

# The Wider Economic Value of Social Capital and Volunteering in South Australia

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**OFFICE FOR  
VOLUNTEERS**

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# The direct value of volunteering: recent estimates

There is growing recognition that official national accounting figures such as Gross National Product (GNP) seriously underestimate the economic value of many important activities such as unpaid household labour (Waring, 1988) (ABS, 2000) (Ironmonger and Soupourmas, 2002). More recently, the direct value of unpaid volunteer labour has been estimated for Australia (ABS, 2000 ), Victoria (Soupourmas, and Ironmonger, 2002) and South Australia (Ironmonger, 2002).

Such estimates assist in focussing attention on the significance of the value of the direct contribution that volunteers make to the economy, even when volunteers themselves may reject the appropriateness of treating their community contributions in this way.

Based on its surveys of time use and volunteer activity, the ABS estimated the value of national volunteer activity in 1997 at between \$24 billion and \$31 billion, depending on the method used to impute a value to each hour of volunteer labour (ABS, 2000: p. 4). Ironmonger used similar methods to estimate the direct economic value contributed by volunteers to the South Australia economy. Using ABS data showing that South Australians volunteered 229 million hours in 2000, Ironmonger estimated that the value of each South Australian's volunteer labour in 2000 was \$4, 352. The aggregate value of South Australian volunteer contributions in 2000 was \$4.98 billion-equivalent to 11.5% of Gross State Domestic Product (Ironmonger 2002).

## Volunteering and 'social capital'

These are significant and impressive figures. Nevertheless, they represent only the direct economic benefit to the community made by the voluntary activities of citizens. Recent scholarship, largely inspired by Robert Putnam's pioneering study of the Italian experience of political decentralisation, has demonstrated that there are significant *indirect* benefits which flow from volunteering (Putnam 1993). In this study, Putnam found that there were significant differences in the administrative performance of different provincial governments (roughly equivalent to Australian state governments).

*I am indebted to John Spoehr for his comments on this paper.*



After considering a number of possible explanations for the differences he had discovered, Putnam concluded that differing levels of 'civic engagement' between regions best explained why democracy functioned better in some regions than others. He concluded that the most significant component of 'civic engagement' was the 'social capital' generated by a wide range of voluntary activities. Where there were high levels of voluntary participation there were also high levels of trust in others, strong expectations that other citizens will obey the laws and widely-shared perceptions that regional politics are largely free from corruption.<sup>2</sup> Most astonishingly, the regional differences in volunteering had been evident for more than a century:

By 1904...Piedmont had more than seven times as many mutual aid societies as Puglia, in proportion to population. By 1915, cooperative membership per capita was eighteen times greater in Emilia-Romagna than in Molise (Putnam 1993, p. 148).

More recently, Putnam has turned his attention to the United States. In his major study, *Bowling Alone* (2000), Putnam documents in great depth the evidence showing that levels of civic engagement and voluntary participation have been in decline since they reached a peak in the 1960s. Putnam found that levels of social capital were strongly correlated with a number of social consequences such as lower levels of violent crime, lower mortality levels, and better educational outcomes.

In a similar study, Francis Fukuyama found that levels of violent crime and property crime in the United States rose steadily over the second half of the 20th century. Over the same period levels of public trust fell steadily, reaching historic lows in the 1990s (1999, p. 49). While noting Putnam's findings on declining levels of organisational membership, Fukuyama also presents evidence which questions Putnam's account, suggesting instead that there has been a shift from membership in older-style formal organisations to less centralised ones (1999, p. 54).

There is, at present, no evidence of a similar decline in voluntary participation in Australia. Using adjusted figures for 1995, the ABS estimates that volunteering rates in the over-15 population increased from 23.6% in 1995 to 31.8% in 2000 (ABS, 2001: p. 13). Annual hours contributed by volunteers increased by a remarkable 38% between 1995 and 2000 from 511.7 million hours to 704.1 million (ABS, 2001b: p.14). ABS evidence for South Australia indicates a remarkable rise in the volunteering rate-from 27.1% in 1995 to 38.0% in 2000 (ABS, 2001c: Table 2). Weekly hours contributed by South Australians rose by 52% from 53.0 in 1995 to 80.4 in 2000 (ABS, 2001c :Table 3). Nevertheless, the experience of declining levels of volunteer participation in the United States must serve as a warning that similar trends may appear at some point in the future in South Australia.

