FORMALISING THE INFORMAL:
THE SOUTH AFRICAN MINI-BUS TAXI INDUSTRY AT THE CROSSROADS

by

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A dissertation submitted to the School of Economics at the University of Cape Town, in partial fulfillment of the requirements for the degree of Master of Business Science.

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Cape Town, 2003

Abstract:

The South African Mini-Bus taxi industry is rooted within the informal sector yet much of its profitability and survival has been forged and become entrenched by cultivating a presence within the formal economy. This dualism has created many internal pressures for this industry and many of these pressures have been associated with violence. This paper considers all these multi-faceted dimensions but also calls for the sector's incorporation and regulation into the formal economy. The theoretical foundations of regulation are explored and it is established that a non-regulatory regime leads to decreased service quality and worsened driver-working conditions. Before the regulatory policies are further examined, the paper establishes the growth of this industry, paying particular attention to the violence that has been a key feature to the industry. This analysis spans the period 1987 to 2000 and highlights the various dynamics that have led to this violence. Political motivations are a key factor but one fundamental issue is that of overtraded routes that has numerous negative spillovers. This overtrading is a direct result of the industry lacking a proper regulatory framework in which to operate. The paper uses a survey to examine the prevailing working conditions that are built upon a system of informality and highlights the need for intervention to support the plight of drivers who are exploited. Thereafter the current government interventions in place are examined with a further analysis on the effects of minimum wages. The paper then concludes by raising critical issues that the government must address effectively for this intervention to be successful.

Acknowledgements:

I would like to acknowledge the financial assistance that I have received from the Mandela Economic Scholarship Programme, which has allowed me much peace of mind.
I would like to thank my supervisor, Paul Lundall, for his support, advice and inspiration during the often challenging time of writing this paper.
I would also like to thank all the staff members at the Development Policy Research Unit for their unwavering support.
Most importantly, I would like to thank God and my parents and family for all the strength that they have given me to finally complete my studies.

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INTRODUCTION

The paper begins by defining the informal sector but it also advances the proposition that the dualistic nature of the taxi industry cannot survive in the long term. Thereafter, the concept of regulation is defined, the ways in which this can be implemented are highlighted and the changing theories that have been associated with this over the last few decades are examined. The differing hypotheses for these theories are put forward and relevant criticisms are highlighted. The argument is then extended by focusing on the South African experience, followed by the international experience. The overall impression is that the taxi industry does not thrive in an unregulated environment as an oversupply of operators results in excessive cost-cutting measures. Firstly, service quality deteriorates as maintenance becomes neglected and secondly, drivers are exploited. Drivers are made to work under pressure for very long hours and for limited financial remuneration.

The paper then analyses the events that have led up to the point where government intervention has become a necessity. The story begins in 1987 when the industry undergoes rapid deregulation and where permits are issued with little regard to the effects of oversupply. The effects are shrinking profits and violence soon ensues as different groups compete for passengers and control over specific routes. Khosa (1992), Dugard (2001) and others offer an in depth insight into the exact ramifications of overtraded routes as well as the political motivations that shaped the violence of this period. Having examined the historical background of the industry, the paper continues by assessing the current status of this industry.

What follows is a snapshot of the transport industry as a whole, which contributes roughly 10% to the country's gross domestic product. This account then offers a brief breakdown of the rail and bus systems in order to elicit a better understanding of where the taxi industry fits in the broader transportation industry. Thereafter a *Survey of wages and employment conditions in the taxi industry* is used to glean relevant information on the current working conditions in this industry as well as the wages earned. The

survey serves to prove that indeed, mini-bus taxi drivers are exploited by working very long hours (up to 19 hours), six to seven days a week for a median monthly wage of R1200. This section emphasises the plight of these drivers who have to endure harsh working conditions and are denied key benefits like access to pension funds, medical aid and unemployment insurance.

In terms of the regulatory challenges, the obvious step is to examine what the government has been doing in order to alleviate the problems in the industry. The government's regulatory initiative focuses on formalising, legalising and recapitalising the industry. The progress of these initiatives is examined and the recapitalisation process is critically analysed from various perspectives. This process intends to introduce 18– and 35- seater mini-buses as well as introduce a number of regulatory reforms that may see a number of drivers being unemployed. This process may lead to the disemployment of up to a third of the drivers currently employed. It is stated that these drivers will be re-absorbed in different capacities within the industry but no concrete steps are mentioned on how this will be done.

The issue of disemployment is discussed again when this paper considers the effects of minimum wages, as the government intends to promulgate a sectoral determination on appropriate wages and conditions of employment. What is found is that in the short run, modest disemployment effects can be expected with a minimum wage of R1800, but in the long run, disemployment may reach 33%. The concluding section highlights issues that the government must still address, especially disemployment, which may occur through the introduction of minimum wages or directly through the recapitalisation process.

The first chapter thus deals with the dynamics of the informal sector. The second chapter then deals with the differing aspects associated with regulation. This chapter begins by examining the theoretical considerations of regulation, then it looks at the South African experience and concludes with a brief account of the international experience. The third chapter looks at the

growth of this industry, paying particular attention to the various sources of violence that have been associated with it. The fourth chapter examines the South African transport sector and engages in an involved account of the prevailing working conditions in the mini-bus taxi industry. The fifth and final chapter examines the initiatives that the government has introduced and also provides a sobering account of possible wage and employment trade-offs. The paper then ends with a conclusion, which draws and highlights a number of key issues and considerations.

As a site of investigation, the mini-bus taxi industry constitutes a fascinating phenomenon of a transitional sector finding its proper place in a transitional society. The South African society is undergoing a social, economic and legal transformation, whereas further to this, the mini-bus taxi industry is undergoing a transition that will shed it of its informality and channel it into the mainstream economy. A process of this complex nature will invariably see some progress, ruptures and backward movements while heroics; defeats, optimism and pessimism will permeate throughout this intricate process. This thesis attempts to capture and explore some of these dynamics but it must be noted that the array of impending forces can give rise to wholly unpredictable outcomes.

1. THE INFORMAL SECTOR

The notion of the informal sector is one that lacks a standard definition but a number of authors have attempted to define this. Cross (2000) states that it is typically defined as otherwise legal economic activity that takes place outside the realm of state regulatory practices. Rogerson (2000) offers a somewhat different definition as he states that the informal economy consists of enterprises that are not registered for tax purposes. This author draws a distinction by stating that the type of enterprise can be 'survivalist' in nature or a 'growth/micro-enterprise'. The South African minibus taxi industry has by and large not conformed to state regulatory practices and taxi operators have paid very limited taxes. But what is key about this industry is that it is a growth enterprise. What Rogerson (2000) means by a growth enterprise, is typically an enterprise that lacks formality in terms of business licenses, accounting procedures and generally requires rudimentary business skills but has the potential to flourish into a larger formal small business endeavor.

The informal sector has developed because the formal sector has been unable to absorb the country's labour force. Gallin (2001) states that it is still widely assumed that the informal sector is a transitory phenomenon and that it will be absorbed by the formal sector in time. This assumption is made with the belief that there is no need for action from trade unions or the government. What this author states is that this assumption is unrealistic and fosters dangerous complacency as the experience of the last two decades has proved it wrong. Capozzola (1991) highlights that informal sector enterprises face severe limitation, which keeps the businesses small and unable to achieve bigger, more cost-effective scales of production. One of the limitations stems from the fact that the informal sector operates largely without significant collateral and this denies them access to formal sector capital. However, Rogerson (2000) extends this and states that three other key limitations exist. These include inadequacies in the content and delivery of education and training; business infrastructure and service provision as well as the issue of expanding market opportunities.

All of the issues that are raised are indeed critical and directly affect the minibus taxi industry. Schoombee (2000) states that the very high interest rates charged by informal sector lenders relative to formal sector loans is indicative of the extent to which demand for informal sector funds exceeds the supply. This is then seen as evidence of formal market failure. The obvious question is why formal sector financial and lending institutions are reluctant to finance growth enterprises in the informal sector. Schoombee (2000) highlights four reasons for this. Firstly, there is a high risk of default and this is due to the unavailability of conventional forms of collateral. There is also the issue of high costs associated with screening applicants, the low returns that banks face when transacting with the informal sector and the fourth point that Schoombee (2000) mentions is the problem that those in the informal sector have when dealing with formal financial institutions. These include amongst others, language and cultural barriers.

It is ironic that the South African minibus taxi industry came about mainly as a reaction to government restrictions during the apartheid era. This occurred since government developed townships outside the urban centres and thus many people needed affordable transport to and from the cities. In fact, Capozzola (1991) states that townships on the Cape Flats, outside Cape Town, had an estimated population of 750 000 but all of these people were served by one train line. At the time, fares were R1.20 for a third class trip from Langa to Cape Town and there were only a limited number of train journeys available each day. Minibus taxis then entered the market and their average fares were R0.50 per trip and Capozzola (1991) continues to state that by 1990, the volume capacity and departure frequency of minibus services had far outstripped that of the railways.

For the masses, the taxi industry has largely served their transport link to the formal sector. This industry operates with its roots in the informal sector but much of its profitability and survival is entrenched within the formal economy. It is an industry that adheres to some rules and regulations but not to others. Taxis must adhere to traffic laws and regulations or face penalties but a large segment of the industry flouts many other economic laws and regulations. The

labour standards that are practiced are at best dubious and standard accounting practices are not followed. This informal industry is also in direct competition for revenues with regulated formal industries like the railways and bus industries. But unlike the latter regulated industries, in the taxi industry wages are low and uncertain and there is no effective social wage in place to protect workers. With excessive competition, violence has erupted and profits have shrinked.

This paper intends to show that the minibus taxi industry, which has strong ties with both the formal and informal sector, has failed to operate without regulation. The time may be appropriate to formalise this industry and then unlock large rewards for the stakeholders. Operating within the informal sector and within the periphery of the formal sector has led to much chaos and the challenge is to regulate the industry and to bring it in line with the formal sector where the rules and regulations that are to be followed will undoubtedly empower those involved.

2. THE DIFFERING ASPECTS ASSOCIATED WITH REGULATION

2.1. THEORETICAL ISSUES CONCERNING REGULATION

At present the taxi industry is largely unregulated and the national government intends on regulating this industry. Before exploring the intentions of government, it is critical to first understand what regulation is and thus its implications. Let us begin by attempting to define this concept. Kip Viscusi et al (1998:309) define regulation as 'a state imposed limitation on the discretion that may be exercised by individuals or organisations, which is supported by the threat of sanction'. The United Nations report (2001) offers a more intuitive definition. It is stated that regulation is the sustained and focused control normally exercised by a public agency over activities that are valued by a community. Thus, regulation can either prevent undesirable behaviour or enable and facilitate desirable actions.

Kip Viscusi et al (1998) state that economic regulation can restrict firms on a number of decisions, but the three key economic variables controlled by regulation are price, quantity and entry into and out of markets[1]. The first major theory propagating the implementation of regulation is the public interest theory, which views the government as benevolent and thus looking out for the well being of the citizens. Consequently, if market failures occur, the government must step in to soothe these problems in response to public demand. Kip Viscusi et al (1998) state that this theory is now referred to as *normative analysis as a positive theory* (NPT). The major criticisms that the authors put forward are that empirical evidence has not supported this theory. Therefore, this theory is really a hypothesis, as it does not generate the testable prediction that regulation takes place to correct a market failure but rather it assumes it to be the case.

The second major theory concerned with the implementation of regulation is referred to as the 'Capture theory'. Kip Viscusi et al (1998) state that this theory is premised on the fact that the agency that is meant to regulate an

[1] Kip Viscusi et al (1998) add that two other (less frequently used) variables include product quality and investment.

industry is 'captured' by that industry and the dominant groups within it. This then implies that regulation promotes industry profit rather than social welfare as interest groups struggle amongst themselves to maximize the incomes of their members. Kang (1998) affirms that regulation of the taxi industry is always vulnerable to capture by the industry, which may lead to higher fares and fewer taxis in operation. Kip Viscusi et al (1998) criticise this theory by stating that it has no theoretical underpinnings, as it does not explain how regulation comes to be controlled by the industry and proponents of the theory have not advanced sufficient evidence to support the theory.

Stigler's economic theory of regulation represents the third theoretical orientation that can be deployed to understand the regulation of an industry such as the mini-bus taxi industry. This theory contends that businesses and politicians are assumed to be self-interested income-maximisers who are not concerned with the public interest. Regulation is favoured as it decreases competition and thus maximises economic rents. The theory was later extended by Peltzman (in Kip Viscusi et al, 1998) and highlights that individual consumers (of which a large number exist) have little to lose from anti-competitive behaviour but producers (who are few in number) reap large benefits. Nonetheless Kip Viscusi et al (1998) maintain that while this theory is an important advancement in understanding government intervention, the provision of sufficient empirical evidence still remains a weakness to the theoretical propositions that it advances.

There are a number of economic arguments for regulation and Turnbull (1999) identifies the most important of these. Firstly, regulation can be used when the state wants to ensure guaranteed provision of a good where ordinarily, the market would not offer this or where there is market failure. Another argument centres on curbing power of dominant forces in the market, thus decreasing consumer surpluses and correcting for negative externalities. The last two arguments are premised on eliminating information deficiencies thus decreasing the transaction costs that would occur and also curbing excessive competition. Excessive competition leads to situation where costs are not fully recovered and this erodes profits and ultimately threatens future

investment. The social arguments are concerned with ensuring employment security, viable working conditions and service quality. For Turnbull (1999) deregulation has a detrimental impact on workers' terms and conditions of employment as labour costs become the target of cost-cutting initiatives. Thus regulation seeks to promote both efficiency and equity. This author proceeds by stating that to correct market failures, two different modes of regulation can be deployed: namely structure and conduct regulation. Structural regulation is intended to remove incentives and opportunities for undesirable behaviour while conduct regulation centres on how to deal with the undesirable behaviour that arises in industry.

This is not to say that regulation has not been heavily criticized, as some schools of thought believe that this market intervention worsens the effects of the original market failure. Furthermore, these criticisms assert that regulation benefits those being regulated, in the sense that since they have some form of protection from the government, inefficiency occurs and there is no incentive to innovate. Melton (1978) forwards the argument that regulation breeds unemployment because limitations are placed on the entry of new firms to a particular economic sector. This emphasizes the point that Douglas (1999) makes, namely that only regulated firms benefit from the process of regulation. This occurs since regulation creates rents for the regulated industry, which are paid for by consumers and of which the politicians get a portion in the form of contributions from the regulated firms.

In light of the plethora of economic and policy criticisms that I have alluded to with respect to regulatory interventions in a market economy, I now direct my attention in this dissertation to understanding the implications and impact that this presents to the South African Mini-Bus Taxi industry.

2.2 THE SOUTH AFRICAN EXPERIENCE OF REGULATION

Having reviewed the background theory, it is important to contextualise and analyse the South African situation. Rapp (1993) states that in South Africa, regulation of the transport industry began in the 1920s and 1930s. The author continues to state that the reason for this regulation was premised on the fact that an unregulated market was thought to generate an output larger than was optimal and without the state's intervention, the market was considered incapable of correcting this problem by itself. During the Great Depression of the 1930s, the world was in recession where structural unemployment had increased dramatically and employment was scarce. Rapp (1993) contends that since entering the transport industry required a relatively affordable outlay, many new entrants of whom a large number were relatively small operators entered the market. The effect of this process led to increased price competition, deteriorating profitability and deteriorating safety standards. Kip Viscusi et al (1998) confirms that in the United States, local government started placing restrictions on entry into the taxicab industry for the aforementioned reason.

One has to question why operators continued to pursue this market, as surely decreasing profitability will render others bankrupt thus decreasing supply, increasing prices and benefiting the existing operators who are now faced with less competition. Rapp (1993) offers two explanations for this happening. Firstly, those exiting the market on account of bankruptcy would then sell their vehicles at attractive rates and thus another new entrant to the industry would snap the vehicle up in the hope of enjoying more success than his predecessor. Secondly, the demand for transport is characteristic of peak hours in the mornings and in the evenings. At these peak times, there are never enough taxis to accommodate all the commuters, thus other entrepreneurs see a window of opportunity and engage in this industry. What is critical to remember though is that during off peak times demand is extremely low and this is when the operators feel the effect of oversupply.

In the 1960s and 1970s, the rationale for regulation became somewhat altered. Rapp (1993) states that it was argued that an unregulated market would generate an outcome such that the needs of the old, the young and the handicapped would not be met. This approach, which is a restatement of the public interest theory that was discussed above, entails government granting subsidies to operators ply routes that are otherwise considered unprofitable.

