

Ministry of Transport

Review of Weightings in Taxi Cost Model

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Executive Summary

As part of the process involved in determining annual adjustments to regulated taxi fares in NSW, the Independent Pricing and Regulatory Tribunal (IPART) examines changes in the cost of providing taxi services. The cost items examined by IPART are inflated at different rates on a year-on-year basis. All labour related costs are now inflated by changes in the Wage Price Index (WPI) published by the Australian Bureau of Statistics. Other costs are inflated by components of the Consumer Price Index (CPI) or other measures of changes in taxi industry specific costs. However, to maintain a constant weighting of cost components that reflects the importance of each cost item to total operating costs, IPART uses a Taxi Cost Model which specifies the weighting of each cost component as a proportion of total taxi operating costs.

This paper provides proposed updates on the appropriate weightings for the Taxi Cost Models for urban and country taxis to reflect the distribution of costs affecting the taxi industry today, expressed in today's prices. The dollar value of each cost item is not what drives the results of the Taxi Cost Model. These values are only used to calculate the weighting of each taxi cost component as a proportion of the total costs involved in driving and operating taxis in NSW.

The proposed costs used in the revised model were determined based on:

- a survey of all registered taxi drivers and operators in NSW;
- a selection of in-depth interviews with taxi operators; and
- independent verification of particular cost items to verify data obtained from other sources and/or to provide additional information on costs.

For most cost items, median results from the comprehensive industry survey were used to determine costs. This measure provides an estimate for the midpoint cost level from the survey sample. This indicator of costs was used in preference to the industry average to avoid the influence of "outliers", which are either very high or very low results, to ensure the result would not be biased to either very high cost or very low cost operations.

The proposed updated weights of all cost items faced by NSW taxis are shown in the table below, which compares these weights to those currently used in the Taxi Cost model that were estimated in 1999. This study is the first to assess the full range of costs faced by drivers, including mobile phone costs, GST compliance costs, costs of fare evasion and several other costs. While these costs are important to drivers, as a proportion of total costs they are relatively small. As the methodology of the Taxi Cost Index requires that all costs comprising less than 2 percent of total costs must be bundled together in an "other" category, cost items such as these are not itemised in the table below, but are outlined in Section 3.

Proposed Revised Urban and Country Taxi Cost Models

Item	Urban		Country	
	Proposed Model Weight 2007	Previous Model Weight 1999	Proposed Model Weight 2007	Previous Model Weight 1999
Labour costs				
Notional Driver's Wages Per Taxi	47.79%	36.14%	51.03%	37.04%
Notional Driver Entitlements / Pay-in Discount / Commission Offset	4.22%	2.17%	4.44%	-
Operator Salary Equivalent	5.00%	7.28%	5.78%	9.47%
Maintenance Labour	2.27%	4.08%	2.36%	4.09%
Non-labour costs				
Plate Lease Cost	13.00%	14.17%	10.77%	10.15%
LPG Fuel	7.16%	8.35%	6.29%	9.12%
Insurance	7.04%	6.22%	4.27%	4.93%
Vehicle Parts & Panels	2.61%	5.20%	1.76%	3.02%
Vehicle Lease Payments	2.14%	4.79%	2.25%	5.87%
Network Fees	3.41%	3.41%	5.06%	6.97%
Other	5.36%	8.19%	5.99%	9.34%
Total	100.00%	100%	100.00%	100.00%

Note: Totals may not add due to rounding. All costs include GST.

Key differences between the proposed updated weights and those developed in 1999 include the following.

- A significantly higher proportion of costs is now being attributed to driver labour costs. The main reason for this result is the finding from the survey that, on average, two full time equivalent drivers are required to operate each taxi. The methodology for calculating labour costs has also been revised. Previously, notional drivers wages were calculated as a theoretical proportion of operating costs, while the revised model is based on the hours of work contributed by drivers obtained from the comprehensive industry survey, combined with comparable hourly labour costs;
- Compared to the 1999 index, the proposed index attempts to capture not only the payment of driver entitlements, but also some combination of discounts to the pay-in paid by drivers to operators, (or increases in the commission paid to country drivers), as it is this combination of factors that influence total driver income. This approach does not assume that the payment of driver entitlements is now more common than 1999 levels. Previously, the weighting for driver entitlement assumed a certain amount of entitlements available to permanent bailee drivers only, in urban areas only;

- Although plate lease costs have increased in absolute terms since 1999, the effect of increased notional drivers wages and other payments to drivers mean that the proportion of total costs that is attributable to plate lease costs in both the 1999 index and the proposed index are similar.
- Fuel costs, vehicle parts and panels, and vehicle lease costs have fallen relative to other cost items compared to the 1999 index, given the significant reduction in the price of vehicles and their non-labour running costs in real terms over the past eight years.
- The median number of kilometres travelled by taxis today as estimated by the industry wide survey is lower than the assumed number of kilometres travelled in the 1999 study, which was based on a 'best practice' taxi. This means that those costs that are influenced by distance travelled (such as the cost of tyres) have also fallen. This has been the major factor influencing the fall in "other" costs as a proportion of total costs compared to the 1999 study.

The basis and logic for the recommended cost levels and associated weights is provided throughout **Chapter 3** of this report.

1 Introduction

Background to the project

In determining annual adjustments to regulated taxi fares in NSW, the Independent Pricing and Regulatory Tribunal (IPART) examines changes in the cost of providing taxi services since the last fare review as well as a range of other issues such as service quality.

Changes in costs are measured by the Taxi Cost Model, which includes a range of labour and non-labour costs incurred by taxi drivers and operators in delivering taxi services. The items in the model and the inflators used from year to year are outlined in **Table 1** below.

Each cost item has:

- a weighting in the index to reflect its proportion of total taxi operating costs; and
- an inflator which is applied to the value of each item in accordance with its weight in the total index.

The Taxi Cost Model has separate cost derivations for country and urban taxis, reflecting differences in the cost structure that urban and country taxis incur. Existing cost components and cost weights reflect the cost components and cost weights that prevailed when the Taxi Cost Index was first constructed in 1999. Any cost that comprises less than 2 per cent of total costs is amalgamated into the 'other' category, including tyres, uniforms, cleaning, government charges and annualised establishment costs.

Table 1 Taxi Cost Model Items & Inflators

Item	Inflator
Labour Costs	
Notional Driver's Wages	Wage Price Index ¹
Operator Salary Equivalent	Wage Price Index
Maintenance Labour	Wage Price Index
Driver Entitlements	Wage Price Index
Non-labour Costs	
Plate Lease Cost	"Motor vehicles" component of the private motoring subgroup of the CPI
LPG Fuel	Fueltrac survey
Insurance	"Insurance services" component of the CPI

¹ The Wage Price Index (WPI) is published by the ABS. The WPI rate used is for NSW, all industries, all sectors, total hourly rates of pay excluding bonuses.

Item	Inflator
Vehicle Parts & Panels	“Parts and accessories” component of the private motoring subgroup of the CPI
Vehicle Lease Payments	“Motor vehicles” component of the private motoring subgroup of the CPI
Network Fees	“Other motoring charges” component of the private motoring subgroup of the CPI
Other	CPI

Scope of this report

The task for this review is to propose updated weights for the model to ensure that all appropriate taxi costs are captured, and that the weightings used reflect today’s cost structure. Hence the key tasks for this report are to:

- update the cost components and cost weights of the Taxi Cost Index Model, using survey, interview, and independently gathered data sources for both urban and country taxis; and
- provide information on other issues that affect the viability and performance of the taxi industry that are relevant to determining adjustments to changes in taxi costs for the purpose of taxi fare determinations.

Structure of this report

The remainder of this report is structured as follows:

- **Chapter 2** outlines the approach undertaken to develop the revised taxi cost model;
- **Chapter 3** presents the results of the study in terms of the index specification and revised cost weights;
- **Chapter 4** discusses some other issues affecting the industry, including productivity and factors affecting the taxi operating environment;
- **Chapter 5** summarises the conclusions of the report;
- **Appendix A** shows the taxi driver survey form;
- **Appendix B** shows the taxi operator survey form;
- **Appendix C** presents the taxi driver survey results;
- **Appendix D** presents the taxi operator survey results; and
- **Appendix E** shows the costs obtained from independent sources as part of the cost verification process.

2 Approach

This review assesses the average annual cost of driving and operating a taxi in NSW, both in urban and in country areas. It makes the following key assumptions:

- each taxi is utilised for 52 weeks a year. The survey results indicate that each taxi operates an average of 10 shifts per week in urban areas and 11 shifts per week in country areas. The survey results indicate that taxis are driven by 2 full-time equivalent drivers;
- substitute (casual) drivers are assumed to generally be used during periods of absence by permanent drivers to ensure that taxis remain operational over this period;
- the most likely number of taxis operated per operator for both urban and country operators is 1, which is the median result from the industry-wide survey; and
- all costs are GST inclusive.

All relevant costs incurred in operating and driving a taxi in NSW have been obtained from:

- an extensive survey of drivers and operators;
- follow-up interviews with a sample of operators; and
- independent research to verify the costs indicated by industry participants.

Data collection approach

i. Survey of taxi drivers and operators

All registered taxi drivers and operators in NSW were surveyed as part of this study to ensure a representative sample was obtained, and to enable all stakeholders to participate in a process that will help determine regulated fare outcomes.

The survey was developed in close consultation with relevant industry bodies and regulators to ensure that the survey design adequately captured the relevant costs incurred by the industry, and enable issues to be explored that affect the way in which taxi services are delivered. Industry consultation also helped to ensure that the terminology used was understood by, and relevant to, those being surveyed.

The stakeholders that were consulted during the survey development phase included:

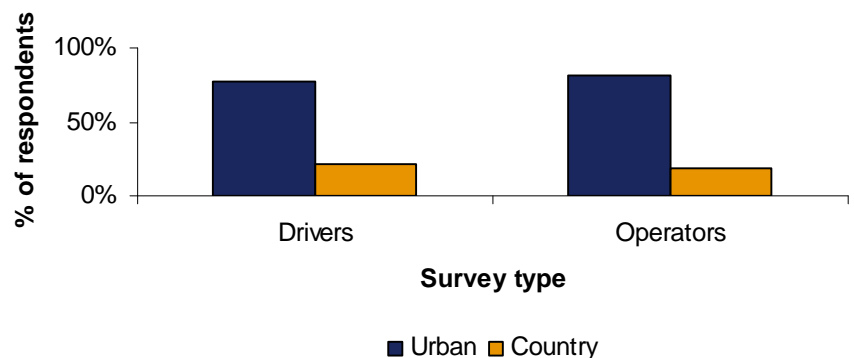
- NSW Taxi Council;
- NSW Drivers Association;
- Australian Taxi Drivers Association; and
- Transport Workers Union.

Separate surveys were developed for drivers and operators as deemed appropriate for each group. Operators that also drive taxis were sent a copy of both surveys. A total of 30,000 surveys were distributed to all registered taxi drivers and operators in NSW.

There were 1,767 completed survey responses received, including 289 from operators and 1,478 from drivers (a response rate of approximately 6 per cent). This sample size provides a confidence interval of $\pm 2.26\%$ at a confidence level of 95%.² A brief profile of respondents is provided below:

- Of the driver surveys, 78 percent were returned from urban drivers and 22 percent from country drivers. 81 percent of the operators that completed the operator survey operated in urban areas and the other 19 percent operated in country areas. This is shown in the graph below.

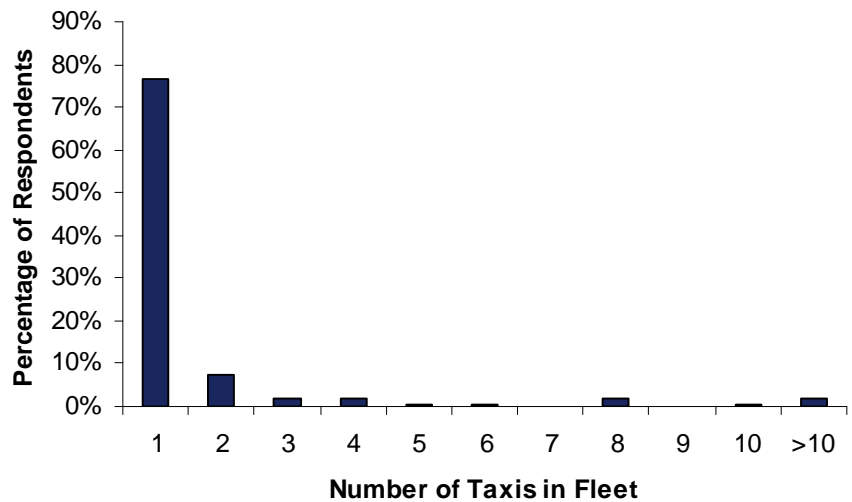
Profile of respondents by type of participant



- Of the operators who responded, the majority (70 per cent) operated only one taxi. The largest number of taxis operated in a fleet by respondents was 51 taxis, with the second highest being 25. These two largest fleets were both being operated in urban areas. A breakdown of the sample by the fleet size is shown in the graph below.

