.38)	-0.347 (2.80)
BA	-0.073 (5.52)	-0.095 (2.80)	-0.074 (2.92)	-0.034 (0.44)
poverty	3.307 (3.00)	18.31 (6.51)	14.74 (6.98)	-11.73 (1.81)
hexpop	0.104 (0.93)	-0.245 (0.86)	-0.042 (0.20)	-1.222 (1.87)
persinc	34.21 (1.64)	116.77 (2.18)	137.77 (3.45)	-304.9 (2.49)
constant	2.994 (6.70)	9.202 (8.08)	5.991 (6.77)	27.31 (10.42)
Probability>F	0.000	0.000	0.019	0.000

Table 5.3: Regressions of Variables Contributing to Social Capital, Period Effects

Independent Variable	Coefficient	T Values
BA	0.081	(3.68)
persinc	-38.66	(1.39)
% Voting	0.032	(3.38)
pct65over	0.123	(3.53)
chpop	-0.019	(1.72)
constant	-4.201	(6.16)
Probability>F		0.000