ON MARKETS OF PUBLIC SAFETY

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ABSTRACT

The concept of public safety is analyzed within an economic framework. The paper discusses the role that factors such as residential stability, education, socioeconomic disadvantage and income inequality play in shaping the demand for public safety, via current levels of crime. These factors contribute to the formation and preservation of social trust, inclusiveness, voluntary cooperation, restraint, poverty and inequality among the members of communities. Communities with low levels of social capital tend to experience high levels of crime which increases demand for public safety in the form of imposed or enforced law and order. These ideas are tested by fitting a model to data for Local Government Areas in the mainland Eastern Australian states.

INTRODUCTION

In this paper, the term public safety refers to citizens' objective and subjective judgements about local levels of crime. According to this restricted use of the term, the lower the level of crime in a locality, the safer residents feel in that locality. Public safety is a public good [1]. Everyone in the same local area enjoys the same objective level of public safety [2], though different people may attach different subjective values to it.

Individuals weigh the benefits and costs of engaging in criminal activities. The outcome of this process will depend on what non-criminals do about public safety. Law-abiding citizens may spend more on personal or household security (e.g. alarms, buying private security), participate actively in crime prevention schemes (e.g. Neighbourhood Watch, Rural Watch), or lobby governments to improve policing or to develop crime prevention initiatives.

[1] Once public goods have been produced, they are available to every one (i.e. they are non-exclusive). Public goods may, also be nonrival, but this is not always the case. A good is nonrival if consumption of additional units of the good involves zero marginal social costs of production.

[2] This is not strictly true, as individuals or households, by virtue of their routine-activities and lifestyles have different degrees of exposure to crime.

It is feasible to think of public safety as a market, with a demand and a supply side. Since by definition public safety is a pure public good, it cannot be traded efficiently in competitive markets [3]. This is why public safety is primarily provided by the government and financed through taxation. In recent years, there has been a movement toward the provision of public safety services by the private sector. Private security services are an example of this development. Another example is where individuals are encouraged to increase their level of protection against the consequences of crime through insurance and thus spending more on crime prevention [4]. Governments are examining ways to reduce expenditure or to optimise public spending. The final objective is the efficient provision of a broad range of services to the public, including safety. This requires an understanding of the factors that affect both, demand and supply.

This paper addresses the aggregate private demand for public safety at the local level. It discusses the results of an analysis aimed to identify factors affecting demand for public safety. The paper is organised in 4 sections. Section I contains a review of concepts and ideas about public safety in local communities. Section II presents the hypothesis, both conceptual and operational, describes the data used for analysis and specifies a simple model for the demand of public safety in local markets. Section III discusses the results from applying the model to the analysis of demand for public safety in the local government authorities of the Eastern mainland states of Australia. Section IV presents the conclusions and puts forth some policy recommendations.

1. PUBLIC SAFETY IN LOCAL COMMUNTTIES

Concepts such as community life, social cohesion and change have been important in the study of crime. The concept of community has played a central role in explanations of geographical variation in levels of crime. Rurality tends to be associated with bonding, caring and cohesive communities

[3] Producing an extra unit of public safety would benefit everyone. To evaluate this benefit it is necessary to sum each individual's evaluation of the good. But markets by their nature sum demand curves horizontally, rather than vertically. Therefore competitive markets may fail to provide public goods in an adequate amount.

[4] According to Freeman (1996), in the United States, about 0.6% of GDP is spent on private crime prevention, ranging from guards to various protective devices.

(Bell & Newby, 1971). On the other hand, urban environments have been depicted as seats of conflict, social disorganisation and artificial attempts to construct order and consensus (Hogg & Carrington, 1998). Consequently, regional variation in crime has been explained in terms of spatial variation in the strength of social ties, the level of participation in community life, residential stability, and ultimately, in local capability to develop mechanisms of social control.