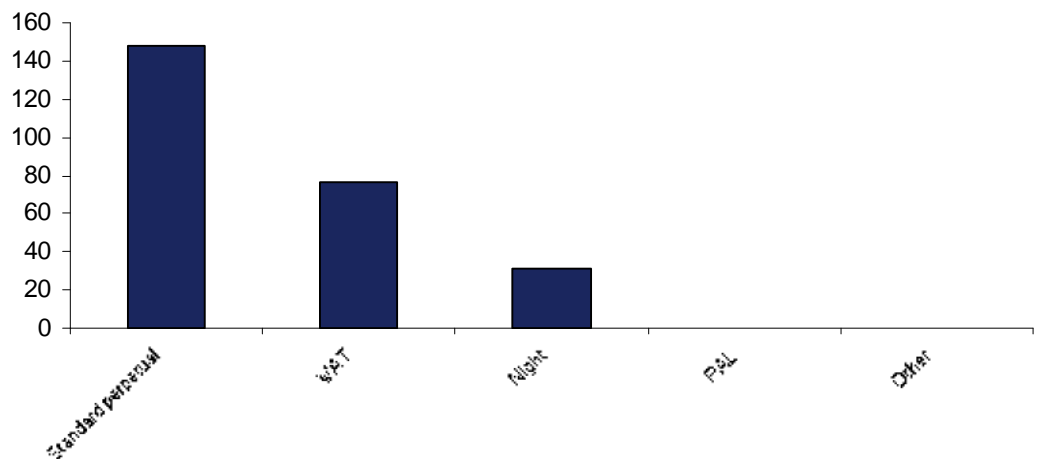
²Assuming worst case percentage (50%). <http://www.surveysystem.com/sscalc.htm#cineeded>

Profile of respondents by number of taxis operated



- The majority of respondents had standard perpetual licences (58%). The next most popular was WAT licences (30%), followed by night licences (12%). No respondents had any other sort of licence.

Profile of respondents by type of licence



A copy of the taxi driver survey is included in **Appendix A**, and a copy of the taxi operator survey can be found in **Appendix B**.

ii. Interviews with taxi operators

To supplement the survey results, 10 in depth interviews were undertaken with a random sample of 10 taxi operators of different size and operating structure to discuss key cost items and issues. This also involved reviewing financial statements and cost records (where possible) to verify the information provided in interviews and the survey.

iii. Independent verification of cost data

To verify the costs reported in the survey and interview process, independent research was undertaken, which included:

- obtaining market quotes from insurers, mechanics / dealers, cleaners, etc; and
- data sourced directly from suppliers for standard costs, such as for greenslips and driver licenses.

Index construction approach

Selection of cost items

The cost items included in the revised model maintains IPART's requirement that individual cost items that comprise less than 2 percent of total costs be included in the "other" cost category, which are then inflated by the consumer price index.

While this review asked for, and collected data on, a range of costs that are not included in the Taxi Cost Index, none of these individually comprised more than 2 percent of total costs. Hence no new separate cost items have been included in the cost index, but the composition of the 'other' category is now more diverse.

Separate indexes are provided for country and urban taxi costs.

Selection of cost values

The cost values proposed for the revised cost model were largely based on the survey results, except certain instances where certain cost values were estimated based on a combination of survey results and operating assumptions using independent cost benchmarks. This was generally used when survey results do not adequately reflect the current operating environment due to issues such as time lags, or where the number of responses for particular questions was too low to infer statistically significant results.

Given the range of costs reported for many cost items, in most cases, median costs were used for the proposed index as reported in the driver and operator surveys. Median costs were used to ensure a consistency of approach in the use of survey data, given the potential bias involved in using average costs for items that showed a large spread between highest and lowest cost outcome, and/or included questionable outliers.

Exceptions to this include items for which there is little variance in the cost, such as Compulsory Third Party insurance and drivers' licence fees, which are generally standard across the industry. These costs were sourced directly from suppliers.

3 Results

The cost values obtained for all components of the Taxi Cost Index, and our assessment of the appropriate cost for each component, are outlined below. The maximum, minimum, mean and median results, and the number of responses obtained for each survey question are provided in **Appendix C** (driver costs) and **Appendix D** (operator costs). Results from the independent verification of the costs which could be verified provided in **Appendix E**.

The following discussion provides an analysis of the survey results and other data, the selection of costs values, and comparisons with the previous model results or cost models from other Australian jurisdictions. The discussion is structured in accordance with the components of the Taxi Cost Model. The “previous model costs” refer to those cost values approved by IPART and published in *Maximum fares for taxis in NSW for 2007/08: Recommendations to the Minister, July 2007*.

The cost values in this report are estimated annualised costs involved in driving and operation of one taxi. The survey results indicate that the median number of taxis operated by an operator is 1 taxi, for both urban and country operators.

NOTIONAL DRIVER’S WAGES

The cost estimate for notional driver wages is calculated based on the median number of shifts a taxi is operated per week, and the median length of each shift, and the estimated cost of labour per hour.

The operator survey results show that the median number of shifts operated per taxi per week in urban areas is 10 shifts, and 11 shifts in country areas. The driver survey results show that the median number of shifts worked by urban drivers is 5 shifts, indicating that around 2 drivers are used to drive one taxi per week.

The survey results show the median number of hours worked by urban drivers on both weekend and weekday shifts is 8 – 10 hours. There was a considerable variation in shift length for drivers, ranging from less than 5 hours to more than 15 hours for both weekday and weekend shifts. However, this large range is to be expected given that drivers are essentially self-employed and can therefore be flexible with the hours they work. Given that 70 per cent of drivers responded to the questions about hours worked, survey results about the average shift length are expected to be valid.

The survey results also indicate that the 5 most popular shifts undertaken by urban drivers are weekday mornings - Monday mornings (39 per cent affirmative response to generally driving), Wednesday mornings, (38 per cent), Tuesday mornings (37 per cent) and Thursday and Friday mornings (both 36 per cent). Sunday afternoon is the least popular shift undertaken by urban drivers (only 18 per cent affirmative response). A largely similar response was obtained from the country drivers. Operators who were interviewed indicated that it was difficult to attract drivers to operate vehicles

during times when demand is low, such as Sunday afternoons. A country operator reported that they would limit the number of vehicles they operate for their town during low demand times (eg Monday nights) to ensure adequate fare-takings for the drivers who are on the road.

The survey form sent to drivers (and operators who drive their taxis) asked for drivers to attach a copy of their meter printout of the meter has that facility. However, less than 5 meter printouts were submitted with the approximately 1,800 survey forms that were returned. Given that drivers are hesitant about disclosing their income, their labour cost per hour could not be obtained through direct questions about their earnings. As a substitute, the private sector part time bus driver's rate is used as a proxy wage – this is estimated at \$19.64 per hour³. The private sector part time bus driver's rate is used as a proxy as this job utilises similar skills to taxi driving (driving, fare collection).

The Australian Taxation Office (ATO) estimates gross earnings at \$1.06/km travelled in the 2006 financial year.⁴ Based on the average distance travelled per taxi per year as found in the survey, this translates to gross earnings of around \$137,800 for urban taxis and \$124,020 for country taxis. Assuming that taxi drivers obtain 40-50% of the fare takings, this approach yields driver income of around \$55,120-\$68,900 for urban taxis and \$49,608-\$62,010 for country taxis. However, as the ATO earnings rate per km is based on a national earnings estimate for the taxi industry and is not specific to the NSW taxi industry.

Using the above survey results and cost assumptions (a median of 10 shifts per week for urban operators and 11 shifts per week for country operators, an average shift lasting 9 hours at an assumed rate of \$19.64 per hour⁵, notional drivers wages for a taxi (irrespective of the number of drivers) are estimated to be \$91,915 per annum for urban taxis and \$93,329 per annum for country taxis. Notional driver's wages per taxi are hence **47.79%** of total costs for urban taxis and **51.03%** of total costs for country taxis.

The revised weights are considerably higher than the previous model cost weights of 36.14% for urban driver wages and 37.04% for country drivers wages. The previous model weights were calculated based on labour costs as a theoretical proportion of operating costs. In its 2001 report, IPART assumed driver labour costs at 40% of operating costs, and applied changes in average weekly earnings to find driver labour costs for the 1999 index. The revised weights for the proposed index, however, are based on actual survey data about the number of shifts taxis are operated for each week and calculated using proxy wages. The proposed weight for driver labour in the revised index is consistent with the ACT taxi cost model which indicates that driver labour represents between 40-50% of total operating costs.

³ Motor Bus Drivers and Conductors (State) Award (674)
<http://www.industrialrelations.nsw.gov.au/awards/controller.jsp?awardCode=674&view=current>
 Rates. The full time rate is \$746.11 which is around \$19.63/hr based on a 38 hour working week.

⁴ Australian Taxation Office, Taxi cents per km rates,
<http://www.ato.gov.au/businesses/content.asp?doc=/content/38263.htm&pc=001/003/062/001/002&mnu=&mfp=&st=&cy=1>

⁵ This is the average assumed pay, and is also similar to the average pay received by State Transit bus drivers of \$20 per hour, a notional substitute job for taxi driving. Source: State Transit

OPERATOR SALARY EQUIVALENT

The operator salary equivalent is estimated based on the average number of hours operators spend on administering their fleet of taxis, and the estimated labour cost per hour.

The survey results show that an urban operator spends an average (or mean) of 7.5 hours on administration work per week. For this particular cost item, the average results are used, rather than the median, because it was important to capture the large variation in hours that arises due to differences in the number of vehicles in an operator's fleet, and hence time required for management and administration.

To calculate the proxy wage for this administrative work, the Clerical and Administrative Employees Hire Cars and Taxis State Award is used. The cost for this administrative work is estimated at \$24.66 per hour.⁶

Using the above information, the operator salary equivalent can be evaluated at \$9,617 per annum for urban operators. Based on the shift operation data (see discussion earlier under "notional driver's wages"), country operators need to administer one extra shift per week compared to urban operators. Assuming that administration time differentials reflect this difference in shift operations, the operator salary equivalent in country areas can be estimated at \$10,579 per annum. This approach is used as the sample size for urban operators is larger than the sample size for country operators.

The proposed revised model's weightings for operator salary equivalent are **5.00%** for urban taxis and **5.78%** for country taxis. The revised model's weightings are lower than the previous model's weights of 7.28% for urban taxis, and 9.47% for country operators. This is due to the fact that the original model accounted for 10 hours of operator labour state-wide, while the most recent survey indicated that currently, a median of 7.5 hours of time is spent by operators on administering the fleet. The revised costs were calculated by applying a comparable wage, whereas the Average Weekly Earnings (AWE) for New South Wales were applied in the previous model. The drop in operator labour hours between 1999 and the present could be attributable to productivity improvements by operators, or a decrease in the average fleet size being operated, reducing the amount of administration time needed from operators. If the 10 hours per week assumption was applied to the most recent AWE data, urban operator salary equivalent would rise to 6.08% of total costs for urban drivers.

MAINTENANCE LABOUR

Based on the survey results, urban operators incur a median of 5-9 hours (the midpoint, 7 hours, is used here for calculation) of maintenance per month per taxi, at a median cost of \$52 per hour. This results in an annualised maintenance cost per taxi of \$4,368 per year for urban operators, or **2.27%** of total costs.

⁶ Clerical and Administrative Employees Hire Cars and Taxis (State) Award (125) Casual Grade 5 <http://www.industrialrelations.nsw.gov.au/awards/>

Country operators reported a median maintenance cost of \$57 per hour and also spend a median of 5-9 hours maintenance per taxi per month. However, given that country taxis are run a median distance of 2,250km per week compared to a median of 2,500km per week for urban taxis, the amount of hours spent on maintenance for country taxis can also be expected to be 10% lower than urban taxis. This is because the amount of maintenance required is generally a function of the number of kilometres travelled per taxi. Based on the assumption that 6.3 hours is spent on maintenance per taxi per month in country areas, the annualised maintenance cost per taxi is estimated at \$4,309 per year for country operators, or **2.36%** of total costs.

As with many answers in the survey, there was a large range of responses. It should be noted that 6 per cent of urban operators and 11 per cent of country operators indicate they undertake their own maintenance, which means that these drivers choose to absorb these costs rather than pay for them out of earnings.

In undertaking the independent verification for this item, mechanics were not able to provide the breakdown of the cost of parts and the cost of labour for a service. Assuming 1.5 hours of labour and around \$20 of parts is required for a minor service, the average cost of labour per hour ranges from \$38 to \$83 per hour in urban areas, and \$87 to \$93 per hour in country areas. The relatively large range of quotes obtained from urban maintenance providers could be due to higher levels of competition between vehicle maintenance providers in urban areas and differences in the pricing structure. The use of quotes for a minor service as opposed to a major service was considered more relevant given that a minor service involves a higher proportion of labour costs to parts and panels costs than a major service and was incurred by the vast bulk of respondents. The median of the independent maintenance costs is consistent with the median from survey responses. However the country costs of maintenance labour from the survey are cheaper than the costs obtained through independent verification. These cheaper costs could be a result of a discounted service which exists due to existing relationships between taxi operators and mechanics.

A recent study undertaken by PwC for Queensland Transport (QT) estimated maintenance costs for Queensland taxis at \$7,205 per annum. While this value is higher than that estimated for this study, this is expected given that the number of kilometres run by Queensland taxis is estimated at 160,000kms per year, around 30% higher than that travelled by NSW taxis. No country results exist for Queensland, given that the Queensland Taxi Cost Fare Index is applied for both urban and country taxis alike.

The previous model's estimate of urban and country maintenance labour of 4.1% of total costs is much higher than the results obtained in the survey. This could be due to higher levels of competition in the maintenance provider market today, leading to lower costs charged to taxi operators. The 1999 model calculated maintenance labour based on the assumption that major services take place every 10,000 km, equating to almost 18 services per year, and taking 3 1/3 hours per service with an additional 4 hours a month of additional minor / reactive servicing at the wage rate used by Ford of \$66 per hour in urban areas and \$60 for country areas. The frequency of services and time taken per service assumed in the previous model is higher

than that assumed in this model, and IPART noted that costs in the previous model “are likely to be higher than those actually experienced by the average taxi operator”. The previous model also assumed a higher distance travelled per year (175,000kms in urban areas and 125,000kms in country areas) compared to the survey results (130,000 kms in urban areas and 117,000kms in country areas), and hence a higher assumed frequency of services.