## Evidence of significant social capital multiplier effects

In addition to documenting the worrying decline in levels of voluntary participation in the United States, Putnam also presents striking evidence of the wider social impact of varying levels of social capital. Putnam investigated these relationships in a number of important areas by making comparisons between states. Putnam's measure of social capital combines measures of community organisational life, participation in voluntary associations, engagement in public affairs, informal sociability and social trust (Putnam 2000, Table 4, p. 291).<sup>3</sup>

2. See also Fukuyama(1995).

3. Because of the multiple elements which compose his Social Capital Index it is not possible to isolate the impact of voluntary memberships from his findings.



## Crime

Putnam reported strong inverse relationships between levels of voluntary membership and crime (Putnam 2000, p. 309). He found a strong negative correlation between his measure of social capital and homicide. (See Appendix Figure 1). As noted above, Fukuyama reported that property crime in the United States increased at the same time that social capital levels were falling. (See Appendix Figure 2). Kawachi reported strong negative correlations between measures of voluntary membership and assault, robbery and burglary in the United States (Kawachi, 1999; Kawachi 2000).

## Health

Putnam found important relationships between levels of social capital and desirable health outcomes. He found, for example, that all cause mortality rates are lower in U.S. states where social capital rates are higher. Putnam summarises the significance of increased voluntary participation in a striking phrase:

As a rough rule of thumb, if you belong to no groups but decide to join one, you cut your risk of dying over the next year *in half* (2000, p.331).

Kawachi and Berkman have extended Putnam's findings in the area of health. (See Appendix Figure 2). In addition to confirming Putnam's findings on mortality, they report that

Per capita group membership in each state was strongly inversely correlated with age-adjusted all-cause mortality ( $r = .49$ ,  $P < 0.0001$ ). In regression analyses...a one-unit increment in the average per capita group membership was associated with a lower age-adjusted mortality rate of 66.8 deaths per 100,000 population (95% confidence interval: 26.0 to 107.5). Density of civic associational membership was similarly a predictor of deaths from coronary heart disease, malignant neoplasms, and infant mortality (Kawachi 2000, p. 181).

Kawachi and Berkman found that voluntary membership levels were very highly correlated with civic trust ( $r = 0.65$ ) as reported in national General Social Surveys. As might be anticipated, levels of trust were also highly inversely correlated with variations in total mortality levels, coronary heart disease, malignant neoplasms, cerebrovascular disease, unintentional injury and infant mortality (Kawachi 2000, p. 181). They remark:

If these associations are causal, then an increase in trust by 1 S.D. or 10%, would be associated with about a 9% lower level of overall mortality (Kawachi 2000, p. 181).

## Education

Putnam reported that higher levels of social capital are associated with higher levels of performance by students on standardised tests and higher school retention rates (Putnam 2000, p. 299). (See Figure 3 in Appendix). The relationship between social capital and educational outcomes has also been investigated by Israel and Beaulieu (nd).

## Economic Growth

A number of investigators have reported strong associations between levels of education (human capital) and economic growth (see for example Barro 1998, Hanushek & Kimko 2000, Knack & Keefer 2001). Whitely (nd) has also demonstrated that social capital exerts an independent effect on economic growth, apart from the impact which it has on education.



# Why seek to estimate 'multiplier effects' of social capital and volunteering?

Findings such as these demonstrate that the value to society of voluntary participation, operating perhaps through such things as elevated levels of trust and civic engagement, extends well beyond the direct value of the work performed by volunteers. Studies such as those by Putnam and Kawachi demonstrate that social cohesiveness, an important social result of interacting with others for common community purposes-often referred to by scholars as 'social capital'-has wider consequences, often of a significant economic magnitude. The economic value of these broader effects of changes in social capital are referred to in this study as 'multiplier effects'.

Unlike estimation of the direct economic value of volunteering, multiplier effects are expressed as predictive values of greater and lesser costs likely to be associated with changing levels of social capital. As such, they may be useful in predicting the social and economic costs likely to be occasioned by a significant decline in levels of voluntary participation, on the one hand, or potential social savings which may accompany increased levels of participation.

## **Methods of estimating economic value of changes in levels of volunteering**

The methods for studying the direct economic contributions of volunteering are relatively developed (see Ironmonger 2002 for a concise summary). By contrast, this exploratory report is, to the best of our knowledge, the first attempt to measure the economic value contributed by volunteering in a few of the many possible areas where indirect impacts are made.

