

The Adelaide Taxi Industry Baseline Study: Design and Delivery

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Abstract:

A Baseline Study was conducted throughout 1996 by the Transport Systems Centre (TSC), at the University of South Australia. It was designed to provide a baseline of statistics so that future researchers and policy-makers could identify trends in the industry. Such a study had been called for by representatives of the taxi industry for some time and was funded by the SA Passenger Transport Board (PTB). A vast array of statistics relating to the operational characteristics had been gathered for the first time (e.g. the quality of service with regard to passengers (waiting times and rank queues); ratios of active versus non-active time and distance travelled for taxis and revenue per trip). The study required cooperation not only between the industry and the regulatory body but between the taxi companies themselves working in a highly competitive environment. This was achieved through the formation of a reference group comprising representatives from the four major taxi companies as well as the SA Taxi Association, the SA Taxi Drivers Association, the PTB and the TSC. Data was gathered from various sources, including observation of taxi ranks, telephone bookings, information on specific taxi activity and information from biannual taxi inspections. The intent of the paper is to highlight the cooperative effort of the various bodies, to report on the methods of gathering the required data and to describe some of the problems encountered. Finally, recommendations for future studies are proposed.

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Background

The Adelaide Taxi Industry Baseline Study (ATIBS) was conducted throughout 1996 to collect a variety of statistics of interest to members of the industry and to policy-makers.

There were two factors driving the establishment of the study. Firstly the need for a more professional industry had been championed by the South Australian Taxi Association (SATA) since 1991 at least. The former Metropolitan Taxi-Cab Board (MTCB) had historically not collected statistics about the industry it was regulating. For example its last ten annual reports all stated that the number of passengers carried by Adelaide's taxi industry was 13 million. SATA argued that a professional industry needed to know such statistics as: how much work taxis were actually doing; the quality of service with regard to passengers (e.g. waiting times and rank queues); ratios of active versus inactive time and distance travelled for taxis; the number of 'no jobs'¹; and revenue per trip.

The second driving factor was the desire of the government to expand the industry. The government's need for more detailed information about the taxi industry became apparent in the early 1990s when a discussion paper was released canvassing options for the future of the industry, including open entry (South Australia, Office of Regulation Review, 1991). While the government was not willing to go that far, it was keen to break the impasse which had resulted in no increase in general taxi numbers since 1956 (apart from those which occurred when the metropolitan boundaries were expanded). The consultation which followed the release of the discussion paper highlighted the lack of any data on which to make a judgement as to how many taxis were needed. It was recommended that data be gathered on how well the industry was meeting demand and what changes were occurring in this regard (Radbone, 1991).

Also, in 1991 the government opened entry into the hire car sector of Adelaide's commercial passenger transport industry. Hire car companies could be established with a minimal licensing cost and could compete with taxis for work. But there were several limitations on how they could operate, with perhaps the most important of these being that they could only accept work that was pre-booked. The proportion of taxi work off the radio, and so open to competition, was therefore of critical importance to the taxi industry.

In the event the recommendation to gather such information was not acted on until 1995. The government of the day announced a policy of releasing fifteen new licences a year for three years. When this policy expired in 1995 the new Liberal government announced it would be replaced by a five year policy. The first three years would see a continuance of the fifteen licences a year program, with the numbers for the last two years being determined once the necessary data were collected.

¹ A trip hiring which is aborted because the hirer fails to appear.

The Transport Systems Centre proposed to the South Australian Passenger Transport Board (PTB) that a study be carried out to meet the needs of both the government and the industry by collecting an array of statistics for a given year. There would then be a baseline against which future findings could be compared. The Board recommended to the Minister for Transport that the study be funded from the Passenger Transport Industry Research and Development Fund. Preparations began for a starting date of 1 January 1996.

Framework

The framework of ATIBS can be separated into three parts: managerial, methodological, and operational. These will each be dealt with in turn.

Study Management

The study required co-operation not only between the industry and the regulatory body but also between the taxi radio companies working in a highly competitive environment. It also needed to overcome suspicion from many taxi operators and drivers that the information would be used in some way to disadvantage them — suspicions that were exacerbated when the Australian Taxation Office decided to conduct an audit of the industry in the middle of the study.

These concerns were initially addressed through the formation of a reference group comprising representatives from:

- each of the four major taxi companies;
- the South Australian Taxi Association;
- the South Australian Taxi Drivers Association;
- the Passenger Transport Board; and
- the Transport Systems Centre.

This body met regularly from the outset to deliberate on methods, preliminary results and immediate next steps. It was instrumental in keeping all parts of the industry focused on the goals of the study, to allay fears and to keep the industry informed of progress. The experience of the industry members was essential in providing the information needed to interpret findings and suggest ways of testing hypotheses.

