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The Car Guards of Cape Town: A Public Good Analysis

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Abstract

Car guards have become a part of everyday life for drivers in Cape Town and other metropolitan centres around South Africa. This paper analyses the development and economic functioning of the industry with the understanding that the market exhibits quasi-public good characteristics. Some unusual phenomena are explored. Firstly free riding does not lead to under-provision in the market due to the survivalist nature of the supply, the non-contractual nature of the demand and varied public perceptions. Secondly private firms enter the market as a signalling device for the heterogeneous quality of car guards. Lastly drivers continue to pay car guards in the face of free riding due to varied preference curves and a degree of altruism in rational agents. Twenty detailed case studies are undertaken and the results presented and used to inform the theoretical conclusions made throughout the paper.

¹ McEwen acknowledges funding from the National Institute of Child Health and Development and the National Institute of Aging R01 HD045581-01.

Introduction

Car guards have become an increasingly common sight around Cape Town and other metropolitan centres around South Africa, yet a decade ago the occupation barely existed. A primary question is whether payments to them comprise rewards for a real service or are merely expressions of altruism. This paper finds car guarding to display characteristics of a public good. As an economic phenomenon the car guarding 'market' poses three issues: why does free riding not completely subvert it? Are there externalities involved (and are these positive or negative)? And, how is this market evolving? This paper will attempt to address each of these.

As an economic activity, car guarding emerged spontaneously and has grown without assistance from government at any level, local or national. The activity is now not only widespread, but also increasingly formalised, making it an interesting case study for advocates of free market economics. This is further emphasised by the lack of consensus regarding it; an issue evident both in the varied perceptions of car guarding held by the general public, and in local government's alternating attempts at discouraging and regulating it.

The evolution of the industry has seen its increasing formalisation, this despite the fact that, in its positive guise, car guarding exhibits characteristics of a (quasi-) public good: (imperfectly) non-excludable and non-rival, while the service itself is non-divisible.

Car guarding clearly presents an unusual combination of public good nature and market reality that sits at odds with expected economic outcomes. Theory suggests that products with a public good component will be under-provided by the private sector and that demand will exceed supply. Non-excludability means that public goods are prone to free-riding by consumers. In the case of car guarding, the service is non-contractual in nature and free-riding is easy. Why then do rational economic agents pay, and continue to pay, for this service, and why have private enterprises chosen to enter the industry? The public's altruism alone provides an unconvincing causal factor for the formalisation of an informal activity. A more persuasive argument is that this is a reaction to corporate and municipal incentives aimed at curbing the industry's negative externalities, in consequence of which the informal car guard has increasingly become a formal parking attendant or meter monitor.

Beginning at the level of individual car guard, this paper posits that the expected public goods outcomes are altered by the survivalist basis of the supply and the non-contractual nature of the demand. The lack of alternative employment inflates supply while mixed public perceptions of car guards as "goods" or "bads" depress effective demand. The combination helps eliminate the under-provision normally expected in a public good market.

The high unemployment climate present in South Africa mean that informal markets act as sinks for the excess supply of labour. Car guarding has proven particularly appealing to refugee and migrant workers who find barriers to entry into the formal sector. Case studies suggested that this appeal was enhanced by strong network effects as current migrant workers assist other migrants' entry into the industry. Unfortunately further analysis of this aspect goes beyond the scope of the paper.

This analysis of the car guarding industry in Cape Town was informed by 20 comprehensive case study interviews of car guards. These were undertaken during June 2006 by two

bilingual (English/French) interviewers and were performed at the guards' working locations. The approach is qualitative; information from the interviews is used to summarise, compare and illustrate how car guarding operates and its implications for the lives of participants. These case studies provide the basis for the generalisations made regarding the economic functioning of the car guard industry. A selection of case studies is presented to provide background and evidence for the propositions made. A brief discussion of altruism and the motivations behind paying car guards is also undertaken

Previous work on car guards in South Africa has been limited. Kitching (1999) performed a study on car guards as an honours dissertation at the University of the Free State and Thaver (2002) wrote a paper entitled "Perspective on the Informal Economy with Special Focus on Car Guards in Durban", both of which are unpublished and unfortunately unavailable to the public. Bernstein (2003) investigated car guards in Cape Town by interviewing 53 car guards and 200 car drivers on their opinions and experiences in Long Street and Kloof Street in the Cape Town CBD. His focus was on the prevalence and nature of the harassment of drivers by car guards (which he found to be minimal despite public perception to the contrary) and the harassment of car guards by police and security forces (which he found to be widespread). His conclusions, while providing insight into driver perceptions and car guards' working conditions, fail to address the economic functioning of the industry and instead focus mainly on valid social concerns. Blaauw & Bothma (2003) concern was the informal sector as a panacea to unemployment in South Africa. They addressed the issue by studying 149 car guards in Bloemfontein. Using a stock-flow model they indicated that car guarding did not assist in entry into the formal sector, but merely functioned as a survivalist activity. The focus here was less on the functioning of the car guard industry and more on its role in the cycle of employment. Strydom et al provide a summary of data collected on 27 car guards working in two different parking lots in Potchefstroom. The paper provides no analysis and little discussion. Lastly, a popular rather than an academic analysis was provided by Swart (Feb. 2006) in a feature article on car guards in *The Big Issue*. Again the work is largely based on interviews conducted by the author.

Unlike these earlier papers, the focus of this work is the analysis of the economic functioning of the car guard industry, hoping to thereby draw insights into the functioning of informal markets containing a public goods element. A further aim is to ascertain how incentive structures impact on the development of such markets. This analysis is approached from both the demand and supply sides. A qualitative, case study approach was used on the grounds that it would provide finer insight and detail than a statistical approach could do. It is hoped that the study will shed more light on a frequently misunderstood industry, and highlight interesting avenues for further research.

The structure of the paper is as follows. A brief history of car guarding's emergence and evolution is followed by a discussion of its increasing formalisation. Some of the issues discussed include, whether or not car guarding is in fact a service, and the non-contractual nature of interactions. An analysis of car guarding as a public good is then explored. The co-existence of the public good aspects of the industry with apparent "market" prices for these services is investigated. This leads to a discussion of the motivations for paying a car guard. Addressed is the question, why should consumers pay when they have the option of free-riding? The methodology and some abbreviated case studies are then presented, followed by the conclusion.