The central methodological assumption made in framing these estimates is that the relationships between changes in level of volunteering and in social consequences, such as levels of homicide, are roughly the same in Australia as those in the United States and in other countries.

It has also been necessary in this exploratory study to restrict estimation to areas where good comparative data exist and where there are well-established methods and valuations for Australia. This restriction means that soundly-based estimates can be only be made in some areas of crime, health, education and economic growth.



### **Costs of crime**

Mayhew estimated the costs of crime in Australia for the Australian Institute of Criminology (2003). Mayhew utilises survey-estimated incidence of crime figures to derive a multiplier to relate reported crime numbers to estimated actual figures. For well-reported crimes such as homicide the multiplier is 1; for poorly-reported crimes such as robbery, the multiplier is 6.3 (Mayhew 2003, p. 7). Mayhew then estimated medical costs where applicable, lost output and intangible costs to produce estimates of the cost of each category of crime.

Homicide is the most severely harmful crime in Mayhew's analysis. The most significant element is lost future output, estimated at \$1.2 million per homicide. Medical costs contribute \$7,600 per incident and intangible costs \$400,000, yielding a total cost per homicide of \$1.6 million (Mayhew.2003, pp. 2-3). The costs of other categories of crime are estimated in a similar manner.

The estimated costs per incident of other crimes for which multiplier estimates are available, are: assault-\$1,800; sexual assault-\$2,500; robbery-\$3,600; burglary-\$2,400. Mayhew also provides overall estimates for the crime-related costs of the criminal justice system, private provision of security, household precautions, provision of victims and insurance administrative costs (p. 7).

Using ABS *Crime and Safety* Australia figures, Mayhew estimated the total cost of crime in Australia in 2001 to have been \$31.78 billion, of which 19.03 bn was the direct cost of crime and 12.75 bn was the cost of dealing with crime (Mayhew 2003, p.7).

This report applies Mayhew's estimated costs to data for South Australia in 2001.

### **Costs of mortality**

Watson and Ozanne-Smith of the Monash University Accident Research Unit (1997) have estimated the costs of mortality in Victoria. The authors tackle the difficult question of the 'value of life' using the 'human capital' method (see Watson and Ozanne-Smith 1997, pp.6-7). They note that this gives more conservative estimates than does the alternative 'willingness to pay' approach.

Using an 'incidence approach' which estimates the lifetime costs of a death or injury in the year in which it occurs, Watson and Ozanne-Smith decompose costs into direct medical costs such as those incurred in a hospital or in rehabilitation, and indirect costs attributable to lost output. Lost output itself is estimated on the basis of the number of years a person might, on average, have lived and the value of their earnings during their working lifetimes as well as the monetary value of their services to family and community.

Watson and Ozanne-Smith estimated the value of a human life at \$616,000 in 1992 dollars. Mayhew, in 2003, used the 'willingness to pay' method to estimate the value of a human life. In 2001 dollars, the value was \$1,190,000 (Mayhew 2003, p. 7). In Mayhew's study it is also assumed that there is a direct medical cost associated with all-cause mortality of \$5000.

This report applies Watson and Ozanne-Smith's 1993-4 costs and valuations of ages-specific lifetime losses due to fatality, adjusted by the implicit price deflator for households in the Australian National Accounts. These costs are applied to estimated reductions in mortality for different age groups derived from the Australian Bureau of Statistics mortality rate figures for South Australia in 2001.



### **Method to be employed in this study**

Putnam (2000), Kawachi & Berkman (2000) and Kawachi & Kennedy (1997) have presented regression scattergrams of the relationships between levels of voluntary membership per capita and different aspects of crime and health. Kawachi, Kennedy & Wilkinson (1999) report strong and statistically significant correlations between low levels of trust and high levels of homicide, assault, robbery and burglary.

There is conflicting evidence regarding the relationship between levels of social capital and other categories of crime. Kawachi *et al.*, for example, found only weak negative associations between social capital and rape, larceny and motor vehicle theft in the United States (1999: p. 724). By contrast, Sampson and Groves report moderate and statistically significant inverse correlations between levels of institutional participation and 'stranger violence' which encompasses rape and assault as well as motor-vehicle theft in the U.K. (1989: pp. 789 & 791). Because the associations are, at best, weaker, these categories of crime will be treated separately.