It was imperative that the privacy of the taxi companies and the individual taxi drivers, lease holders and owners was respected at all times. The preliminary results and periodical reports presented to the reference group were of aggregated data only.

Methodology

The study primarily focused on three sources of data;

- statistics collected by staff observing ranks;

- data provided on worksheets filled out by drivers; and
- statistics provided by centralised radio booking services

In general the study attempted to gather both broad aggregate data and detailed data for specific periods. The broad aggregate data were confined to total bookings on a day by day basis and was gathered from reports provided by the radio booking services. Detailed data were collected for eight specified weeks. During these weeks worksheets were collected from a sample of operators and the activity at each of a sample of the taxi ranks in the metropolitan area was observed.

The weekly surveys were chosen to provide representative samples of taxi industry behaviour during the various seasons, during school holidays and terms, during university semesters and breaks, during pension and non-pension weeks and during special periods such as the Festival of Arts, the Royal Adelaide Show and public holidays. The study of survey eight was chosen to include the Christmas Pageant and the Melbourne Cup festivities. These weeks (Sunday to Saturday unless otherwise indicated) are given in table 1.

Table 1 Survey periods

Survey	Dates
1	1 January
2	11-17 February
3	3-9 March
4	14-20 April
5	26 May - 1 June
6	14-20 July
7	1-7 September
8	31 October - 6 November (Thursday to Wednesday)
9	1-7 December

Survey 2, a non-pension week, was intended to be used to collect rank observation data and worksheet data from taxi operators. The rank observations for this survey were to serve two purposes: (1) to collect data for rank observation statistics; and (2) to observe many ranks over large periods of time to enable an efficient selection of ranks and times for future surveys. It was intended that taxi worksheet data be collected for this survey but due to the low response to the call for volunteers to fill out the worksheets (only a handful of completed worksheets were returned), only rank observation data were gathered.

Survey 3 coincided with a week of the Adelaide Fringe Festival and a pension week. Worksheet completion was made compulsory for the drivers of selected taxis and rank observation data were collected as before. In the remaining survey periods driver worksheet data and rank observation data were collected.

Both surveys 4 and 5 were pension weeks with survey 4 being conducted during school holidays. Survey 6 was also conducted during school holidays but was a non-pension week.

Survey 7 was conducted during a pension week and to incorporate the Royal Adelaide Show into the study the ranks surrounding the grounds were included in the observations. These were in addition to the regular rank observations.

Survey 8 was unique in that it started on a Thursday and ended on the following Wednesday. In addition to the ranks normally observed at the usual times, ranks within the city were observed during the Christmas Pageant on the Saturday and the rank at the Morphettville Racecourse was observed during the Melbourne Cup festivities on the Tuesday.

Survey 9 was a non-pension week, close to the Christmas period.

Obviously these different periods had different characteristics and no one week could be seen as being typical. It was necessary to assess the significance of each period in terms of the amount of work done during that period. The radio booking data were used to weight each period according to how representative it was for the year as a whole in order to provide more detailed estimates. The weighting given for each survey was calculated by comparing the total number of completed bookings made during the survey with the total number of completed bookings made for an average week.

Operations

Rank observations: The times and days when observations took place on a particular rank varied from survey to survey to give a broader insight into taxi/customer activity at the site. Ranks were observed to find out how long customers were waiting for taxis, or how long taxis were waiting for customers. Observers also recorded, where possible, aspects of behaviour on ranks such as multiple hiring, non-use of the first taxi on the rank and times when the number of taxis wanting to use a rank exceeded capacity. Throughout the study the policy was to ensure that both busy and quiet ranks were observed. In choosing ranks and times of observation, an attempt was made to identify any occasions when the industry was not meeting demand as well as to gain a picture of more typical conditions.

Rank observations were typically four hours long divided into fifteen-minute time segments. Observers counted the total number of taxis and customers arriving and departing during each time segment. At the end of each time segment the observers also counted the total number of customers/taxis in the appropriate queues. Taxi and customer waiting times were recorded by 'marking' the first customer or taxi to join the appropriate queue after the start of each fifteen minute interval (i.e. on the hour, quarter past, half past and quarter to the hour). The waiting time for the marked customer/taxi was recorded and this was used as the basis for estimating the waiting time for all customers or taxis during that fifteen-minute period.