Furthermore, Rapp (1993) produces a case study focusing on the Mowbray taxi rank in the Western Cape. The author concludes that for minibus taxi drivers, deregulation has meant increased employment, exploitative labour practices, extended working hours and a reduction in remuneration. Turnbull (1999) reiterates this point by stating that the impact of deregulation on transport workers is almost universally negative. For the taxi owners, there have been new entrants into the industry and the overall result is increased competition and declines in profitability. The author's closing remark is that the situation that has developed is very similar to that of the 1920s and 1930s prior to the introduction of regulation. Turnbull (1999) contends that deregulation which increases competition is meant to lead to lower costs and fares, higher productivity and service levels, service innovation and greater levels of investment.

In the South African context this has definitely not been that case. Kang (1998) states that the taxi industry is highly labour-intensive and the labour cost usually exceeds more that 50% of the operating costs. In a highly competitive environment, the firm can increase profitability by increasing productivity or cutting costs. In terms of cutting costs, labour and vehicle maintenance costs are the first to be affected by such economic imperatives. The net effect of this is that working conditions for drivers will invariably decline and the maintenance of the vehicle will be neglected. When considering increasing productivity, the result here is that drivers must drive faster, cram in as many people in the vehicle as possible and ensure that 'pirate[2]' drivers do not 'steal' their potential commuters. The overall effect is

[2] Illegal operators, this will be elaborated on further in the next chapter.

that drivers are under pressure and underpaid; reckless driving and ill-maintained vehicles are a traffic hazard to all motorists and pedestrians and finally commuters are treated badly, being forced to sit uncomfortably and being subjected to maniac driving that puts their lives at risk as well.

Turnbull (1999) emphasizes that regulation rather than competition is widely regarded as the guarantor for sustainable development. Perhaps then it is safe to agree that the government has chosen the right initiative to correct the problems prevailing within the taxi industry. But this does not end here. There are numerous issues to be ironed out before sustainable development is achieved. Having examined the South African experience, it is important to briefly examine the international experience.

2.3 THE INTERNATIONAL EXPERIENCE OF REGULATION

This section is intended to briefly examine the effects of both regulation and deregulation in a number of different countries. What must be noted though is that there cannot be a perfect comparison as the elements of the South African minibus taxi industry have some unique characteristics. Our starting point will be to examine the taxicab industry.

Kang (1998) begins his analysis by looking at the USA, where partial or whole scale deregulation occurred in the 1970s and 1980s. The effects of deregulation of the taxicab industry in New York City were not pleasing as fares rose steadily, the quality of service deteriorated and the working conditions of drivers generally worsened as their incomes were reduced and their working hours were lengthened. In addition, Kang (1998) focuses on the mini-cab industries in San Diego and Seattle, which had become deregulated. In both cities, deregulation created severe bottlenecks to commuter service and operator sustainability. What is established is that in the mid 1980s, San Diego re- imposed entry restrictions and maximum fare rates because fares had increased and there was a continual turnover of small operators. Similar results were found in Seattle as the turnover of operators also increased and so did the waiting time by operators for passengers. The level of service also dropped and this was made clear through the discourteous service that passengers received and also the fights that occurred as a result of competition. In 1984, deregulation was deemed a failure and entry restrictions and price controls were reinstated.

In the United Kingdom, where the Transport Act of 1985 allowed for the partial deregulation of entry into this industry, Kang (1998) establishes that quality enforcement was poor and fewer ranks were provided for the taxis. This author also finds that the Swedish experience was not positive as complaints increased and the quality of drivers worsened. This may have been as a result of the fact that the drivers' working hours were lengthened and commission wages were introduced. Similar results were experienced in New Zealand. Kang (1998) states that working hours were also lengthened and that the

quality of drivers worsened. In Australia deregulation resulted in waiting time being slightly reduced but wages were reduced by 13% during the period 1987 – 1996. Finally, in his analysis of the Japanese experience of deregulation, Kang (1998) finds that drivers' incomes were lowered while their working hours were lengthened.

The international experience strongly suggests that deregulation has not been successful and thus there are indeed pertinent lessons that South Africa can learn from this. Let us now closely examine why the South African industry was initially deregulated and establish if the effects have been as negative as it was noted for the various countries we have just briefly identified.

3. THE GROWTH OF THE SOUTH AFRICAN MINIBUS TAXI INDUSTRY

The rise of the taxi industry was once hailed as the mechanism through which Africans could truly empower and enrich themselves. A gap in the market was identified and shrewd businessmen were able to reap financial rewards. But this initial period of prosperity did not last indefinitely. In the last fifteen years, this unprecedented growth has been marred by much violence, losses in profitability, deteriorating service quality and unsatisfactory working conditions. Our analysis will start at the very beginning in order to understand the current state of affairs.

The apartheid government's policies meant that many Africans lived in townships far from their workplaces and it was common to spend many hours traveling as well as 20% of one's salary on transportation costs[3]. Prior to 1987, transportation was through the use of state owned buses or trains. The government ensured that these modes of transport were well subsidized and heavily regulated. The Motor Carrier Transportation Act of 1930 made it virtually impossible for Africans to obtain permits for the transportation of passengers or goods for profit and 90% of taxi permit applications by Africans were rejected[4]. This meant that only a few taxi operators could reap large profits but the majority of the population was excluded from such economic activities.

It was only in 1987 with the release of the White Paper on Transport Policy that the deregulation of the taxi industry began. This White Paper argued for the promotion of the minibus taxi industry and consequently the legalisation of the 16-seater minibuses. There was then an unprecedented number of permits that were granted. In fact, Khosa (1992) states that in 1986/87, the number of licenses issued rose from 7093 to 34378 in the Johannesburg area alone.

[3] Dugard 2001
[4] Dugard 2001

Before we proceed to analysing the effects of this sudden deregulation, it is important to examine the structure of this industry. The participants in this industry are mainly the taxi-driver, the owner-driver and the fleet owner. The fleet owners normally employ taxi-drivers while the owner-drivers own the vehicle and do the driving themselves. The owner-drivers have aspirations of owning more vehicles, employing drivers to operate them and eventually become fleet owners. In general, remuneration for taxi drivers is calculated according to a set daily target. The drivers are then paid the excess of this target. Khosa (1992) states that the most important people at taxi ranks are the queue marshals/rank managers. They log the arrival and departure of taxis and their main aim is to ensure that all drivers get an equal share of the business. Dugard (2001) contends that taxi associations have developed as informal agents of regulation, protection and in some cases agents of extortion. Taxi owners are members of these associations and are then subject to the route specifications as established by the association.

When this industry was deregulated in 1987, many retrenched individuals and entrepreneurs decided to apply for permits and participate with the intention of making large profits. What invariably happened is that there was an oversupply of taxis on the road and each operator's share of commuter traffic began to shrink. This market saturation meant that it was increasingly harder for the drivers to meet their targets on their set routes and the incessant competition between different groupings and associations in the sector gradually spiraled into violent confrontations. These ensuing encounters became characteristic of the sector in its early emergent deregulatory phase.

3.1 THE ROOTS OF TAXI VIOLENCE I: 1987 - 1994

At the time of deregulation, taxis were held as the pride of black economic achievement within the communities they served. The taxi industry was now beginning to constitute itself as an important cog in the overall South African transport system. The incremental and systematic growth in the commuter traffic borne by the industry served as an eloquent testimony to this process. Commuters could now arrive at work timeously and operators played a significant role in terms of social responsibility. According to Khosa (1992), several local taxi associations introduced a policy of transporting pensioners and elderly people for free. Some provided this free service to the handicapped and school pupils as well. In the period 1987-1994, this industry also played a role in the political struggle and transformation. Khosa (1992) continues to state that during boycotts of white-owned buses, taxi operators and boycott committees would negotiate reduced fares and rally taxis from elsewhere to ensure that sufficient transport was provided for the people.

Dugard (2001) writes that this sudden deregulation by the government was an attempt to quell the revolutionary mood of Africans. The intent was to improve the image of the apartheid government by creating a Black middle class; the assumption being that this would stifle overt opposition. At an operational level, the cycle of growth, which was regarded as being inexorable was gradually reaching a limit: too many permits were issued and this over-issuing of permits led to corruption, the entrant of pirate[5] operators and intensive competition, which resulted in much violence over routes. With all these new entrants, numerous associations were formed and they 'used exploitation and coercion to build lucrative empires-cum-protection-rackets[6]'. Dugard (2001) continues to state that without government regulation, operators joined forces to form local taxi associations, which regulated loading practices and prices. They soon resorted to violent methods to extract incomes and 'protect' routes.

[5] Since the authorities did not perform checks on the running of this industry, many operators entered illegally (i.e. did not apply for permits) and further saturated the market. Dugard 2001
[6] Dugard (2001:9)

This violence was most particular to the late apartheid era (1990-1992) and Dugard (2001) specifically analyses the Cape Peninsula taxi war of this period. The writer states that this violence was related to commercial competition over routes between two main associations, the LAGUNYA[7] and the WEBTA[8] associations. The war between these two associations ended in March of 1992, when these two bodies merged to form CODETA[9]. Dugard (2001) emphasises that the late-apartheid taxi violence was heavily connected with transition politics but the major determinant is seen to be the rapid deregulation of transport, which led to an unchecked rise of taxi associations.

McCaul (1990) also contends that the root of many conflicts in this industry appears to be as a result of defending routes. This author also states that the tightening of profit margins as a result of deregulation exacerbated this conflict. During peak hours, the effect of new entrants is not felt but during off-peak hours when demand is low this largely affects the profitability of established operators. Allegations were also made about the inaction of police forces; they seldom did anything to stop the violence and it thus escalated. Some even believe that this was a deliberate government action to further fractionalise people in order to ensure that they did not unite to challenge the policies of that time. Khosa (1992) argues that feuds were generally between legal operators and illegal operators as well as between established operators and new entrants. After examining various case studies of taxi wars in Soweto, Katlehong and Alexandra, he concludes that the disputes were over rank space, poaching of passengers, undercutting of prices and the effects of rapid deregulation.

Taxi violence has not only been a feature of the more affluent provinces like Gauteng and the Western Cape, this has been a feature in almost all areas of this country. A Commission on Inquiry in the King William's Town area (1994) in the Eastern Cape highlights this point. This report states that towards the

[7] Langa, Gugulethu and Nyanga Taxi Association
[8] Western Cape Black Taxi Association
[9] Congress of Democratic Taxi Associations

end of the 1980s, the requirements for obtaining a permit were relaxed and this firmly established the minibus transport industry. The report finds that the general perception prevailing among the parties at war and other stakeholders is that the battle is for taxi routes and ranks. Because of fierce competition, taxi associations illegally deny others the right to ply certain lucrative routes and this causes much conflict. It is also stated that the problem is not only decreasing profits[10] and rising costs but also the inability of the free market system to operate in the industry. In other words market failure in the sector has occurred, which needs to be corrected to ensure the survival of this industry. The evidence put forward by this thesis suggests that responsible forms of regulation are perhaps the only means through which such forms of market failure can be addressed. Before examining the corrective measures, let us first consider the changing face of taxi violence in this country.

[10] This is as a result of an over subscribed market where the supply of taxi services far exceeds the demand for them. South African Commission of Inquiry (1994)

3.2 THE ROOTS OF TAXI VIOLENCE II: 1994 – 2000

What is interesting is that after the 1994 elections the level of violence increased within this industry. Dugard (2001) analyses the Cape Peninsula taxi wars over the period 1994-2000 and concludes that the problem of over-traded routes persisted but other factors emerged like the dominance of mother bodies[11], conflict generated by government-initiated processes and official corruption.

Just to put the notion of overtraded routes into perspective, let us consider Clark et al (1999) who examine the Cape Metropolitan Area. The writers state that in 1998, there were approximately 700 buses in operation, which serviced about 800 bus routes and covered 21 000 kilometres. In terms of the minibus taxi fleet, this totaled 6700, almost ten times the number of buses on the road. At the same time, the numerous taxis had only 300 routes to ply and the length of these routes was 6 400 kilometres. This implies one of two things: firstly that there are either too many taxis on the road thus overtrading is inevitable or second, there is some bias that limits taxis from engaging in some of the routes that the buses use. The obvious solution is to simply ply different routes if the ones in use are currently overtraded but as we will discover, the argument is not as simple as that because buses travel on unprofitable routes mainly because the government subsidises this service. Nonetheless the issues of over traded routes remains the key impediment to realizing profitability and ending violence.

In terms of mother bodies, senior executive members had the power to decide who can use what route and which rank. These associations decided at what price this privilege would be and then operators were to pay their dues. Dugard (2001) contends that local associations provide invaluable services to operators, but mother bodies focus on appropriating money and organizing violence. This is done by employing hit men to 'eliminate' elements of

[11] According to Dugard (2001), mother bodies typically comprise of loose alliances of local and long-distance taxi associations in a particular region. In 1991, there were 13 mother bodies operating in South Africa.

competing associations and other mother bodies. What has also been a cause of violence is the government's intentions to re-regulate the industry. A regulated industry will ensure an end to the operations of these mother bodies and that is obviously a change that they will not welcome.

In terms of official corruption, a Temasek Polytechni (TP) news report (2000) states that corrupt police officers in Pretoria appeared to have joined forces with taxi gangsters. These police officers allegedly misdirected government property, which included firearms, bulletproof vests and police uniforms to taxi associations. This report contends that police were also believed to have participated in actual attacks against other taxi drivers and owners. This includes an attack that occurred on 15 July 1997 at a Soshanguve taxi rank in Pretoria. Furthermore the report states that police officials have also been implicated in witness tampering and supplying the identity of witnesses of taxi-related crimes to taxi-crime bosses. Besides the incentive to extort from taxi operators, there is a growing number of police officials that secretly own taxi fleets (this is estimated at 10%) and clearly they are 'protecting' their interests. The report also states that the turf wars over the taxi routes between the SOTOA[12] and SOLLDTA[13] have resulted in an estimated 1500 – 3000 deaths since 1994.

From March 2000, the Western Cape area was also subject to much violence. This occurred when certain members of the taxi industry started issuing threats to the Golden Arrow Bus Company and its drivers, stating that it had to stop operating within the Khayelitsha Township. This company initially continued its activities but taxi operators soon started gunning down those that defied this order. The shootings were initially directed at bus drivers but soon commuters were also targeted as they were seen to be choosing buses instead of taxis. At the time, taxi stakeholders believed and still generally believe that they face unfair competition, since the bus industry is subsidised by the government and the taxi industry is not. According to Jefthas (2002), many people felt that the taxi industry was being marginalized, that it was not

[12] Soshanguve Taxi Owners Association
[13] Soshanguve Local and Long Distance Taxi Association

recognized as a legitimate part of the transport sector and for many, the bus industry was a symbol of the apartheid government. Many drivers blamed this system for the fact that they sometimes could not meet their targets.

According to Clark et al (1999), a key factor determining public transport market share is subsidization and the resulting fare structures. These authors state that the 1998/99 annual subsidy for rail transportation was R 255 million, which is equivalent to a subsidy of R2 per passenger trip of about 12 kilometres. When looking at Golden Arrow Bus Services (Western Cape), the national department of Transport subsidised this service by R160 million, which translates to a subsidy of R5,52 per passenger trip of about 15 kilometres. The authors continue to state that these subsidies have been growing phenomenally in the last few years and that they have a fundamental impact on passenger fare systems. Bus and rail services can afford to offer discount tickets for monthly tickets, pensioners etc but because of subsidies, minibus taxi fares are the most expensive for any given route/distance. The authors also state that third class rail is the most affordable way to travel and clearly this subsidy system disadvantages those working within the minibus taxi industry[14]. This is clearly one of the major reasons that over trading does occur, taxis cannot afford to ply unprofitable routes whereas the bus services can as a result of the subsidies they receive.

In fact it makes sense not to merely view the taxi industry in isolation but to briefly consider the entire public transport sector and this is done in the next chapter.

[14] The issue of subsidies will be discussed further in the next chapter.

4. THE SOUTH AFRICAN TRANSPORT SECTOR

Before we further evaluate the numerous problems that thwart the transport sector, it is important to establish the contribution that it makes to the country. Barrett (2001) embarks on an enlightening account of the economic significance of the transport sector in South Africa. The writer states that that in 1999, this sector contributed 10% to South Africa's Gross Domestic Product. This calculation excludes amongst others the minibus taxi industry and if this figure was recalculated, it could reach a high of 13%. The transport sector also accounted for 16% of all new investment (R18,6bn) in 1999. In addition, one has to consider the industry's annual expenditure on goods like fuel, tyres, servicing, repairs and many other associated activities. What is also important is that transport costs have a direct effect on the price of commodities and these costs can range from 1-7%. In addition, Barrett (2001) also highlights that this sector is on aggregate not profitable. The bus sector is currently making losses, freight companies are making modest profits and it seems that only the air transport sector is making any significant profits.