An informal history of car guarding

Car guarding first emerged as a visible economic activity in South Africa in the early 1990's with the local homeless and unemployed soliciting cash tips by pointing the way to empty parking spaces, assisting in parking manoeuvres and offering to watch a car in the driver's absence. While these activities may have been real services, and the car watching may have been a response to high rates of car-related crimes, they were widely considered a variation on traditional begging.

Over the years the number of informal car guards grew, indicating that this survival strategy had met with some measure of success. Police and municipal officials at times tried to inhibit these activities on the grounds that they were unsolicited and occasionally aggressive². It was then unclear whether or not such totally uncontrolled car guarding provided a genuine service. When interviewed, drivers gave a range of responses: some reported that they paid out of fear that the 'guard' would damage their vehicle, others to quieten persistent imploring, or simply out of pity. Moreover, many drivers did not pay anything at all (Bernstein, 2003).

One can argue that car guarding only evolved into an informal industry when information signalling became an aspect. At this point business owners recognised that the negative externalities generated by such car guards could be eliminated, and the real benefits maintained, by restricting the activity to a small cohort of approved guards. Such a group would be given permission to operate in a business's parking lot and, with membership restricted, membership of the approved cohort could yield economic rents to a guard. The process was further formalised when firms began providing (or hiring-out) official jackets and name tags etc. Though business owners were recognising the positive externalities car guards provided, this organisation of the service was probably also motivated by the negative externality that some informal, homeless guards presented to customers. It was hoped that respectable, officially sanctioned guards would displace the problematic ones.

Interviews conducted suggest that initially car guards were rarely paid a salary by companies or mall managers; instead they survived on tips alone³. This has been changing in recent times with further formalisation of these activities. Cape Town municipality now contracts car guards to collect compulsory payments for parking in the city centre as an alternative to parking meters. This practice however, rarely exists outside of commercial centres and payment is still extremely low. While there is increasing recognition of the need for car guards and their legitimacy is more generally accepted by businesses and drivers, some observers insist that guards remain as glorified beggars.⁴ In recent years the nature of the activity has changed from scattered and random to the widespread, sanctioned activity seen today. The demographics too have changed, from a survival activity of the local homeless and unemployed to one often typified by relatively capable and qualified local and regional migrants. Barely a parking spot is now without a car guard and it is often considered unsafe to park in an unguarded spot, especially after dark.

Clearly a central issue is whether or not car guards provide a *real* service. Irrespective, the information asymmetry between guards and drivers has been reduced through the greater

² Bernstein (2003) provides a recent argument opposed to this view.

³ See also Swart, G. (2006).

⁴ Swart, G. (2006).

formalisation of this activity. As a result the problem of negative externalities has largely fallen away, and car guards now offer at least a *perceived* service to many drivers.

The market for car guards

While car guards may not actively fight crime, there is no doubt that they offer a deterrent to it. A car guard in an area raises the probability of detection, deterring some potential criminals, and inducing others to move elsewhere. Shopping mall managers have acknowledged that car-related crime in their parking lots declined with the arrival of car guards.⁵ That the service can be real, even at a smaller local level, is demonstrated by those restaurateurs who now post parking-lot guards to ensure the safety of patrons and their vehicles.

Such service provision is not costless for the guards themselves: there have been incidents of car guards confronting potential robbers, guards have given evidence in court and taken a role in preventing car theft fraud. There is little doubt that the work can be dangerous: one of the guards interviewed in Newlands, Cape Town complained that he has had a knife pulled on him several times. The threats faced are not only from car thieves and hooligans, but also violence and threatening behaviour from the local homeless who compete in trying to solicit money from drivers. Certainly, a secondary function of car guards is to keep the more intimidating drunks and homeless from harassing motorists as they did more commonly in the past. This aspect alone indicates that, whether they value it or not, drivers do receive a positive service from car guards.

Although the existence of a valid service will be assumed hereafter in the discussion, the reality is that there are a range of potential services involved, and these vary from site to site. Car guards provide heterogeneous services across the sector. Unsurprisingly, the value placed on the service will differ across individuals and across locations. The drunken vagrant soliciting a change and the vigilant, uniformed guard are two extremes of the quality spectrum. The expected value of the service will also have a locational component. Holding guard quality constant, the service will be less useful to the driver parked in a busy, well-lit street than to one in a dark, lonely alley. Anecdotal evidence emerged in the case studies that car guards who have secured profitable parking areas occasionally 'rent' their areas to other car guards for a small fee. Drivers' perceptions of the service provided, and their subsequent payments clearly have multiple determinants, including quality, location, time and driver attitude. However, since car guarding often has no formal structure, the last is crucial, payment remains at the discretion of the driver. Driver perceptions and rationales for payment will be discussed later.

This brings up the difficult issue of implicit contracts in the car guard industry. When there is no formal contract, a party providing a service has no guarantee that the other party will recognise or reward it. This is a problem facing many informal workers. Portes (1994) cites the case of informal labourers hired from off the streets, who finish the agreed upon work only to find their employer unwilling to pay the agreed upon wage and themselves with no avenue of redress. The car guards' situation is more acute since their services are unsolicited. The payments they receive for their services are extremely variable, depending on a mix of driver altruism and service valuation. Thus car guards find themselves in a tenuous situation;

⁵ Swart, G. (2006)

receiving extremely variable pay depending on the quality of service and consumer perceptions and with no formal rights or work protection.

While many motorists elect not to pay guards for services which were not requested, a sufficient number of drivers must be paying to warrant the guards' presence. Car guards would not waste their time without a tangible probability of reward. This raises a number of questions: are those that derive real benefits, but do not pay, classic free riders on a public good, or is the problem one of public perception.

A discussion of default and free riding will follow later in this paper. For now one point is worth making - non-payment seems to have three basic roots. One may stem from the early days of car guarding as a new and sometimes aggressive form of begging. Resistance to such demands may continue long after the original problematic activity has disappeared, and could manifest as a refusal to pay for what is now a real service. Another is that drivers simply do not perceive a service and consequently refuse to tip the car guards. The last is true free riding: the user who realises the value of a service, but elects not to pay. At issue here is choice. If guards are present in a parking lot, drivers cannot choose whether or not to use them, being a public good they will benefit from the service regardless. Their choice is whether or not to pay.