Several operators interviewed as part of the data collection approach for this report indicated that maintenance was an area where they could attempt to achieve some cost savings / efficiency gains. Some strategies employed include switching to lower cost maintenance providers or, where fleet sizes are large, employing an in-house mechanic.

NOTIONAL DRIVER ENTITLEMENTS / DISCOUNT TO THE PAY-IN / COMMISSION OFFSET

Taxi drivers are not ‘salaried’ drivers and income is highly variable between drivers and is not published. This makes it difficult to establish the value of driver entitlements that are embodied in the annual cost of operating a taxi. The Taxi Industry (Contract Drivers) Contract Determination, Consolidated Award (1984) states that, given certain conditions about length of bailment, minimum shifts driven, etc are met, permanent bailees should be entitled to 5 weeks annual leave and 5-8 days sick leave per year. However, according to the survey, only 2 per cent of urban drivers state that they receive entitlements as required in the contract determination. No country drivers state that they receive entitlements.

However, this does not indicate that some allowance for driver entitlements is not factored into annual taxi operating costs. For instance, this could occur indirectly through the discounts offered and received on the fixed pay in, which according to the survey is received by 16 per cent of drivers, with 67 per cent stating they were ‘unsure’ as to whether their rate was discounted or not (and presumably for what reason). Based on operator interviews, the primary reasons behind pay-in discounting are generally the shortage of drivers and incentives offered by operators to attract and retain good drivers, rather than any deliberate trading off of driver entitlements.

It is the assessment of this review that even if entitlements are not clearly provisioned for, some allowance is usually made to transfer non-wage related income from operators to drivers and this ought to be captured in the annual cost for providing taxi services.

The cost of driver entitlements, pay-in discounts, or commission offsets received by drivers is estimated as equivalent to the proxy measure of the annual cost of providing 5 weeks annual leave and 5 days sick leave to each driver. This equates to an annual value of \$8,113⁷, or **4.22%** of total costs for urban taxis and **4.44%** of costs for country taxis.

The previous model’s estimates of 2.17% for urban taxi drivers entitlements and 0% for country taxis are lower than the values determined from the

⁷ Annual leave and sick leave entitlement rates are as per that stated in the Taxi Industry (Contract Drivers) Contract Determination 1984.

survey. This is due to the fact that while the previous model accounted for 3 extra days of sick leave and the same amount of annual leave, the driver labour cost value used to determine the cost equivalent of entitlements was lower than that determined in this model. Country drivers were assumed to not receive any entitlements in the previous model. The revised model is more reflective of actual industry operations, where most drivers are not paid actual entitlements but instead receive discounts to the pay-in or commission offsets.

LICENCE PLATE LEASE COSTS

According to the survey results, the median annual plate lease costs for operators in urban areas is \$25,000 (or **13.00%** of total costs) and in country areas is \$24,000. However, the variation in results was considerable, from \$518 to \$37,000 in urban areas and \$12,000 to \$40,000 in country areas. The smaller values in the range are due to the lease of WAT plates, which have a much smaller value than standard plates.

When compared to the current transfer values of urban and country plates, the survey results for the estimated urban plate lease cost implies a 6.8 percent yield on the average value, whereas the country plate lease cost implies a yield of 11.6 percent. On these grounds, the country plate lease estimate reported in the survey is considered to be unrealistically high. The maximum yield is generally expected to be in the order of a 3 percent premium on the three year Government bond rate. On average, there has been a 2.9 percent differential between yields achieved for urban taxi licences and the average bond and cash rates since 1999.⁸ The premium (which typically varies from 2-3 percent) above the risk free rate is mainly viewed as being compensation for the operational and regulatory risks of owning a taxi licence.. The 3 percent premium provides for an average plate lease cost in country areas of \$19,700 (or **10.77%** of total costs).

The revised model weights for urban taxi plate lease costs are marginally lower than the previous model's estimate of 14.17%, while the weight for this item for country taxis did not change significantly. This may be because the previous model calculated a rate of return on taxi plates based on less than 2 quarters of data, which was also Sydney specific. The revised model is based largely on survey results for urban taxis and a yield assumption on plate values for country taxis, and is more reflective of actual industry operations. While the absolute value of plate lease costs are higher in the present than 1999 levels, plate lease costs in the proposed index as a proportion of total costs remains largely the same, primarily because of the increase in driver related costs in the proposed index.

It should be noted that not all plates are leased by operators, rather some operators buy their own plates and fund them with debt which result in different loan repayments to the lease payments, and other operators own their plates, incurring no costs.

LPG FUEL

⁸ Calculated using MoT, RBA and Bloomberg data.

The survey results indicated that 95 per cent of taxi vehicles use LPG fuel, with the remaining 5 per cent using either diesel or unleaded. As a result only LPG fuel has been analysed for the price of fuel.

Excluding diesel and unleaded petrol from the survey sample, and combining operator and driver fuel responses to fuel usage and costs, the median price paid by drivers per litre of LPG fuel is \$0.53 per litre in urban areas, with a median fuel consumption rate of 5 kilometres per litre obtained (or 20 litres per 100kms). The survey also indicates that in urban areas the median distance travelled by an urban taxi is 130,000 kilometres per annum (2,500 kilometres per week), hence the annual cost of fuel is \$13,780 or **7.16%** of total costs (average fuel price per litre x kilometres travelled / fuel consumption). Based on the above assumptions but applying data from the country taxi operators which indicate the median distance travelled is 117,000 kilometres per annum (2,250 kilometres per week), the annual cost of fuel in country areas is \$11,505 per annum or **6.29%** of total costs.

If diesel and unleaded fuel were included, the results remain largely unaltered, given the low level of usage and percentage of these fuel types in the survey population.

Independent verification of these prices obtained from www.ozexplorer.com indicate that LPG in NSW in October averaged \$0.552 per litre, with urban prices ranging from \$0.47 in Liverpool to \$0.55 in Padstow in urban areas, and \$0.439 in Albury and Lavington to \$0.76 in Coonamble. These values are very similar to the median LPG prices given by drivers and operators. The prices are also consistent with FUELtrac data, which for 30 April 2007, reported average Sydney metro LPG prices as \$0.514 and average NSW country LPG prices as \$0.640.

The previous model's estimate of fuel costs adopted the same methodology, however its weight was higher, at 8.35% for urban taxis and 9.12% for country taxis. This is partly due to the fact that the number of kilometres travelled per annum was assumed to be 45,000 kilometres higher than the distance determined from the survey for urban taxis, and 8,000 kilometres higher than the distance determined from the survey for country taxis.

INSURANCE

According to the survey, the median cost for comprehensive car insurance in urban areas is \$5,000 with an associated 60 per cent no claims bonus and 100 per cent of operators taking out this cover. The median cost for third party property is \$2,638 with 99 per cent of operators taking out this cover. For workers compensation the median cost is \$2,228 with 100 per cent of drivers taking out this cover.

The current fees for a compulsory CTP Greenslip are the same for all operators at \$3,697, which were obtained from QBE insurance.

Based on these results, the cost for insurance in urban areas is \$13,536 per annum (or **7.04%** of total costs). Using the same approach, but applying country data, the cost for insurance in country areas is \$7,809 per annum (**4.27%** of total costs). According to the survey results for country operators, all operators take out comprehensive insurance.

The independent verification of comprehensive only provided for a no claims bonus, as the providers of comprehensive insurance for taxis, Cumberland Cabs Insurance, Taxis Combined and OAMPS, have different policies regarding the claims bonus. Therefore this data is not directly comparable, given that most operators are likely to have been involved in at least one accident during their period of operating. This data is however provided in Appendix E. No data was able to be provided for third party property, and for workers compensation the cost per plate for cover is \$2,111 in urban areas and \$1,327 in country areas. These values are very similar to those obtained as the median for plates through survey responses.

The previous model estimates insurance costs in urban areas at 6.22% of total costs and in country areas at 4.93% of total costs. These costs are very similar to those obtained through survey results. The previous model estimated insurance costs for insurance based on the same methodology, however assumed only 50 per cent of urban operators and 100 per cent of country operators took out comprehensive insurance. Given that the urban costs are higher, it would appear that insurance premiums relevant to taxis have decreased since the cost weight was set in 1999.

VEHICLE PARTS AND PANELS

The costs for this item are calculated based on an assumption of one major service every 20,000 kilometres and one minor service every 10,000 kilometres. The survey results show that the vast majority of operators (around 87 percent in both urban and country areas) undertake regular major and minor services. Using an assumption of 3 hours labour at each major service, it is estimated that the median cost of parts per major service is around \$575 in urban areas and \$345 in country areas. A cost of around \$60 in oil and miscellaneous parts is assumed for each minor service.

Added to this is the cost of panels in the event of an accident. Given that the median cost of insurance excess is \$1,000 per year, it is assumed that the average cost of panels is around half of the excess cost, at \$500 per year with additional panel costs funded under insurance arrangements.

Based on the above assumptions and the median survey results, the annualised cost of vehicle parts and panels per taxi is \$5,018 (**2.61%** of total costs) for urban operators and \$3,220 (**1.76%** of total costs) for country operators.

The survey indicated that around 87% of urban and non-urban operators purchased manufacturer made parts. Around 12% of urban operators purchased generic parts, and only 1% indicated they typically used second hand parts. No country operators indicated they used second hand parts.

The operators who were interviewed provided insights on the reason behind their approach on the type of parts acquired. Some operators preferred manufacturer made (e.g. Ford) parts because they felt it is "more reliable" and that "over the long run, is worth its cost". However, other operators believed that generic parts (e.g. Repco) were "made by the same manufacturers" and provided better value for money.

This value is lower than the previous model's cost weighting for vehicle parts and panels, which were 5.20% for urban areas and 3.02% for country areas.

The previous model calculated this cost item based on operator surveys in conjunction with Ford, and represents a basket of goods. The difference may be due to the fact that while a basket of parts and panels were costed, not all taxis replace all these parts and panels annually.

VEHICLE LEASE PAYMENTS

The survey results indicate that around 40% of urban operators use a bank loan to fund their most recent vehicle purchase, while around 21% paid cash. The other 40% of urban operators are split fairly evenly between using hire purchase and lease arrangements. Compared to urban operators, more country operators purchase their vehicles outright using cash (around 24%) and tend not to use bank loans (4%).

Just under a third (31%) of urban operators who responded to the survey purchased a new vehicle, with the rest purchasing a second hand vehicle that is usually less than 3 years old. Around 22% of country operators purchase a new vehicle. Around 6% of country operators purchased vehicles 4 years or older compared to only 3% of urban operators.

However, these results are not considered to accurately reflect the continual decrease in the purchase price of new and second hand vehicles in recent years. The price of new vehicles has declined to around \$35,000 and second hand vehicles has declined to around \$12,000 (obtained from www.redbook.com.au). For the purposes of calculating the vehicle lease cost, the median result (i.e. purchase of a second hand vehicle) is used. While some operators purchase a new vehicle, they benefit from lower maintenance costs. Also, the purchase price for a vehicle is assumed to be the same for both country and urban operators, as it is possible for operators to purchase their vehicle in an area outside of their region of operation.

Excluding fitouts, the survey results show the median price paid for a vehicle is \$25,000 by urban operators and \$22,000 for country operators. The survey results indicate that the median price per vehicle including fitouts is \$27,500 for urban operators and \$31,000 for country operators, however the number of country operators who purchased vehicles including fitouts is very low. Hence, the fitout cost is assumed to be \$2,500 (based on the median cost difference between an urban vehicle with and without fitouts) for both urban and country operators.

Based on the above data, the average price paid today for a second hand vehicle (plus fitouts) would be around \$14,500.

The survey results indicate that for urban operators, the median funding term is 4 years with an interest rate of 9% and a residual of 10%. The median funding arrangements for a country operator is 4 years with an interest rate of 8% and a residual of 22.5%. Given that it is unlikely that today's funding terms would differ significantly between country and urban areas, an assumed funding term of 4 years, 8.5% interest rate and 10% residual is used. This indicates annual repayments of \$4,107 (2.14% of total costs in urban areas, and 2.25% of total costs in country areas) to fund a second hand vehicle including fitouts.

These weights are lower than the previous model estimate of 4.75% for urban areas and 5.76% for country areas, reflecting the declining price of vehicles, and are closer to the Queensland TCFI's assumed leasing cost

weight of 3.5%. The previous model evaluated these costs based on the average vehicle cost for both new and second-hand or two year old Ford Falcon AU Forte and Futura vehicles with the proportion of second-hand vehicles taken to be 95 per cent for urban areas and 100 per cent for country areas, at an interest rate of 8.25 per cent on a 4 year lease with a 10 per cent residual value. Under the revised model, there is a higher percentage of new vehicles now realised in taxi fleets (now 31 per cent), however vehicle prices have decreased significantly in real terms since 1999 levels.

Please note that the vehicle lease cost here refers to a 'standard' taxi. WAT taxis have a significantly different vehicle cost base from standard taxis. The difference between WAT vehicles and standard taxis is discussed in Section 4.

NETWORK FEES

Based on the survey results, median network fees are \$6,564 (**3.41%** of total costs) per annum in urban areas, and \$9,250 (**5.06%** of total costs) per annum in country areas.

These results were cross-checked in calls to 4 networks, which indicated that fees ranged from \$6,547 to \$6,904 for urban areas. A quote of \$10,956 was obtained for country areas. A phone survey conducted by the Ministry of Transport showed a larger range of network costs, from \$4,000 to \$7,000 in urban areas and \$7,800 to \$15,000 in country areas.