In terms of the urban passenger transport system, Barrett (2001) states that South Africans spend a higher proportion of their incomes on transport than is the case in other countries. Between the period November 1999 to November 2000, passenger transport costs rose by 12,4% while in the same period the CPI only rose by 7.1%. This shows that this sector has experienced price increases that exceeded the rate of inflation. Perhaps the need for imported crude oil to supply the fuel requirements in the context of a depreciating currency can be attributed as the principal reason for this more rapid inflation rate.

In terms of the bus service sector, 25% of commuters make use of this service and in 1996 buses carried over 460 million passengers. The bus sector is experiencing numerous problems with the new competitive based tendering system. Among the problems experienced are that it reduces standards, worsens employment conditions, contributes to job losses and

consequently poor service delivery[15]. The move towards this tendering system was a result of the failure of the subsidy approach. May (1998) states that in 1995/96, the Department of Transport paid out R901 million in subsidies for bus transportation. This staggering amount formed about 50% of the operating income of subsidised bus companies. There were no incentives or penalties in place to ensure that efficiency was promoted. Another major problem with this system, is that the operators that benefit are those that do not carry the majority of the poor, i.e. the beneficiaries of these subsidies are not the very poor but rather form a segment of the middle-income earners. May (1998) argues that the minibus taxi industry carries the majority of the poor and so subsidies earmarked for the bus sector do not benefit the very poor.

Moving on to the rail services, Clark et al (1999) state that during the 1995/96 financial year, fare revenues in the Cape Metropolitan Area only accounted for 44% of the full operating costs, the rest was funded by a deficit subsidy system. This subsidy is essentially the difference between total costs and passenger revenue. This was not a phenomenon particular to the Western Cape only as the authors state that in Johannesburg and Durban, fare revenues covered 31% of the full operating costs. The need to undertake such deficit forms of financing in the rail services sector is perhaps a reflection of a wider set of issues: these include problems apparent within the rail services such as theft, vandalism and accidents, which are rife. Barrett (2001) states that 17% of all commuters use this system and in 1996, there were 4519 coaches in operation, which carried 470 million passengers. The employment figures have also been on the decline. Barrett (2001) states that the formal employment statistics for the transport industry (this excludes minibus taxis) stood at 383 143 people in 1981 and in 2000 this figure was 221 552. This shows that there has been a considerable decline over a period of two decades, as in 1981, this sector supported 7.8% of the formally employed while in 2000, this had declined to 4,7%.

[15] Barrett (2001)

According to the African Business Magazine (2001), the minibus taxi industry carries 65% of South Africa's daily commuters and it is estimated that there are 130 000 minibus taxis in operation. Furthermore, there are approximately 80 000 employed workers in this sector and as a whole, the taxi industry earns upwards of R9bn a year in revenue. Having highlighted the contribution of this industry, it is time to move on to the working conditions that prevail in generating these revenues.

4.1 WORKING CONDITIONS WITHIN THE MINIBUS TAXI INDSUTRY

The working conditions in this industry are extremely harsh and Khosa (1998) establishes that the majority of drivers enter this industry out of desperation from lack of employment. This form of employment is undesirable because drivers have to endure very long working hours (from 16-20 hours a day) and operate in an environment where their safety can be in jeopardy as a result of hi-jackings and taxi violence. Moreover drivers are always under pressure to meet targets set by owners and they are not well remunerated for their efforts. According to Jurgensen (1998), it is common for a driver to wake up at 3:30am every morning to go to work and return after 9pm. For this he earns R1000 a month. Jefthas (2002) states that on average drivers may bring in R1600 – R2000 per week and the drivers would then be given R200 – R250 as their weekly wage[16]. Drivers are given set targets to meet and their wage is directly related to whether or not they reach these targets. That is the reason for the reckless driving, overcrowded taxis and impatience that taxi drivers exhibit – they are under pressure to meet targets that can be unreasonable.

Drivers have also been unaware that they are entitled to certain key rights. But even when they are aware of the existence of these rights, which can be used as protection, they have been powerless to assert them. Matiko (1989) states that by law taxi drivers are employees and have rights to certain entitlements. They are entitled to a basic wage, Unemployment Insurance Fund, leave and Workmen's Compensation Fund benefits. Drivers do not get any of these benefits and in fact there is no job security for them. An inquiry was lodged to the Golden Arrow Bus Company in Cape Town to ascertain what benefits bus drivers received. Bus drivers currently receive pension, medical aid, an annual bonus, sick leave, paid leave, free uniforms, free bus pass to travel on Golden Arrow buses at any time as well as a long service bonus, which one receives after working for 20 years at Golden Arrow. The starting wage is R804 per **week** and the highest wage paid to any driver is R1111 per **week**. What bus drivers earn on a weekly basis is in fact what taxi

[16] According to Khoza (1994), at the beginning of the 1990s drivers were paid R80 per week.

drivers earn when working for a month. Over and above this, bus drivers enjoy numerous benefits, which are in line with the Labour Relations Act 66 of 1995 and the Basic Conditions of Employment Act 75 of 1997.

Considering that taxi drivers feel that their employers exploit them, let us review the perspective of employers. According to Jefthas (2002), employers say that they have maintenance expenses to pay for and also there is a feeling that they are doing the driver a favour. The latter is based on the fact that there is much unemployment in South Africa so those drivers that are employed at all should feel grateful. The relationship between employer and employee is a difficult one and Jefthas (2002) states that this relationship has an unequal balance of power and consequently exploitation, fear and intimidation are rife. This author continues to state that contracts between these two parties are oral in nature and can be terminated at the owner's discretion. Khosa (1994) establishes from an interview with a taxi driver that they are hired as casuals and are dismissed when ill or involved in accidents. Furthermore, if drivers brought in less than the set target, it was not uncommon for them to incur the wrath of the employer and face the prospect of losing their jobs. Khosa (1994) identifies further exploitation in the form of a 'postponed-wage' system. In this case, the owner pays the driver 20% of their salary and then claims that the rest will be paid at the end of the month. Many drivers never receive the remainder of this money at the end of the month as the employer claims that the driver has 'failed' the probation period. This sentiment is also captured by Moss (1993) who after numerous interviews with taxi drivers concludes that the biggest problem as seen by taxi drivers is 'greedy/unreasonable owners'.

In order to gain an in depth understanding of the workings of this sector the Survey of Wages and Employment Conditions in the Taxi Industry was analysed. The Community Agency for Social Enquiry (CASE) designed and administered two sets of questionnaires[17] directed at taxi employers and employees. The survey involved administering two separate questionnaires: a

[17] The employees questionnaire is attached in the appendix

questionnaire that was directed to drivers and a questionnaire that was designed to obtain information from taxi owners. Logistics did not allow a linkage to be made between the employer and the driver questionnaires but this separation was convenient at protecting the confidentiality of each and avoiding any repercussions against informants about the type of information that was divulged to outside investigators. Therefore each questionnaire was administered for different samples in each province. The focus of this section will be on the employee survey in order to ascertain the working conditions in this industry as well as to establish the dynamics of the wage system.

Table 1: The Demographic Profile

AREA	Number of respondents
Urban Gauteng	75
Urban KwaZulu Natal	75
Urban Limpopo	75
Peri-Urban Gauteng	73
Rural KwaZulu Natal	72
Rural Limpopo	75
TOTAL	**445**

The sample is thus evenly split amongst three provinces and it is also subdivided between those working in rural and those in urban areas. The majority of the sample consists of males, as only 8 of the respondents are female. This type of gender profile generally reflects the overall transport industry but it also suggests that the mini-bus taxi industry is a particularly harsh industry to work within. For the purposes of this paper, the analysis will not focus on the effects of gender on other covariates.

The first issue that will be examined is the monthly income that drivers receive and thereafter we will investigate the determinants of that income:

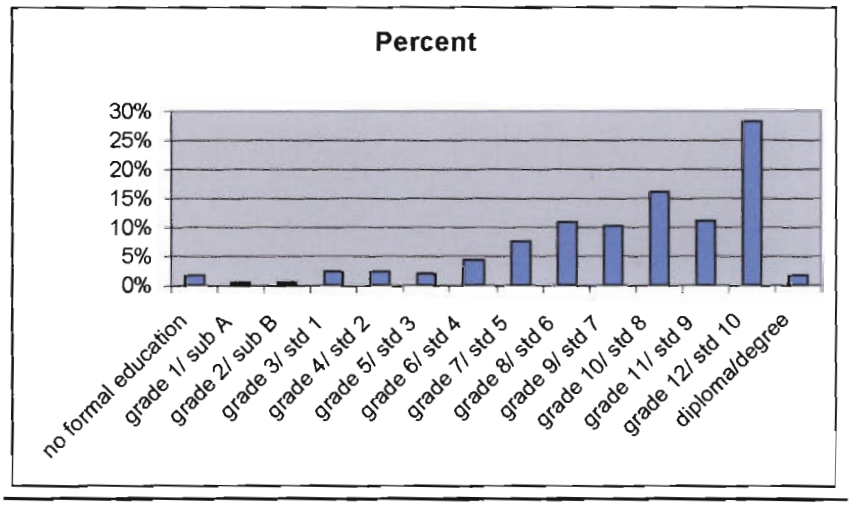
Table 2: Monthly Income before any Taxes or Deductions

MONTHLY INCOME	OBS	MEAN	MEDIAN
Urban Gauteng	66	1351	1200
Urban KwaZulu Natal	71	1375	1400
Urban Limpopo	70	1161	1200
Peri-Urban Gauteng	70	1293	1200
Rural KwaZulu Natal	68	958	1000
Rural Limpopo	71	1076	900
OVERALL	**416**	**1202**	**1200**

It is clear that not all the employees answered this question thus our sample has been reduced to 416 individuals. What we see is that those working in urban KwaZulu Natal (KZN) receive the highest monthly income but in the rural areas of KZN they receive considerably less. This means that earnings are differentiated geographically. The earnings for the workers throughout the sector can be characterised as exhibiting a geographic effect as workers can expect to earn different levels of income depending on the areas they work in. In terms of the overall sample, we see that both the mean and median earnings are R1200. An important issue that the survey investigates is the number of people living in each of the driver's households and on average, 6 people (including the respondent) live in these households. The survey further establishes that on average the drivers are financially responsible for at least 4 members of their households, which shows that the income that is derived from this industry plays a significant role in sustaining not just the drivers but entire households. In fact in terms of the total monthly household income before taxes and deductions, the mean value of household income is R2359 but the median is much lower at R1400. This illustrates the dependence of such households on income derived from the taxi industry but it also demonstrates the vulnerability of the household to this latter source being terminated, as the median income for the respondents is R1200 per month.

As with all forms of employment, education is considered a key factor for determining one's earning potential. We will establish the correlation between education levels and the incomes earned but firstly let us examine the distribution in terms of highest education level attained.

Figure 1: Employees: Education Level Passed



This graph informs us that in fact the employees within the taxi industry have acquired some level of formal education. There is a high concentration of respondents within the grade 7 to grade 12 grouping. This illustrates the nature of the labour market in this country, as individuals who have at least some form of secondary education are not normally absorbed within the formal sector. The high unemployment rate and skills bias that is prevalent in this country leads even those who have completed grade 12 to seek employment within the informal sector. Human capital theory asserts that those with higher levels of education reap higher earnings. Using the available survey data, I proceed to test this hypothesis for the South African taxi industry.

Table 3: Education and Income

MONTHLY INCOME	Observations	Frequency	Mean	Median
No formal education	8	1.92%	913	800
Lower Primary	22	5.28%	1068	1200
Upper primary	55	13.22%	1163	1200
Lower Secondary	152	36.5%	1197	1200
Upper Secondary	164	39.42%	1237	1200
Diploma/Degree	7	1.68%	1414	1200
Refused	8	1.92%	1315	1160
Total	**416**	**100%**		

Once again we see that 75% of the respondents have some form of secondary education but what is interesting is that this has little effect on monthly income. In terms of the median, only those with no formal education earn less than the rest of the sample as for every other education level, the median is set at R1200. This leads one to conclude that in fact the human capital theory does not hold in this industry: higher levels of education do not generally translate to higher levels of income. This will be tested further utilizing regression analysis.

The age of drivers in the sample ranges from 20 years up until the age of 64 years. (The mean age for the sample is 34 years) It is assumed that with age, one gains experience and the labour market rewards this. This is one of the postulates of the human capital theory. Let us examine whether this is the case within the minibus taxi industry.

Table 4: Age and Income

AGE CODE	Frequency	Mean	Median
20 < 28	91	1232	1200
28 < 32	74	1185	1200
32 < 35	71	1162	1200
35 < 40	84	1269	1200
40 <=64	91	1162	1200
TOTAL	**411**		

Firstly, the median suggests that in fact, age makes no difference to the earning power of taxi drivers but the mean offers some contrasting results. Those aged 35 to less than 40 seem to enjoy a premium far above the rest of the employees. But those aged below 28 also seem to earn more than the other cohorts as well. One cannot make any judgments based on the directions of these values but what is clear is that two variables, education and age, which are considered key in boosting earnings have been rendered ineffective.

If age is not a factor, perhaps then the number of years working within the taxi industry may yield better results.

Table 5: Experience and Income

NUMBER OF YEARS	Frequency	Mean	Median
0 < 3	95	1202	1200
3 < 6	121	1224	1200
6 < 9	81	1184	1200
9 < 12	59	1201	1200
12 <= 50	60	1183	1200
TOTAL	**416**		

Once again we see that the median shows that the years spent working in the industry do not determine one's income as the value remains at R1200 for the different cohorts. What is interesting though is that the mean income for all the groups yields unclear results as at some points we see increasing returns to experience while in others we see decreasing returns. But considering that the income differential covers such a small range (of up to R41), we cannot make any valid conclusions. So at best it seems that the experience variable yields ambiguous results or no results at all.

Perhaps the number of years in the industry is not a good proxy for experience so let us consider the length of time that one has had a car driver's license. When this variable was compared to monthly income, it did not yield significant results. Another question ascertained whether the respondents had a PDP (public drivers permit), which allows one the permission to carry passengers in a vehicle[18]. The result of the comparison is shown in Table 6 below:

Table 6: Number of Years with PDP License and Income

NUMBER OF YEARS	Frequency	Mean	Median
0 < 3	92	1231	1200
3 < 6	102	1173	1200
6 < 10	89	1247	1200
10 < 15	71	1197	1200
15 <= 30	34	1221	1200
TOTAL	**388**		

[18] A public driver's license is different from an ordinary driver's license as it empowers the incumbent to transport passengers in a vehicle designated for this purpose. (In this instance, a mini bus taxi vehicle.) Those not in possession of a PDP are not permitted to do so.

Firstly, 93% of the sample stated that they had a PDP license but the results here also do not offer any conclusive information. If anything, judging by the median, the length of years that drivers held this type of license has no effect on earnings. Perhaps then experience is not a factor but let us continue and examine the type of work done and ascertain if this determines driver earnings.

The survey then proceeded to enquire about the specifics of the work that the drivers perform. What is established is that most drivers are either engaged in short or long distance work: 45% of the sample stated that they drove short distance trips while 29% of the respondents stated that they drove long distances. The remaining 25% of the sample drives a mixture of short to medium to long distance trips. This distribution is as a result of the sample design but what is interesting, is the mean income earned for each type of trip. For those engaged in short distance trips this is R1254 while for those involved in long distance travel, the mean income is not significantly different at R1261. (For both the median is R1200) This implies that irrespective of the type of trip taken, the income earned is similar. But on closer analysis, the distance covered seems to have an impact of the income earned. This makes sense as if short distance drivers drive backwards and forwards on their set routes more often; they can pick up more commuters and thus make more money. Similarly for long distance drivers, if they for instance drive from Gauteng to Durban and back in one day, they will make more money than if they only do a single non-return trip.

Table 7: Daily Distance Traveled and Income

DISTANCE COVERED	Frequency	Mean	Median
0 < 150km	81	1100	1200
150 < 300km	65	1160	1200
300 < 400km	54	1165	1200
400 < 500km	51	1278	1200
500 < 1000km	54	1352	1350
1000 < 5000km	18	1425	1400
TOTAL	**323**		

Table 7 shows that for those traveling less than 400km a day, they get paid significantly less than those that cover more distance. But the most interesting result is for those that cover upwards of 500km per day; they are the ones that earn the most. But a distance of over 500km per day is typical of a long distance driver, not a short distance driver. This might mean that only long distance drivers earn these larger incomes but earlier we established that the mean income of the two is very similar. So the next step is to establish the mean distance traveled by either type of driver.