For some drivers the resistance to paying a parking attendant or car guard, no matter how formal the service provided, is deeply ingrained. Thus, a level of contractual default remains evident even where car guards have been formalised into municipal parking tariff collectors to whom payment for parking is compulsory. This is an issue that was clearly evidenced in the case studies conducted.

In its present form the car guarding market is clearly incomplete. It is not obvious, however, that interventions to complete it would be warranted. The industry could be regulated further by validating and strengthening contracts (although, as mentioned, there remains a degree of contractual default even where this has occurred). Another alternative would be to cultivate a social trust mechanism in which non-payment would be frowned upon in the relevant society. However, public censure may be a tool weak in South Africa and would require both time and a high level of driver participation. It might also be influenced by the xenophobic tendencies of the South African public. A large proportion of guards interviewed were from francophone Africa. Drivers are receiving a beneficial service, whether they recognise this or not, and as car guarding becomes more entrenched in the norms of society it seems likely that driver payment will increasingly reflect this benefit. The following section discusses the finer points of the car guard market and subsequently, why drivers do and do not pay.

Car guarding as a public good

While private goods are traded for mutual benefit, public goods cannot be similarly traded since they are by definition, non-excludable, non-divisible and non-rival.⁶ The definition of pure public goods being equally available to all relevant consumers and perfectly non-excludable is a restrictive one. Quasi-public goods are more loosely defined as being imperfectly non-excludable and imperfectly non-divisible. In other words some degree of exclusion may be possible and although the good cannot be split into usable units there are

⁶ Frank, R. (2006).

certain constraints on the benefits each person derives being equal. It is important to note the difference between quasi-public goods and private goods; that despite some degree of exclusionary potential in quasi-public goods, excluding consumers is still inefficient as the marginal cost of additional consumption is zero.⁷

Car guarding exhibits many characteristics of a public good market, such as non-excludability, non-divisibility and non-rivalry. Anyone with a car can park in a guarded car park, subject to capacity constraints. Moreover, they can do so at no additional cost unless payment is required upfront; which is the norm only in private car parks or where guards are contracted by the municipality to collect parking levies. In general then, car guarding exhibits non-excludability and zero marginal cost. The service car guards offer cannot be split up into usable units, although of course the average amount of time spent watching a particular car diminishes as the number of cars being watched increases. Thus, while there is zero marginal cost, marginal benefit does decrease as service provision per guard increases. This implies that the service is depletable, a characteristic of private goods, and suggests imperfect non-divisibility. One more person using a car guard may not preclude others from using the same guard at the same time, but does impact on the quality of the service. Car guarding services therefore appear to be quasi-public goods⁸.

Theory on public goods predicts that some consumers will contribute to the public good while others will free ride, which concurs with evidence from the car guard industry. A prediction backed up by experimental evidence is that free riders may be in the minority initially but as others observe successful free riding their contributions will steadily decrease over time until all consumers are free riding and the market breaks down.⁹ The presumption is that most people's personal contributions are conditional on the contributions of others so contributions decay when contributors and free riders interact¹⁰. This presents a conundrum: the car guard industry exhibits rampant free riding¹¹, however, the market has not broken down but rather expanded over time, and contributions have not decayed but increased. A number of plausible explanations arise: there may be implicit community incentives or punishments involved, or drivers may view their tips not as payments for a service but as charity. These and other arguments will be explored in the next section which addresses drivers' motivations for guard payment.

Car guarding's classification as a quasi-public good suggests that its supply will be socially sub-optimal¹². But does demand for car guards really exceed supply? There seems no shortage of car guards, and if sufficient drivers who do not regard guarding as a real service nonetheless offer payment through altruism, then excess demand need not be expected.

A first step in an analysis is to recognise the difference between the value consumers derive from the service and their willingness to pay for it. Utilitarian thinking suggests that a self-interested economic agent should have a willingness to pay of zero for public goods. This

⁷ Buchanan, J. (1968).

⁸ The policy relevance of depletability in public goods policy is addressed in Freeman A.M. (1984).

⁹ Camerer, C. & Fehr, E. (2001).

¹⁰ Fischbacher, U & Gächter, S. (2006).

¹¹ Observation and anecdotal evidence from interviews, suggest that free riders are often a majority. As part of this study a number of car parks were informally monitored. Rates of payment to guards varied considerably with location and time of day, but in some cases were as low as 10%.

¹² Baumol and Oates (1988, Ch 2).

makes it impossible to use payment behaviour to distinguish between those who are free riding and those who genuinely don't believe they are receiving a service.

The value of a private good to a consumer is the amount paid plus the Hicksian consumer surplus. When a good or service has a public goods component, however, there is an incentive to free-ride, and to under-state willingness to pay. This means that neither revealed preference nor contingent valuation is likely to yield accurate valuations. In consequence, stated willingness to pay, revealed preferences and the true value placed on the provision of a public good are unlikely to coincide.¹³

It has already been established that car guards do provide a service. Even where this is recognised, however, marginal willingness to pay for the service may be below the incremental utility it provides. Free-riding is not the sole reason, and interviews with drivers suggested a number of others. It became clear that the presence of car guards is a relatively new phenomenon and many drivers remain unaccustomed to paying a stranger to watch their car. Another commonly stated view is that retailers and shopping malls are, or should be, responsible for paying car guards. Some drivers also report an unwillingness to "encourage them" presumably a reference to the informal sector as a lubricant for further in-migration. Whatever the basic cause, consumers' willingness to pay is lower than the true value of the benefits they derive. A demand function estimated using revealed preferences will therefore lie below the true marginal utility function, suggesting a loss of welfare to society if quantity supplied is based on actual payments for services rendered.

The second step in explaining the contradiction in the car guard market results from the survivalist nature of the supply. Economic logic is clear: public goods should be underprovided. This provokes a question: how does economic logic explain the growth in car guard numbers?