These results are also very similar to the previous model's estimate of network fees being 3.48% of total costs in urban areas, and 7.28% of total costs in country areas. The previous model estimates were determined as a weighted average of the monthly network fees and the respective fleet size in Sydney, Wollongong, Newcastle and Central Coast, and for country areas the weighted average of network fees and fleet sizes in Coffs Harbour, Albury, Wagga Wagga, Bathurst, Armidale and Tamworth. The approach adopted in the revised model is more reflective of the 'median' cost of network fees for taxi operators.

OTHER

The other operating costs category consists of tyres, government charges, cleaning (both minor and major), uniforms, mobile phone costs and other incidental costs including driver administration and paperwork costs. Based on median results, these other costs total \$10,309 (**5.36%** of total costs) per annum for urban areas and \$10,952 (**5.99%** of total costs) per annum for country areas.

These cost weightings are slightly lower than the previous estimate of \$16,785 (8.37% of total costs) for urban areas and \$13,264 (8.50% of total costs) for country areas, largely due to the lower number of kilometres travelled as estimated by the survey, which reduces the frequency of tyre purchases.

A breakdown of the major cost items in the 'other' category are discussed below.

- **TYRES**

Based on survey results, the cost of an urban tyre is \$85, excluding balance and alignment. Therefore, the four tyres required per taxi cost \$340, excluding balance and alignment. Survey results indicate that the number of kilometres travelled per set of tyres is 35,000 kilometres, and taxis travel 130,000 kilometres per year (2,500 kilometres per week), this implies that each set of tyres needs to be replaced 3.71 times per year.

This results in an annual cost of tyres in urban areas of \$1,261. Based on the above assumptions but applying country data, the annual cost of tyres in country areas is \$1,404.

- **CLEANING - MAJOR DETAILING**

Based on the survey results, the cost of a major detail in urban areas is \$100 (compared to \$160 as estimated in the 1999 study), and is undertaken quarterly. Therefore the annual cost of major detailing in urban areas is \$100 x 4 = \$400.

Applying country survey data, the annual cost of major detailing in country areas is \$1,200 – a higher result driven by the declaration by country drivers that major detailing is undertaken on their vehicles every month. The actual cost of detailing is the same in both urban and country areas.

This result for urban areas is slightly lower than the previous model value, with the result for country areas being significantly higher. This is due to the fact that in the previous model, it was assumed that operators only detail their vehicles prior to inspection, which equates to three times a year in urban areas and twice a year in country areas. Survey results, however, indicate that detailing is actually undertaken on a more frequent basis.

The cost of detailing is consistent with the external benchmarking figures obtained, indicating that detailing in urban areas is in the range of \$95 to \$160, and country detailing costs range from \$80 to \$120.

- **GOVERNMENT CHARGES**

Given that all Government charges are standard, survey results were not used to determine this cost item. Actual quotes were obtained from the relevant Government bodies.

These annual costs are \$40 for a Drivers Authority, \$43 for a Drivers Licence, \$560 for registration and \$260 for an Operators Accreditation fee. This results in \$903 in annual Government charges for both urban and country taxis.

Specification of proposed index & weights

Cost Item	Urban		Country	
	Cost (\$)	Weighting (%)	Cost (\$)	Weighting (%)
Labour costs				
Notional Driver's Wages Per Taxi	\$ 91,915	47.79%	\$ 93,329	51.03%
Notional Driver Entitlements / Pay-in Discount	\$ 8,113	4.22%	\$ 8,113	4.44%
Operator Salary Equivalent	\$ 9,617	5.00%	\$ 10,579	5.78%
Maintenance Labour	\$ 4,368	2.27%	\$ 4,309	2.36%
Non-Labour costs				
Plate Lease Cost	\$ 25,000	13.00%	\$ 19,700	10.77%
LPG Fuel	\$ 13,780	7.16%	\$ 11,505	6.29%
Insurance	\$ 13,536	7.04%	\$ 7,809	4.27%
Vehicle Parts & Panels	\$ 5,018	2.61%	\$ 3,220	1.76%
Vehicle Lease Payments	\$ 4,107	2.14%	\$ 4,107	2.25%
Network Fees	\$ 6,564	3.41%	\$ 9,250	5.06%
Other	\$ 10,309	5.36%	\$ 10,952	5.99%
Total	\$ 192,327	100.00%	\$ 182,873	100.00%

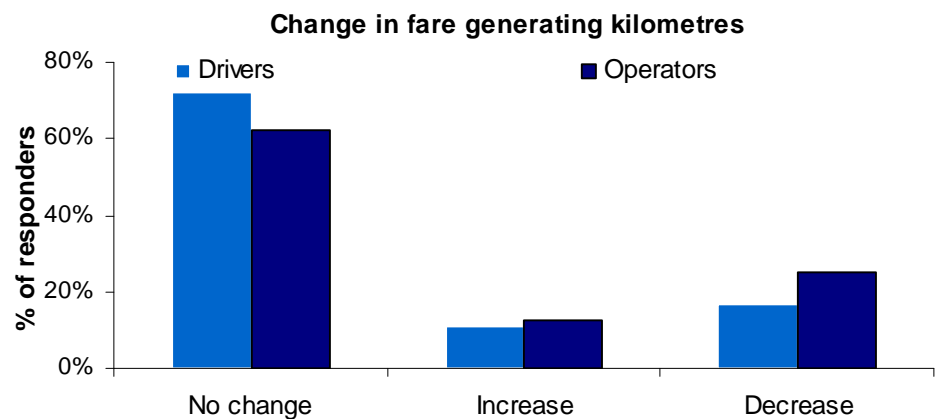
4 Other Issues

Productivity

1 Evidence of changes in productivity

Fare generating kilometres (i.e. passenger kilometres travelled)

The vast majority of both drivers (72%) and operators (62%) indicated that there had been no change in fare generating kilometres between last year and this year. This result was consistent between urban and country drivers and operators. There is some variance between operators and drivers, however this is not considered an issue given that many operators do not drive taxis and therefore would be not as certain about this question as drivers.



While the majority of drivers and operators experienced no change in fare generating kilometres, some of the reasons quoted for changes in productivity are outlined in the table below.

Reasons given for an increase in fare generating kms	Reasons given for a decrease in fare generating kms
<ul style="list-style-type: none"> • More efficient booking systems; • Improved driver knowledge of key demand areas and times; • Stronger customer relationships and customer service (including a wider variety of contacts); • Reduced congestion in main operation areas; • Improved access to travel short-cuts in peak times (e.g. through improved infrastructure and toll-ways); and • General increase in demand. 	<ul style="list-style-type: none"> • Oversupply of taxis; • Inefficient booking practices, increased absence of passengers on radio booking systems and low quality radio dispatch; • Falling demand for taxi services due to availability of hire cars, shuttle bus networks (especially at the airport) and improved transport connections; • Drop in demand associated with worsening economic conditions (i.e. interest rate rises, fewer cabcharge or corporate clients); • Increased competition from premium taxi services (e.g. Silver Service);

Reasons given for an increase in fare generating kms	Reasons given for a decrease in fare generating kms
	<ul style="list-style-type: none"> • Taxi fares are too high; • Taxi fare evasion, robbery, drunkenness and offensive passenger behaviour becoming more common and affecting taxi productivity; • Worsening traffic congestion in operating areas; • More travel kilometres and waiting time needed to find passengers; • Rising costs; • Lack of taxi ranks in high demand areas (such as the city); and • Fewer large fares and more short trips generated on the basis of security, weather and budget strategy.

A significantly higher proportion of operators indicated a decrease in fare generating kilometres, 25% compared to 17% of drivers, i.e. where drivers and operators did experience a change in their productivity, generally a higher proportion experienced a decrease rather than an increase in their productivity over the past year as measured by passenger kilometres travelled. However, this could potentially be due to a higher propensity to report decreases in productivity compared to increases.

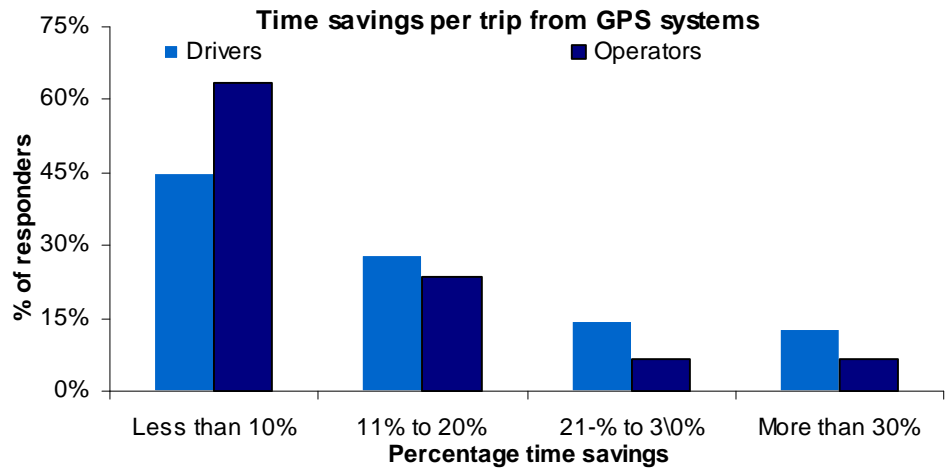
Several operators also specifically mentioned a lack of experience among drivers and the difficulty in finding experienced taxi drivers as an explanation for lower productivity. Several operators mentioned increasingly high driver turnover rates. One operator interviewed believed that some drivers allowed unlicensed drivers to drive the taxi during their shift.

One of the operators interviewed mentioned that most shopping centres, etc provide bus shelters but no shading over taxi ranks despite taxis being a form of public transport. They felt that this decreased the number of passengers willing to wait for a taxi during summer months or rainy days.

Among both drivers and operators, the average increase in fare generating kilometres was around 8%, whereas the average decrease in fare generating kilometres was substantially higher around 14% over the year.

Travel time savings due to use of toll roads & GPS

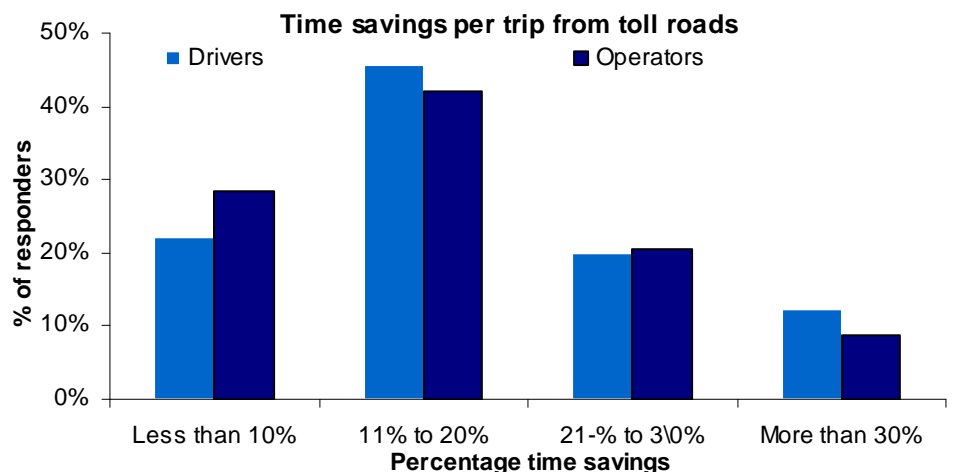
Approximately 76% of drivers and 75% of driver-operators indicated that they never use GPS systems and only 15% of drivers and 18% of driver-operators responded that they use GPS around, or more than, once per shift. The level of usage of GPS systems is slightly higher in urban areas than country areas.



However, of those that did use GPS systems, a reasonable proportion suggested that it led to time savings per trip, thereby improving taxi productivity. This was particularly the case with drivers (less so with operators who drive their own taxi), with approximately 55% of users claiming that GPS systems resulted in greater than 10% travel time savings. The respective proportion among operators was only 37% of users claiming productivity gains in the form of time savings from GPS systems.

On the other hand, it appears that toll roads are used more frequently and were viewed as consistently generating higher time savings per trip. The contribution of toll roads to convenience and productivity gains is clearly demonstrated in that 65% of taxi respondents indicated that they use toll roads 'regularly' or 'always'. Similarly, approximately 75% of taxi respondents claimed that utilisation of toll roads led to travel time savings greater than 10%.

Disaggregating the data between urban and country data however shows that the use of toll roads is significantly higher in urban areas, with 78% of urban drivers indicating that they use toll roads 'regularly' or 'always', compared with only 6% of country drivers. This is to be expected given the limited number of toll roads in country areas.