Another approach examines regional differentials in crime as a manifestation of differences in the character of social bonds or cohesiveness. This character determines the stock of a locality's social capital (Dilulio, 1996). According to Putnam (1993), dense community networks enhance mutual cooperation. Communities with high levels of social trust, inclusiveness, voluntary cooperation and restraint are likely to enjoy greater orderliness, safety and cohesion without intervention of the forces of law and order. The lower the stock of social capital in a community, the stronger and more persistent is the demand for tough law and order policies (Hogg & Carrington, 1998).

There have been a number of studies of aggregate crime rates, and public spending on crime prevention across municipalities in the United States (see for example Greenberg, Kessler & Logan 1979; Gyimah-Brempong 1989). At the household level, studies have identified demand for public safety in alternative ways. One way is to value the human and material losses from recorded crime [5]. Another approach is to estimate the impact of crime on local property prices [6]. Alternatively, one might assume that observed levels of public spending are optimal for the median voter in each local government area (Borcherding & Deacon 1972). Or one might ask people to attach a value to public safety or some specific intervention (Jacoby 1994). Relying on survey questions about the relative importance of public safety is yet another way to measure the concept of demand for this public good (Gregory, MacGregor & Lichtenstein 1992; Pradham & Ravallion 1998).

Since public safety is a public good, income effects are not strong, at least at the level of local areas. As mentioned in the introduction, everyone within the same local area enjoys the same objective level

[5] This approach has the problem of excluding those who do not experience crime, or who having done it, do not report the crimes to the police.

[6] This assumes that public safety is a local public good, that housing markets work well and that there is free mobility (Clark & Cosgrove 1990).

of public safety, but different people may attach different subjective values to it. The desire to improve public safety may exhibit stronger income effects than the current level of public safety. Residents of poorer areas may tend to enjoy lower levels of public safety because of lower demand at the individual level and this makes it harder to mobilise public actions to improve local safety.

There are other characteristics that are expected to influence demand for public safety, Individuals tend to dislike contemplating adverse events, and this often leads people to downplay their exposure to unsafe environments [7]. This is known as cognitive dissonance (Akerlof & Dickens, 1982). Education will influence individual knowledge of the true distribution of risk, therefore reducing vulnerability to cognitive dissonance, which in turn will influence the demand for public safety.

Inequality increases the potential gains from crime (Ehrlich 1973). Localities with high inequality tend to have higher crime rates (Ehrlich 1973; Fajnzylber, Lederman & Loayza 1998). Another possibility, investigated by Pradhan & Ravillion (1998), is that demand for public safety exhibits diminishing income effects. This implies that aggregate demand will be lower when inequality is higher (Gyimah-Brempong 1989).

There is evidence that the level of public safety in an area affects household demand for public safety (Philipson & Posner 1996). Geographic effects on the incidence of crime can arise from social interactions within neighbourhoods. One person's decision to commit crime affects their neighbour's decision (Glaeser, Sacerdote & Scheinkman 1996). Crime appears to be more of a problem in poorer areas. If one's neighbour does less to prevent crime, then this increases one's concern about public safety. Richer areas attract offenders, which results in greater demand for public safety relative to poorer areas.

Residents of areas with low objective levels of public safety show more tolerance to crime and lower propensity to invest in their own safety compared to residents of safer localities. This causes a

[7] For example, regulations forcing people to use safety equipment in unsafe jobs).

decline in private demand for public safety in unsafe local areas, which is compensated by increased requests for formal social control in the form of imposed law and order.

Residential stability, education, socioeconomic disadvantage, poverty and income inequality are among the many factors that create and preserve social capital. Social capital is defined as the norms and social relations embedded in the social structures of societies that enable people to coordinate action to achieve desired goals. Increasing evidence shows that social cohesion -- social capital -- is critical for economic and social development.

Both residential mobility and the size of a community exercise a negative impact on social capital. Increasing mobility changes the social structure and destroys social capital. Mobility leads to under-investment in social capital (Routledge & von Amsberg, 1999), which has a negative effect on the quantity and quality of interactions among community members (Weening, Schmidt & Midden, 1990).