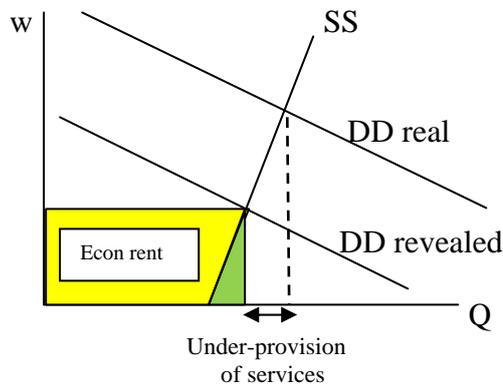
In the case of a product or service that is best produced by large enterprises, the main cause of public good under-provision is a corporate unwillingness to supply non-exclusionary goods or services¹⁴. However, the car guarding population encompasses both the local unskilled unemployed and a body of migrants, many of whom have considerable skills and qualifications, but are excluded from the formal labour force by state regulations or by employer misunderstanding of them. This means that the reserve army of potential car guards is extensive. Random interviews over the past year, and the case studies included in this paper, have indicated that car guarding is rarely an occupation of long term choice. It is more typically a short-term survival strategy or means of augmenting household income. This view is further supported by the evidence of Blaauw and Bothma (2003). Importantly none of the interviewees identified it as a preferred occupation.

The opportunity costs of the urban unemployed being low, the benefits of car guarding can be very low and still attract inflows of workers. The barriers to entry into car guarding are low, allowing in workers denied access to other labour markets. This explains why, despite its public good aspect and the public's low willingness to pay, there is still no under provision of guards. Expressed in terms of Microeconomic theory, the supply of labour by the urban unemployed is wage inelastic. In consequence the bulk of income is earned as economic rent,

¹³ See Bradford, D & Hildebrandt, G (1977) and Samuelson, P (1954).

¹⁴ This is now generally accepted even in entry level texts: See for example Frank (2006) or McConnell & Brue (2002).

and little accrues as transfer earnings. In such a case the demand function expressed through revealed preferences will have little impact on service provision.



Econ rent and transfer earnings

A second conundrum remains: an increasing number of formal enterprises have entered the market for car guarding. Despite low driver willingness to pay and a public good aspect, a few private firms entered the market, absorbing individual guards as ‘employees’. In addition public authorities have taken on the task of supplying this public good, in particular the municipality of Cape Town is now an active participant.

Cape Town municipality’s interest in parking management and revenue collection, and the concerns of large retail chains, have meant an increasing formalisation of the sector. Firms entering it as suppliers, or coordinators of supply, now provide a service hitherto unmet. The uniforms they provide constitute a quality signalling device for the heterogeneous corps of car guards mentioned earlier. While shop owners and mall managers, like individual drivers, acknowledge the merits of good car guards, they are aware of the varying qualities of car guard, from presentable and friendly at one extreme, to the unkempt and intimidatory at the other. Depending on quality, the presence of a guard can provide a service or a dis-service for consumers. A mall or shop owner will want to ensure that customers using nearby parking lots only experience the services of good quality car guards.

The system operates in a number of ways. Initially car guards would be offered an identifiable “bib” or other uniform, which they could lease daily. Effectively the operator was taking a portion of their takings in exchange for a quality signal. Such firms hire out car guards with the promise that they will be reliable and will be removed and replaced if there is a problem. The costs to guards wanting such ‘certification’ vary; the maximum among those interviewed was a levy to the company of R45 per day (on top of which uniforms had to be bought. Recently however, some clients have started to pay for the provision of car guards and in some cases the payments by the car guards themselves have fallen away.¹⁵ Car guards go to the expense of joining a private firm to signal their quality and to utilise the firm’s network of clients. Car guards must expect their incremental earnings to exceed what they pay to join these firms. The outcome is therefore Pareto improving: incomplete and asymmetric information allow an expanding symbiotic relationship between guards, parent companies and drivers, despite the public goods nature of the industry.

¹⁵ This could be due to pressure from the public or the car guards themselves. There have been instances of the press highlighting the plight of car guards and subsequently some bad publicity for entities, such as shopping malls, that benefit from their services without any formal recompense,.

This leaves one more aspect of car guarding as a public good to be fully addressed; the issue of free-riding and why drivers pay car guards.

Why pay a car guard?

There is a clear difficulty in reconciling the concept of “rational economic man” with behaviours that reward car guards sufficiently for their occupation to expand and perpetuate itself. Despite the ease of free-riding many drivers clearly do pay car guards. Since a self-interested economic agent would choose to free-ride, this implies a degree of social altruism on the part of the agent who does pay. As mentioned earlier, in experimental games payments for public goods are usually conditional on the contributions of others.¹⁶ If one assumes full information, then the continued existence of contributors in the car guard market indicates that such conditionality is not universal; that some contributors are willing to continue contributing despite their knowledge that others free-ride. This implies that for some, their contribution is independent of others’ actions. Of course if information is imperfect, then continued payment could merely mean ignorance of others’ actions. This seems unlikely in reality, thus while perfect information may be implausible, payment for public goods may still be self-motivated.

This leads to the issue of altruism and payment for public goods. There are motivations for altruism other than pure selflessness. It can be demonstrated to enhance social status, to excite admiration among peers, or to avoid social stigma or ostracism.¹⁷ These reasons and others *could* explain altruism directed at car guards. However, they imply a level of community awareness of individual payments and non-payments which is rarely present. An interesting study would be to observe whether drivers are more or less likely to pay a car guard when there is someone else in the car with them. Payment when alone indicates some private, psychological benefit of altruism, a need for self-definition as a ‘good person’. Such scenarios would allow for payment even if drivers did not consider car guarding a beneficial service, i.e. for payment as a form of charity independent from other agents’ behaviours.¹⁸

The co-existence of contributors and free-riders could be ascribed to non-homogeneity of preferences amongst drivers. Studies on experimental games have found that heterogeneous preferences exist in the market for public goods and are stable predictors of contribution behaviour.¹⁹ Hypothetically, if driver A values car guards more than driver B and driver B chooses to free-ride, this does not preclude driver A from continuing to contribute if s/he significantly values having car guards over not having car guards. This again implies independence of contributions from other agents’ actions, but with the additional issue of differing motivations underlying it. The focus is on heterogeneity of preferences and values as opposed to charity. If some drivers’ preferences for car guards are sufficient to ensure a threshold level of contributions then regardless of other drivers’ non-contributions, payments and a market will still exist.