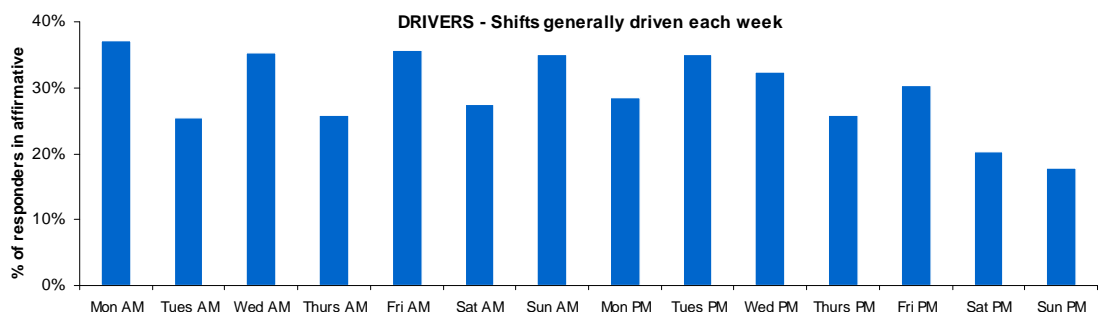
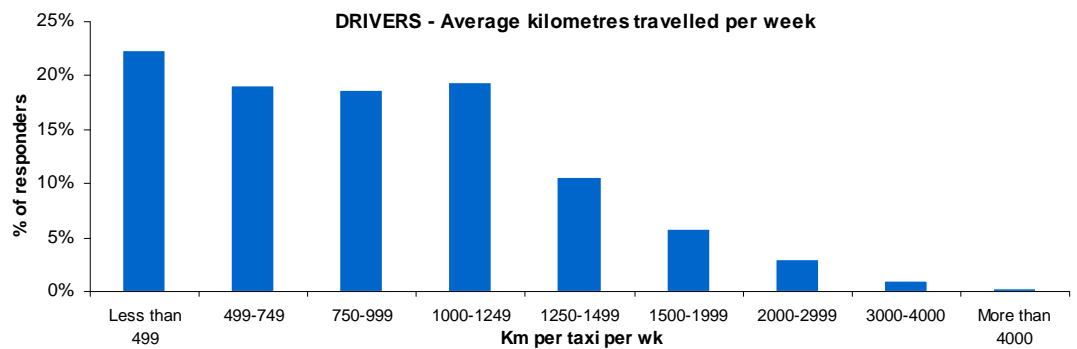
2 Qualitative insights into productivity patterns

Congestion

Traffic congestion in key operating areas for urban drivers (for example, in the CBD and at popular taxi ranks such as the airport), was viewed by drivers and operators as being a critical contributor to a decline in productivity (e.g. fare generating kilometres). Survey comments by taxi drivers and operators who had experienced either improvements or declines in their passenger kilometres travelled over the past year both referred to congestion, slowing traffic and traffic jams as part of the reasons for their productivity pattern.

Driver behaviour

The number of kilometres and shifts driven per week are shown in the graphs below. Given that the median number of kilometres



According to responses from drivers, the most popular shifts which registered above 30% of respondents claiming they generally drive this shift, in order, include:

- Monday mornings (37% affirmative response);
- Friday mornings (36%);
- Wednesday and Sunday mornings, and Tuesday afternoons (35%);
- Wednesday nights (32%); and
- Friday nights (30%).

Whereas results from the operator surveys highlight that the vast majority of taxi operators on average take on either

- less than seven per week (28%); or
- twelve shifts per week (23%).

The remainder of respondents were scattered fairly randomly among the other number of shifts, with a general tendency towards the higher level of shifts per week (i.e. 10, 11, 13 and 14). Approximately 59.1% of respondents indicated that they operate their taxi for 10 or more shifts per week. This skewed result with operators taking on large numbers of shifts per week, is consistent with the prevalence among operators to generally work longer hours than drivers.

This contrasting result whereby small (i.e. less than seven) and large (i.e. twelve) numbers of shifts per week were the most popular results, may also be indicative of operators either reporting longer, but fewer shifts, or counting longer shifts as two shifts (i.e. as a day and night shift rather than a single shift).

Other factors affecting operating environment

1 new sources of competition

Some of the operators interviews for this project noted new sources of competition to the taxi industry in their area, including:

- pubs and clubs providing a bus service to patrons, however this did not have a significant impact as most patrons preferred not to walk to a bus stop;
- “dial a driver” type services for driving an intoxicated person’s car home for them. This is sometimes operated in a taxi-like fashion, against the terms of their licence, in that they drive the intoxicated person home in the “dial a driver” car and not the person’s own car;
- vehicles operated by community transport programs, which offer free transport to the “transport disadvantaged”. These generally do not operate at night;
- hire care licence holders for small towns servicing the larger regional area, beyond the scope of their own licensed area.

The impact of these new sources of competition varies between regions and the time of day the competing service is offered also differs. Some operators noted the difficulty in enforcing the regulations imposed on these competing services in their allowed scope of service, so that in practice they were often competing with taxi services.

2 Booking systems

- use of mobile phones among taxi drivers

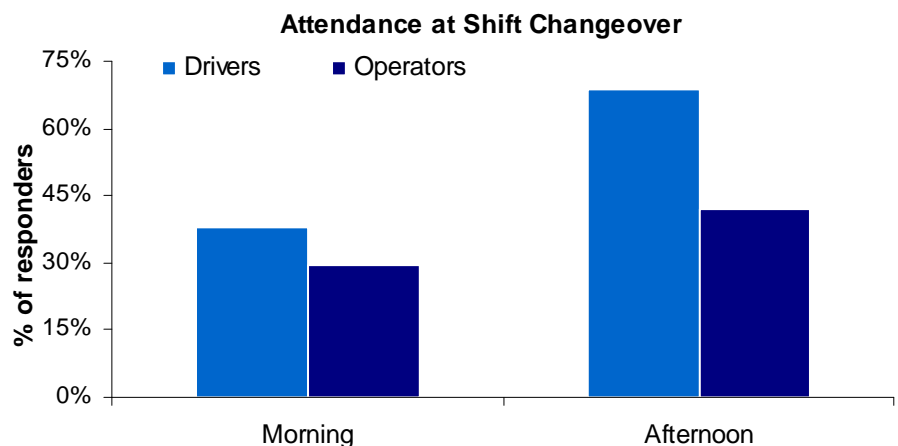
Approximately 60% of the urban driver sample and 38% of the country driver sample indicated that they cover their mobile phone expenses from their own share of revenues. These mobile phone expenses are assumed to refer to calls and or text messages used for contacting passengers upon approach. The median value for mobile phone costs was \$12 per week for urban drivers and \$10 per week for country drivers.

This indicates a fairly limited use of mobile phones as a communication mechanism with clients, or as a booking system for contacting passengers.

- OH&S issues

An issue that was identified through the operator interviews was that due to safety concerns, some night shift drivers no longer take passengers from street hails, instead only relying on the booking system which takes a passenger's details before accepting the booking, or pubs and clubs who provide a service where they take a patron's details when booking a taxi for them. This was reported to have a significant impact on the number of fare generating trips that can be made during a night shift.

3 Operator attendance at shift changeover



It appears that there is a minor discrepancy between the responses from drivers about whether operators attend shift changeover, and the responses from the operators themselves about their attendance at shift changeover. Overall, both sets of responses indicate that operators generally attend more

than 30% of morning shift changeovers, and more than 45% of afternoon changeovers, thereby suggesting that operators tend to be present more often at afternoon shift changeovers. The survey responses also indicate that is a slightly higher attendance at shift changeovers in urban areas when compared to country areas.

However, in both cases, operators who attend shift changeover tend to spend approximately half an hour at both morning and afternoon changeover. Thus, operators do not appear to give preferential treatment to either morning or afternoons in terms of the amount of time spent at shift changeover.

The operator interviews indicated the approach to monitoring shift changeover varies widely between interviewed operators. Some operators do not attend shift changeover at all, referring to a “hot seat changeover” where the changeover occurs at the driver’s place of residence and is arranged entirely by the drivers themselves. Some operators attend almost every changeover and use this opportunity to undertake an inspection and basic clean of the cars, providing minor maintenance (such as changing lightbulbs etc.)

WATs versus non-WATs

WAT taxis can have a significantly different cost base from standard taxis with regard to:

- Capital Cost: a new WAT vehicle can cost almost double the cost of a new standard (Ford Falcon) taxi including fit-out.
- Operating costs: WAT vehicles generally have higher fuel costs as many (excluding Ford FlashCabs) do not use LPG and they also usually have higher maintenance costs due to factors such as imported parts and servicing hydraulic lifting equipment.
- Cost savings from greatly reduced (or zero) licence fees compared to non-WAT licences, representing a saving of approximately \$24,000 per year in urban areas and \$19,700 per year in country areas.
- Foregone revenue: servicing WAT related customers has a longer average duration which results in a net opportunity cost vis-à-vis likely fare takings when more focused on non-wheelchair customers. However, a recently announced trial of a \$7.70 payment to WAT drivers for each hiring by a passenger in a wheelchair and the higher average fares per WAT booking (than standard fares) are likely to negate the foregone revenue and has potential to increase revenues per shift.
- Additional Revenue when in Maxi Cab mode: offsetting these cost and revenue disadvantages, van type WAT vehicles have scope to service groups of 6 or more passengers and charge 150% of the

metered fare (when pre-booked to carry six or more passengers or specifically requested). This allows WAT taxis to achieve higher revenues per trip when compared to standard taxis.

It is estimated that the differences in net costs and revenues for WAT and standard taxis, particularly when the new driver payments are taken into account, are minimal.

Similarly, Premium taxis may also have higher capital costs and (generally) higher fuel consumption and service costs. There can also be significant differences in operating environments and the cost base between country taxis, in particular taxis operating in regional towns have a different cost base to taxis operating in "one taxi towns".

As the proposed index will only be used for measuring changes in taxi costs, and not consider absolute differences in costs, the proposed index remains focused on standard taxis and no separate index was developed for WATs and Premium taxis. It is assumed that costs for WATs and Premium taxis move largely in parallel with standard taxis.

5 Conclusions

The proposed urban and country taxi cost models, are shown in the tables below.

Proposed Urban Taxi Cost Model

Item	Cost	Weight
Labour costs		
Notional Driver's Wages	\$ 91,915	47.79%
Notional Driver Entitlements / Pay-in Discount	\$ 8,113	4.22%
Operator Salary Equivalent	\$ 9,617	5.00%
Maintenance labour	\$ 4,368	2.27%
Non-labour costs		
Plate Lease Cost	\$ 25,000	13.00%
LPG Fuel	\$ 13,780	7.16%
Insurance	\$ 13,536	7.04%
Vehicle Parts & Panels	\$ 5,018	2.61%
Vehicle Lease Payments	\$ 4,107	2.14%
Network Fees	\$ 6,564	3.41%
Other	\$ 10,309	5.36%
Total	\$ 192,327	100.00%

Proposed Country Taxi Cost Model

Item	Cost	Weight
Labour costs		
Notional Driver's Wages	\$ 93,329	51.03%
Notional Driver Entitlements / Pay-in Discount	\$ 8,113	4.44%
Operator Salary Equivalent	\$ 10,579	5.78%
Maintenance labour	\$ 4,309	2.36%
Non-labour costs		
Plate Lease Cost	\$ 19,700	10.77%
LPG Fuel	\$ 11,505	6.29%
Insurance	\$ 7,809	4.27%
Vehicle Parts & Panels	\$ 3,220	1.76%
Vehicle Lease Payments	\$ 4,107	2.25%
Network Fees	\$ 9,250	5.06%
Other	\$ 10,952	5.99%
Total	\$ 182,873	100.00%

Appendix A

Taxi Driver Survey

Taxi Driver Survey

Please tick most appropriate answer **ALL COSTS SHOULD INCLUDE GST**

Surname (optional):	First name (optional):	Residential postcode:
Contact ph number (optional):	Name of Network:	
Are you happy to be contacted to discuss this Survey? Yes <input type="checkbox"/> No <input type="checkbox"/>		
1) Place where you usually drive	Urban <input type="checkbox"/>	Country <input type="checkbox"/>
2) Type of taxi driven	Standard <input type="checkbox"/>	Wheelchair Accessible Taxi (WAT) <input type="checkbox"/> Premium <input type="checkbox"/> Station wagon <input type="checkbox"/> Maxi <input type="checkbox"/>
3) Average number of kms you drive in your taxi per week	less than 499 <input type="checkbox"/>	500-749 <input type="checkbox"/> 750-999 <input type="checkbox"/> 1,000-1,249 <input type="checkbox"/> 1,250-1,499 <input type="checkbox"/> 1,500-1999 <input type="checkbox"/> 2,000-2,999 <input type="checkbox"/> 3,000-4,000 <input type="checkbox"/> more than 4,000 <input type="checkbox"/>
4) Which shifts do you generally drive each week?	Mon AM <input type="checkbox"/> Tues AM <input type="checkbox"/> Wed AM <input type="checkbox"/> Thurs AM <input type="checkbox"/> Fri AM <input type="checkbox"/> Sat AM <input type="checkbox"/> Sun AM <input type="checkbox"/> Mon PM <input type="checkbox"/> Tues PM <input type="checkbox"/> Wed PM <input type="checkbox"/> Thurs PM <input type="checkbox"/> Fri PM <input type="checkbox"/> Sat PM <input type="checkbox"/> Sun PM <input type="checkbox"/>	
5) Average hours worked per shift (Friday & Saturday)	Less than 5hours <input type="checkbox"/> 5-6hours <input type="checkbox"/> 6-8hours <input type="checkbox"/> 8-10hours <input type="checkbox"/> 10-12hours <input type="checkbox"/> 12-15hours <input type="checkbox"/> More than 15hours <input type="checkbox"/>	
6) Average hours worked per shift (Sunday-Thursday)	Less than 5hours <input type="checkbox"/> 5-6hours <input type="checkbox"/> 6-8hours <input type="checkbox"/> 8-10hours <input type="checkbox"/> 10-12hours <input type="checkbox"/> 12-15hours <input type="checkbox"/> More than 15hours <input type="checkbox"/>	
7) Does an operator attend the shift changeover?	a) In the morning? No <input type="checkbox"/> Yes <input type="checkbox"/> b) In the afternoon? No <input type="checkbox"/> Yes <input type="checkbox"/>	
8) What is the basis of your driver engagement?	a) Permanent Bailee (eg entitled to sick and holiday leave) <input type="checkbox"/> If permanent bailee, how many weeks did you work last year? _____ weeks b) Casual Bailee <input type="checkbox"/> c) Only driven by owner/operator <input type="checkbox"/>	
9) What is the payment arrangement you operate under?	a) Percentage of fare revenue (eg 50/50 split) <input type="checkbox"/> If so, what percentage of fare revenue do you get? ____% OR b) Fixed pay-in <input type="checkbox"/> If so, how much is the pay-in? \$_____ per shift Is this a discount of the legal maximum pay-in? Don't know <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> _____ % average discount per shift	
10) What is your total fare take before pay-in?	\$_____ per week (not including tolls) How much on average is collected in tolls? \$_____ per week How many incidents of fare evasion have you encountered in the previous year? _____ incidents	
11) Do you receive entitlements?	a) Do you pay the maximum pay-in as determined by the Industrial Relations Commission? Don't know <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> b) Do you receive entitlements as required in the contract determination, that is, holiday and sick leave pay? No <input type="checkbox"/> Yes <input type="checkbox"/> c) If yes, how much do you receive in entitlements? Sick leave pay \$_____ per year OR _____ days per year Holiday leave pay \$_____ per year OR _____ days per year	