In this report, it will be assumed that these relationships between low levels of voluntary participation and the incidence of crime are causal ones and that the slopes of the regression equations can be used to estimate the impact of changes in rates of volunteering on mortality and crime.

### **Limitations of the study**

Because this is in many respects a pioneering study, it has correspondingly many limitations. Many known costs are not included, including the value of the voluntary care offered by family and friends; some of these are, however, included in the estimate of direct volunteer contributions prepared by Ironmonger. There are also many reported impacts of social capital, such as the impact on coronary heart disease, malignant neoplasms, cerebrovascular disease, unintentional injury and infant mortality reported by Kawachi (2000, p.181) for which no estimations have been made.

More importantly, the method used by the report relies on published and estimated regression equation slopes from international and United States comparisons to estimate Australian values. Although this is unavoidable, given the current state of our knowledge, the relationships between voluntary participation and other social effects in Australia may prove to be different from those assumed in this report.





# The Costs of Crime

## Homicide

There were 29 murders in South Australia in 2001. At an estimated average cost of \$1.6m per homicide, the total estimated cost to the state of this most serious of crimes was \$46 m.

## Assault

There were 16,288 reported cases of assault in 2001. Since assaults are a crime that is seriously under-reported, it is estimated that the real number of assaults was 86,326. The total cost of assault to the community in 2001 is estimated to have been \$155 million.

## Robbery and Residential Burglary

There were 1,681 cases of robbery reported in 2001 and 22,373 cases of residential burglary. It is estimated that the actual numbers were 10,590 and 67,119 respectively. The estimated costs of each were \$38 million for robbery and \$134 million for burglary.

## Criminal Damage

Criminal damage is defined in this study to include most forms of property damage, including arson and graffiti, but excludes damage to motor vehicles. There were 25,656 reported incidents of property damage. These were the 'tip' of a much more significant body of crimes against property, estimated at 153,936 incidents in 2001. It is estimated that these crimes cost the community \$108 million dollars.

**Table 1: Estimated number of crimes S.A., 2001**

	Recorded SA Crime 2001	AIC Multiplier	Estimated no. actual incidents	Rate per 100,000
Homicide	29	1.0	29	1.9
Assault	16,288	5.3	86,326	1,084.1
Robbery	1,681	6.3	10,590	111.9
Residential Burglary	22,373	3.0	67,119	1,489.2
Criminal Damage	25,656	6.0	153,936	10,246.0
Total				

Source: (ABS, 2001: p. 21) and (Office of Crime Statistics, 2001: p.103).





**Table 2: Summary of average and total cost estimates**

	Property stolen and damaged	Medical Costs	Lost Output	Intangible Costs	Average Cost	Total Cost
Homicide		\$7,600	\$1,190,000	\$380,000	\$1,600,000	\$46,000,000
Assault		\$200	\$700	\$800	\$1,800	\$155,000,000
Robbery	\$800	\$300	\$1,000	\$1,500	\$3,600	\$38,000,000
Residential Burglary	\$1,100		\$100	\$800	\$2,000	\$134,000,000
Criminal Damage	\$350		\$50	\$300	\$700	\$108,000,000
Total Losses						\$482,000,000

Source: Based on (Mayhew, 2003: p.7).

**Table 3: Estimated Impact of a 1% increase in social capital**

	impact of 1% increase in social capital: incidence	value of 1% increase in social capital: cost
Homicide	28.97	(\$41,760)
Assault	86231.4	(\$139,849)
Robbery	10578.7	(\$34,313)
Residential Burglary	67045.2	(\$120,814)
Criminal Damage	134665.7	(\$96,980)
Total Losses		(\$433,715)

Table 3 presents estimates of the *reduction* in the number of criminal events which are likely to accompany a modest 1% *increase* in social capital (including increased rates of voluntary participation) in South Australia. The largest economic impact would be felt in reductions in the costs associated with assault (-\$139,849), residential burglary (-\$120,814) and criminal damage (-\$96,980). It is estimated that the value of the reduction in economic cost of the five categories of crime for which the evidence is most unequivocal would be about \$433,715 based on the incidence of crime in 2001.

In addition to crimes which research has shown to have a strong negative association with levels of social capital, there are others for which the evidence is less well established. As noted earlier, some research has shown similar negative associations for sexual assault, motor vehicle theft and theft from motor vehicles. The results for this second set of crimes are presented in Tables 4-6.