Those who value car guards more are likely to pay car guards more and vice versa, so those who value car guards more subsidise the use of car guards by those who value them less. In a

¹⁶ Fischbacher & Gächter (2006).

¹⁷ Frank, Robert. (2006)

¹⁸ There is scope for further research here. Observing whether drivers pay or do not pay depending on variables such as age, race, gender or whether they are alone or not would make an interesting experimental study.

¹⁹ Fischbacher, U. & Gächter, S. (2006).

traditional public goods game all agents free ride because they have homogeneous value functions and make their decisions simultaneously. By contrast, in an inter-temporal game if you consider the driver who values car guards as a ‘first mover’ in a game theoretic model where the second mover free rides, a rational agent could still contribute to the public good if (s)he values it sufficiently. Previous public goods experiments have shown that if a first mover who pays notes that subsequent participants free ride, the payment motivation will evaporate over time in consequence. This does not necessarily have to be the case if the first mover is rational and still values having car guards over not having car guards enough to contribute to some threshold level of payment. If a sufficiently large body of participants pays, whose value functions encompass either social responsibility or enlightened altruism, then payment behaviour is reinforced and this group can coexist with pure free riders over time. The sole precondition is that their value functions should be stable. This results in contribution to public goods not being contradictory to economic rationality if you take into account differing value functions.

The reality may well be a mix of the explanations above. Fischbacher and Gächter (2006) identified different “types” of players in public goods games according to their contribution preferences which proved stable with their actual actions, especially in repeated games. They found that more than 50% of participants were ‘conditional contributors’ whose contributions were determined by those of others. About 25% were classified as ‘free riders’ who didn’t contribute no matter what the other players did. Typically less than 10% of participants were ‘unconditional contributors’ whose contributions were independent of others’. The remaining participants had more complex preferences. The car guard market may be consistent with this view and the motivations previously discussed. If so the strategies of free riders and conditional contributors would suggest a game theoretic prediction of contribution decay till all participants are free riding. Drivers who don’t contribute, including those who do not pay because they do not perceive a service, would fall into these two categories. In such a case the car guard market only survives on the benevolence of unconditional contributors. The division of drivers into different player ‘types’ allows for the presence of individuals following the expected economic strategy of free riding, initially contributing and eventually free riding as predicted by experimental evidence, or continuing to contribute independently of others’ actions. The presence of independent contributors could subsequently be explained by the theories of altruism and charity discussed, or by heterogeneous value functions and willingnesses to pay. This could explain the continuing coexistence of free riders and contributors in a privately provided public good market, and potentially even the expanding market for car guards.

The motivations for payment of car guards in a non-excludable market have been discussed, as have the lack of under-supply and the increasing organisation of the sector. The following case-study summaries are presented to provide background for discussion on the nature and present functioning of the car guard market in Cape Town.

Methodology

Car guards were identified and interviewed on the streets where they worked and twenty detailed case studies were collected. The interviews were conducted by two research assistants over the course of a week. In order to ensure as much representation as possible, respondents were taken from a wide geographical area within the city including Cape Town CBD, Newlands, Rondebosch, Greenpoint, Sea Point, Parow, Hout Bay, Camps Bay,

Mouille Point, Claremont and Kenilworth. Different types of parking lots; mall parking, municipal parking, street parking etc were also included. Interviews were conducted at different times of day to ensure there was no bias towards particular types of car guards, such as migrants or those who work part-time. French speakers and English speakers were included and interviews were conducted in both languages to ensure more candid disclosure. Due to the often sensitive nature of refugees' legal status, and to encourage as much honest disclosure as possible, the respondents were all anonymous. To avoid duplicating interviews the interviewers were each assigned individual areas to work in. Since the car guards were interviewed while on the job they were paid compensation for the time taken. This payment occurred after the interview to ensure that it did not affect the responses given. Each interview took on average an hour and a half as respondents were not prevented from doing their jobs and the interview was often interrupted.

The case study approach was used as the focus of this paper is more on the qualitative insights into the market as opposed to the quantitative measures, which would have been easier to identify in a brief, large scale survey. The interviews were intended to capture the car guards' histories, including where they were born and grew up, why they left, where they went, the quality of their lives in Cape Town and their intentions for the future. The interviewers used a questionnaire but were encouraged to chat informally and write down any interesting stories or additional information gathered. The questionnaire is divided into sections on basic demographic information, employment history, views on car guarding and plans for the future, information on family members, education and finances. Since a large number of interviewees are migrants and/or refugees there is also a section on where they are from and how they came to be in South Africa and Cape Town in particular. The aim was to accumulate a small collection of personal stories in order to attain greater understanding of the people working as car guards.

Case study summaries

Presented here is a summary of the information collected from car guards during the interviews. It offers some insight into who the car guards are, where they come from and where they intend going. It also informed the suppositions made on how the car guard market functions.

Of the twenty car guards interviewed three operated in the Cape Town's central business district, one in Newlands, two in Rondebosch, two in Greenpoint, three in Sea Point, two in Parow, two in Hout Bay, one in Camps Bay, one in Mouille Point, two in Claremont and one in Kenilworth. Nine of the interviews were conducted in English and eleven in French. The guards interviewed ranged in age between 20 and 48 years: nine respondents were in their twenties, six in their thirties and five in their forties. The vast majority of respondents were black males: the interview sample included eighteen males and two females, eighteen of the respondents (including the two females) were black and two coloured. There were no white or Asian respondents. This contrasts with the Blaauw and Bothma (2003) Bloemfontein study, in which the majority of the hundred and forty nine respondents were white and Afrikaans speakers, indicating different car guard demographics in different areas of South Africa.