Worksheet data: Data from worksheets completed by drivers was seen as an important source of information for the study. It was necessary to design special worksheets providing more information than usual, though care had to be taken not to stretch the patience of those filling it in by asking for too much data. In addition to normal information giving the when, where, distance and fare of each trip. The worksheet (included as Appendix D) was designed to indicate:

- the start and finish of each shift;
- odometer readings at the beginning and end of the shift (which combined with information about the length of hirings provided information on the amount of 'dead' travelling which is one measure of the efficiency of the industry);
- what proportion of work was done by hail, booking and rank. This information used in conjunction with the radio booking company data enabled the total amount of work done by the industry to be estimated;
- whether the trip was paid for by cash or by other means;
- the sex of the driver (used to indicate the proportions of driving undertaken by each sex); and
- the passenger capacity of the taxi (used to indicate the proportion of work undertaken by larger vehicles)

A sample of approximately one hundred taxis was selected for each survey week. Taxis subject to the worksheet survey were determined on the basis of the following factors which were believed to have a possible effect on the operating characteristics of the industry:

- whether the taxi was leased or owned by the operator;
- whether the taxi operator also operates other taxis; and
- the radio network to which the taxi was attached

Radio booking data: The information from the centralised radio booking agencies was crucial in determining the total amount of work being done by the industry. Bookings account for the bulk of the work undertaken by taxis.

To be able to estimate the total amount of work done by the industry, the number of completed radio bookings was collected. It was hoped that other information such as a breakdown of the total number of completed bookings by time and location could have been gathered to determine where the majority of the work was done and in which time period. However this information was not collected due to problems with data availability. These are discussed below.

Other sources of data: The study utilised other sources of data in addition to rank observations, worksheets and radio booking information.

Inspection sheets produced by the two accredited taxi vehicle inspection centres in Adelaide were analysed:

- to provide statistics on the use of vehicles between inspections; and
- to determine the likelihood that a vehicle would pass inspection the first time given the age of the vehicle.

A random sample of 98 taxis (10% of the total fleet in South Australia) was used to make comparisons between the inspection records of each of the vehicles for the May/June 1996 period with the previous inspection record. The information collected was the date of both inspections and the odometer reading during both inspections. New cars that had been inspected for the first time in May/June 1996 were not included in the analysis.

A second analysis involved randomly selecting taxis inspected in the middle of 1996 to collect data such as the year of make and whether or not the vehicle passed inspection the first time.

An omnibus survey was commissioned to survey the public on their use of taxis and attitudes toward taxi services. This was carried out in the first week of July and comprised 400 households. The purpose of the survey was to determine:

- the frequency of use of taxis;
- the purpose of use of taxis;
- whether there has been an improvement in the level of service provided by taxis; and
- what would encourage people to use taxis more often.

The questions asked can be found in Appendix A.

On the road audits were used to find out how long customers were waiting for taxis through the radio companies. These had been commissioned for several years by the Passenger Transport Board and so comparative data could be used. The study was particularly interested in waiting time for customers in outer metropolitan areas as the taxi industry had been subject to criticism in this regard. Hire car companies had also been establishing passenger services to compete with the taxis in these areas.

Accreditation data were obtained from the South Australian Department of Transport, which handles the accreditation of passenger transport operators and drivers for the Passenger Transport Board. The data were used to find:

- the proportion of licensed male and female taxi drivers;
- the proportion of taxis by make of vehicle;
- the proportion of cars within a year of make;
- the proportion of plates owned and leased; and
- the numbers of vehicles registered with the each of the radio booking companies.

Difficulties faced

The study encountered difficulties with the correct completion of worksheets, rank observations, and the collection of radio booking data.

Worksheet Data

The first major problem was finding a successful method of gathering worksheet data from the taxi drivers. Until the end of the last decade it was compulsory for all taxi drivers to fill out worksheets with details of each job completed on every shift throughout the year. The worksheets of any operator could be requested for perusal by the Metropolitan Taxi-Cab Board at any time. For the last four years of the MTCB's existence it was not compulsory for drivers to fill out worksheets, though some taxi companies recommended very strongly to the operators affiliated to them that the practice should continue and to this end provided worksheets of the company's design. The practice was also recommended by the SA Taxi Association which also produced a worksheet of its own design. The Passenger Transport Act (1994) requires worksheets to be filled in, but leaves the Board with merely an approval role in terms of design.

As a result there were several types of worksheet in use. While there was a great deal of common data recorded by various operators with much overlap in the specific data recorded (date and taxi plate number for each shift, and for each job the start time, start odometer reading, job origin and destination and revenue), no one worksheet was sufficient for comprehensive data collection.