Table 8: Distance Traveled by Type of Driver

Percentile	Short Distance (155 obs)	Long distance (109 obs)
1%	7	45
5%	30	60
10%	50	200
25%	90	350
50% (median)	**210**	**420**
75%	350	700
90%	600	1300
95%	616	1600
99%	800	2000
Mean	**254**	**619**

Table 7 has shown that the median income for those traveling less than 500km per day is R1200 and Table 8 now shows that for both types of drivers the median distance traveled is also less than 500km per day. This reaffirms the accuracy of the median income calculation. What seems unclear is the mean income. Previously it was established that for short distance drivers the mean income is R1254 (188 observations) and for long distance drivers this was R1261 (124 observations). But Table 8 shows clearly that there is a significant difference in the mean distance traveled, thus implying that there should be a significant difference in the mean income earned: 254km for short distance drivers as opposed to 619km for long distance drivers. A plausible explanation may be that Table 8 has captured fewer observations (155 for short distance drivers and 109 for long distance drivers) and this may be skewing the results, as with 619km traveled by long distance drivers, one would expect a higher mean income.

Nonetheless, the above table yields very interesting results: we see that for short distance drivers, on average they travel over 200km per day and this would translate to earnings of between R1160 and R1200 (earnings taken from Table 7) but if we focus on the top ten percent of the distribution, they travel 600 – 800km a day, thus pushing up their income to R1350 (reference to Table 7). The same analysis can be used for long distance drivers to prove that indeed distance is a key indicator in determining earnings. This goes to explain why taxis drive so recklessly and they overload their taxis: more passengers over farther distances translate to significantly higher earnings. Considering that we have thus far established two key variables, namely distance covered and area of employment as the driving factors of employment, let us examine the interaction between these two.

Table 9: Distance and Area of Employment

DAILY DISTANCE	OBS	MEAN	MEDIAN
Urban Gauteng	42	694	440
Urban KwaZulu Natal	75	482	350
Urban Limpopo	65	330	340
Peri-Urban Gauteng	53	281	300
Rural KwaZulu Natal	61	184	90
Rural Limpopo	45	304	260
TOTAL	**341**		

Firstly, 416 individuals stated what they earned but here we see that there are only 341 responses and specifically in urban Gauteng and rural Limpopo, we have lost a number of observations. This can be expected to skew the results to some extent. Nevertheless, it was previously established that those working in urban KZN earned the highest incomes and those in urban Gauteng earned similar incomes as well. The above table makes it clear why because in these two areas, drivers cover more distance. The drivers in rural KZN cover the least distances (the median distance traveled is 90km per day while the mean distance covered is 184 km per day) and for this reason, their incomes are lower. This may simply be indicative of the rural areas where there is no heavy influx of commuters that have to be taken to a number of different

places and thus the demand for this service is significantly less than it is in urban areas.

Considering that driving longer distances translates to higher incomes, it makes sense to assess the effects of income on the number of days worked per week.

Table 10: Days Worked per week and Income

DAYS WORKED	Frequency	Mean	Median
1	7	1121	1200
2	7	1157	1000
3	9	1211	1200
4	7	1371	1200
5	6	1233	1300
6	86	1222	1200
7	294	1194	1200
TOTAL	**416**		

Table 10 highlights a very important fact, namely that 70% of taxi drivers work seven days a week. One of the questions in the survey enquires whether employees get any additional pay for working on Saturdays and Sundays and 97% of the respondents stated that they got paid the same as on weekdays. Also, 74% of the sample stated that they worked on public holidays and once again did not receive any additional pay for this. This means that for taxi drivers a normal work week is seven days long and public holidays are generally treated as workdays as well. This explains why we do not see any income differentials above as there is no such thing as overtime pay. In fact, this concept is not defined in this industry. What is also very interesting is that the response to the survey questions on whether drivers ever work overtime indicated that 68% of the sample stated that they did not. Furthermore, those that said that they did work overtime earned a mean income of R1129 (133 observations) and for those that claim that they never work overtime, a mean income of R1236 (283 observations) is earned. This re-emphasises the notion that overtime is not acknowledged or defined in this industry therefore drivers simply work 6-7 days a week.

Another variable that yielded important results is that of the number of hours worked per day.

Table 11: Hours Worked per day and Income

HOURS WORKED	Frequency	Mean	Median
0 < 5hrs	29	1043	1000
5 < 10 hrs	25	1012	1000
10 <12 hrs	76	1122	1200
12 <13hrs	79	1232	1200
13 < 15hrs	120	1231	1200
15 <= 19hrs	87	1313	1200
TOTAL	416		

Firstly, we see that only 13% of the sample works less than 10 hours per day and the income of this cohort is significantly less than the rest of the sample. At least 50% of the sample works over 13 hours a day and their income is not significantly different from those drivers that work more than 10 but less than 13 hours a day. In other words whether one works 12, 13, 14 or 15 hours a day, does not affect the level of monthly income they earn. This really highlights the nature of this industry as drivers work extremely long hours, seven days a week and are under immense pressure to cover the most distance possible in order to secure higher earnings. But what separates this industry from other industries is that although the overall hours are long, taxi drivers spend a proportion of their time waiting for the taxis to fill up. This idle time constitutes a large portion of the daily workday. The table below illustrates the extent of this idle time.

Table 12: Idle Time and Income

IDLE TIME	Frequency	Mean	Median
0 < 2 hours	127	1177	1200
2 < 4 hours	139	1197	1200
4 < 6 hours	88	1254	1200
6 <= 12 hours	62	1193	1200
TOTAL	416		

This table shows that a large proportion of time at work is spent waiting for fares at the taxi rank. In fact on average, taxi drivers spend 3 hours of their workday waiting for commuters. This happens during off peak times and this

can inconvenience passengers as well. Firstly, taxis queue at the taxi ranks and so drivers have to wait for other drivers in front of them to fill up their taxis before it is their turn. When the taxi reaches the front of the line, they either fill up the taxi or fill it up to a set minimum number of passengers that is considered cost effective. The concept of setting some minimum number of passengers before traveling is prevalent with short distance drivers but with long distance drivers, the taxi has to be filled if losses are to be contained. For passengers, waiting for the taxi to fill up can be extremely frustrating and can lead to some passengers seeking other modes of transportation should they be available as trains and buses leave at specific set times irrespective of how many passengers are on board. The reason that taxis cannot do this is because unlike their direct competitors they are not subsidised. Excessive idle time is caused by over trading. In the mornings (during peak hours), taxis queue up at the ranks but leave very quickly as there are many commuters. During off peak hours, taxis queue again and since a few individuals need transportation during this period, the waiting continues. If there are fewer taxis, idle time is reduced considerably.

In terms of whether idle time determines income, we see that there is very little difference in earnings if one waits anything from less than two hours up to twelve hours. This is not the only problem that drivers experience but for long distance drivers there are more issues. Earlier it was established that about 30% of the sample engaged solely on long distance trips. Considering that these trips are time consuming, the survey enquires about where these drivers sleep during these trips. The table below elaborates on this.

Table 13: Accommodation

Where do you sleep if you travel over night?	Frequency	Percent
Sleep in taxi (other driver driving)	31	24%
Sleep in taxi (park taxi somewhere)	67	52%
Rent accommodation for the night	14	11%
Stay with friends or family	10	8%
Never have to sleep away from home	7	5%
TOTAL	**129**	

More than half of the respondents stated that they parked the taxi somewhere and slept in it. Unfortunately the survey does not question for how long the drivers sleep but the fact that drivers and passengers are left exposed for some period of time overnight highlights the vulnerability that is endured. Had there been a second driver present at all times, this would be avoided but it seems the present organisation of the industry does not make provision for this arrangement. Only a quarter of these respondents stated that when they travel overnight, a second driver accompanies them. It is also surprising that only 11% stated that they rented accommodation for the night. But one wonders if the driver does not sleep in the taxi but elsewhere (be it with family or by securing rented accommodation), then what actually happens to the passengers? Perhaps they are left sleeping in the taxi. This really emphasizes the plight that both drivers and passengers have to endure, although similar features may characterise the long distance transport industry as well.

The survey also enquires about who bears the expenses of the trip and the results are shown in table 14:

Table 14: Who pays the Expenses?

ACCOMODATION	**Frequency**	**Percent**
Employer pays	8	7%
Driver pays	28	23%
No costs involved	84	70%
TOTAL	**120**	**100%**
FOOD		
Employer pays	46	36%
Driver pays	80	62%
No costs involved / don't eat food	3	2%
TOTAL	**129**	**100%**
OTHER		
Employer pays	35	27%
Employer does not pay	94	73%
TOTAL	**129**	**100%**

In terms of accommodation, 70% of the respondents stated that there were no costs involved and this probably refers to those that sleep in the taxi or are accommodated over-night by friends or family. When costs are involved, 7%

stated that the owner of the taxi paid but the remaining 23% stated that they bore the costs for accommodation. When asked about who pays the food, 62% stated that they did while 36% stated that the employer did so. Finally when asked about who paid for any other expenses, the response was mainly that the employer did not pay for any other expenses. For the sake of clarity it was asked what these additional costs that the employer covered were and the responses ranged from tollgate fees, to maintenance fees and to petrol costs. This implies that when the employer does not pay, all these costs are borne by the driver.

It seems that these are not the only costs that the drivers pay because some drivers travel with fare collectors. Fare collectors play a vital role as they allow the driver peace of mind as they handle all the cash transactions so that the driver is able to focus on his duty as a driver. Although fare collectors play an important role, only 32% (142 observations) of the respondents stated that they normally traveled with one. The obvious reason for this is because fare collectors too must get paid. It is established that the average daily rate of a fare collector is R30 but the real question is who bears this cost.

Table 15: Monthly Income of Taxi Driver when Fare Collectors are present

Who pays fare collector?	Observations	Mean	Median
The driver pays	50	1183	1200
The owner pays	37	1334	1400
Other	42	1177	1160
TOTAL	**129**		

The above table shows that in the instance that a fare collector is present, it is mainly the driver or another source that is required to bear the costs. This other source is mainly the local taxi association. What is interesting is that when the owner does pay the fare collector, the driver's monthly income is higher as the driver has not had to pay from his own earnings. This is a very interesting observation but one has to consider that there may be some flaw in terms of the driver responses. Consider that a fare collector is paid R30 a day, then if he works only 5 days a week, he would earn at least R650 a

month. If on average, drivers earn R1200 then it is virtually impossible that they can afford to keep a collector on their payroll. But irrespective of this the point that is to be noted is that fare collectors play a vital role in the industry but are not always present in taxis and this is probably as a result of attempting to contain costs although safety is jeopardized.

In terms of other operating costs, the questionnaire establishes that 52% of the respondents cover petrol costs, 76% stated that they also covered the cost of cleaning the vehicle and 87% stated that they paid for traffic fines. The owners generally paid for maintenance costs, vehicle insurance, the license of the taxi and they also paid for fines relating to the vehicle being unroadworthy. If an accident does occur, costs are largely shared between employer and employee as well as any other third party.

One of the most interesting questions in the survey relates to deductions that the employer takes from the earnings of the driver. In all our previous analysis, we have focused on monthly income *before* taxes and deductions were made. The question asks whether the driver is a member of any medical aid scheme, pension/provident fund or life insurance scheme. At least 99% of the respondents stated that they were not. Only 21% stated that they were members of a burial fund and on average, the amount deducted for this is R70 per month. Other than that, there are no deductions taken from the employee's earnings: neither for any accident insurance fund nor for the unemployment insurance fund. This is an indication of lack of safety nets for employees in this industry. Drivers work long hours, travel long distances yet have no provisions for the effects of accidents, unemployment or death. The fact that they have no safety nets does not just affect them as individuals but also their households as they could easily be plunged into poverty as well.

There is more to be said about the imbalanced relationship between driver and owner as owners have the overall say in all the elements of the employment relationship. Considering that 90% of the respondents do not have a contract with their employers, they cannot enforce any clauses and employers can change any policies they may have at will. Of the few that did

have contracts, they were mainly verbal in nature and 6 respondents stated having written contracts but they generally did not have copies of these. In terms of revisions to wages and working conditions, this is done irregularly and the owner decides if and when he wants to do this. Almost all of the respondents (95%) stated not receiving any pay slips and this causes problems in terms of opening bank accounts or applying for loans. Furthermore, 97% of the respondents stated that they did not receive any paid leave during the year and very few were allowed to take unpaid leave. In fact 62% stated that they could not take sick leave. If drivers take leave and the employer is unhappy about this, he can simply fire the driver or just not pay him. Maternity and paternity leave is an unknown concept in this industry.

There is room to address these issues and improve the conditions associated with each but this might only take place through some sort of trade union or employee organization. The data showed that 92% of the respondents stated that they were not members of any such unions. What is clear is that drivers are not aware of the benefits that this may have and it seems that they are not aware of the benefits that they should be getting as employed citizens in this country. It is this lack of awareness and high unemployment that leads drivers to accept their harsh working conditions. One would think that drivers feel exploited by their owners but surprisingly one of the final questions in the survey examines how the respondent would rate his relationship with his employer and the replies ranged from average to very good. Very few felt that they had a very bad relationship with their employers. This is in direct contrast to Moss' (1993) findings where drivers stated that their employers' greed was the major problem.

Having examined the prevailing working conditions, it is fitting to further examine the key relationships within our variables and regression analysis will be used to do this.

4.2. REGRESSION ANALYSIS TO ESTABLISH THE DETERMINANTS OF MONTHLY INCOME

Regress: logmonthinc
Variables: years of education, years of experience, age, area, distance, hours worked, days worked, problems with leave and idle time.

Number of Observations: 317
F(28, 288) = 3.81
Prob > F = 0.0000
R-squared = 0.2702
Adj R-squared = 0.1992
Root MSE = 0.36844

Source	**SS**	**df**	**MS**
Model	14.4750679	28	0.516966712
Residual	39.0961397	288	0.135750485
Total	**53.5712077**	**316**	**0.169529138**

Logmonthinc	**Coef**	**Std Err**	**t**	**P>|t|**	**[95% Conf. Int.]**	
Years of Education	.01778	0.00926	1.92	0.056	-0.000	0.036
Experience	-0.0050	0.00498	-0.1	0.919	-0.010	0.009
Age	-0.0000	0.00332	-0.00	0.996	-0.007	0.007
Urban KZN	0.06270	0.08339	0.71	0.479	-0.111	0.237
Urban Limpopo	-0.1780	0.09019	-1.97	0.049	-0.356	-0.001
Peri-urban Gauteng	-0.2989	0.09384	-0.32	0.75	-0.215	0.155
Rural Limpopo	-0.2057	0.09645	-2.13	0.034	-0.396	-0.016
Rural KZN	-0.3517	0.09579	-3.67	0.000	-0.540	-0.163
150 < 300km	-0.0206	0.07177	-0.29	0.774	-0.162	0.121
300 < 400km	0.08526	0.07818	1.09	0.276	-0.069	0.239
400 < 500km	0.14665	0.07824	1.87	0.062	-0.007	0.301
500 < 1000km	0.19615	0.07566	2.59	0.01	0.047	0.345
1000 < 5000km	0.20835	0.11574	1.8	0.073	-0.019	0.436
5 < 10 hrs worked	-0.1538	0.11540	-1.33	0.184	-0.381	0.073
10 <12 hrs worked	0.07467	0.10079	0.74	0.459	-0.124	0.273
12 <13hrs worked	0.15535	0.10147	1.53	0.127	-0.044	0.355
13 < 15hrs worked	0.1416	0.09693	1.46	0.145	-0.049	0.332
15 <= 19hrs worked	0.08304	0.10034	0.83	0.409	-0.114	0.281
2 days worked	-0.1112	0.20502	-0.54	0.588	-0.515	0.292
3 days worked	-0.0366	0.21169	-0.17	0.863	-0.453	0.380
4 days worked	0.15083	0.21835	0.69	0.49	-0.279	0.581
5 days worked	0.04508	0.22657	0.2	0.842	-0.401	0.491
6 days worked	0.08441	0.16713	0.51	0.614	-0.245	0.413
7 days worked	-0.0495	0.15730	-0.32	0.753	-0.359	0.260
Problems with leave	0.14056	0.04953	2.84	0.005	0.043	0.238
2 < 4 hrs idle	0.01834	0.05794	0.32	0.752	-0.096	0.132
4 < 6 hrs idle	0.03626	0.06617	0.55	0.585	-0.094	0.167
6<=12 hrs idle	-0.0091	0.07558	-0.12	0.904	-0.158	0.140
Constant	6.73369	0.22566	29.84	0.000	6.290	7.178

The above regression table examines the relationship between log monthly income and a number of key variables that may or may not play a role in determining the monthly income earned by drivers. In interpreting the results, Halvorsen and Palmquist (1980) highlight that when the dependent variable is in logarithmic form, it is imperative that the antilog of the coefficient be taken. Thereafter, 1 must be subtracted in order to attain the most accurate rate of return for that variable. The first variable that is regressed is that of years of education and the co-efficient is 0.01778. Taking the antilog and subtracting 1 yields 1,79%. This shows that at a 5% significance level, every unit increase in education changes the predicted monthly income (that being the actual monthly income, not the log transformed variable 'logmonthinc', since the anti log has been taken), by less than 2%. This shows that additional education that is attained does not add significantly to driver's monthly income but it does play some role. This makes sense as to enter this industry, one needs to obtain a drivers license and the prerequisite for this is a learner's license. In order to pass the latter, one needs to have good literacy skills. But once this is achieved, the returns to education seem to be less important.