There is a large refugee presence in the car guard market. Twelve of the car guards interviewed had migrated from the DRC and eight car guards being South African. Data collected by Bernstein (2003) showed even higher proportions of refugee car guards with

thirty six of his fifty three interviewees falling into this category, the majority being from the DRC. Subsequent informal conversations with guards revealed many from Rwanda and Gabon. Informal observation suggests that Francophone Africa is a major source of guards in the Southern Suburbs. Indeed, of the guards interviewed whose roots lay beyond South Africa's borders, very few came from Anglophone Africa. Interestingly none of the refugees interviewed are female. Of the twelve refugees interviewed, all cited war and a lack of jobs as their reason for leaving home, though one was also "looking for adventure". They all came to South Africa envisioning a better life for themselves and followed work or friends or relatives to Cape Town. Interestingly, only two of the refugees expressed an interest in living in Cape Town permanently, while one was unsure. Of the nine planning on leaving, four were hoping to go to Europe and one each to America and Canada. All cited greater work prospects and a higher standard of living. The remaining three hope to return to the DRC once conditions there stabilize. The refugees who wished to go abroad shared idealised visions of a society with work for all who wanted it, and no discrimination, racism or xenophobia. The reasons they liked Cape Town were varied, from work to the beautiful scenery to the infrastructure. Five of the refugees would consider leaving for better work prospects while three are hoping to travel more. One refugee would leave because of crime. At the time of the survey only two wanted to leave because of xenophobia and an unwelcoming society²⁰ and another wants to return home to the DRC citing patriotic grounds. Few of the refugees interviewed felt they were in Cape Town by choice; the decision was typically based on circumstance, typically the existence of a network. Few expressed any desire to make the city a permanent home.

Although this study lays no claim to statistical sampling, the difference in education between local and foreign car guards is startling. Of the locals (native South Africans) interviewed, none had a degree, one had a diploma (M6 level in management assistance) and two had finished high school. Four of the five remaining had not completed high school, while one had primary education only. Of the foreigners, five had been to university (studying law, economics, English, electrical engineering and informatics), one had a diploma, five had finished high school and one had only completed primary school. While some locals had artisanal skills like painting, welding, brick-laying and truck driving, many of the foreigners had professional skills including teaching, mechanics, informatics, law, physiotherapy and electrical engineering. There was a clear contrast between locals, who enter car guarding because their lack of skills prevents formal employment, and foreigners, who have skills but face other barriers to entry. A small majority (seven out of twelve) of the foreigners were planning to improve their circumstances by studying further while the majority of locals (five out of eight) expressed no such intentions.

Some car guards indicated that the work was an income supplement while for others it is a sole source of income. Of the twenty car guards interviewed, twelve were guarding cars full time while six were part-time. Three of the part-time workers had other jobs (a security officer, a trolley collector and an electrician). One was a volunteer junior pastor, another a student at UCT and the last one did no extra work. All of the part-time workers were refugees, reinforcing the view that refugees are more proactive with regards to improving their circumstances

There are also differences in previous work experience, though these were less obvious. One reason for this is that some refugee guards interrupted their studies to enter South Africa. The

²⁰ In May and June 2008 and subsequent to serious xenophobic outbreaks earlier in the year, a round of informal interviews with guards was conducted in Cape Town's southern suburbs. At that stage most foreign car guards interviewed indicated real concern for their safety.

range of previous work experience of car guards was vast. Of the twelve foreigners, four had previously been studying (one for a law degree), two were teachers, the remainder included a baker, a physiotherapist, a soccer player, a 'seller', a labourer and a journalist. Some had also attempted security work before. In general the local car guards were less skilled. They included a secretary, a police reservist, a labourer, an undertaker, a security guard, a garbage collector, a school-leaver with no experience and a man who had worked on submarines in the navy. Most of the car guards had enjoyed their previous work, suggesting that the move from their previous occupations into car guarding was not by choice and car guarding is not a preferred form of employment. Two were using it to augment current incomes from formal employment.

Networks appear to be the main point of entry into car guarding. An overwhelming majority of interviewees became car guards through friends and family. This was cited by nine of the foreigners and six of the locals, while others listed crime, job loss and injury as their reasons for entry into the market. Only two of the locals had no friends or family working as car guards and all of the foreigners knew someone else working in the industry, illustrating strong network effects. Most of the locals were employed by a company or government and only three out of eight were informal car guards. Conversely, all of the twelve foreigners were informal car guards, barring four who worked for companies. None of the foreign guards worked for local or provincial government. The strong tendency to informal work is indicative of the high barriers faced by foreigners trying to gain entry into the formal job market, even as car guards. A variant of the networking aspect was the discovery, during the interviews, that car guards who have secured profitable areas sometimes rent them out to other car guards.

Working conditions vary across the sector. The car guards interviewed worked between five and fourteen hours a day, nine hours being the average. The car guards all used public transport, taxis, trains and buses, taking anywhere from ten minutes to two hours to get to work and back. Importantly, all recorded very little job satisfaction (most of them choosing the lowest response) with foreigners enjoying their jobs slightly more than locals. When asked what they liked best about car guarding nine said it was having an income, five enjoyed interacting with people, three liked the lack of stress and three didn't like anything about car guarding. When asked the worst aspect of car guarding, the overwhelming response was the treatment they receive from people. Thirteen car guards complained of rudeness, shouting, racism and xenophobia. Another three felt the job was humiliating and degrading while the rest crime of crime, cold weather and having to stand all day. All the car guards expressed a preference for work in the formal sector, except for two who already have formal jobs as a security guard and an electrician. The interviews were consistent in showing that car guarding is a survival activity and not a preferred employment option.

Foreign guards typically presented as discouraged work-seekers. Of the six car guards who had given up on job searching, five were foreigners. They said they had given up looking for work because, "employers refuse to hire us without a green ID book"; a document they can't obtain legally. It is worth noting that the law entitles foreign nationals on a refugee permit to work in South Africa²¹, but that this is not common knowledge amongst employers or even government officials. High entry barriers to formal employment pressure foreigners into the informal sector. This point is further highlighted by the fact that most of the foreigners interviewed worked alone and not for car guarding companies.

²¹ Refugees Act 130, 1998. Published in 2000.

The jobs aspired to by interviewees ranged from the modest to the fanciful. These included a policewoman, a secretary, a bus driver, two entrepreneurs, a brick-layer, a chef, a garbage collector, a restaurant cleaner, a doctor, a pastor, a teacher, a lawyer, an electrician, a physiotherapist, a fork-lift operator, a soccer player, an engineer, a bureaucrat, and “any job”. Some car guards merely wanted to work in their original professions, these included the secretary, the garbage collector (who lost his job due to an injury and was supplementing his disability grant by car guarding), the pastor (who is a volunteer junior pastor in his spare time), the teacher, the lawyer (who had to flee the DRC while studying for his law degree), the electrician (who already does part-time electrical work), the physiotherapist and the soccer player. Others interviewed, however, had no particular skills or training relevant to the jobs they wished for. The disjuncture between certified skills and market demand for them is a well known source of domestic unemployment in South Africa, albeit with certain caveats²².