Community-level social capital is a powerful predictor of cooperative behavior within communities (Molinas, 1998). Strong community relationships, or high quality relationships, will contribute to the formation of perceptions of personal safety, the current levels of local crime, and the persuasiveness of community members to invest in crime prevention (Glaeser, Sacerdote & Scheinkman 1996, Lederman, Loayza & Menendez 1999).

Social capital in the form of networks of relationships within a family and between a family and the community in which they live, provide means through which parental influence can be transmitted to children. Parental resources, parental working conditions, family composition, the self-esteem of parents, their financial situation, human capital resources and family structure affect child socialization (Parcel T.L. & E.G. Menaghan). Early developmental factors have later effects on criminal behaviour (see Homel 1999) and on local crime rates.

II. DATA AND METHODS

The demand for private protection depends upon the perceived risk of victimisation and the prospective private loss from crime. Under the assumption of rational expectations by potential victims, the average perceived risk of victimisation equals the crime rate, and the demand for protection is an increasing and concave function of the crime rate (Ehrlich, 1996).

Data on any of the alternative measures of household demand for public safety referred to in the previous section are not readily available, therefore this paper uses an index of public safety defined as the inverse of the local crime rate [8]. The lower the crime rate, the higher the safety index, and vice-versa (Gyimah-Brempong 1989).

The local demand for public safety can be thought as a function of public and private expenditure on crime prevention. Denote the allocation of expenditure to public safety in the $i-th$ local area by $S_i, i = 1, \Lambda\ , A$. The level of this expenditure is not directly observable. Let Y_i denote the safety index in the $i-th$ local area (i.e. inverse of the local crime rate). Assume that Y_i and S_i are related according to the following linear model:

$$\ln(Y_i) = b_0 + b_1 \ln(S_i) + e_i, i = 1, \Lambda\ , A \qquad (1)$$

where $b_1 > 0$, implying that the local level of public safety is positively correlated with local expenditure on crime prevention. Lower levels of expenditure on crime prevention are associated with declines in the objective level of public safety, and consequently are associated with increases in the demand for the public good. The term e_i represents an error subject to the usual assumptions of $E(e_i) = 0$ and $Var(e_i) = s^2$.

[8] This measure is subject to several problems; in particular those associated with the reporting of crime.

Since S_i, the level of expenditure on crime prevention and control in the $i-th$ local area is unobserved, its impact on the local level of demand for public safety must be assessed in an indirect way. Expenditure on public safety is a function of a number of local area characteristics.

Socioeconomic Disadvantage

A number of studies have demonstrated the existence of a link between socioeconomic disadvantage and crime. More disadvantaged areas tend to experience high levels of crime therefore enjoying low objective levels of public safety. They are also less able to mobilise public action than their more affluent counterparts (Sampson & Groves 1989; Land, McCall & Cohen 1990; Devery 1991; Patterson 1991; Bursik & Grasmick 1993; Weatherburn & Lind 1997; Almgren, Guest, Immerwahr & Spittel 1998; Pradhan & Ravallion 1998;.Peterson, Krivo & Harris 2000) As a consequence, residents of these communities get only a small share of public expenditure on crime prevention and will tend to enjoy low objective levels of public safety [9]. This study uses two indicators of socioeconomic disadvantage: Single parent families with children under 15 years of age as a percentage of total families, and unemployment rate.

Education

Education offsets the negative effect of cognitive dissonance, increases one's moral stance, and enhances the openness, inclusiveness, egalitarianism and cooperation among members of a community. In this sense, the higher the level of education in a local area, then the lower the demand for public safety.

This study uses a relative measure of educational level assessed from the ratio between the percentage of residents who have attended a tertiary institution and the percentage of residents who have left school at the age of 17 years or younger. The higher the value of this ratio, the higher is the average educational level attained by the residents of an area.

Residential Stability

[9] Residents of socially disadvantaged areas may still desire to improve on their current levels of public safety.