The reference group initially decided to call for volunteer operators and drivers to fill out forms provided by the study team. In the interests of confidentiality (since the PTB was reluctant to compel drivers to provide more detailed information) the worksheets had to be designed so that the operators could tear off the section of the worksheet containing identifying information (driver and operator names, taxi plate number) and this was to remain with the radio company. After the worksheets had been processed by the study team they would be returned to the appropriate radio company from where they were to be distributed to the relevant operators.

The call for volunteers was a dismal failure, with only a handful of operators responding. The number was too small to be statistically valid and hence there was no worksheet data analysed for the February survey week. The result convinced the PTB of the need to make the study co-ordinator an Authorised Officer under the Passenger Transport Act and thereby legally be entitled to require worksheets from taxi operators. To this end a second type of worksheet (without the tear off strip) was produced. This method proved much more successful with close to 50% of operators responding in the remaining surveys. Table 2 shows, for surveys 3 through 9, the number of operators of whom worksheets were requested, the percentage of the number who complied, the percentage of those requested that were usable and the percentage of those returned that were usable. It should be noted that the number of requests does not include those taxis which were delisted from the survey subsequent to the requests being mailed out. Delisting was due to the operator either having sold the plates or having relinquished the lease on the plates.

Table 2 Compliance rates and data usability percentages

Survey	Number Requested	% Returned	% Usable of those requested	% Usable of those returned
3	85	44.7	42.4	94.7
4	93	52.7	40.9	77.6
5	93	67.7	58.1	85.7
6	94	44.7	35.1	78.6
7	88	50.0	47.7	95.4
8	90	44.4	37.8	85.0
9	88	48.9	47.7	97.7
Total	631	50.6	44.2	87.5

Despite making it compulsory for drivers to fill out worksheets, problems still existed with not all worksheets being returned and not all worksheets that were returned being completed or completed correctly.

An attempt was made to rectify the problem of the declining number of worksheets being returned by randomly selecting those who did not comply in surveys three and four to complete worksheets from survey seven. Table 3 shows the compliance percentages of the operators requested in survey 7 to provide worksheets and who were previously requested to comply in either surveys 3 or 4. Table 3 also gives the usable percentage rates as before. The data in this table is broken down into the four operator types: single owner (SO), single lessee (SL), multiple owner (MO) and multiple lessee (ML).

Table 3 The compliance rates of operators and usability rates of worksheets from operators asked to comply for the second time

Operator Type	Number Requested	% Returned	% Usable of those requested	% Usable of those returned
SO	16	56.3	50.0	88.9
SL	16	43.8	43.8	100.0
MO	3	33.3	33.3	100.0
ML	5	40.0	40.0	100.0
TOTAL	40	47.5	45.0	94.7

From those asked to comply the second time, 45% responded with usable worksheets. This figure is close to the corresponding figure for all the surveys (44.2%) suggesting that requests to a group of operators for worksheets for a second time are likely to be met with a statistically similar response to a first time request. The size of the sample does not allow this to be anything more than conjecture but as the return rate of worksheets for this survey was low, avenues for prosecuting non-compliant taxi operators were pursued. The 21 operators who did not return a worksheet were reported to the Passenger Transport Board for prosecution. A problem with this did occur in that

there were worksheets from radio booking companies that were not collected. This resulted in justifiable anger from some taxi operators and of course created a loophole in that taxi operators who did not comply could accuse radio booking companies of losing their worksheets.

The success of this exercise is not fully conclusive. Despite the number of useful worksheets obtained during survey eight was quite low, those operators who had not complied were in the process of receiving or had just received their prosecution notices. Survey nine, which had one of the highest return rates of useful worksheets, can only be used to indicate the success of the prosecution exercise as enough time would have elapsed for the exercise to take effect. Future studies should look towards resolving the issue of compliance as early as possible.

Of the worksheets returned 87.5% were completed correctly. To make full use of as much of the data as possible, data were categorised into figures from partial information and figures from complete information. The purpose of having a partial information category was because some statistics required every bit of information so as not to give misleading results. But there are some statistics that do not require all the information to be available. These could be obtained from worksheets only partially filled in.

A factor that hindered the data entry process was illegibility of many worksheets. In particular deciphering many trip origin and destination place names was difficult.

Rank observation data

The collection of rank observation data was successful with only a few observations being regarded as failures. These were due to relocation of ranks or the observers not fully understanding how to collect the data.

In the initial two surveys a four hour shift of observations was confined to a single rank. It soon became apparent that more samples could be obtained if, over the four-hour shift period, the observer visited several ranks within walking distance of each other and observed each for a period of one hour to one hour thirty minutes.