Although Bernstein (2003) cites the case of a refugee car guard using his earnings to train as a waiter at Grand West Casino, such initiatives appear uncommon. In general car guarding does not provide enough income for any expenditure beyond subsistence. A policy question arises from this. Following the tradition of dual labour market models [Harris and Todaro (1970), Fields(1985, 2004)] the interviews conducted suggest that ‘conventional’ car guarding falls into that “lower tier” of informal activities which are not activities of choice, but survival activities. Such activities may lower the opportunity costs of migration, but typically provide few opportunities for upskilling or upward mobility. Effectively they merely lower the cost of being unemployed, but provide no probable solution to it. Given the problems generated by in-migration, is it in the interests of national or local authorities to encourage such activities?

Generalisations, however, are problematic: the stated earnings of the car guards interviewed vary greatly depending on whether or not they were in formalised employment (with local authorities or a company) or were strictly informal. It was also influenced by the area and even the season. Incomes ranged from R300 per month as an informal worker in winter, to R4000 per month working for the government in Sea Point. On average, company workers earned about R1900 per month while informal car guards earned about R1300 per month. Foreigners generally earned less since they tended to be informal workers. The car guards interviewed typically spent about R25 a day on food and transport. Their other expenses varied: two had spent R40 to acquire the name tags and reflective bibs required of them, two others, who worked for an unnamed company had to pay R160 and R250 respectively for uniforms. Two of the car guards working for Numque (City of Cape Town) had to pay R45 per day to work in Sea Point while the others who worked for Numane 20 and Afripark indicated that they didn’t have to pay anything.

Although networks of family and friends provided a common entry to the activity, only one car guard mentioned pooling or sharing his income with other car guards. Dependency ratios, however, were high. Fifteen of the twenty interviewees responded that they sent money to family. Given the dispersion of earnings, it is unsurprising that stated remittances lay in a broad range between R90 and R1000 per month. There were five car guards with no dependents, three with two dependents, three with three dependents, one with four dependents, four with five dependents, one with eight dependents and one responded that he had ‘too many to count’. Only five of the eight local guards sent money, while ten of twelve

²² See for example Pauw *et al* (2006).

foreigners did. None of the car guards received any monetary support from anyone else. Thus it appears that car guards are generally the breadwinners, forced to partake in this survivalist activity in order to support themselves and their extended families.

Below are two abridged case studies of individual car guards, one a local South African and one a refugee. They were selected as typifying and contrasting the experiences and characteristics of local and foreign guards.

Case Study 1

Subject one is a 29 year old black, female South African national born and raised in Cape Town. She attended high school but failed to obtain a Matriculation certificate. In August 2005, after various short-term unskilled jobs, she started car guarding and has been doing this ever since. Her brother and sister also work as car guards for the same private company, Numane 20 cc, which provides car guards to municipal parking areas in the CBD. She found her job as a car guard through this family network. She lives in a family with an entire generation of car guards.

She stays with her parents, 2 sisters and a brother, in Guguletu. Her father is unemployed but is 'paid because he's sick' (probably a disability grant), her mother works for an NGO, her brother and sister are car guards and her younger sister is in Grade 7. She earns a basic salary of R400 a month plus commission on payments she receives - usually about R800 a month. She works Monday to Friday from 8:00 to 16:45 and catches a taxi to work and back, which usually takes about 45 minutes. The taxi fares at the date of interview were R12 per day. Her employer pays for her food at work and there is no charge for a uniform. She has no dependents but contributes R400 a month to household groceries for the family. Her brother and sister each provide R300 a month and any shortfall at the end of the month is provided for by her mother. The car guards in the household are effectively supporting the rest of the family, as well as themselves.

Despite the apparent advantages of a more formal employment contract, Subject One expressed dissatisfaction with conditions of work. A general claim that "the company doesn't treat the guards well" was later identified as having two sources: being forced to stand in her spot all day without a toilet break, and a belief that, being late, even once, would be grounds for dismissal, and that guards would be fired instantly if they were caught out of 'their spot' at any point during the day. It was not clear how formal her agreement with Numane 20cc or what level of worker protection would actually exist for her under current legislation. Certainly the interviewee expressed dissatisfaction with her working conditions and felt that 'government should offer car guards' protection'. The interviewee certainly believed in her lack of rights and protection, despite operating in a more formal labour market.

Subject One doesn't enjoy the job at all but says that she does it for the money. She says the worst part of her job is the treatment she receives from motorists, who are rude and verbally abusive and often refuse to pay the guards. This validates the assumptions made about motorist attitudes to car guards discussed previously. She would like to work in the formal sector and is actively looking for work through word-of-mouth and through her network of relatives and friends. She would be happy with any job but would prefer to be a policewoman or join the army. The car guard industry is her 'last choice' employment alternative.

Case Study 2

Subject Two is a 43 year old, black, male, DRC national. He was born and raised in Kinshasa in the DRC and obtained a teachers degree there.. His teaching salary in the DRC was often unpaid and he decided to leave in June 2000. He worked as a security guard in Johannesburg and left for Cape Town in April 2002 to study English at the University of Cape Town on a bursary. He had a network of friends already studying there who could show him around. This was a case where the reason for migration was not a vague hope of finding better employment, but rather a specific desire to further education, in which car guarding was used to help meet family financial needs.

Subject Two lives in Cape Town city with his wife, 2 children, 2 cousins and brother, all from the DRC. The strong networking ties present in migrants commonly result in close knit family units like this. He has official refugee status and plans to live in the city permanently, although he indicated a desire to return home if the situation in the DRC improves. He likes Cape Town because 'we have a very good university' but would be willing to move elsewhere in the country if he found work there. His wife and children only depend partially on his income since his wife earns R1500 a month in her job as a kitchen worker. He earns about R300 over the weekends in summer and R180 during winter when it is less busy. He normally spends about R10 a day on food and R20 a day on taxi fare when he is working. In this instance the car guard is not the main breadwinner, as he is studying and merely working part-time, but this income is still essential to support the family.