### **Sexual assault**

In 2001 there were 1578 reported cases of sexual assault. It is estimated here that the actual number was 8,837. It is estimated that the social cost of these crimes was \$22 million.



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**Table 4: Estimated number of crimes S.A., 2001**

	Recorded SA Crime 2001	AIC Multiplier	Estimated no. actual incidents
Sexual assault	1578	5.6	8,837
Motor vehicle theft	12,663	1.1	86,326
Theft from vehicle	23,800	3.6	85,680

Source: (ABS, 2001: p. 8) and (Office of Crime Statistics, 2001: p.103).

**Table 5: Summary of average and total cost estimates**

	Property stolen and damaged	Medical Costs	Lost Output	Intangible Costs	Average Cost	Total Cost
Sexual assault		\$200	\$1,100	\$1,200	\$2,500	\$22,092,000
Motor vehicle theft	\$4000		\$700	\$1,300	\$6,000	\$83,991,600
Theft from vehicle	\$270		\$20	\$260	\$550	\$47,124,000
Total Losses						\$153,207,600

Source: Based on (Mayhew, 2003: p.7).



**Table 6: Estimated Impact of a 1% increase in social capital**

	impact of 1% increase in social capital: incidence	value of 1% increase in social capital: cost
Sexual assault	8,829	(\$19,883)
Motor vehicle theft	13986	(\$75,592)
Theft from vehicle	85,603	(\$42,413)
Total Losses		(\$137,887)

**Motor vehicle theft**

There were 12,663 reported incidents of vehicle theft in 2001. It is estimated that the actual number was much higher: 86,326. The total costs of vehicle theft are estimated to be \$84 million.

**Theft from motor vehicles**

In 2001 there were 23,800 reported cases of theft from motor vehicles. The estimated actual number is 85,680. The total cost of theft from vehicles is estimated to be \$47 million.

Table 6 presents the estimated impact of reduced crime which might flow from increased levels of social capital. It is estimated that reductions in sexual assault might save a relatively modest \$20,000, while savings in vehicle theft and theft from vehicles might be \$76,000 and \$42,000 respectively. The sum of these reduced social and economic costs is estimated to be \$137, 887.

Combining the results reported in Tables 3 and 6, the total annual value of reduced costs that might arise from modest increases in volunteer generated social capital, for categories of crime for which plausible estimates can be made, is around \$572 million.

It should be noted that these estimates do not include many other savings likely to arise as a consequence of lower rates of crime over the longer term. For example, the Productivity Commission indicates that the total salary cost of police services in South Australia in 2001-2 was \$393.6 million (Steering Committee 2003, Table 5A.5). It might be reasonable to assign some reduction in these costs and in other parts of the legal and correctional services of the state which were consequent on a sustained reduction in levels of crime.



# The Value of Reduced Mortality

South Australia had a crude mortality rate of 780 per 100,000 in 2001 and an age-adjusted (standardised) rate of 550 per 100,000. The median age at death for males was 76.7 and for females was 82.4 (ABS 2002, Table 1). There were 11,891 recorded deaths in 2001.

As noted above Kawachi and Berkman reported a strong inverse correlation between per capita group membership and age-adjusted mortality rates in the United States. Using the relationships reported in their work, it is estimated that a 1 unit increase in organisation memberships per capita would have resulted in 1671 fewer deaths in South Australia in 2001 than actually occurred.<sup>4</sup> In the data presented in Table 7, it is assumed that the reduced mortality is spread pro-rata across all age-groups.