Residential stability has been identified as an important factor in explaning geographical variation in crime rates (Sampson & Groves 1989; Sampson, Raudenbusch & Earls 1997; Veysey & Messner 1999). Communities in areas with high population turnover are less able to develop effective networks and to mobilise in addressing local problems. Residents of unstable areas tend not to invest in private safety and are less able to develop strong bonds with other members of the local community, compared to residents of stable communities. Areas with low residential stability are expected to have lower levels of public safety compared to stable areas [10].

Income and Income Inequality

Income inequality has a robust effect on crime rates, though this effect depends upon the individuals' relative income position (Ehrlich 1973; Fajnzylber, Lederman & Loayza, 1999). It is likely that among the rich, an increase in inequality will not induce them to commit more crime. However, in the case of the poor, an increase in inequality can be crime inducing. An increase in inequality implies a larger income gap between the poor and the rich, thus reflecting a larger difference between the income from criminal and legal activities. A rise in inequality may also reduce an individual's moral threshold and may lead to increased crime rates, therefore reducing the objective level of public safety. Inequality was assessed in terms between the ratio of the number of households with weekly income below $300 and the number of households with weekly income above $800 [11].

Crime is widely thought to be disproportionately concentrated in poor areas. Residents of poor areas collectively do less to prevent crime, therefore these areas will be deemed less safe (Pradhan & Ravallion, 1998). Rich areas, offering higher takings for offenders, will demand more public safety relative to poor areas [12]. This paper uses median income as a measure of average income in local areas.

Population Density

[10] The effect of residential stability on public safety can be mediated by characteristics such as the level of education and income

[11] This is a very crude measure of dispersion/concentration of income. The data available did not enable derivation of a more refined measure such as the Gini Coefficient.

[12] Behrman & Craig (1987) find that allocation of police across neighbourhoods in Baltimore, U.S., is negatively associated with average income of the neighbourhood.

More densely populated centres increase the returns from crime via reductions in the risk of detection and further incarceration (Ehrlich, 1996). Urban anonymity protects criminals from the social stigma (Glaeser & Sacerdote, 1999) and densely populated areas facilitate the social interaction through which criminal skills are transmitted (Glaeser, Sacerdote & Scheinkman, 1996). A high population density is related both to declines in expenditure on crime prevention and to low levels of demand for public safety. The police produce other services besides safety. Such outputs are many and varied, and almost impossible to quantify. Police divisions serving large communities will produce more of these services than those serving small communities. This has been identified as one of the possible causes underlying the observed decline in clearance rates (Carr-Hill & Stern, 1979).

Unobserved Local Area Characteristics

There are a number of other factors that have an impact on local crime rates and therefore on the demand for public safety. The strength of the local police force, the reporting of crimes to police, citizens' perceptions of police performance in dealing with local crime, structural changes and fluctuations in the local economy, real estate prices, physical features of the locality, and changes in demographic composition are among the many factors that may influence the demand for public safety. These factors are absorbed into the error term.

Lack of Independence

The unit of observation in this study is the Local Government Area (LGA). LGAs are equivalent to municipal authorities in other countries. Crime and justice issues are principally the responsibility of state governments. State governments provide local areas with police and court services. This means that safety indexes in LGAs within the same state cannot be considered as independent measurements, which cause the estimates of the regression coefficients to be inefficient. In this paper, state effects are taken into account by including dummy variables for New South Wales, Queensland and South Australia. The demand for public safety in LGAs within these states is to be compared to that in LGAs within Victoria.

Defining the Dependent Variable

The index of public safety is a function of the local crime rate. Regional variation in crime rates is affected by variation in the sizes of the populations used as denominators for the rates. Areas with small populations tend to have very high crime rates. This is due to the fact that crime rates are the result of aggregating dependent Bernoulli random variables corresponding to individual crime incidents.