Similar analysis can be done for the age and experience variables but the coefficients are so small that the result shows that both these variables are fairly insignificant at predicting monthly income[19]. Furthermore, the p-values are also very high at 0.919 for experience and 0.996 for age. Human capital theory asserts that education and training are key in enhancing economic success. The regression has shown that within the mini-bus taxi industry in South Africa, this theory does not hold as education, age and experience are not good predictors of increased earnings. It is interesting to examine the rest of the variables in order to ascertain which variables strongly influence earnings.

Table 2 in the preceding section, highlighted that working in either a rural or urban setting had a strong impact on the driver's earning capacity. Thus,

[19] Two variables, age squared and experience squared were also included in the regression equation but they also proved highly insignificant and were thus omitted.

dummy variables were introduced into the regression equation, which represented the differing areas of work and residence. The urban Gauteng dummy is omitted as the control so the area dummies must therefore be interpreted as relative to living in urban Gauteng. The urban KwaZulu Natal dummy, which has a positive coefficient, shows that working here translates to higher earnings than if one were working in urban Gauteng. The p-value associated with this is relatively high so the effect of this is not significant. On the other hand, the rural Limpopo and rural KwaZulu Natal p-values are both significant at the 3,4% and 0% levels, respectively. The coefficients are also negative highlighting that working in these areas yields lower earnings than if one were working in urban Gauteng. Specifically, working in rural Limpopo translates to 18% lower earnings while living in rural KwaZulu Natal yields 30% lower earnings. Stated differently, the result means that a driver in rural KwaZulu Natal can expect to earn 70% of the monthly income that a driver working in urban Gauteng earns.

Another variable that proved to be a key factor in determining earnings was the daily distance covered by drivers. Table 7 in the preceding section showed that earnings start increasing after drivers have reached and continue to exceed the 400-kilometre mark. The above regression table shows that when considering the distances above 400km, there is definite scope for improved earnings. Specifically the 500 < 1000km range shows that income can be expected to be higher by almost 22% at a p-value of 1%. The negative coefficient for those traveling less than 300 kilometres a day makes sense, although it is not significant; it shows that at lesser distances, drivers can expect to earn less income. Clearly then additional distance traveled adds to earnings as was seen in the analysis in the previous section.

It has also been established that additional hours or days worked do not necessarily translate to higher earnings. Examining the regression table confirms this. The p-values continue to be high and can thus show that a strong relationship does not exist between monthly income and these aforementioned variables. Correlation analysis was also briefly performed on the variables, in order to ascertain the strength of linear association between

variables. Intuitively, one would expect a strong correlation to exist between distance traveled and hours worked. A simple test showed that the correlation between these two variables was weak, at 0.132. (Similarly the correlation between distance traveled and days worked was also insignificant at 0.07)

What does seem to be significant though is the next variable examined in the regression equation. A dummy highlighting problems with leave is introduced into the equation with interesting results. The value that appears is the response if one *does not* have problems with taking leave. This is significant as the p-value is very small at 0.005 and this means that if you do not have problems when taking leave, you can expect to earn 14% more than those that do have problems with their leave arrangements. The final variable in the equation looks at idle time and what becomes clear is that irrespective of how much additional time drivers spend waiting for commuters, they are not guaranteed higher earnings.

In summation then it seems that the human capital theory that examines determinants of income is not in operation in this industry. Education, age and experience do not have a direct relationship with the income that drivers earn. More logical variables like the days worked, hours worked and waiting time also do not seem to influence monthly income. Two variables that stand out most clearly are the area in which one works and the daily distance traveled. These two variables cannot be seen in isolation as they have a strong linkage. That is, in more urban areas, drivers cover greater distances. This makes intuitive sense as in metropolitan areas, there are more commuters and their transport needs far exceed those of people living in rural areas. All these results support the findings in the previous section.

In the final analysis, it seems that it really is all about the routes plied. This is the major determinant of profits and thus incomes in this industry. The more lucrative the routes, the more sought after they are. Over trading becomes inevitable and violence erupts. The fact that the number of entrants is not regulated will ultimately lead to over trading. This is an industry that has made up its own rules and were only the strongest competitors survive through

whatever means have been deemed necessary. Lawlessness has been rife and correcting this state of informality is imperative to ensure that only fair and healthy competition thrives, where the status of employees is elevated to that of an asset to the employers.

The next section examines the progress that the South African government has made in regulating this industry.

5. REGULATION OF THE TAXI INDUSTRY BY THE SOUTH AFRICAN GOVERNMENT

Thus far, what stands out is that the government has an important role to play with regard to improving the working conditions of taxi drivers. Government is required to put processes in place that ensure that all practices conform to the Labour Relations Act 66 of 1995 and the Basic Conditions of Employment Act 75 of 1997. Basic wages and benefits should be enforced on the employers and non-compliance should be deemed illegal. In fact, the plethora of public pronouncements made since the first term of the African National Congress-led government of national unity subsequently attests to this commitment. After the new government came into power in 1994, the taxi industry has indeed seen significant changes. We begin by examining key reports commissioned by the government then we will examine the practical measures that have been instituted.

The government recognizes that there are problems in this sector and that for its capacity to be expanded certain reforms need to be undertaken. The White Paper on Transport, 1997 identified a number of key national objectives that include that:

- no household should spend more than 10% of its income on transport,
- no person should have to travel more than 40km or for more than an hour to/from work,
- and that 80% of all motorized trips should be by public transport[20].

The White Paper also emphasized that public transport should be made safer and more environmentally friendly. Further research was undertaken by the government in order to establish how these objectives would be realized and for this purpose, a team was set up to investigate this. This team consisted of a range of stakeholders within the transport industry and together they produced the Moving South Africa (MSA) Report of 1999. The MSA report found that with the existing transport system, the objectives of the White

[20] http://www.satawu.org.za/sectors/Transport/govt%20policy%20summary.htm

Paper would be virtually impossible to achieve. This report did offer key recommendations, which include[21]:

- 'densifying' transport routes, such that routes that had low demand were to be self sustainable and not be dependant on state subsidization,
- The main public transport modes in South Africa, namely the railway lines, bus services and taxi services should be better linked and transfer from one mode to the other should be effortless
- subsidies to unprofitable systems should be abandoned
- competitive tendering should be introduced to improve company performance

The MSA 1999 states that if these features are in place, then customer satisfaction will improve thus more people will make use of public transport, thus creating more jobs in this sector. The problem with advocating the densifying of routes is that this only makes sense from an economies of scale perspective but one cannot seriously expect rural passengers to 'self-sustain' their transport needs. Denying these individuals adequate transportation stunts their development potential especially since one of the deterrants of rural investment is lack of transport and infrastructure. The World Bank[22] further reiterates this view as they state that transport is central to development and without physical access to jobs, health, education and other amenities, quality of life suffers. Furthermore, without physical access to resources and markets, growth stagnates and poverty reduction cannot be sustained. This report further emphasizes that with rural transport improvements, agricultural production costs have been lowered directly as there is greater access to markets and credit; and indirectly by facilitating the development of the non-agricultural rural economy. People living in rural areas are generally the poorest South Africans and it is essential that the government cater for the needs of this sector of the population.

While these key reports were published and debated, steps to transforming the industry were taking shape. This process began in April 1995 when a National Taxi Task Team (NTTT) was formed to gather information in order to

[21] http://www.satawu.org.za/sectors/Transport/govt%20policy%20summary.htm
[22] http://www.worldbank.org/transport/pol_econ/tsr_docs/tsr_scp2.doc

identify issues and problems facing the minibus taxi industry. This process continued over a period of one year and Interim Recommendations were released. These were circulated to relevant stakeholders and the Final Recommendations were drafted. The critical issues that arose were the following:

1. Formalising the Minibus taxi industry
2. Regulating and controlling the Minibus taxi industry
3. Training and capacity-building
4. Creating conditions for economic survival, sustainability and empowerment[23].

In view of the taxi violence within the Western Cape, the Provincial Cabinet approved the formalisation process in October 1996. This effectively meant that this was a legal and not a voluntary matter. At the end of 1996, a Provincial Taxi Working Group (PTWG) was formed in the Western Cape. The purpose of this was to aid in speeding up the registration and legalisation initiative. The functions of this group were then broken down into activities of eight focus groups. These focus groups constituted of a cross-section of various role players within the industry. Specifically, these focus groups looked into legalisation, registration, route identification and marking, enforcement and legislation, taxi liaison and office administration, economic restructuring, training as well as communication.

An information booklet produced by the Department of Transport and Public Works states that the purpose of the legalisation focus group is to facilitate the issuing of permits to illegal operators (pirates) who meet the required criteria and also to amend existing permits to clearly identify the routes to be plied. The registration process is meant to establish a register of the Minibus-Taxi Associations so that it is clear whom the individual taxi operators are, what vehicles they drive and also what routes they may use. By June 1998, 137 associations, 3999 operators and 5969 vehicles were registered in the Western Cape[24].

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[23] Department of Transport and Public Works information booklet
[24] http://www.worldbank.org/afr/findings/english/find149.htm

There have been positive developments in other provinces as well. In 1994, the government of KwaZulu Natal inherited a taxi industry with numerous problems including a sector with shrinking profits, substandard service, violence and weak institutional capacity. The KZN department of transport (DOT) then embarked on a process to improve the situation. The process started after the passing of the Interim Minibus Taxi Act, Act 22 of 1998[25]. The KZN-DOT began by regulating the industry by ensuring that taxis were registered and issued with route-specific permits. The registration process began in September 1998 and was completed in October 2000. At the end of the process, 252 associations, 12 000 taxis and 22 000 vehicles were registered. The legislation process then centred on ensuring that vehicles had a valid certificate of fitness, rank permits from relevant municipalities and route details for vehicles within the different associations[26]. Furthermore education and training (which includes advanced driver training) as well as conflict resolution mechanisms were established.

The KZN Department of Transport feels that the success of this process was owing to the introduction of taxi co-operatives, which brought together taxi associations so that powerful bargaining bodies could be formed in order to access social and economic investment. Although there is still some taxi violence, the DOT has established capable mechanisms to deal with this through the conflict resolution support available to the taxi industry. Over and above conflict resolutions, local government has to meet other core strategic objectives. These include empowerment, public private partnerships, sectorial recapitalisation and democratisation. In terms of empowerment, joint ventures have been set up with established bus companies and large contracts have been broken up for Small Medium and Micro Enterprise (SMME) development. The intention is that empowerment firms can participate fully within the transport sector and thus reap higher rewards. The Umthombo Investment Company is a good example of the public/private partnership. Democratisation of the industry has started in order to ensure

[25] The focus of the act is similar to that of the resolutions of the NTTT but with an added focus on conflict resolution

[26] http://www.polity.org.za/components/print.asp?id=30285

that democratic associations are elected that are accountable for their members' actions[27].

In order to address the problems of shrinking profits and an ageing taxi fleet, the government has also embarked on a recapitalisation process. What this proposes is that 18 and 35 seater vehicles are manufactured to replace the existing ageing and unsafe fleets. The DOT states that the financing of these vehicles will be such that the monthly repayment burden is lowered and a maintenance plan will be in place so as to ensure that these new models achieve higher resale values after four years. This is all intended to improve the safety standards within this industry[28]. These are the initiatives that government has in place but it is important to establish the views of other stakeholders.

Davies (2000) acknowledges that this programme has great potential for economic growth and job creation as the project will mean an investment of more than R3 billion over a five year period. He continues to state that this project will also bring about savings of millions, as there will be improvements in the efficiency and effectiveness of the taxi industry. Currently, the average age of taxis is ten years but one of the stipulations of this project is that the 18-seaters should have a four-year life span and that the 35-seaters should be limited to a seven-year life span. Davies (2000) emphasises that the recapitalisation programme is not expected to disadvantage existing taxi owners and that the simplistic argument that replacing 126 000 taxis with 85 000 new ones will leave 41 000 drivers without jobs. The speaker contends that this is not based on a logical or innovative consideration of the implications of the recapitalisation programme. It is stated that significant new opportunities in support, service and supply industries will provide access to new, better and more sustainable jobs. Perhaps we should turn to the perception of unions to this initiative.

[27] http://www.polity.org.za/html/govdocs/pr/1999/pr1124a.html
[28] http://www.polity.org.za/html/govdocs/pr/1999/pr1124a.html

COSATU and its affiliate, the Transport and General Workers Union (TGWU) support this governmental programme and offer a number of reasons for this stance. The registration of all operators will remove unscrupulous and illegal operators thus legitimizing this industry. The TGWU states that it does not deny that there will eventually be fewer drivers in the system but there are benefits. With the regulation of conditions of work, TGWU anticipates that drivers will no longer be subject to working 20 hours a day and on long distance routes, two drivers will be the norm. This body states that the recapitalisation process will have positive externalities in the sense that there will be expansion of services, maintenance, fuel supply and taxi ranking. This will create new jobs and drivers will be given first option of retraining to move into these areas[29]. Thale (2001) states that the government also intends on improving taxi ranks and training queue marshals. This is then possibly one of the other employment routes that drivers may take.

Another special feature of this initiative is that the new vehicle models will carry on-board computers that will record passenger numbers and hours on the road. TGWU feels that this will make it easier to set a fair wage across the board thus eliminating exploitation of drivers. This initiative will also improve safety, as the new models have to adhere to strict safety specifications. In terms of financing, the new models will be more expensive than the existing ones as they have to meet specific safety requirements but the government will be paying 20-30% of the cost of the new vehicles. This will occur through the proposed scrapping allowance. Furthermore, owners will now have access to preferential interest rates in order to finance the remaining costs. TGWU also promotes this as stakeholders will now be paying taxes and this also promotes the local manufacture of vehicles. The overall sentiment is that the taxi industry will no longer be characterised by violence, poor working conditions, a lack of safety and a lack of job security. What will be in place is improved working conditions where the workers' interests are protected and

[29] http://www.cosatu.org.za/shop/shop0901/shop0901-02.html

there will be an end to violence as there will no longer be an over saturation in the number of taxis in the industry[30].

What also needs to be noted though is that the specifications of these new models includes that they be diesel powered, with wheelchair access and the smart card vending will ensure convenient cashless transactions. This will ensure that the disabled are catered for but the cash collector's jobs may also be eliminated. According to African Business (2001) smart cards will unlock the regulation of routes, control of fares, keep accurate commuter counts and translate all of this into a transparent cash flow. With well-documented funds, taxi bosses will be able to use this as leverage for any retail or banking transactions they may want to do.

According to the Mail and Gaurdian (Nov 2002), by 2004, all taxis will have to comply with the basic safety features. There is also a second deadline in 2006; this requires that taxis must have the features required of the new generation models. These include higher safety standards and compliance with the smartcard payment system. There is a belief that because of delays, these dates may be postponed. Mabasa, a SANTACO[31] spokesperson, states (in Mail and Guardian) that they are not against the recapitalisation plans but the process is moving too slowly. The result is that those with old vehicles cannot replace them as they are waiting for the new generation models. This means that unsafe taxis are on the road and are further worsening the situation. Taxi operators are obviously unwilling to invest in a new vehicle if they are to become illegal in four years time. Mabasa also states that they are not happy with the fact that the government has in fact not released the prices of these new vehicles therefore it is difficult to assess exactly how reasonable this offer is. Another issue is that the government has as yet not concluded the formalisation programme and this is seen as holding up the transformation of the industry. Government is in the process of ironing out these issues but what we also need to consider is the impact of these shocks on the demand of transport services offered by the mini-bus taxi industry. This is best done by

[30] http://www.cosatu.org.za/shop/shop0901/shop0901-02.html
[31] South African National Taxi Council

deploying analyses on the elasticity of demand, as this is likely to have a significant impact on the industry. In essence we also want to examine the effect on employment if a minimum wage were to be instituted.

5.1 WAGE AND EMPLOYMENT TRADE OFFS

Introducing a minimum wage is intended to benefit those involved in that industry but what is a possibility is that others within that industry may find themselves redundant. The size of this redundancy depends on the elasticity factor applicable to that industry. In fact, the term elasticity can be viewed from two different perspectives. Firstly, there is the issue of labour demand elasticities. What this means is that we have to question the effect of an increase in wages on overall employment[32]. If we find that labour demand is indeed elastic, this means that with increases in incomes, we can expect to see (significant) disemployment effects. The main interest then lies in the magnitude of any disemployment. The other area of focus is on price/income elasticity. Here we consider that with all the new legislation and regulation of minibus taxis, it is likely that we will see some increase in the price of taxi fares. The question here is if prices go up, how much would the demand for taxis drop by. These are the two issues that we will explore within this section.