**Table 7: Estimated of 1 Unit Increase in Group Membership on Saved Lives, 2001**

Age Groups	Pro-rata lives saved		Total lifetime cost of fatality (\$)		Value of saved lives (\$)	
	Male	Female	Male	Female	Male	Female
0-4	6.2	7.2	5807	4334	35,906	31,062
5-9	0.8	1.3	12072	6620	10,178	8,373
10-14	5.5	5.5	12072	6620	66,395	36,410
15-19	3.7	1.1	240292	65165	877,951	73,259
20-24	6.7	1.8	240292	65165	1,620,833	119,046
25-29	7.3	3.5	324081	103534	2,368,183	363,732
30-34	10.5	3.0	324081	103534	3,415,648	305,535
35-39	14.2	7.3	324081	103534	4,599,740	756,563
40-44	13.6	10.4	324081	103534	4,417,572	1,076,647
45-49	18.4	12.2	121808	54309	2,242,364	663,976
50-54	25.7	15.7	121808	54309	3,132,462	854,774
55-59	38.2	22.6	121808	54309	4,655,900	1,228,737
60-64	47.4	27.0	121808	54309	5,768,523	1,465,326
65-69	61.1	39.8	14169	14774	866,162	587,552
70-74	119.0	71.5	14169	14774	1,686,527	1,056,763
75-79	147.0	111.0	1691	1591	248,501	176,581
80-84	139.7	160.3	1691	1591	236,147	255,036
85-89	122.5	167.2	1691	1591	207,163	265,988
90-94	45.8	114.5	1691	1591	77,449	182,169
95-99	14.9	38.9	1691	1591	25,183	61,915
100 and over	2.2	7.9	1691	1591	3,801	12,517
TOTAL					\$36,562,586	\$9,581,959

4. I have recomputed the results reported by Kawachi and Berkman, using data published in Kawachi and Kennedy (1997, Figure 2). In this study I have used my figure of a reduction of 110 in age-adjusted mortality per unit of per-capita group membership.



As can be seen from the total in Table 7, the estimated social savings arising from modest reductions in mortality are considerable, amounting to \$46 million in a single year. Because the median age at death in South Australia is over 75 for both males and females, and the corresponding productivity losses for over-75s are low, the largest savings arising from reduced mortality arise among those between 35 and 75. Serious gender inequalities in lifetime earnings combined with higher under-75 male death rates produce a nearly four-fold difference in the estimated savings attributed to men and women.

## Social Capital, Human Capital and Economic Growth

The scholarly literature contains persuasive evidence which links social capital to human capital (roughly equivalent to education) and human capital in turn to economic growth. Robert Putnam reports strong, positive correlations between an index of social capital (composed in part of measures of voluntary participation) and the performance of American students on standardised tests (2000, Figure 82, p. 300 and fn. 9, p.488).<sup>5</sup> Israel and Beauclieu have reported similar findings in an unpublished paper (nd).

Hanushek and Kimko (2000) have correlated student performance on standardized tests with economic growth for 139 countries over 30 years. They find that a 1 standard deviation increase in test scores adds about 1 per cent to annual per capita Gross Domestic Product (GDP) growth rates. The same effect would require an increase of 9 years of schooling to achieve. Chapman and Withers note that Australian students tend to have scores about one standard deviation *below* the international average (2002).

In a similar study, Barrow (1998) found statistically significant correlations between student performance on standardized test scores and an estimated coefficient of economic growth for 51 countries. He reports that the coefficient in his study was 0.101, implying that a 1-unit increase in national test scores raises national growth rates by 10% (1998, p. 20). (He notes that diminishing returns tend to apply to economically advanced countries).

5. Putnam also reports studies demonstrating links between levels of social capital and school retention rates (2000, pp. 303-6).



Knack and Keefer (1997) found statistically significant correlations between levels of social capital, as measured by levels of trust and rates of economic growth in 29 countries between 1980 and 1992.<sup>6</sup> They report that

A ten-percentage-point rise in [their measure of trust] is associated with an increase in growth of four-fifths of a percentage point. A one-standard-deviation change in trust (fourteen percentage points) is associated with a change in growth of more than one-half (.56) of a standard deviation, nearly as large as the standardised coefficient for primary education (.64) (Knack & Keefer 1997, p. 1260).

Whitely in an unpublished paper has evaluated the independent contributions made by social capital and education to economic growth to a sample of 34 countries (nd). He finds that three factors contribute independently to growth rates in his sample: investment, education and social capital (as measured by levels of trust). He concludes:

It is clear that social capital is an important factor in explaining cross national variations in economic growth. When the variable is incorporated into a modified neo-classical growth model, it is a highly significant predictor of growth in a diverse set of countries and in the presence of various control variables. (nd, p. 15)

[T]he influence of social capital on economic growth appears to be at least as strong as the influence of human capital (nd, p. 2)

...a one percent change in primary school enrolments produc[es] a more than two percent increase in economic growth (nd p. 12)

Taken together, these studies suggest that social capital has both an indirect effect on economic growth through its impact on raising levels of human capital, and directly through the socially enabling effects of trust. For the purposes of estimation in this paper we utilise the social capital coefficient from Whitely's 'parsimonious' model which implies that a one-unit increase in social capital results in a .63 per cent increase in the rate of economic growth. The Australian National Accounts for 2001 give the Gross State Product for South Australia as \$44.119 billion. A one-unit increase in social capital might thus be expected to increase Gross State Product by \$278 million. In addition, there are individual benefits which would be expected to result from higher levels of human capital, though these have not been estimated.