Table 1: Summary Statistics – Total Population, Safety & Transformations to the Safety Index

	Mean	**Standard Deviation**	**CV**	**Min**	**Quartile 1**	**Median**	**Quartile3**	**Max**
Population	12969.5	24683.5	190.3	97	1374	3970	14332	374823
Safety Index (x 1000)	0.79	16.90	156.79	0.05	0.42	0.61	0.91	25.76
Freeman-Tukey Transform Safety Index [1]	0.008	0.003	39.844	0.002	0.006	0.008	0.010	0.050
Population Weighted Freeman-Tukey Transform Safety Index [2]	0.659	0.470	71.206	0.046	0.328	0.524	0.893	3.605
Logarithm of Safety Index [3]	-7.40	0.65	-8.72	-9.87	-7.77	-7.40	-7.00	-3.66
Population Weighted Logarithm of Safety Index [4]	-675.6	581.2	-86.0	-4969.3	-926.6	-459.4	-261.2	-67.3

Notes: (1) Inverse of the Freeman-Tukey Transform of Crime Rate. The Freeman-Tukey Transform of Crime Rate was calculated for each Local Government Area using the following expression:

$FT = (100000 \times Y/P)^{1/2} + \left(100000 \times (Y+1)/P\right)^{1/2}$, where Y represents the total number of crimes, and P represents the total population.

(2) Equal to $P^{1/2} \times FT$

(3) Natural logarithm of raw crime rate

(4) Equal to $P^{1/2} \times \ln(rate)$

Source: Population data were obtained from 1996 census data (PMP Software). Crime rates were calculated using police recorded crime statistics. The total crime rate refers to violent crime (i.e. assault and robbery) and property crime (i.e. residential burglary, nonresidential burglary and vehicle theft). For the states of Queensland and South Australia, data were obtained from the statistics sections of the respective police services. Rates for Victoria were derived from postcode data published by Victoria Police. For New South Wales, rates are as published by the NSW Bureau of Crime Statistics and Research. Crime rates are based on average counts of crimes over the period from 1994 to 1998.

For rare events such as incidents of crime, the variance is proportional to the mean, therefore it is necessary to remove this dependence. The usual way of dealing with this problem is finding a variance-stabilizing transformation. The data in Table 1 show summary statistics from the distributions of the total population, the safety index and some alternative transformations.

Population sizes ranged from a low 97 in Carrieton, South Australia, to a high 374,823 in Brisbane, Queensland. The variation coefficient for the population size was 190.3%. Such huge variation in population size impacts on the variation in crime rates. The safety index ranged from a low 0.05 in Adelaide and Sydney to a high 25.76 in Roma, Queensland.

The (natural) logarithm transform had the smallest coefficient of variation among the transformations investigated, and as such it was used as the dependent variable in this study.

Data Sources

Crime rates for Local Government Areas (LGAs) were either obtained directly from published crime statistics (New South Wales Bureau of Crime Statistics and Research, 1994-1998), or derived from postcode counts of recorded crime (Victoria Police, Queensland Police and South Australia Police, 1994-95 to 1997-98). Postcode level data were converted to LGA level data using concordance rules defined by the Australian Bureau of Statistics. The crime rates used in this study were based on average counts of crimes over the period from 1994 to 1998, so they roughly correspond to average crime rates for the year 1996.

Data on actual resident population as well as the other LGA characteristics used to explain regional variation in demand for public safety were either obtained directly or derived from 1996 census statistics (PMP Software, 1998).