According to Sapsford and Tzannatos (1993) the demand for labour as a factor of production is a derived demand, as labour is not demanded for its own sake but rather for its contribution to the production process. These authors then introduce Marshall's four rules for derived demand, which state that the elasticity of labour will be greater, the

- Greater the elasticity of substitution in production
- Greater the elasticity of demand for the final product
- Greater the share of labour in total cost
- Greater the elasticity of supply of the other factor of production.

The first point states that if it is easy to substitute capital for labour and the price of labour increases, then its consequent demand will decrease. In the case of the taxi industry, this should not occur. If all taxi drivers demanded a monthly wage of R1500, it is clear that they cannot be substituted. Hypothetically, the only substitution that may occur is that more desperate drivers may accept lower incomes but if all drivers insisted on this higher

[32] Ehrenberg & Smith (2000) term this 'own-wage elasticity of demand' and this is defined as the percentage change of employment induced by a 1 percent increase in the wage rate.

wage, then owners would have to accept this. Drivers cannot be replaced by machines and based on this point; we see a more inelastic demand.

The second point states that if the demand for the final product is elastic, so too will the elasticity of labour. In our instance, the final product is providing a service in the form of transportation for the community at large. Clark and Crous (1999) state that in the Cape Metropolitan Area (CMA), minibus taxi fares are the most expensive for any given distance and that third class rail is the cheapest mode of transportation. We will revisit price elasticities later on but what one can already gather is that should taxi fares rise (as a result of an increase in labour costs), a number of commuters will choose to use other modes of transportation. This point leads us to believe then that we see an elastic demand for labour.

The following issue looks at the ratio of labour costs to total costs. Kang (1998) states that the taxi industry is highly labour intensive and that labour costs usually exceed more than 50% of the operating costs. This may lead one to conclude that we have an elastic demand for labour. But the issue does not end here. What we have considered are operating costs only; if we consider total costs, a different picture emerges. With the recapitalisation initiative, we can expect to see the figure for total costs shooting up, as all owners must buy new vehicles. The entire population of employers will now have significant debt. The issue is really about how much we can expect these costs to rise. If they rise significantly, then the ratio of labour costs to total costs will also decrease. This would then lead us to believe that there is in fact an inelastic demand for labour. That is, if the price of labour goes up, the overall effect on total costs will be slight such that we can expect to see insignificant disemployment effects. Depending on the outcome, it is not possible to ascertain the exact point at which we have an elastic or inelastic demand.

The last point states that if the price of labour increases and the owner attempts to switch to another factor of production (like capital) and this switch is almost costless, then they will do so and negatively affect labour demand.

In terms of the taxi industry, this is not the case as the switch cannot be costless thus we see an inelastic demand.

This then leads one to believe that in fact if wages are increased, it may not have significant disemployment effects if these costs are borne by the employee or the government (possibly through the means of a subsidy). We could expect to see disemployment effects if the costs were passed onto the consumer. Before we consider this, let us examine the wage elasticity of employment. The problem here is the fact that we are dealing with the informal sector and there is very little available wage elasticity work. The more accepted figures are for the formal sector. Nonetheless, a simulation model will be used to establish the potential job losses that may occur as a result of a minimum wage. It must be noted that any job losses will affect only those workers currently earning below the minimum wage. Fallon and Lucas (1998) study the South African case and establish that the short run wage elasticity is –0.156 and that in the long run, this figure across all sectors is –0.71. These figures are derived when looking specifically at Black[33] formal sector employment.

Using the taxi industry survey, four possible minima were established:
R1000
R1200 (taxi driver's monthly income before deductions, median)
R1800
R2000 (taxi driver's perceptions of what constitutes a fair minimum wage, the median value)

These minima are simply four arbitrary wage levels that were chosen to illustrate the effects of a minimum wage. One of the questions in the surveys asks what drivers consider being a fair minimum wage and the response was R2000. In fact R2000 is the median value and this is included in the analysis as it captures the perceptions of drivers.

The first step in the simulation model was to identify how many individuals earned less than the above-specified minima.

[33] Fallon and Lucas (1998) consider Blacks to refer to all South Africans other than White, which means all African, Coloureds and Asians are included.

Table 16: Number and Percentage of drivers earning less than the Minima

Minimum	Number below	% of total sample
		416
(1) 1000	100	24.04%
(2) 1200	165	39.66%
(3) 1800	373	89.66%
(4) 2000	380	91.35%

Thereafter, one has to establish the current wage bill. This is calculated by multiplying the overall mean monthly wage (R1202,31) by the entire sample of drivers that stated what they earned, i.e. the sample has 445 drivers but only 416 responded to this question. Thus the total wage bill stands at R500 160,96. Then one has to establish new wage bills corresponding to the minima. In the first instance, it implies that one has to ascertain the total wage bill if the 100 individuals earning below R1000 are in fact moved up to the R1000 mark and then add this to the mean value of those earning R1000 and above.

Table 17: Post Minimum Wage

Number earning more than the minimum wage	Mean if earning more than the minimum wage	New Wage Bill
(1) 316	1367	531972
(2) 251	1459	564209
(3) 43	2018	758174
(4) 36	2061	834196

The next step is to apply the relevant elasticities to ascertain the employment effects if these minima were to be instituted.

Table 18: Simulated Short-run employment effects of Minimum Wage settings

	Number workers below min	% Increase wage bill	Short run elasticity	Elasticity factor	Job losses	% Total employ
1000	100	6.4	0.156	0.9922	0.99	0.24%
1200	165	12.8	0.156	1.9977	3.30	0.79%
1800	373	51.6	0.156	8.0474	30.02	7.22%
2000	380	66.8	0.156	10.4185	39.59	9.52%

The results show us that with a 52% rise in the wage bill, we can expect to see a 7% reduction in the existing employment level. So the result of a R1800 minimum wage applied to our sample of drivers earning below the minimum, would lead to 30 jobs being lost. In context, this means that of the 373 earning less than R1800, 30 would be unemployed, leaving 343 earning at least R1800. Also, if the minimum wage is set at R2000, which is a 67% increase in the wage bill, we can expect 10% of those earning below this minimum to lose their jobs. It has to be highlighted that although we are looking at a sample of those involved within this industry, it is true to say that these effects would be felt throughout the entire population of drivers operating within this industry in South Africa.

Table 19: Simulated Long-run employment effects of Minimum Wage settings

	Number workers below min	% Increase wage bill	Long run elasticity	Elasticity factor	Job losses	% Total employ
1000	100	6.4	0.71	4.5157	4.52	1.09%
1200	165	12.8	0.71	9.0919	15.00	3.61%
1800	373	51.6	0.71	36.6261	136.62	32.84%
2000	380	66.8	0.71	47.4177	180.19	43.31%

The long run constitutes a time period greater than one year. The elasticity figure is significantly higher as employers have more time to adjust to the minimum wage and alter their labour utilisation and needs. What we find, is with a minimum wage of R1800, a *third* of those earning below this minimum would lose their jobs in the long run. With a R2000 minimum, almost *half* of those earning below this would lose their jobs.

The resultant employment losses are graphed below where the various minimum wages are labelled 1 through to 4.

Figure 2:

Having established, the possible losses, it is important to also examine the likely gains. That is we must examine the positive impact of the minimum wage on those earning below it.

Table 20: Wage increase at R1000 Minimum Wage for drivers earning below R1000

Percentile	Wage at percentile	% Increase as a result of min wage	Number of workers affected	Net Number
1%	250	300	2	
5%	300	233	11	9
10%	300	233	11	0
25%	560	79	27	16
50%	800	25	90	63
75%	800	25	90	0
90%	850	18	90	0
95%	900	11	100	10
99%	900	11	100	0

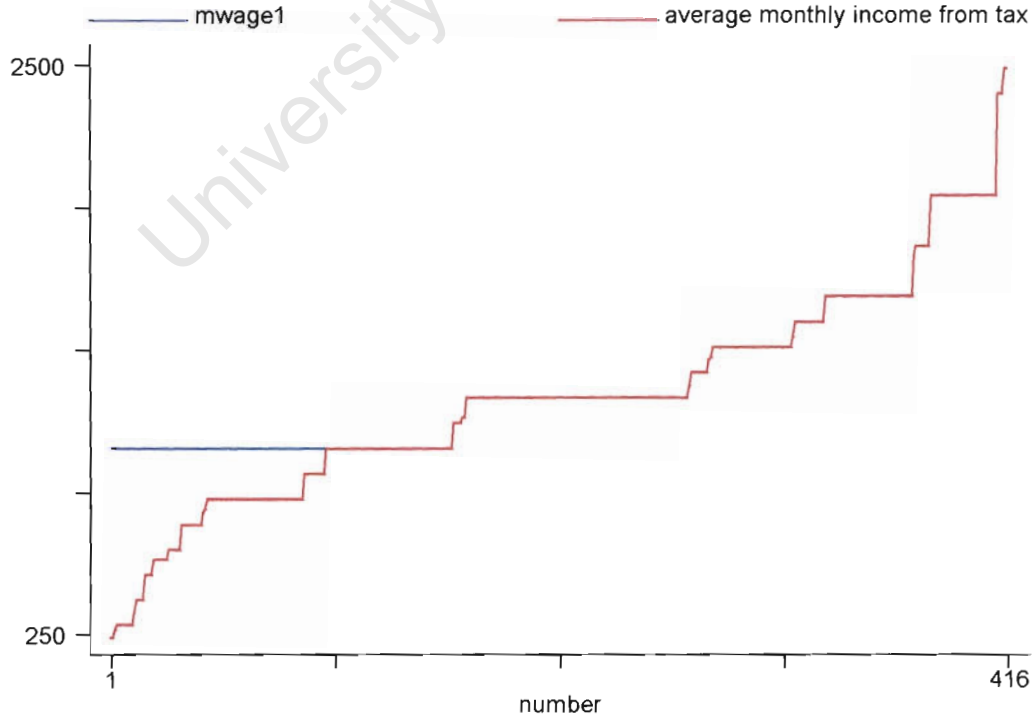
The data above suggests that about a quarter of our sample would benefit from a minimum wage set at R1000. What is also clear, is that the most poor individuals will benefit significantly as their income would rise by 300%. Also

with a minimum wage of R1000, there are a few jobs that would be lost (less than 1% in the short run). But if the minimum is set at R1800, 90% of our sample would be better off as shown below. For the lowest percentile, incomes would increase by 500%.

Table 21: Wage increase at R1800 Minimum Wage for drivers earning below R1800

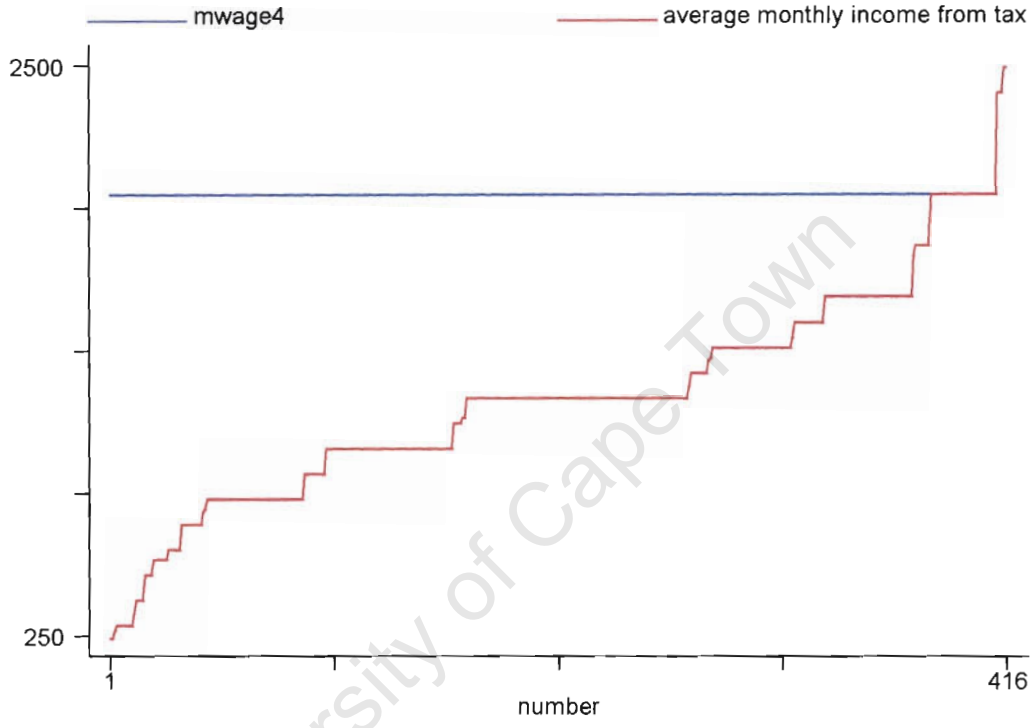
Percentile	Wage at percentile	% Increase as a result of min wage	Number of workers affected	Net Number
1%	300	500	11	
5%	500	260	20	9
10%	700	157	43	23
25%	900	100	100	57
50%	1200	50	268	168
75%	1400	29	316	48
90%	1600	13	372	56
95%	1600	13	372	0
99%	1600	13	372	0

Figure 3: Graphical representation of a Minimum Wage of R1000



The above graph makes the effect of a minimum wage clear; those below it would then be moved up to this value. Below we have a graph showing the effect if a minimum wage of R2000 is used. What is clear is that almost all the individuals in the sample would reap significant benefits.

Figure 4: Graphical representation of a Minimum Wage of R2000



The issue is then really of a trade off between increasing wages and controlling for the resultant losses in employment.

Table 22: Trade Off between Employment Losses and Wage Gains in the Short Run

Minimum wage	Short run % loss in employment	Average % increase as a result of min wage
1000	0.24	65.8
1200	0.79	67.5
1800	7.22	86.8
2000	9.52	105.8

In the short run, we see that with a minimum wage of R1800, on average, those earning below this minimum will earn 87%[34] more than their current

[34] See appendix for full calculations.

income. The problem though is that the associated disemployment effects would run at 7%. Similarly, we see the same results below but the employment losses are magnified. If a minimum wage of R1800 were to be instituted, we would expect 33% of those earning below this to lose their jobs.

Table 23: Trade Off between Employment Losses and Wage Gains in the Long Run

Minimum wage	Long run % loss in employment	Average % increase as a result of min wage
1000	1.09	65.8
1200	3.61	67.5
1800	32.84	86.8
2000	43.31	105.8

Any employment losses are never welcomed but within the context of the taxi industry, there are more complex issues at play. Firstly, there is an urgent need that incomes within this industry be increased, as safety mechanisms are non-existent for drivers. Taxi drivers have no medical aid, no pension fund, no unemployment insurance fund or any life insurance. For drivers to attain these, their incomes need to be increased. Also, the government's recapitalisation initiative aims to replace 126 000 taxis with 85 000[35] taxis, so disemployment is inevitable. In fact with recapitalisation, we can expect to see 33% less taxis on the road. Before this recapitalisation is accepted by stakeholders, government has to prove how it intends to re-employ the 41 000 drivers who will have no taxis to drive.

But this argument does not end here as we have yet to consider the effects of this should employers or government pass on the wage increase and/or recapitalisation costs to the consumer. In fact we want to ascertain the price elasticity of demand. Neubrech and Pienaar (2001) use co-integration analysis to establish price, cross-price and income elasticities of demand for public road transport in the Cape Metropolitan Area. Their analysis yields some interesting results and these include that bus and taxi services are substitute products and that the short run elasticity for taxi fares is 6,7 while

[35] Davies (2000) in www.ccapc.gov.za

the long run elasticity stands at 3%. The authors state that there are high-generalized costs that commuters attach to minibus taxi transport (these include taxi-related violence and high accident rates associated with this industry) and as a result, they are less willing to pay for taxi services. The direct result then is that the demand is highly elastic, which means that in the short term, should the fares increase by R1, a corresponding 6.7% decrease in demand is to be expected. (For example if we have 10 000 commuters using taxis daily and the fare increases by R2, we can expect to see 1340 less people using taxi services)

Another study by Hendriks and Lyne (2003) offers similar results. The focus moves away from the Western Cape and these writers examine 99 rural households (these households are in the rural areas of Swayimana and Umzumbe) in the KwaZulu Natal province. What is established here is that these residents rely heavily on minibus taxis for transport and their regressions show that expenditure elasticities for transport were very high. In fact for Swayimana, this elasticity stood at 8,30 and for Umzumbe this was lower, yet still elastic at 2,52. This re-iterates the above conclusion that increases in taxi fares affect the demand for this service in a very negative way.

CONCLUSION

The South African minibus taxi industry is rooted within the informal sector yet it also exists within the periphery of the formal sector. Operators in this industry adhere to some regulations, which include driver licensing and traffic regulations yet do not comply with numerous standard business practices characteristic of the formal sector. This industry has developed in an unregulated environment and the time has come for it to shed its informality and join the mainstream economy.