<p>12) What costs do you cover out of your share of revenue?</p>	<p>Daily wash and vacuum <input type="checkbox"/> If so, what is the cost? \$____ per week</p> <p>Mobile phone costs (calls and/or SMS for contacting passengers upon approach) <input type="checkbox"/> If so, what is the cost per week? \$____ per week</p> <p>Cleaning / other maintenance on your driver uniform <input type="checkbox"/> If so, what is the cost per week? \$____ per week</p> <p>GPS navigation device <input type="checkbox"/> If so, what is the cost? \$____</p> <p>Administration and paperwork costs (eg worksheets and pay-ins) <input type="checkbox"/> If so, what is the cost? \$____ per week OR _____ hours per week How often is this cost incurred? _____</p> <p>Other <input type="checkbox"/> If so, Please specify _____ at \$_____ every _____ (time period) _____ at \$_____ every _____ (time period) _____ at \$_____ every _____ (time period)</p>
<p>13) Fuel use and cost</p>	<p>Fuel type: LPG <input type="checkbox"/> Diesel <input type="checkbox"/> Unleaded <input type="checkbox"/> _____ km per litre obtained Last price paid \$_____/litre</p>
<p>14) About your last shift</p> <p>If possible this information should be obtained from the meter</p> <p>Please provide a copy of the meter printout if the meter has that facility</p>	<p>Date: _____ Time: from _____ am/pm to _____ am/pm</p> <p>Number of passenger trips provided: _____ (number)</p> <p>Number of radio bookings accepted (if information available): _____ (number)</p> <p>Number of kilometres travelled: _____ (kms)</p> <p>Number of booked kms: _____ (kms)</p> <p>Number of kilometres travelled for which fares were generated: _____ (kms) OR _____ % of km</p> <p>Estimated waiting time: _____ (hours per shift)</p> <p>Odometer reading at beginning of last shift _____ (kms)</p> <p>Odometer reading at end of last shift _____ (kms)</p>
<p>15) Use of portable GPS systems for infrequent journeys(e.g. Navman, TomTom, Destinator, NavWay)</p>	<p>Frequency of use: Never <input type="checkbox"/> less than 1 trip per shift <input type="checkbox"/> 1-5 trips per shift <input type="checkbox"/> More than 5 trips per shift <input type="checkbox"/> Always <input type="checkbox"/></p> <p>Percentage time saving per trip: Less than 10% <input type="checkbox"/> 11-20% <input type="checkbox"/> 21-30% <input type="checkbox"/> more than 30% <input type="checkbox"/></p>
<p>16) Use of toll roads (as compared to alternative routes)</p>	<p>Frequency of use: Never <input type="checkbox"/> Rarely <input type="checkbox"/> Regularly <input type="checkbox"/> Always <input type="checkbox"/></p> <p>Percentage time saving per trip: Less than 10% <input type="checkbox"/> 11-20% <input type="checkbox"/> 21-30% <input type="checkbox"/> more than 30% <input type="checkbox"/></p> <p>Do you usually use toll roads without passengers on the return trip? Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>17) Change in proportion of fare generating kilometres, compared to this time last year</p>	<p><input type="checkbox"/> No change, the same proportion of fare generating kilometres as last year</p> <p><input type="checkbox"/> There has been an increase in fare generating kilometres If so, what is the average increase in fare generating kilometres? ____% per year What is the major reason(s) for the increase? (eg rise in demand per taxi in your area of operation, more effective / efficient booking systems, improved driver knowledge of key demand spots, improved customer relationships, reduced congestion in main areas of operation, etc)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/> There has been a decrease in fare generating kilometres If so, what is the average decrease in fare generating kilometres? ____% per year What is the major reason(s) for the fall? (eg fall in demand per taxi in your area of operation, lack of experience, less effective booking practices, worsening congestion in main areas of operation, etc)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

Appendix B

Taxi Operator Survey

Taxi Operator Survey

Please tick most appropriate answer. **ALL COSTS SHOULD INCLUDE GST.**

Surname (optional):		First name (optional):		Residential postcode:					
Contact phone number(optional):		Name of Network:							
Are you happy to be contacted to discuss this survey?		Yes <input type="checkbox"/> No <input type="checkbox"/>							
1) Place where you usually drive	Urban <input type="checkbox"/>		Country <input type="checkbox"/>						
2) Number and type of taxis operated	Standard	<input type="checkbox"/>		Number operated _____					
	Wheelchair Accessible Taxi (WAT)	<input type="checkbox"/>		Number operated _____					
	Premium	<input type="checkbox"/>		Number operated _____					
	Station Wagon	<input type="checkbox"/>		Number operated _____					
	Maxi	<input type="checkbox"/>		Number operated _____					
3) Number of types of taxi licence	Stnd perpetual _____	WAT _____	Night _____	PAL _____	Other _____				
4) Status	Driver only <input type="checkbox"/>	Operator only <input type="checkbox"/>	Operator & Driver <input type="checkbox"/>	Operator, Driver & licensee <input type="checkbox"/>	Owner only <input type="checkbox"/>				
5) Number of drivers by engagement basis	Casual Bailee	<input type="checkbox"/> _____ number of drivers							
	Permanent Bailee	<input type="checkbox"/> _____ number of drivers							
	Only driven by owner/operator	<input type="checkbox"/>							
6) If leasing licence (plate), what is the rent per year?	\$_____,000								
	If plate funded by debt: Funding term ____ years Interest rate _____%								
	Residual _____% Deposit paid \$_____,000								
7) Average vehicle age when purchased	New <input type="checkbox"/>	1 year <input type="checkbox"/>	2 years <input type="checkbox"/>	3 years <input type="checkbox"/>	4 years <input type="checkbox"/>	More than 5 years <input type="checkbox"/>			
8) Typical approach to purchase	New via dealer <input type="checkbox"/> 2 nd hand via dealer <input type="checkbox"/> 2 nd hand via private sale <input type="checkbox"/> 2 nd hand at auction <input type="checkbox"/>								
9) Price paid for most recent addition to the fleet (on-road including GST) EXCLUDING taxi fit-out costs (eg meter, camera, LPG conversion, accessibility conversion costs)	\$_____,000								
	Paid _____ years ago								
	Vehicle type: _____								
	OR								
	If you bought your vehicle with fit-outs included, what was the price paid?								
	\$_____,000								
	Paid _____ years ago								
	Vehicle type: _____								
10) Most recent purchase funding method	Paid cash <input type="checkbox"/> Lease <input type="checkbox"/> Hire purchase <input type="checkbox"/> Bank loan <input type="checkbox"/> NSW Government Interest Free Loan <input type="checkbox"/>								
11) Funding details (if relevant)	Funding term _____ years		Interest rate _____%		Residual _____%	Deposit paid \$_____,000			
12) Average kilometres of travel per taxi per week	less than 1,000 <input type="checkbox"/>		1,000-1,499 <input type="checkbox"/>	1,500-1,999 <input type="checkbox"/>	2,000-2,499 <input type="checkbox"/>	2,500-2,999 <input type="checkbox"/>			
	3,000 – 4,000 <input type="checkbox"/>		more than 4,000 <input type="checkbox"/>						
13) Average number of day & night shifts operated per taxi per week	0-6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input type="checkbox"/>	11 <input type="checkbox"/>	12 <input type="checkbox"/>	13 <input type="checkbox"/>	14 <input type="checkbox"/>
14) Average hours worked per taxi per shift (Friday & Saturday)	Less than 5 hours <input type="checkbox"/>		5-6hours <input type="checkbox"/>	6-8hours <input type="checkbox"/>	8-10hours <input type="checkbox"/>	10-12hours <input type="checkbox"/>	12-15hours <input type="checkbox"/>		
	More than 15 hours <input type="checkbox"/>								
15) Average hours worked per taxi per shift (Sunday-Thurseday)	Less than 5 hours <input type="checkbox"/>		5-6hours <input type="checkbox"/>	6-8hours <input type="checkbox"/>	8-10hours <input type="checkbox"/>	10-12hours <input type="checkbox"/>	12-15hours <input type="checkbox"/>		
	More than 15 hours <input type="checkbox"/>								
16) Maintenance provider	All DIY <input type="checkbox"/>		Taxi base garage <input type="checkbox"/>	Mainly small garage <input type="checkbox"/>	Mainly Franchise (eg Ultratune) <input type="checkbox"/>				
	Dealer workshop (eg Ford dealer) <input type="checkbox"/>			Other <input type="checkbox"/> (Please specify) _____					
17) Maintenance strategy	Regular minor services only <input type="checkbox"/>				Regular minor & major services <input type="checkbox"/>				
	Reactive (only to fix a breakdown) <input type="checkbox"/>								
18) Maintenance labour cost (if known)	Cost per hour								
	Just my time <input type="checkbox"/>	less than \$30 <input type="checkbox"/>	\$30-\$34 <input type="checkbox"/>	\$35-\$39 <input type="checkbox"/>	\$40-\$44 <input type="checkbox"/>	\$45-\$49 <input type="checkbox"/>	\$50-\$54 <input type="checkbox"/>		
		\$55-\$59 <input type="checkbox"/>	\$60-\$64 <input type="checkbox"/>	\$65-\$69 <input type="checkbox"/>	\$70+ <input type="checkbox"/>				
	Average number of hours spent on maintenance per taxi per month								
	Less than 5 <input type="checkbox"/>	5-9 <input type="checkbox"/>	10-15 <input type="checkbox"/>	16-20 <input type="checkbox"/>	21-24 <input type="checkbox"/>	25-30 <input type="checkbox"/>	31-35 <input type="checkbox"/>	36-40 <input type="checkbox"/>	

	More than 41 <input type="checkbox"/>
19) Typical type of parts	Manufacturer made (eg Ford) <input type="checkbox"/> Generic parts (eg Repco) <input type="checkbox"/> 2 nd hand parts <input type="checkbox"/>
20) Total cost of last minor service	\$ _____
21) Total cost of last major service	\$ _____
22) Average kms per tyre replacement	30,000km <input type="checkbox"/> 35,000km <input type="checkbox"/> 40,000km <input type="checkbox"/> 45,000km <input type="checkbox"/> 50,000km <input type="checkbox"/> More than 50,000km <input type="checkbox"/>
23) Place of tyre purchase:	Small garage <input type="checkbox"/> Franchise (eg Beaufeapairs) <input type="checkbox"/>
24) Type of tyres:	New <input type="checkbox"/> Remould <input type="checkbox"/> Re-tread <input type="checkbox"/> Cost per tyre \$ _____ (excl balance/alignment)
25) Average operator time per week spent on admin, rostering etc over your whole fleet	less than 5 hours <input type="checkbox"/> 5-9 hours <input type="checkbox"/> 10-14 hours <input type="checkbox"/> 15-19 hours <input type="checkbox"/> 20-24 hours <input type="checkbox"/> 25-29 hours <input type="checkbox"/> 30-34 hours <input type="checkbox"/> 35-39 hours <input type="checkbox"/> 40-44 hours <input type="checkbox"/> 45-49 hours <input type="checkbox"/> more than 49 hours <input type="checkbox"/>
26) As part of this admin work, do you attend shift changeover:	a) In the morning? No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, how much time do you spend at the changeover? _____ mins b) In the afternoon? No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, how much time do you spend at the changeover? _____ mins
27) Office / miscellaneous expenses (phone, electricity, accountant fees, admin staff wages, rent, computers, etc)	\$ _____ per month
28) Average cost of driver uniforms per vehicle per year	Less than \$150 <input type="checkbox"/> \$150-400 <input type="checkbox"/> \$401-\$650 <input type="checkbox"/> \$651-\$900 <input type="checkbox"/> \$901-\$1,400 <input type="checkbox"/> \$1,400-\$1,900 <input type="checkbox"/> \$1,901-\$2,500 <input type="checkbox"/> More than \$2,500 <input type="checkbox"/>
29) Do you pay your drivers:	a) Sick leave pay? No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, how much do you pay? \$ _____ per year OR _____ days per year b) Holiday pay? No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, how much do you pay? \$ _____ per year OR _____ days per year
30) Do you provide a discount on the maximum legal bailee pay-in?	No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, Please specify average discount: _____ % per shift
31) What type of payment arrangement do you have for drivers?	% of fare revenue <input type="checkbox"/> What % do drivers get? _____ % OR Fixed pay-in <input type="checkbox"/> What is the pay-in? \$ _____ per shift
32) Average fare-taking per driver	\$ _____ per week OR Don't know <input type="checkbox"/>
33) What costs do drivers pay or cover out of their bailment agreement?	a) Percent of fare revenue bailment Basic wash / vacuum <input type="checkbox"/> at \$ _____ per week OR Don't know <input type="checkbox"/> Fuel <input type="checkbox"/> at \$ _____ per week OR Don't know <input type="checkbox"/> Administration expenses (eg time spent on paperwork) <input type="checkbox"/> at \$ _____ per week OR Don't know <input type="checkbox"/> Total \$ _____ per week b) Fixed pay-in bailment Basic wash / vacuum <input type="checkbox"/> at \$ _____ per week OR Don't know <input type="checkbox"/> Fuel <input type="checkbox"/> at \$ _____ per week OR Don't know <input type="checkbox"/> Administration expenses (eg time spent on paperwork) <input type="checkbox"/> at \$ _____ per week OR Don't know <input type="checkbox"/> Total \$ _____ per week
34) Fuel use & cost	Fuel type: LPG <input type="checkbox"/> Diesel <input type="checkbox"/> Unleaded <input type="checkbox"/> Last price paid \$ _____ / litre _____ km per litre obtained
35) Insurance	Average policy cost per taxi for greenslip: \$ _____ per year.