The Model

The following model was specified to investigate the factors affecting regional variation in the demand for public safety:

$$\begin{aligned}\ln(Y_i) &= b_0 + b_1 \ln(SOLP_i) + b_2 \ln(UNEM_i) + b_3 \ln(EDUC_i) + b_4 \ln(STAB_i) + b_5 \ln(INC_i) + \\ &+ b_6 \ln(INC2_i) + b_7 \ln(INEQ_i) + b_8 \ln(DENS_i) + NSW_i + QLD_i + SA_i + e_i, i = 1, \Lambda, A\end{aligned} \quad , (2)$$

where,

SOLP = Number of single parent families with children under 15 years of age,

UNEM = Unemployment rate,

EDUC = Residents who are attending an institution of tertiary education per 1,000 residents who left school at the age of 17 years or younger,

STAB = Number of persons enumerated at the same address 5 years ago,

INC = Median household weekly income,

INC2 = Squared median household weekly income,

INEQ = Ratio of number of households with a weekly income below $300 to the number of households with an income above $800 a week,

DENS = Population density (i.e. residents per squared kilometer),

NSW = An indicator variable equal to 1 if the LGA belongs to New South Wales; and zero otherwise,

QLD = An indicator variable equal to 1 if the LGA belongs to Queensland; and zero otherwise,

SA = An indicator variable equal to 1 if the LGA belongs to South Australia; and zero otherwise,

e = A normally distributed error term with 0 mean and variance s^2.

This model was fitted to data for the 497 Local Government Areas (LGA) of the mainland Eastern states. Table 2 contains summary statistics for the explanatory variables included in the model.

Table 2: Summary Statistics – Factors Used to Explain Variation in the Demand for Public Safety

	Mean	Standard Deviation	CV	Min	Quartile 1	Median	Quartile3	Max
% Sole Parents with Children Under 15	3.196	1.441	45.067	0.065	2.207	3.108	3.895	17.369
Unemployment Rate	9.211	3.982	43.235	0.020	6.000	9.000	11.000	24.000
Index of Educational Level [1]	54.563	45.616	83.601	0.000	26.462	39.971	64.716	405.525
Residential Stability [2]	51.118	7.471	14.616	15.706	46.861	52.139	55.997	77.593
Median Weekly Income	633.653	162.713	25.678	262.500	522.872	596.109	695.897	1553.435
Inequality [3]	0.681	0.504	73.994	0.043	0.348	0.578	0.874	5.333
Population density	409.881	977.764	238.548	0.004	0.911	4.594	152.679	6724.429

(1) Persons in Tertiary Education per 1,000 Persons Who Left School at 17 Years or younger
(2) % Living at Same Address in 1996 as in 1991
(3) Ratio of Number of Low Income to Number of High Income Households
Source: 1996 Census of Population and Housing (PMP Software, 1998)

III. DISCUSSION OF MAIN RESULTS

Table 3 shows the values of the estimated regression coefficients as well as their standard errors.

Table 3: Demand for Public Safety
Estimated Regression Coefficients

Explanatory Variable	Coefficient	Standard Error
The LGA belongs to NSW	- 0.205***	0.073
The LGA belongs to QLD	0.265***	0.098
The LGA belongs to SA	- 0.241**	0.102
% Sole Parents with Children Under 15 Years of Age	- 0.251***	0.060
Unemployment Rate	- 0.063*	0.087
Educational Level	0.082*	0.049
Residential Stability	1.183***	0.202
Median Income	- 5.819	5.128
Squared Median Income	0.415	0.378
Income Inequality	- 0.032*	0.095
Population Density	- 0.075***	0.013
Constant	15.416	17.570
R^2 (adjusted)	0.407	
Number of Observations	499	
Statistic for White's Test for Heteroskedasticity	64.91	
Degrees of Freedom	70	

*** ($p<0.01$)
* ($p<0.10$)

The model explained 40.7% of the total among-LGA variation in demand for public safety. This is not an unusual value for the coefficient of determination in this type of models and is consistent with results from recent research on regional variation in crime (Pradhan & Ravallion 1998, Carcach

2000). Glaeser, Sacerdote & Sheinkman (1996) note that spatial variation in social and economic conditions can account for little of the variation in crime rates over space. According to the latter authors, positive covariance across individuals' decisions about crime is the only explanation for variance in crime rates higher than the variance predicted by differences in local conditions [13].