6. Knack and Keefer report that there was no statistically significant correlation between a cross-national measure of the density of associational membership and economic growth (1997, pp. 1271-74).



# Conclusion

Australia appears to have modestly-above-average levels of social capital when compared to levels of trust found by the World Values Survey. (See Table 8). The density of group memberships in Australia also appears to be slightly above average when compared to those found in other countries. (See Table 9). On the other hand, the per capita level of group membership derived from ABS data for South Australia – .59 – is very much lower than the national levels found by the World Values Survey though these differences may arise from differences in methodology or from the very much larger sample used by the ABS.<sup>7</sup> South Australia would appear to have a density of group memberships lower than any of the 39 U.S. states studied by Kawachi and Kennedy (1997, Figure 2).

The findings presented in this report indicate that the social and economic values which are likely to flow from even modest increases in social capital are likely to be quite large, even when only some of the relatively small number of well-explored social factors are considered. The report estimates considerable public and private gains likely to arise from higher levels of economic growth, reduced mortality and reduced levels of crime.

Published research also underscores the likely cost-effectiveness of attempts to raise levels of social capital compared to more direct policy interventions. The point is made vividly by Putnam in his exploration of the policy options which might be pursued by the state of North Carolina if it sought to raise its educational outcomes to the level of those of Connecticut:

[Residents of North Carolina] could do any of the following: increase their turnout in presidential elections by 50 percent; double their frequency of club meeting attendance; triple the number of nonprofit organizations per thousand inhabitants; or attend church two more times per month....

[T]he data also suggest how hard it would be for North Carolina to match Connecticut's performance simply through traditional educational reforms-by decreasing class size, for example. Because the effect of class size on state-level performance is modest by comparison to the effects of social capital, it would be virtually impossible to achieve the same progress simply by reducing class size. (Putnam 2000, p. 301)

Taken together, these comparative results indicate that it is entirely reasonable to frame social policies which seek to expand the radius of trust and civic cooperation in South Australia. Clearly, policies which promote levels of volunteering must be a significant part of such policies.

7. The per capita membership figure has been computed from (ABS 2001c Table 9).





**Table 8: Percentage of People Saying that Most People can be Trusted, Selected Countries, 1995-96**

**OECD Countries**

Norway	65.3	Italy*	35.3
Sweden	59.7	Belgium*	33.2
Denmark*	57.7	Austria*	31.8
Netherlands*	55.8	United Kingdom	31.0
Canada*	52.4	Korea	30.3
Finland	47.6	Czech Republic*	30.3
Ireland*	47.4	Spain	29.8
Japan	46.0	Mexico	28.1
Iceland*	43.6	Hungary*	24.6
Germany	41.8	France*	22.8
Switzerland	41.0	Portugal*	21.4
Australia	39.9	Turkey	6.5
United States	35.6		

**Non-OECD Countries**

India	37.9	South Africa	18.2
Chile	21.9	Argentina	17.5
Nigeria	19.2	Brazil	2.8

\* 1990-91 data

Note : The question posed in the survey was: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?" Source: World Values Survey and Knack & Keefer (1997). 'Why is social capital important?'

Source:(Aldridge, Halpern & Fitzpatrick 2002, Table 3, p. 15)

**Table 9: Average Number of Groups Cited Per Respondent, World Values Survey**

Norway	1.09	Italy*	0.38
Sweden	1.08	Belgium*	0.56
Denmark*	0.97	Austria*	0.76
Netherlands*	1.11	United Kingdom	0.92
Canada*	1.03	Korea	0.47
Finland	.40	Czech Republic*	NA
Ireland*	1.70	Spain	0.45
Japan	0.38	Mexico	0.57
Iceland*	1.70	Hungary*	NA
Germany	0.74	France*	0.42
Switzerland	0.73	Portugal*	0.43
Australia	1.01	Turkey	NA
United States	1.50	Brazil	0.68



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