	Average policy cost per taxi for comprehensive insurance: \$_____ per year.
	Comprehensive excess: \$_____ No claim bonus: 20 <input type="checkbox"/> 40 <input type="checkbox"/> 60 <input type="checkbox"/>
36) Other cover	3 rd party property <input type="checkbox"/> Average policy cost per taxi \$_____ p.a. Excess: \$_____ Registration <input type="checkbox"/> Average policy cost per taxi \$_____ p.a. Workers Compensation <input type="checkbox"/> Average policy cost per taxi \$_____ p.a.
37) Estimated value of your licence (plate) type (if owned) \$_____ ,000	
38) What is the annual cost of your licence plate?	a) If leasing: what is the rent per year? \$_____,000 b) If plate funded by debt: Funding term ____ years interest rate _____ % residual ____ % deposit paid \$_____,000 c) No annual cost (plate is owned) <input type="checkbox"/>
39) Cleaning cost per major detail	\$_____.00 or DIY <input type="checkbox"/> Frequency Never <input type="checkbox"/> monthly <input type="checkbox"/> quarterly <input type="checkbox"/> six monthly <input type="checkbox"/> annual <input type="checkbox"/>
40) Cleaning cost per regular wash & vacuum	\$_____.00 or DIY <input type="checkbox"/> Frequency daily <input type="checkbox"/> every 2nd day <input type="checkbox"/> twice a week <input type="checkbox"/>
41) Any other cost items which may not be covered in the above	<input type="checkbox"/> Portable GPS systems at \$_____ per vehicle <input type="checkbox"/> Network Fees at \$_____ per vehicle per year <input type="checkbox"/> LPG Conversion at \$_____ per vehicle <input type="checkbox"/> Wheelchair Accessible Taxi (WAT) Accessibility fitout (eg lift, additional meters) at \$_____ per vehicle <input type="checkbox"/> Roof bars, lights, signage, livery, meter, camera &/or shields at \$_____ per vehicle <input type="checkbox"/> Other (please specify) _____ at \$_____ per vehicle <input type="checkbox"/> or per year <input type="checkbox"/> _____ at \$_____ per vehicle <input type="checkbox"/> or per year <input type="checkbox"/> _____ at \$_____ per vehicle <input type="checkbox"/> or per year <input type="checkbox"/> _____ at \$_____ per vehicle <input type="checkbox"/> or per year <input type="checkbox"/> _____ at \$_____ per vehicle <input type="checkbox"/> or per year <input type="checkbox"/> Total \$_____ per year
42) Change in proportion of fare generating kilometres, compared to this time last year	<input type="checkbox"/> No change, the same proportion of fare generating kilometres as last year <input type="checkbox"/> Proportional increase in fare generating kilometres If so, what is the average proportional increase in fare generating kilometres? ____ % What is the major reason(s) for the increase? (eg rise in demand per taxi in your area of operation, more effective / efficient booking systems, improved driver knowledge of key demand spots, improved customer relationships, reduced congestion in main areas of operation) _____ _____ _____ <input type="checkbox"/> Proportional decrease in fare generating kilometres If so, what is the average proportional decrease in fare generating kilometres? ____ % What is the major reason(s) for the fall? (eg fall in demand per taxi in your area of operation, lack of experience of taxi drivers due to high turnover & other factors, worsened customer relations, worsening congestion in main areas of operation) _____ _____ _____ _____

IF YOU ALSO DRIVE YOUR OWN TAXIS, PLEASE FILL OUT THIS SECTION BELOW:

1) About your last shift	Date: _____ Time: from _____ am/pm to _____ am/pm
If possible this information should be obtained from the meter.	Number of passenger trips provided: _____ (number)
	Number of radio bookings accepted (if information available): _____ (number)
	Number of kilometres travelled: _____ (kms)
	Number of booked kms: _____ (kms)

<p>Please provide a copy of the meter printout if the meter has that facility</p>	<p>Number of kilometres travelled for which fares were generated: _____ (kms) OR _____ % of km Estimated waiting time: _____ (hours per shift) Odometer reading at beginning of last shift _____ (kms) Odometer reading at end of last shift _____ (kms)</p>
<p>2) Use of portable GPS systems (e.g. Navman, TomTom, Destinator, NavWay)</p>	<p>Frequency of use: Never <input type="checkbox"/> less than 1 trip per shift <input type="checkbox"/> 1-5 trips per shift <input type="checkbox"/> More than 5 trips per shift <input type="checkbox"/> Always <input type="checkbox"/> Percentage time saving per trip: Less than 10% <input type="checkbox"/> 11-20% <input type="checkbox"/> 21-30% <input type="checkbox"/> more than 30% <input type="checkbox"/></p>
<p>3) Use of toll roads (as compared to alternative routes)</p>	<p>Frequency of use: Never <input type="checkbox"/> Rarely <input type="checkbox"/> Regularly <input type="checkbox"/> Always <input type="checkbox"/> Percentage time saving per trip: Less than 10% <input type="checkbox"/> 11-20% <input type="checkbox"/> 21-30% <input type="checkbox"/> more than 30% <input type="checkbox"/> Do you usually use toll roads without passengers on the return trip? Yes <input type="checkbox"/> No <input type="checkbox"/></p>

Appendix C

Taxi Driver Survey Results

Notes regarding survey results

- 1 Extreme outliers and obviously spurious results have been removed from the sample;
- 2 All values have been rounded to the nearest whole unit. Where appropriate, such as interest rates, non-rounded figures have been used in determining cost items;
- 3 If a range of values were provided for a question in the survey, generally the mid-point of this range has been reported in the analysis; and
- 4 For some questions, a proportion of taxi drivers and/or operators did not incur specific costs. For example, not all drivers have invested in a GPS system. For the analysis provided in the tables, those drivers and/or operators who did not incur this cost have been excluded from the analysis, ie only those that incurred the cost have been analysed. In some instances, a zero value appears in the analysis, however this is because the value has been rounded down.

Cost Component	Urban Drivers (78.0% of sample)				Country Drivers (22.0% of sample)			
	Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
Average number of kilometres driven in taxi per week	More than 4,000 / Less than 499	925	875	1,054	More than 4,000 / less than 499	878	875	292
Average hours worked per shift (Friday and Saturday)	More than 15 / Less than 5	10	9	961	More than 15 / less than 5	11	11	268
Average hours worked per shift (Sunday – Thursday)	More than 15 / Less than 5	9	9	931	More than 15 / less than 5	10	11	250
If permanent bailee, number of weeks worked in the last year	52 / 2	44.5	48	197	52 / 2	44	50	26
If operate under percentage of fare revenue payment arrangement, percentage of fare revenue driver keeps (%)	100 / 2	47	50	109	100 / 1	45	45	259
If operate under fixed pay-in payment arrangement, average pay-in	900 / 65	126	120	809	350 / 45	108	100	17

Cost Component	Urban Drivers (78.0% of sample)				Country Drivers (22.0% of sample)			
	Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
per shift (\$)								
Total fare take per week before pay-in and excluding tolls (\$)	3,000 / 40	809	800	885	2,500 / 80	911	880	219
Average amount collected in tolls per week (\$)	1,200 / 0	74	50	790	500 / 0	113	24	21
Number of incidents of fare evasion in the past year	400 / 0	14	5	658	200 / 0	8	4	183
If receiving entitlement, amount received in sick leave pay (\$)	2,550 / 400	1,384	1,293	4	-	-	-	-
If receiving entitlement, amount received in holiday pay (days)	21 / 5	10	8	10	-	-	-	-
If receiving entitlement, amount received in	3,500 / 1,800	2,833.5	3,172.5	8	-	-	-	-

Cost Component	Urban Drivers (78.0% of sample)				Country Drivers (22.0% of sample)			
	Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
holiday leave pay (\$)								
If receiving entitlement, amount received in sick leave pay (days)	30 / 10	20	20	9	-	-	-	-
Weekly cost covered out of revenue for daily wash and vacuum (\$)	240 / 0	18	10	1,078	165 / 0	4	0	304
Weekly cost covered out of revenue for mobile phone calls and/or SMS' to passengers	200 / 0	11	5	1,078	165 / 0	6	0	304
Weekly cost covered out of revenue for cleaning / other maintenance on driver uniform	100 / 0	9	5	1,078	50 / 0	6	0	304
Weekly cost covered out of revenue for administration and paperwork costs	930 / 0	51	7	170	165 / 1	26	10	32

Cost Component	Urban Drivers (78.0% of sample)				Country Drivers (22.0% of sample)			
	Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
Weekly hours spent on administration and paperwork	50 / 0	3	2	204	20 / 0	3	2	95
Weekly cost covered out of revenue for other costs <i>Eg street directory, accountant fees, licence, medical</i>	400 / 0	2	0	1,078	45.50 / 0	0.4	0	304
Cost of GPS navigation device	2,740 / 3	560	546	222	1,000 / 20	490	490	15
Last price paid for fuel (cents)	199 / 1	53	53	870	142 / 1	66	59	167
Kilometres per litre obtained	800 / 0	20	5	468	318 / 4	20	6	70
Number of passenger trips provided during last shift*	63 / 1	16	15	785	121 / 1	26	25	214
Number of radio bookings accepted during last shift*	30 / 0	5	3	690	89 / 1	17	16	127
Number of kilometres travelled during	1,000 / 1	228	215	967	600 / 2	241	227	251

Cost Component	Urban Drivers (78.0% of sample)				Country Drivers (22.0% of sample)			
	Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
last shift (km)*								
Number of booked kilometres during last shift (km)*	450 / 1	92	75	381	400 / 2	159	145	82
Number of kilometres travelled for which fares were generated (km)*	880 / 1	117	115	408	405 / 4	154	138	96
Percentage of kilometres travelled for which fares were generated (%)*	100 / 3	55	55	183	100 / 37	63	65	39
Estimated waiting time per shift (hours)*	20 / 0	3	3	602	8 / 0	2	2	121

* indicates that questions were answered by both drivers and operators who drive their own taxis

Appendix D

Taxi Operator Survey Results

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
Number of taxis operated	Standard	21 / 1	1.5	1	139	20 / 0	2	1	74
	WAT	50 / 0	3	1	72	6 / 0	2	1	19
	Premium	17 / 0	2	1	32	0 / 0	0	0	0
	Station Wagon	8 / 0	1	1	72	7 / 0	2	1	27
	Maxi	2 / 0	1	1	6	2 / 0	2	2	3
Number of types of taxi licence	Standard perpetual	8 / 1	1	1	148	20 / 0	2	1	98
	WAT	50 / 1	3	1	76	3 / 0	2	1	11
	Night	24 / 1	4	1	31	0 / 0	0	0	0
	PAL	-	-	-	-	0 / 0	0	0	0
	Other	-	-	-	-	0 / 0	0	0	0
If leasing plate, what is the rent per year?	Value (\$)	37,000 / 518	20,202	25,000	100	40,000 / 12,000	25,125	24,000	8
If leasing plate and plate is being funded by debt, what are	Funding term (years)	30 / 1	12	10	10	10 / 4	7	7	2
	Interest rate (%)	13 / 7	9	8	10	10 / 9	9	9	3

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
the components?	Residual (%)	80	80	80	1	40	40	40	1
	Deposit paid	80,000 / 1,000	25,867	6,100	6	-	-	-	-
Average vehicle age when vehicle purchased	Vehicle age in years	5 / 0	1.5	2	180	5 / 0	2	2	46
Price paid for most recent addition to the fleet <i>excluding fit-out costs</i>	Price paid (\$)	73,000 / 2,200	30,439	25,000	150	43,000 / 10,000	23,276	22,000	42
	Number of years ago price paid	17 / 0	3	2	104	7 / 1	2	2	34
Price paid for Number of years ago price paid most recent addition to the fleet <i>including fit-out costs</i>	Price paid (\$)	87,000 / 4,000	32,276	27,500	40	36,000 / 12,000	26,333	31,000	3
	Number of years ago price paid	10 / 1	3	2	26	4 / 3	4	4	2
Funding details for most recent fleet addition	Number of years	30 / 1	5	4	103	4 / 1	2	2	46
	Interest rate (%)	85 / 6	10	9	91	10 / 3	8	8	16