Deregulation of the industry opened up numerous opportunities for (predominantly) Africans to empower themselves and earn a better living. But this regime did not control the number of entrants and soon over-saturation of vehicles ensued and excessive competition drove down profits and violence ensued. On the other hand, a regulatory environment would serve to eliminate the negative effects of deregulation by ensuring better working conditions of employment for drivers. A regulatory regime would eliminate informality and through the recapitalisation process, it would assure a more sustainable environment for the investment of durable assets by the participants and stakeholders in the industry.

What is imperative to note is that deregulation increased employment yet it also led to exploitative labour practices. This is where the notion of a trade off is most important. Economic regulation can restrict firms in terms of price, quantity and entry into and out of markets and Melton (1978) contends that regulation, through placing limitations on entrants, breeds unemployment. It is those that remain within the industry that benefit. Thus regulatory interventions that are activated through state policies have to preserve the positive and beneficial impact that has resulted and upon which a wide spectrum of beneficiaries are dependent but it also has to mitigate the deleterious and negative effects which can be observed in exploitative relations.

Unemployment in South Africa, when broadly defined, is estimated at over 40% of the economically active population. This country cannot afford to shed jobs; it is vital that it creates them. Yet the government's recapitalisation process will invariably lead to a decreased number of operators who will *most probably* be better off than their current status. What is critical is the quality of jobs that are preserved be infinitely better than the quality of jobs, which have been discarded. Is it not better to employ fewer people in jobs where they earn a living wage that restores their dignity rather than employing many more people in jobs that exploit them?

Another limitation that exists with operating within the informal economy is that expansion of businesses is constrained and bigger and more cost-effective scales of production are difficult to achieve. Taxi owners operate without significant collateral and this denies them access to formal sector capital. A regulated and transparent system would bridge this void and enhance the capabilities of owners. The government's recapitalisation programme, through it's regulating of working conditions, offers drivers better prospects and owners also benefit from the introduction of smart cards and the preferential interest rates that will be in line for them. The smart cards will keep accurate commuter counts and will translate into a transparent cash flow system. This will then provide evidence to financial institutions of their credit worthiness. This recapitalisation programme will also benefit the economy, as owners will now be paying taxes.

In spite of all these likely benefits, one cannot shirk from the possible disemployment effects. The *Survey of wages and employment conditions* highlighted the vulnerability of the respondents and that of the members of their households, as they depended heavily on the wages earned from the taxi industry. The recapitalisation programme, will on a straight-line basis render about 40 000 taxi drivers jobless. It has been stated that those that find themselves jobless will be filtered back into the system as support staff. Since only so many can be trained as rank marshals, the rest of the drivers will be used as maintenance staff. This argument falls short because these new minibuses will be under a maintenance plan, which means that any problems

arising need to be sent to the manufacturer. The manufacturers already have trained and experienced staff that are well equipped to deal with any problems.

Disemployment or even a loss of profits may occur in a different way. That is, should the price of taxi fares rise, commuters may switch to traveling by rail or bus and this may irrevocably damage the taxi industry. Considering that the recapitalisation programmes involves regulating conditions of work, which could include shortened working hours, increased salaries and additional benefits such as pension and medical aid, the question remains, who will foot this bill? Owners have new taxis to purchase, which will be considerably more expensive even though government intends on offering some scrapping allowance. These new taxis, which have as yet not had price tags attached to them, will consume much of the owners' resources. Perhaps then government will subsidise this industry but this is not yet clear.

As the dominant party in the national government, the African National Congress has an electoral pledge to uphold, a pledge that promises "A Better Life for All". In light of this, it has a crucial balancing act to perform by ensuring that its interventions to bring about effective transformation at various tiers of the economy and the society are successfully carried through without being reduced to a breakdown of proper governance. By formalising this industry, many will be made better off but many other relevant stakeholders may be left out in the cold. But this is the nature of any transformation: there will be those that survive and those that do not but safety mechanisms must be in place to assist the displaced. The South African minibus taxi industry is indeed at the crossroads and the array of impending forces can without a doubt give rise to wholly unpredictable outcomes.

REFERENCES

BARRET, J., 2001. Transport as the key to an integrated economy and society. *The Shopsteward* 10(3). Available [Online]: http://www.cosatu.org.za/shop/shop1003/shops1003.htm. Accessed: March 2003.

BHORAT, H., 2000. *Are Wage Adjustments an Effective Mechanism for Poverty Alleviation? Some Simulations for Domestic and Farm Workers*. Development Policy Research Unit Working Paper 00/41

CAPOZZOLA, C., 1991. The Informal Economy of the LDC's: Regulation and Reaction. *Harvard International Review* 13(4): 40-43

CLARK, P., & CROUS, W., 1999. A Strategic Review of Public Transport User Needs in the Cape Metropolitan Area. *Cape Metropolitan Council, South Africa*.

CROSS, J.C., 2000. *Organizing the Informal Sector: Notes from the Field* Vassar College. Available [Online]: http://www.openair.org/cross/ILOpaper.htm. Accessed: September 2003

DAVIES, B., 2000. The Role of the Taxi Industry in the South African and Eastern Cape Economies. Speech delivered at the Business Indaba 2000. Available [Online]: www.ecape.gov.za. Accessed: March 2003

DEPARTMENT OF TRANSPORT AND PUBLIC WORKS. *Western Cape Taxi Industry Formalisation Information Booklet*. Produced by the Western Cape Department of Transport and Public Works, Cape Town, South Africa. (No date)

DOUGLAS, G., 1999. A New Economic Theory of Regulation: Rent Extraction rather than Rent Creation. *Michigan Law Review* 97(6): 1771-1780

DUGARD, J., 2001. Taxi Violence in South Africa (1987-2000). *Violence and Transition Series*, 4

EHRENBERG, R. G., & Smith, R. S., 2000. *Modern Labour Economics: Theory and Public Policy*. USA. Addison Wesley Longman

FALLON, P., & LUCAS, R., 1998. *South Africa: Labour Markets Adjustment And Inequalities*. The World Bank Southern Africa Department.

GALLIN, D., 2001. Propositions on Trade Union and Informal Employment in Times of Globalisation. *Antipode*, 33(3): 531-549

HALVORSEN, R., & PALMQUIST, R., 1980. The Interpretation of Dummy Variables in Semilogarithmic Equations. *American Economic Review*, 70(3)

HENDRICKS, S.L., & LYNE, M.C., 2003. Expenditure patterns and elasticities of rural households sampled in two communal areas of KwaZulu Natal. *Development Southern Africa*, 20(1): 105-138

JEFTHAS, D., 2002. Regulation, Conflict and Violence in the South African Minibus-Taxi Industry: Observations from the Western Cape. Masters Dissertation, University of Cape Town, Cape Town.

JURGENSEN, K., 1998. TGWU to organise taxi drivers. *The Shopsteward*, 7(7). Available [Online]: http://www.cosatu.org.za/shop/ss0706-2.htm. Accessed: May 2003

KANG, C-H., 1998 *Taxi Regulation: International Comparison*. University of Leeds, Available [Online]: http://www.taxi-l.org/kang0898.htm. Accessed: May 2003

KHOSA, M.M., 1992. Routes, Ranks and Rebels: feuding in the Taxi Revolution. *Journal of Southern African Studies*, 18(1): 232-251

KHOSA, M.M., 1994. Accumulation and Labour Relations in the Taxi Industry. *Transformation,* 24: 55-71

KHOSA, M.M., 1998. Sisters on the Wheel: Gender Relations in the Taxi Industry in Durban. In Larsson A, Mapetla M & Schlyter, A (eds): Changing Gender Relations in Southern Africa: Issues of Urban Life. (1998). *Institute of South African Studies, Roma, Lesotho*

KIP VISCUSI, W., VERNON, J.M., & HARRINGTON, J.E., 1998. *Economics of Regulation and Antitrust*. The MIT Press, Cambridge, Massachusetts, London, England (Second Edition)

MATIKO, J., 1989. Taxis – Conflict between owners and drivers. *South African Labour Bulletin,* 14(3)

MAY, J., 1998. *Poverty and Inequality in South Africa*. Report for the Office of The Executive Deputy President and the Inter- Ministerial Committee For Poverty and Inequality. Available [Online]: http://www.welfare.gov.za/Documents/1998/Pov.htm. Accessed: June 2003

McCAUL, C., 1990. *No easy Ride: The Rise and Future of the Black Taxi Industry*. South African Institute of Race Relations, Johannesburg

MELTON, Jr, L.J., 1978. Transport Regulation: An Effective Tool of Public Policy. *Transportation Journal*, p86-95

MOSS, F. A., 1993. *Are the Wheels coming off, or is it just a Puncture?* ASSA Conference, Division of Roads and Transport Technology, Pretoria, South Africa

NEUBRECH, S. E., & PIENAAR, J. W., 2001. Possible Implications of the Price, Cross-Price and Income elasticities of the demand for public Road transport in the Cape Metropolitan Area – A co-integration Analysis. *Journal of the Study of Economics and Econometrics*, 25(3): 57-73

OMAR REVAMPS TAXI PLAN, 2002.*The Mail And Guardian.* 22 Nov

RAPP, U., "Entry Deregulation in Cape Town's Black Combi Taxi Industry," Stockholm School of Economics, Sweden 1993

ROGERSON, C.M. 2000. Emerging from Apartheid's Shadow: South Africa's Informal Economy. *Journal of International Affairs*, 53(2): 673-697

SAPSFORD, D., & TZANNATOS, Z., 1993. *The Economics of the Labour Market*. Macmillan

SA TAXI DRIVERS HEAD FOR THE BIG TIME, 2001. *African Business Magazine.* Issue 271

SCHOOMBEE, A., 2000. Getting South African banks to serve micro-entrepreneurs: an analysis of policy options. *Development Southern Africa*, 17(5): 751-767

SOUTH AFRICAN COMMISSION OF INQUIRY REGARDING THE PREVENTON OF PUBLIC VIOLENCE AND INTIMIDATION, 1994. Sixth Interim Report on the taxi and minibus industry in the King William's town area. Pretoria.

TAXI VIOLENCE UPDATE: SOUTH AFRICA, 2000. *Temasek Polytechni News.* Available [Online]: http://home1.gte.net/tpnews/news.htm. Accessed: May 2003

THALE, T., 2001. Winds of Change in the Taxi Industry. Available [Online]: http://www.joburg.org.za/october/taxi2.stm. Accessed: June 2003

TURNBULL, P., 1999. Regulation, deregulation or re-regulation of transport? Available [Online]: http://www.ilo.org/public/english/dialogue/sector/techmeet/sdpt99/sdpt4.htm. Accessed: July 2003

UNITED NATIONS, 2001. *The Regulation of Infrastructure Facilities and Services: The Principles*. New York

Electronic Sources

POLICY AND LAW ONLINE NEWS. Available [Online]: www.polity.org.za Accessed: March 2003

SOUTH AFRICAN TRANSPORT AND ALLIED WORKERS UNION. Available [Online]: www.satawu.org.za Accessed: May 2003

STATSITICS SOUTH AFRICA. Available [Online]: www.statssa.gov.za Accessed: May 2003

DEPARTMENT OF TRANSPORT. Available [Online]: www.transport.gov.za Accessed: May 2003

THE WORLD BANK GROUP. Available [Online]: www.worldbank.org Accessed: May 2003

APPENDIX A

Calculation of Table 22, page 63:

In order to establish the average percentage increase because of the minimum wage, the following was done for each minima.

Example for a minimum wage of R1800:

Monthly Income below R1800	Percentage Increase	Number at that Level	% Increase*Number at that Level
1760	0.0227	1	0.0227
1600	0.125	41	5.125
1500	0.2	14	2.8
1440	0.25	1	0.25
1400	0.2857	37	10.5709
1360	0.3235	1	0.3235
1350	0.3333	1	0.3333
1300	0.3846	8	3.0768
1250	0.44	1	0.44
1200	0.5	103	51.5
1120	0.607	2	1.214
1100	0.636	4	2.544
1000	0.8	59	47.2
900	1	10	10
800	1.25	45	56.25
760	1.368	1	1.368
750	1.4	1	1.4
700	1.571	10	15.71
600	2	6	12
560	2.214	7	15.498
500	2.6	4	10.4
400	3.5	4	14
350	4.142	1	4.142
300	5	8	40
280	5.428	1	5.428
250	6.2	2	12.4
Total	**42.5808**	**373**	**324.00**

The first column shows the actual income if one earns below R1800, while the third column shows the number of those earning at that level. The second column shows by how much the income actually goes up. Let us consider the last line: we see that two people earn R250. 250*6.2 = 1550. This means that if you earn R250, you can expect to earn an additional R1550 to get R1800. The final column shows the total gain at each level and the average gain is calculated as 324/373 = 86,86%. So, on average, each person's income goes up by 87%. Similar calculations are used for the other minima.

APPENDIX B

Survey of Wages and Employment Conditions in the Taxi industry

Questionnaire for Employees

A Sectoral Determination for the Taxi Industry

QUESTIONNAIRE NUMBER		INTERVIEWER CODE	
Interview date DD/MM/YY	___ / ___ / ___	SUPERVISOR CODE	

Hello, my name is ..... I am working for a research NGO called C A S E. The Department of Labour has commissioned this survey which is being undertaken in three South African provinces. They would like to learn more about earnings and working conditions in the taxi industry. Based on the findings of this survey, the Department of Labour will advise the Minister of Labour on the introduction of a minimum wage and appropriate working conditions in the taxi sector. Things you tell us will help the Department of Labour to regulate and improve wages and working conditions for all employees who work in the taxi industry. Therefore, it is important that the information you give me is as honest and accurate as possible.

You have been selected to be interviewed along with 450 other taxi industry employees. Your answers will be kept completely confidential and not shared with your employer or any other person outside of this project. We are only asking for your name and contact information so somebody from C A S E can check if this interview has been conducted with you. Nobody will be able to identify your personal answers. This is your opportunity to tell us what you really think.

Taxi employee (Details collected for check-backs only)	Name	
	Address:	
	Contact number	

Interviewer: **Only administer this questionnaire if the potential respondent is employed by or hires the taxi from another person who owns the taxi they drive. Do not administer this questionnaire to drivers who own their taxi.**

Interviewer pledge:

I certify that this interview has been completed in full, **with the respondent** and according to the instructions I received from C A S E.

SIGNED: _____
(interviewer's signature)

_____
(date)

Supervisor check:

I certify that I have checked this questionnaire and to my knowledge:
it is fully completed and the respondent was correctly selected according to CASE's instructions

SIGNED: _____
(fieldwork supervisor's signature)

_____
(date)

FOR SUPERVISOR'S USE ONLY

CHECK-BACK VISIT: A check-back *has been / has not been* carried out on this questionnaire (circle correct option) Date carried out: (……/……/03)

If check-back *has* been done, by whom was it done? (circle correct option)

Fieldwork supervisor	1
Contract fieldworker	2
C A S E staffer	3

Result of check-back:

Are you satisfied that the questionnaire was correctly and truthfully filled in?	Yes
	No

DEMOGRAPHICS

1. Province [CODE BY OBSERVATION.]

Gauteng	1
KwaZulu-Natal	2
Limpopo	3

2. Area type [CODE BY OBSERVATION.]

Metropolitan / Urban – Johannesburg (G)	1
Metropolitan / Urban – Durban (KZN)	2
Metropolitan / Urban – Polokwane / Pietersburg (L)	3
Small urban / peri-urban – Krugersdorp area (G)	4
Small urban / peri-urban – East Rand area (G)	5
Rural – Matlala area (L)	6
Rural – Matoks area (L)	7
Rural – Boyne area (L)	8
Rural – Ulundi area (KZN)	9
Rural – Msinga area (KZN)	10
Rural – Empangeni area (KZN)	11

3. Name of taxi rank / Name of town or village where taxi rank is situated [IN JHB, DURBAN AND POLOKWANE RECORD THE NAME OF THE TAXI RANK. IN ALL OTHER AREAS, RECORD THE NAME OF THE TOWN / VILLAGE IN WHICH THE TAXI RANK IS SITUATED.]

_____

4. Sex of respondent [CODE BY OBSERVATION.]

Male	1
Female	2

5. How old are you? [AGE TO NEAREST YEAR.]

_____ **Years**

6. What is the highest level of education you have passed? [DO NOT READ OUT. SINGLE MENTION.]

No formal education	1	Gr. 8 / Std. 6	9
Gr. 1 / Sub. A	2	Gr. 9 / Std. 7	10
Gr. 2 / Sub. B	3	Gr. 10 / Std. 8 / NTC 1	11
Gr. 3 / Std. 1	4	Gr. 11 / Std. 9 / NTC 2	12
Gr. 4 / Std. 2	5	Matric / Gr. 12 / Std. 10 / NTC 3	13
Gr. 5 / Std. 3	6	Diploma / Degree	14
Gr. 6 / Std. 4	7	Refused	15
Gr. 7 / Std. 5	8	Other (specify)	16

7. **How many people (this includes young children and babies) live in your household <u>including yourself</u>?**

_____

8. **For how many of these household members (<u>excluding yourself</u>) are you financially responsible, i.e. they mainly depend on you to financially support them?**

_____

9. **On average, what is your <u>total monthly household income</u>, i.e. your earnings plus contributions other members of your household make (including benefits like pensions and grants) before any taxes or other deductions.** [ONLY RECORD FULL RAND AMOUNTS, NOT CENTS. IF RESPONDENT REFUSES, CODE AS '9999'.]