He guards cars part-time to provide for his family and the things his bursary does not cover. He has friends who are car guards and introduced him to it. He and his friends do not work for a company and consider themselves self-employed, which is typical of foreign car guards. He works from 8:00 to 22:00 on weekends and catches a taxi to work and back which takes about 2 hours. Being effectively self-employed, he has no basic salary or food provided such as Subject One enjoyed. The lack of a uniform also affects his status, consequently his working conditions are poorer than those of the more institutionalised car guards who work for companies. This is an illustration of the difficulties the migrant population in particular face in finding employment. Many South African university students supplement their incomes through part-time work in service industries, such as waiting in restaurants. These jobs are popular and can be relatively lucrative. The fact that Subject Two is utilising another, less lucrative and less formal avenue of part-time work, reveals the barriers to entry into the formal sector faced by migrants, even where they have a refugee permit and a good education.

Subject Two doesn't like being a car guard because people are rude and shout at him and he complains that drivers think all car guards are "uneducated and dirty", although he does enjoy meeting the occasional nice person. He would like to work in the formal sector but will only be looking for work after he has finished studying. Once he finishes his English degree he wants to do a post-graduate degree in English. He hopes to become a teacher again as he feels this is what he was born to do and loves the most. He claims that the barrier preventing him from teaching again is the mistaken impression by employers and even government agencies that he must have a South African ID book to be able to work in the country. This case highlights the contrasting reasons locals and foreigners find themselves in the car guard sector.

The evidence from the case studies in general indicated car guarding to be a definitively survivalist activity. For most it was a last resort chosen out of desperation in the face of such entry barriers to the formal labour market as lack of skills (for locals) and bias against foreigners (for refugees). Most of the guards reported poor working conditions, low incomes, humiliation and verbal abuse. It was clear from the recollections of the car guards that many drivers do not perceive a service provided. There are also some who view the presence (rather than the behaviour) of guards as a nuisance; in such cases it is irrelevant that the guards' behaviour is unobtrusive and controlled. Payments to parking guards are uneven, varying particularly with location and time of day. The rewards to guards also vary with the level of formalisation in their branch of the industry. On average the car guards interviewed who worked for a company earned between R1800 and R1900 a month while their self-employed counterparts earned between R1000 and R1500 a month. Formalisation of the car guarding sector could help to spread the perception of it as a true service rather than a variant of charity.

Conclusion

Car guarding has presented the opportunity to analyse the development of a public good market free from government intervention and some interesting phenomena are found. Firstly the lack of under-supply, secondly the existence of private firms and lastly the payment of drivers who could free ride are explored.

The survivalist nature of the labour supply leads to an excess supply of willing car guards, altering the equilibrium outcome we would expect from a public good. The mere fact that a consumable is a public good and free-riding is possible means that consumers will discount its value. Combined with low demand due to drivers who do not perceive a service and low willingness to pay, the equilibrium outcome is adjusted and no under-supply is present in this public goods sector.

Private firms exist in the market as 'middlemen', a signalling device for the heterogeneous quality of car guards, and play a purely allocative role. They earn profits derived from car guards or clients, car guards benefit from utilising firms' network of clients and signalling their quality, and clients receive a stable supply of higher quality car guards with associated positive externalities. This brings up the valid point that the quality of a public good is not always homogenous and that varying quality could impact on the equilibrium outcome expected.

Most drivers do not pay car guards as they either do not perceive a service or they choose to free ride. While some drivers contributions would be expected to decay over time in the presence of free riders, some drivers do pay guards because their contributions are not conditional on others contributions. This is either due to motives of charity (if they do not perceive a service) or differing value functions. In an inter-temporal game theoretic framework, rational first movers would still contribute in the presence of free riders if they value car guards sufficiently over not having car guards. The existence of the car guard market, and its growth over the years, proves that some sufficient level of contribution is being maintained (even if this sufficient level required is very low).

Car guarding encounters some difficulties in normal market functioning due to the perception of some drivers that no service is being provided. Despite public perception, car guards do act

as a deterrent and there have been instances of car guards actively confronting criminals and testifying in court. Car guards also provide secondary functions such as displacing homeless 'guards' harassing motorists for change, as well as assisting in unloading parcels and parking manoeuvres. The non-contractual nature of the activity also presents problems in terms of payment since all drivers benefit from the service, irrespective of whether or not it was requested.

Ultimately this paper is about the car guards themselves. The case studies show that car guards are generally unhappy in their work and would prefer more formal employment. Refugee car guards provide vast reserves of skilled labour being unutilised and need assistance in overcoming the barriers to entry into formal employment they face. Local South African car guards require skills training in order to be of use in a modern economy. At present car guarding provides a means of survival for those, local and foreign, who have no other alternatives. The case studies have shown that car guards who work for companies generally benefit from better working conditions and higher incomes, although there are still issues involving enforcement of contracts and labour practices. This evidence makes a strong case for expanded formalisation of the sector. As a public good market, payment for services could only benefit from greater government intervention.

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The Southern Africa Labour and Development Research Unit

The Southern Africa Labour and Development Research Unit (SALDRU) conducts research directed at improving the well-being of South Africa's poor. It was established in 1975. Over the next two decades the unit's research played a central role in documenting the human costs of apartheid. Key projects from this period included the Farm Labour Conference (1976), the Economics of Health Care Conference (1978), and the Second Carnegie Enquiry into Poverty and Development in South Africa (1983-86). At the urging of the African National Congress, from 1992-1994 SALDRU and the World Bank coordinated the Project for Statistics on Living Standards and Development (PSLSD). This project provide baseline data for the implementation of post-apartheid socio-economic policies through South Africa's first non-racial national sample survey.

In the post-apartheid period, SALDRU has continued to gather data and conduct research directed at informing and assessing anti-poverty policy. In line with its historical contribution, SALDRU's researchers continue to conduct research detailing changing patterns of well-being in South Africa and assessing the impact of government policy on the poor. Current research work falls into the following research themes: post-apartheid poverty; employment and migration dynamics; family support structures in an era of rapid social change; public works and public infrastructure programmes, financial strategies of the poor; common property resources and the poor. Key survey projects include the Langeberg Integrated Family Survey (1999), the Khayelitsha/Mitchell's Plain Survey (2000), the ongoing Cape Area Panel Study (2001-) and the Financial Diaries Project.

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