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
	Residual (%)	70 / 1	23	10	14	30 / 10	21	22.5	4
	Deposit paid (\$)	123,000 / 500	9,672	5,000	32	6,000 / 3,000	4,750	5,000	4
	Average kilometres of travel per taxi per week*	More than 4,000 / less than 1,000	2,750	2,500	177	3,500 / less than 1,000	2,039	2,250	45
	Average number of day and night shifts operated per taxi per week	14 / less than 7	9	10	176	14 / less than 7	11	11	44
	Average hours worked per taxi per shift (Friday and Saturday)	More than 15 / 5.5	11	11	181	More than 15 / 7	11	11	44
	Average hours worked per taxi per shift (Sunday to Thursday)	More than 15 / less than 5	10	9	175	More than 15 / 7	10	9	44
Maintenance labour cost	Cost per hour (\$)	More than 70 / Just my time	55	52	143	More than 70 / Just my time	55	57	46
	Average number of hours spent on maintenance per month	More than 41 / less than 5	11	7	164	33 / less than 5	10	7	41
Cost of service	Minor service (\$)	3,001 / 7	250	130	155	810 / 25	176	150	39

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
	Major service (\$)	12,000 / 60	959	628	149	2,900 / 100	666	430	33
	Average kilometres per tyre replacement	More than 50,000 / less than 35,000	38,457	35,000	162	More than 50,000 / less than 35,000	41,429	40,000	42
	Cost per tyre excluding balance and alignment (\$)	400 / 38	90	85	137	180 / 50	113	120	36
	Average operator time per week spent on admin, rostering etc over whole fleet (hours)	More than 49 / less than 5	8	Less than 5	158	More than 49 / less than 5	10	7	41
Average amount of time spent by operators who attend changeover	In the morning (minutes)	160 / 1	29	20	48	60 / 10	22	15	14
	In the afternoon (minutes)	180 / 5	32	20	73	60 / 10	22	15	21
Office / miscellaneous expenses per month (\$) Eg phone, electricity, accountant fees, admin staff wages, rent, computers		8,500 / 20	372	200	129	60,000 / 30	2,703	225	38
Average cost of driver uniforms per vehicle per year		1,650 / less than 150	275	275	156	525 / less than 150	217	275	38
If paying entitlement, amount paid	Sick pay (\$)	1,000 / 80	481	358	6	500 / 500	500	500	1
	Sick pay	8 / 6	8	8	6	5 / 5	5	5	1

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
	(days)								
	Holiday pay (\$)	5,000 / 800	2,523	2,500	9	2,000 / 2,000	2,000	2,000	1
	Holiday pay (days)	28 / 20	21	20	6	-	-	-	-
	If paying discount on maximum legal bailee pay-in, average discount per shift (%)	50 / 2.5	21	20	68	5 / 5	5	5	1
	If operate under percentage of fare revenue payment arrangement, percentage of fare revenue driver keeps (%)	95 / 45	52	50	11	50 / 40	46	45	34
	If operate under fixed pay-in payment arrangement, average pay-in per shift (\$)	185 / 20	118	120	82	110 / 45	78	77.50	2
	Average fare-taking per driver (\$)	1,400 / 15	621	550	118	1,700 / 100	669	700	31
If operating under a percentage of fare revenue bailment, weekly cost to driver if they cover certain expenses (\$)	Basic wash / vacuum	70 / 10	38	40	22	35 / 10	20	15	3
	Fuel	400 / 40	157	125	11	350 / 350	350	350	1
	Administration expenses	50 / 10	30	30	2	-	-	-	-
If operating	Basic wash /	750 / 10	69	40	31	-	-	-	-

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
under a fixed pay-in bailment, weekly cost to driver if they cover certain expenses (\$)	vacuum								
	Fuel	450 / 35	227	205	16	-	-	-	-
	Administration expenses	600 / 50	193	100	7	-	-	-	-
Fuel	Last price paid per litre (cents)	190 / 5	63	55	151	137 / 52	69	60	42
	Kilometres per litre obtained	300 / 1	20.5	5	104	48 / 4	8	5	30
Insurance	Average annual policy cost per taxi for greenslip (\$)	8,000 / 450	4,268	4,326	156	3,500 / 200	2,128	2,200	41
	If taking out comprehensive insurance, average annual cost per taxi (\$)	15,000 / 450	5,167.5	5,000	156	4,500 / 850	2,061	1,800	39
	If taking out comprehensive, comprehensive excess amount (\$)	5,200 / 300	972	1,000	140	3,500 / 400	729	500	35

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
	If taking out comprehensive insurance, no claim bonus (%)	60 / 20	48	60	124	60 / 20	48	60	28
Other cover	Policy cost per taxi per annum for 3rd party property (\$)	9,000 / 400	2,823.5	2,638	52	3,217 / 76	1,407	842	14
	Excess for 3rd party property (\$)	5,000 / 250	772	500	56	1,000 / 100	555	500	10
	Policy cost per taxi for registration (\$)	6,000 / 56	687.5	567	122	4,000 / 383	727	568	34
	Policy cost per taxi for workers compensation (\$)	4,456 / 50	2,244	2,228	106	3,000 / 500	1,466	1,470	33
	Estimated value of licence (plate) type if owned (\$)	600,000 / 1,000	293,362	350,000	69	400,000 / 40,000	207,452	220,000	31
<i>If leasing, annual cost of licence plate</i>	Rent per year (\$)	960,000 / 1,000	44,510	25,000	93	40,000 / 2,000	22,556	24,000	9
<i>If plate funded by debt,</i>	Funding term (years)	30 / 5	15	10	19	30 / 4	14	10	9

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
annual cost of licence plate	Interest rate (%)	15 / 7	9	8	22	16 / 7	9	8	8
	Residual (%)	100 / 8	44	40	6	40 / 40	40	40	1
	Deposit paid (\$)	120,000 / 25,000	64,250	57,500	8	200,000 / 40,000	120,000	120,000	2
Cleaning cost	Per major detail (\$)	2,600 / 8	177	100	103	200 / 15	108	100	22
	Per regular wash and vacuum (\$)	110 / 2	16	10	131	130 / 3	12	8	28
Other costs	Portable GPS system per vehicle (\$)	6,900 / 400	1,283	850	44	1,100 / 80	523	500	7
	Network fees per vehicle per year (\$)	12,000 / 420	5,928	6,564	141	21,900 / 766	8,463	9,250	32
	LPG conversion per vehicle (\$)	9,000 / 200	2,947	2,700	95	4,500 / 1,400	2,813	2,550	20
	Wheelchair accessible Taxi (WAT) accessibility fitout per vehicle (\$)	36,000 / 1,500	17,869	18,800	16	34,000 / 5,733	21,183	22,500	4
	Roof bars, lights, signage,	12,000 / 10	3,966	4,000	111	9,000 /	2,536	2,000	23

Question	Cost Component	Urban Operators (81.1% of sample)				Country Operators (18.9% of sample)			
		Max / Min	Mean	Median	Total respondents	Max / Min	Mean	Median	Total respondents
	livery, meter, camera &/or shields per vehicle (\$)					325			

* The median interval for both country and urban taxis are the same. However, the mean values indicate a significantly higher amount of kilometres travelled per week in urban areas. To represent this difference, we have selected the midpoint of the interval in the analysis for country operators, and the endpoint of the interval in the analysis for urban operators.

Appendix E

Independent verification of costs

Cost Item	Cost From Other Data Sources
Maintenance labour	<p><u>Brad Garlick Ford, Ryde</u> <i>Minor service</i> \$145 <i>Major service</i> \$190</p> <p><u>Repco Authorised Service, Marrickville</u> <i>Minor service</i> \$125 <i>Major service</i> \$280</p> <p><u>Jimmy's Brake Service, Marrickville</u> <i>Minor service</i> \$77 <i>Major service</i> \$140</p> <p><u>Repco Authorised Service, Wagga Wagga</u> <i>Minor service</i> \$160 <i>Major service</i> \$170</p> <p><u>Clarks Automotive Repairs, Wagga Wagga</u> <i>Minor service</i> \$150 <i>Major service</i> \$200</p>
Licence Plate Lease Costs	<p>Interest Rates</p> <p><i>Arab Bank Taxi Loan</i> 8.95% per annum</p> <p><i>Commonwealth 4-year secured loan</i> 9.90% per annum</p> <p><i>RBA 180-day cash rate</i> 6.90% per annum</p> <p>Plate transfer value</p>

Cost Item	Cost From Other Data Sources
	<p><i>Sydney Urban</i> \$365,971</p> <p><i>Albury</i> \$232,700</p> <p><i>Bourke</i> \$5,000</p> <p><i>Cooma</i> \$65,000</p> <p><i>Inverell</i> \$150,000</p> <p><i>North Haven</i> \$302,703</p> <p><i>Nowra</i> \$190,000</p> <p><i>Tweed Heads</i> \$544,400</p> <p><i>Wagga Wagga</i> \$285,000</p>
LPG Fuel	<p><i>NSW average LPG price</i> \$0.552 per litre</p> <p><i>Maximum NSW LPG price (by area)</i> \$0.759 per litre in Coonamble</p> <p><i>Minimum NSW LPG price (by area)</i> \$0.439 per litre in Albury and Lavington</p> <p><i>Selected Sydney LPG prices (by suburb)</i> \$0.515 per litre in Dural \$0.535 per litre in Chatswood \$0.469 per litre in Liverpool \$0.499 per litre in Parramatta</p>

Cost Item	Cost From Other Data Sources
	<p>\$0.549 per litre in Padstow</p> <p>Source: http://www.exploroz.com/OntheRoad/FuelPrices/NSW.asp All data is for 3 October 2007</p>
Insurance	<p>CTP Greenslip \$3,697 per annum</p> <p>Comprehensive Insurance <u>Cumberland Cabs Insurance</u> NEW OPERATOR <i>New car, insured for \$33,000, no claims bonus</i> \$9,704.00 per annum <i>Used car, insured for \$15,000, no claims bonus</i> \$7,386.00 per annum OPERATOR FOR MORE THAN 5 YEARS <i>No accidents, maximum 80% no claims bonus</i> \$2,600.00 per annum</p> <p><u>Taxis combined</u> NEW OPERATOR <i>New car, insured for \$33,000, no claims bonus</i> \$9,016.00 per annum <i>Used car, insured for \$15,000, no claims bonus</i> \$6,823.00 per annum OPERATOR FOR MORE THAN 5 YEARS <i>No accidents, maximum 80% no claims bonus</i> \$3,087.00 per annum</p> <p>Workers Compensation \$2,111.00 per plate (urbanopolitan) \$1,327.00 per plate (regional) NB Workers Compensation based on taxi operator leasing cab for more than 2 shifts per week</p>
Vehicle Lease payments	<p>2007 Ford Falcon Sedan (new) \$35,990</p> <p>2007 Ford Falcon Station Wagon (new) \$37,720</p>

Cost Item	Cost From Other Data Sources
	<p><i>2003 Ford Falcon Sedan</i> \$11,650</p> <p><i>2003 Ford Falcon Station Wagon</i> \$12,150</p> <p>Source: www.redbook.com.au NB 2003 prices have been taken as the mid-point of the range given for private sales.</p>
Network Fees	<p><i>Silver Service</i> \$575.30 per month</p> <p><i>Taxis Combined Services</i> \$546.70 per month</p> <p><i>Premier Cabs</i> \$545.60 per month</p> <p><i>Katoomba Radio Cabs</i> \$913.00 per month</p>

Cost Item	Cost From Other Data Sources
Other	<p>Registration and Government charges</p> <p><i>Drivers Authority</i> \$120 for 3 years (\$40 per annum)</p> <p><i>Drivers Licence</i> \$43 per annum</p> <p><i>Registration</i> \$568 per annum (based on Ford Falcon weight of 1,672 kilograms)</p> <p><i>Operator accreditation renewal fee</i> \$260</p> <p>Tyres</p> <p><u>Beaurepaires, Rockdale</u> <i>16" Dunlop, 2156016</i> \$160.00 per tyre <i>16" Goodyear, 2156016</i> \$160.00 per tyre</p> <p><u>Bob Jane T-Marts, Bankstown</u> <i>16" Dunlop, 2156016</i> \$155.00 per tyre <i>16" Goodyear, 2156016</i> \$155.00 per tyre</p> <p><u>Joey Express Tyres, Condell Park</u> <i>16" Dunlop, 2156016</i> \$160.00 per tyre <i>16" Goodyear, 2156016</i> \$160.00 per tyre</p> <p><u>Beaurepaires, Wagga Wagga</u> <i>16" Dunlop, 2156016</i> \$150.00 per tyre <i>16" Goodyear, 2156016</i> \$150.00 per tyre</p> <p><u>Tyrepower, Wagga Wagga</u> <i>16" Dunlop, 2156016</i> \$160.00 per tyre <i>16" Goodyear, 2156016</i> \$155.00 per tyre</p> <p>NB Where more than one 16" 2156016 tyre was available, the cheapest price has been quoted</p>

Cost Item	Cost From Other Data Sources
	<p>Cleaning</p> <p><u>Scooters Car Wash, Carlingford</u></p> <p><i>Wash, outside only</i></p> <p>\$16.50</p> <p><i>Wash in/out</i></p> <p>\$28.50</p> <p><i>Full detail</i></p> <p>\$160.00</p> <p><u>Crystal Car Wash, Kingsford</u></p> <p><i>Wash in/out</i></p> <p>\$32.00</p> <p><i>Full detail</i></p> <p>\$95.00</p> <p><u>Car Spa, Parklea</u></p> <p><i>Wash, outside only</i></p> <p>\$10.00</p> <p><i>Full Detail</i></p> <p>\$150.00</p> <p><u>Carlovers Car Wash, Wagga Wagga</u></p> <p><i>Wash, outside only</i></p> <p>\$5</p> <p>Full Detail</p> <p>\$80</p> <p><u>Blake St Car Wash, Wagga Wagga</u></p> <p><i>Wash, outside only</i></p> <p>\$8</p>