R _____

EMPLOYEE INFORMATION

10. **Have you done any work outside the taxi sector to earn money in the past 7 days?**

Yes	1
No	2

Go to Q. 13

11. **If yes, please describe the type of work you have done outside the taxi industry**

_____

12. **How often do you do other work outside the taxi sector?** [READ OUT. SINGLE MENTION.]

Daily	1
A few times a week	2
A few times a month	3
A few times a year	4

13. **For how many years have you been working in the taxi industry?** [IF LESS THAN ONE YEAR, CODE AS '0'. OTHER PERIODS SHOULD BE ROUNDED OFF TO THE NEARES FULL YEAR.]

_____ **Years**

14. **Please give me a short description of all the tasks you perform at work in the taxi sector**

_____

_____

_____

15. **For how many years have you had a car driver's license?** [IF LESS THAN ONE YEAR, CODE AS '0'. OTHER PERIODS SHOULD BE ROUNDED OFF TO THE NEARES FULL YEAR.]

_____ **Years**

16. **Do you have a PDP (Public Driver's Permit)?**

Yes	1
No	2

Go to Q. 18

Don't know	3	**Go to Q. 18**

17. For how many years have you had your PDP License (permission to carry passengers in a vehicle)? [IF LESS THAN ONE YEAR, CODE AS '0'. OTHER PERIODS SHOULD BE ROUNDED OFF TO THE NEARES FULL YEAR.]

Years

LONG & SHORT-DISTANCE DRIVERS

18. On average, how many kilometres do you drive per day with your taxi?

Kilometres / Day

19. Which of these describes <u>best</u> the taxi trips you make in a day? [READ OUT. SINGLE MENTION.]

I make many trips (5 or more), but only short distances (e.g. around town)	1	**Go to Q.25**
I make 3-4 trips, of medium length distances (e.g. 2 return trips between 2 towns)	2	**Go to Q.25**
I make one or two medium distance trips, plus shorter trips in between	3	**Go to Q.25**
I make one return trip or less per day (e.g. JHB to Cape Town)	4	
Other (specify)	5	**Go to Q.25**

20. If you are driving long distances which require you to sleep away from home, where do you <u>mainly</u> sleep during these trips? [DO NOT READ OUT. SINGLE MENTION.]

Sleep in taxi (other driver driving)	1	
Sleep in taxi (taxi parked somewhere)	2	
Renting accommodation for the night	3	
Stay with friends / family	4	
Other (specify)	5	
Never have to sleep away from home	6	**Go to Q. 22**

21. Who pays for your accommodation when you have to sleep over on long-distance trips? [DO NOT READ OUT. SINGLE MENTION.]

Employer (taxi owner) pays	1	**How much?**	**R**
Driver (respondent) pays	2		
No costs involved	3		
Other (specify)	4		

22. Who pays for your food when you are on a long distance trip? [DO NOT READ OUT. SINGLE MENTION.]

Employer (taxi owner) pays	1	**How much?**	**R**
Driver (respondent) pays	2		
No costs involved / don't eat food	3		
Other (specify)	4		

23. Does your employer (the owner of the taxi) pay for any other expenses when you have to drive long distances?

Yes	1	
No	2	**Go to Q.25**

24. Please describe what other expenses your employer covers

_____

EARNINGS & WORKING HOURS

25. For how many different employers (taxi owners) do you work in an average week?

_____ **Employer (s)**

26. What best describes the basis on which you are employed? If you have more than one employer, please think about the one you work for most of the time. [READ OUT. SINGLE MENTION.]

I receive a fixed wage per week / month	1	**Go to Q.29**
I get paid by the hour	2	**Go to Q.29**
I get paid per day worked	3	**Go to Q.29**
I get paid a fixed amount for each completed route	4	**Go to Q.29**
I pay the owner a fixed amount for the taxi & keep the rest of the fares	5	
I receive a share of the daily earnings / fares from the owner of the taxi	6	**Go to Q.28**
Other (specify)	7	**Go to Q.29**

27. If you pay the owner of the taxi a fixed amount for the use of the taxi, how much do you pay and for what period? [RECORD AMOUNT AND PERIOD, E.G. 'R500 PER DAY', 'R1000 PER WEEK', 'R5000 PER MONTH' ETC.]

Amount	Time period	
R		**Go to Q.29**

28. If you receive a share of the earnings, please describe how this is calculated?

_____

_____

29. How often do you get paid? [DO NOT READ OUT. SINGLE MENTION.]

Daily	1
Weekly	2
Every two weeks	3
Monthly	4
Other (specify)	5

30. How much money (<u>after any deductions</u>) did you take home over the last <u>7 days</u>? [ONLY RECORD FULL RAND AMOUNTS, NOT CENTS. IF RESPONDENT REFUSES, CODE AS '9999'.]

R _____

31. On average, what is your <u>monthly</u> income from working in the taxi industry <u>before</u> any taxes or other deductions? [ONLY RECORD FULL RAND AMOUNTS, NOT CENTS. IF RESPONDENT REFUSES, CODE AS '9999'.]

R _____

32. How many days per week do you normally work in the taxi sector?

One	1	
Two	2	
Three	3	
Four	4	
Five	5	**Go to Q.34**
Six	6	**Go to Q.34**
Seven	7	**Go to Q.34**

33. Why do you work less than five days per week in the taxi sector?

_____

34. What time did you start and end work each day during the previous week? [USE 24 HOUR CLOCK TO RECORD TIMES, I.E. '8:00', '14:30', '20:45' ETC. IF RESPONDENT HAS NOT WORKED ON A PARTICULAR DAY, CODE AS '00:00'.]

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Start time							
End time							

35. Which <u>best</u> describes how your break times are structured? [READ OUT. SINGLE MENTION.]

Can take breaks anytime I want (no earnings)	1
Take breaks when I have to wait for fares	2
Have fixed break times set by employer	3
Other (specify)	4

36. On average, how long is your daily lunch break?

_____ **Minutes / day**

37. Do you receive any pay for the time you spend on your lunch break?

Yes	1
No	2

38. Approximately how much time do you have for other breaks per day?

_____ **Minutes / day**

39. Do you receive any pay for the time you spend on other break periods?

Yes	1
No	2

40. On average, how many <u>hours per day</u> do you spend at work, that is driving, waiting for fares at the taxi rank and break periods?

Hours / day

41. On an average day, how many <u>hours per day</u> do you spent waiting for fares at the taxi rank?

Hours / day

42. How often do you work on...? [READ OUT. ONE MENTION EACH.]

	...Saturdays	**...Sundays**
Every week	1	1
Once every two weeks	2	2
Once a month	3	3
A few times a year	4	4
Never	5	5

If '5' is circled for **both** Saturday & Sunday, go to Q.45

43. Compared to weekdays, do you work longer or shorter hours on ...[READ OUT. ONE MENTION EACH.]

	...Saturdays	**...Sundays**
Shorter hours	1	1
Same hours	2	2
Longer hours	3	3
Don't work	4	4

44. Do you get any additional pay from your employer for working on Saturdays or Sundays? [DO NOT READ OUT. SINGLE MENTION.]

No, same as on weekdays	1
More on Saturdays or Sundays	2
More on Sundays only	3
Don't work on Saturdays or Sundays	4
Get other form of compensation (describe)	5

45. Do you generally work on public holidays?

Yes	1
Sometimes	2
No	3

Go to Q.48

46. Compared to normal work days, do you work longer or shorter hours on public holidays?

Shorter hours	1
Same hours	2
Longer hours	3

47. Do you get any additional pay when working on public holidays? [DO NOT READ OUT.]

No, same as on weekdays	1	
More than on weekdays	2	**Reason?**
Less than on weekdays	3	**Reason?**
Get other form of compensation (describe)	4	

48. How do you think 'overtime' is defined in the taxi industry?

_____

_____

49. Do you ever work overtime?

Yes	1	
No	2	**Go to Q. 51**

50. How do you get compensated for working overtime?

_____

_____

51. If you had a choice, which of these two work arrangements would you prefer more? [READ OUT. SINGLE MENTION.]

Hire the taxi for fixed amount from owner and keep the remaining profits	1
Get fixed amount from owner for driving his taxi	2

52. Can you think of any other work arrangement you would like to have the most?

_____

53. If drivers were to receive a fixed wage from the owner of the taxi, what would you consider to be a fair minimum wage for taxi drivers? [ONE RESPONSE ONLY.]

R	**per hour**	**or**
R	**per day**	**or**
R	**per week**	**or**
R	**per month**	

OPERATING COSTS

54. Do you normally have a fare collector in your taxi?

Yes	1	
No	2	**Go to Q.58**

55. Does the fare collector get paid for this work?

Yes	1	
No	2	**Go to Q.58**

56. Who pays that fare collector? [DO NOT READ OUT. SINGLE MENTION.]

The driver (respondent) of the taxi	1
The owner of the taxi	2
Other (specify)	3

57. How much does the fair collector generally get paid per day? [ONLY RECORD FULL RAND AMOUNTS, NOT CENTS. IF RESPONDENT REFUSES, CODE AS '999'. IF RESPONDENTS DOES NOT KNOW, CODE AS '888'.]

Rand / day _____

58. Who covers the cost of the petrol for the taxi you drive? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi (respondent)	1
The owner of the taxi	2
Both owner and driver	3
Other (specify)	4

59. Who covers the regular cost of the maintenance (services etc) of the taxi?

The driver of the taxi (respondent)	1
The owner of the taxi	2
Both owner and driver	3
Other (specify)	4

60. Who covers the cost of cleaning the vehicle? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi (respondent)	1
The owner of the taxi	2
Both owner and driver	3
Other (specify)	4

61. If you are in an accident which is not your fault, who is responsible for repairs to the taxi? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi	1
The owner of the taxi	2
Both owner and driver	3
Insurance pays	4
Other (specify)	5

62. And if an accident is your fault? Who pays for the repairs to the taxi? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi	1
The owner of the taxi	2
Both owner and driver	3
Insurance pays	4
Other (specify)	5

63. Who pays the vehicle insurance on the taxi? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi	1
The owner of the taxi	2
Both owner and driver	3
Nobody (taxi not insured)	4
Other (specify)	5

64. Who pays for the vehicle license for the taxi? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi	1
The owner of the taxi	2
Both owner and driver	3
Nobody (taxi has no license)	4
Other (specify)	5

65. Who pays for traffic fines, e.g. if speeding or overloaded? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi	1
The owner of the taxi	2
Both owner and driver	3
Nobody (fines are not paid)	4
Other (specify)	5

66. Who pays for fines for unroadworthy vehicles etc? [DO NOT READ OUT. SINGLE MENTION.]

The driver of the taxi	1
The owner of the taxi	2
Both owner and driver	3
Nobody (fines are not paid)	4
Other (specify)	5

67. Does your employer ever <u>deduct</u> money from your pay for any of the following: [READ OUT. ONE ANSWER PER DEDUCTION. IF MONEY IS BEING DEDUCTED, RECORD THE APPROXIMATE AVERAGE AMOUNT.]

Deductions for:	**Regularly**	**Sometimes**	**Never**	**Amount / month**
Medical aid / health care	1	2	3	**R**
Burial fund	1	2	3	**R**
Pension / provident fund	1	2	3	**R**
Life insurance	1	2	3	**R**
Unemployment Insurance Fund (UIF)	1	2	3	**R**
Car / accident insurance	1	2	3	**R**
Other (specify)	1	2	2	**R**

68. Does your employer ever make deductions from your pay that you do not agree with?

Yes	1	
No	2	**Go to Q.70**

69. What was the money deducted for?

_____

EMPLOYMENT CONDITIONS

70. Do you have a contract / agreement with the owner of the taxi you drive?

Yes	1
No	2

Go to Q.75

71. Is this a verbal or a written contract / agreement?

Written contract	1
Verbal contract	2

Go to Q. 73

72. If you have a written contract, do you have a copy of this contract?

Yes	1
No	2

73. How often are the wages set out in your contract revised? [DO NOT READ OUT. SINGLE MENTION.]

Once a year	1
Irregularly, when the taxi owner wants changes	2
Never	3
Other (specify)	4

74. How often are the working conditions set out in your contract revised? [SINGLE MENTION.]

Once a year	1
Irregularly, when the taxi owner wants changes	2
Never	3
Other (specify)	4

75. Do you receive a pay slip from your employer?

Yes	1
No	2

Go to Q.77

76. Have you ever encountered problems, e.g. when trying to open a bank account or take out a loan or anything else <u>because you do not have a pay slip</u>?

Yes	1
No	2

77. Does your employer give you any paid leave during the year?

Yes	1
No	2

Go to Q. 80

78. If yes, how many days of paid leave do you get per year?

_____ **Days**

79. During the paid leave, do you receive the same amount you normally earn from your employer? [DO NOT READ OUT. SINGLE MENTION.]

Same amount	1	
Less	2	**Describe:** _____
More	3	**Describe:** _____

80. Does your employer allow you to take unpaid leave during the year?

Yes	1	
No	2	**Go to Q. 82**

81. If yes, how many days of unpaid leave can you take per year?

_____ **Days**

82. Does your employer allow you to take sick leave?

Yes	1	
No	2	**Go to Q. 85**

83. If yes, how many days of sick leave can you take per year?

_____ **Days**

84. During the sick leave, do you receive the same amount you normally earn from your employer? [DO NOT READ OUT. SINGLE MENTION.]

More	1	**Describe:** _____
Same amount	2	
Less	3	**Describe:** _____
Nothing	4	

85. Generally, are there any problems with your employer if you take any type of leave?

Yes	1	
No	2	**Go to Q.87**

86. If yes, please describe these problems that result from taking leave

_____

_____

87. To your knowledge, can female taxi drivers take maternity leave?

Yes	1	
No	2	**Go to Q. 91**
Don't know	3	**Go to Q. 91**

88. How many months maternity leave can female drivers take?

Months / year

89. Is this maternity leave paid for?

Yes	1	
No	2	**Go to Q. 91**
Don't know	3	**Go to Q. 91**

90. How does pay during maternity leave compare to normal wages?

More	1	**Describe:**
Same amount	2	
Less	3	**Describe:**

91. Can male taxi drivers take paternity leave when their partner has given birth?

Yes	1	
No	2	**Go to Q. 95**
Don't know	3	**Go to Q. 95**

92. How many months paternity leave can male drivers take?

Months / year

93. Is this paternity leave for male drivers paid for?

Yes	1	
No	2	**Go to Q. 95**
Don't know	3	**Go to Q. 95**

94. How does pay during paternity leave for male drivers compare to normal wages?

More	1	**Describe:**
Same amount	2	
Less	3	**Describe:**

95. Do you have any kind of insurance which will provide you with some income if you are unable to work after an accident?

Yes	1	
No	2	**Go to Q. 97**

96. What type of insurance is this?

97. Are you a member of a trade union or any other type of employee organisation?

Yes	1	
No	2	**Go to Q. 99**

98. If yes, please name the union or organisation you are a member of

INFORMATION ABOUT EMPLOYER

99. How many years have you worked for your current employer / the employer you work for most of the time?

_____ **Years**

100. If you have worked for more than one employer in the taxi industry, why are you no longer working for your last employer?

_____

101. How would you rate your relationship with your current employer / the employer you work for most of the time? [READ OUT. SINGLE MENTION.]

Very good	1	
Good	2	
Average	3	**Go to Q.104**
Bad	4	**Go to Q.103**
Very bad	5	**Go to Q.103**

102. If your relationship with your current main employer is good or very good, what are the reasons for this?

_____

_____ **Go to Q.104**

103. If your relationship with your current main employer is bad or very bad, what causes problems?

_____

_____

104. Why are you working as an employee in the taxi industry rather than in some other sector?

_____

105. What do you like about working in the taxi industry?

_____

106. What do you dislike about working in the taxi industry?

_____

107. Are there any other comments you would like to make about working in the taxi industry?

_____

Thank you very much for your cooperation!

INTERVIEWER COMMENTS

Other person/people present during interview	1
No one else present	0

Comments. Note here anything you think we need to know about the circumstances surrounding the interview, who was present at the interview, respondent's attitude, etc

- Who was present during the interview?
- Was the respondent reluctant to speak freely because of other people present?
- Did the respondent seem intimidated?

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