The model passed the White's test for heteroskedasticity. This indicates that the use of a logarithmic transform effectively stabilised among-LGA variation in the index of public safety and neutralised the impact of regional variation in the size of the populations used to develop this index [14]. Acceptance of the assumption of homogeneity of variances implies also that inclusion of the state dummy variables in the model was effective in removing any LGA variation due to grouping. Given the level of aggregation of the data (LGAs), there is no apparent reason to suspect the presence of spatial autocorrelation.

A positive (negative) regression coefficient is associated with a decline (increase) in the demand for public safety.

The data in Table 3 show the absence of income effects on demand for public safety [15], a result consistent with the fact that public safety is a public good. The coefficient for income inequality was not statistically significant. However it had the expected sign, which suggests that increases in income inequality lead, via its induced decline in the safety index, to declines in the level of local demand for public safety.

The regression coefficients for the state dummy variables indicate that LGAs in Queensland are less tolerant to crime and demand larger amounts of public safety than LGAs in Victoria. On the other hand, this demand is lower among residents of LGAs in New South Wales and South Australia, compared to Victoria.

[13] The validity of this result cannot be tested with the type of data used in this study. Verification of this hypothesis would require unit record data for victims or offenders.
[14] At a more abstract level, this result ensures that the estimates of the regression coefficients are efficient.
[15] The regression coefficients for income and income squared were not statistically significant. This may be due to aggregation.

Demand for public safety declines as the proportion of sole parents with children under the age of 15 increases. Though not significantly different from zero, the regression coefficient for the local unemployment rate suggests that localities where the level of unemployment is high tend to demand less public safety compared to localities where this is not the case. These results support the hypothesis that areas with low socioeconomic disadvantage tend to demand higher levels of public safety than less affluent localities.

More densely populated areas demand lower levels of public safety than sparsely populated LGAs. Residential stability is associated with increases in the demand for public safety, via its negative association with local crime rates.

Areas with a high average level of education tend to be safer and to demand a higher level of public safety compared to areas where the level of education is low. A low level of education may be associated with a high degree of cognitive dissonance, however this could not be assessed from the data.

IV. CONCLUSION

This paper examined variation in demand for public safety across Local Government Areas (LGAs) of the mainland Eastern states of Australia. Demand for public safety was assessed from an index of public safety defined as the inverse of the local crime rate.

Public safety is a public good. This raises a number of issues about economic and social efficiency in the efficient provision of public safety. Optimal levels of public (and private) expenditure are determined to a greater extent by the price that local communities are prepared to pay for self-protection. This in turn depends upon the local crime rates and the prospective private loss from crime. Local demand for public safety varies with the socioeconomic characteristics of local areas.

Areas that are residentially stable, those with a highly educated population, low concentration of socioeconomic disadvantage, or low income-inequality, are less tolerant to crime. This leads their residents to demand higher amounts of public safety compared to areas with transient populations,

lowly educated residents, high levels of disadvantage, or high income-inequality. These factors contribute to the formation and preservation of local social capital.

Demand for public safety can then be ultimately linked with the stock of social capital of local areas. Areas that are more stable, both residentially and socially, enhance their capacity to cumulate social capital which in turn leads to communities that are cohesive, inclusive, cooperative and with high levels of trust amongst their members. The average resident of these communities will tend to spend more on self-protection to minimise their own risk of criminal victimisation and the prospective loss from crime. It is in this sense that these communities demand low levels of public safety in the form of imposed law and order, relative to those with low levels of social capital.

Governments operate under many fiscal constraints, and are always looking for ways to reduce public spending. Public safety does not escape this trend, as can be seen from recent developments toward increased participation of the private sector in the market for this good.

This paper shows that communities may not be equally keen to engage in activities aimed to enhance their current levels of public safety. Governments need to invest in community building capacity aimed to promote effective local participation in crime prevention and control. Unstable communities will tend to perceive that governments are not doing enough to provide them with proper protection from crime, and will demand high levels of imposed law and order. This causes further erosion in the levels of social trust and participation among community members, which in turn results in increased levels of crime.

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