Radio booking data

Although each radio booking company kept computerised records of bookings, the amount of information that could be used in the study was limited by five factors:

- the need for common data from each company imposed the 'lowest common denominator' effect which meant that whatever data could be gathered (and hence what conclusions could be drawn) was limited by the least sophisticated reporting system;
- inconsistencies in reporting period i.e. whether figures were provided on a daily, weekly or monthly basis;

- inadequacies in report generation i.e. some reporting software did not aggregate data into the desired totals;
- inconsistent zone definitions i.e. each radio booking company defined the taxi operation zones differently; and
- inconsistent dispatch time semantics i.e. each company had a different view of how the dispatch time was measured.

For these reasons the information from the centralised booking services consisted of broad aggregations only. Initially the idea was to gather more detailed data and weight it according to the size of the fleet affiliated to each company. Unfortunately in the beginning of 1996 not all of the companies could provide radio booking data in a digital format but rather could only provide printouts. Attempts were made to get data digitally by having information on the systems downloaded to disk but even by the end of the study this was still not possible with some of the companies. Another problem was that in general, information was kept on the booking company computers for only three months before being discarded. Thus a maximum three months worth of data could be collected starting from the time the data provision capabilities of each company and the requirements of the study team were understood by all concerned; this was a considerable time into the year. An attempt was made to scan the printouts into a digital computer form and then to run character recognition software over the data to improve the symbol quality. This was not successful as the printouts were from dot matrix printers making it difficult for the character recognition packages to identify all characters correctly.

As a result of these problems the radio booking data usable was restricted to total completed bookings on a daily basis for the whole year.

Results

Despite the difficulties encountered in some areas the study produced a vast amount of reliable data. Experience showed that in many ways the industry followed clear patterns and that intelligent use of sampling could produce statistically valid results. For example although the target was to sample at least forty sets of worksheets for each survey (i.e. covering about 400 shifts) it was found that results varied little after about the eighth set of worksheets was entered.

One of the outstanding successes to emerge from ATIBS was the level of co-operation achieved within the reference group and from the industry itself. There was a significant amalgamation of thoughts and ideas generated from the reference group with industrial experience meeting technical experience. An effective plan to run the study was devised to enable certain indicators to be identified and explored. By no means could it be said that the study was met with enthusiasm by the cabby on the street. But as interim findings were released, the level of resentment and hostility declined. Hopefully future studies of this nature will be accepted more readily.

Findings

There is not the space to present all findings here. A copy of an 'industry at a glance' information sheet is provided as Appendix B.

For policy-makers the interesting information related to how well the industry was meeting demand, earnings by drivers and the proportion of live time to dead time. The study found little evidence of customers waiting for taxis, but it did find a longer term decline in patronage and low and declining earnings by drivers. It also found only one third of a driver's shift was actually spent carrying a passenger.

There were a number of other interesting findings for those not familiar with the life of a taxi driver. Holiday periods were those of lowest demand. Peak demand on the streets typically occurred in the early hours of the morning. Over a third of the industry's hirings occurred during just three shifts: Friday during the day, Friday night and Saturday night².

Recommendations

Improved worksheet responses: The first recommendation is that if data on individual jobs is required from taxi drivers then the completion of worksheets has to be compulsory with power to prosecute acting as the catalyst to comply. As mentioned earlier, voluntary completion of worksheets resulted in a poor return rate. After the completion of worksheets was made compulsory there was a significant improvement in the return rate of worksheets. Unfortunately a significant portion of the returned worksheets was not completed or not completed correctly. This problem should be addressed to improve the reliability of the collected data.

Should prosecution be seriously considered, a method of collection of worksheets would need to be devised so that evidence of compliance is undisputed. One recommendation is to set up an accountable system of dispatching worksheets at the radio booking companies. The operators sign for the worksheets prior to the survey and are issued with a receipt when the worksheets are returned. Another possibility is for the worksheets to be sent back directly to the organisation responsible for the study but here again accountability is questionable.

This was the first time a study of this scale had been conducted in South Australia. Because of this, many members of the industry, particularly drivers, considered the study to be an invasion of privacy and were unwilling to comply. Now that the study is completed and the results can be used to benefit the industry, hopefully members of the industry will feel more comfortable with its procedures and have more of an understanding of the purpose and benefits of the current and future studies.

² Driver changeover times in Adelaide generally occur at six o'clock, morning and evening

Statistics based on geographical location: There needs to be a way of selecting operators who work primarily in particular areas of Adelaide or allowing operators to indicate on the worksheets where they prefer to operate. As the study progressed, it was apparent that earnings of taxi operators varied in different areas of the city. Knowledge of work rates around the metropolitan area, particularly during different times of the year, would enable the industry to service areas more effectively, for the benefit of both operators and taxi users.

Running costs of taxis: A drawback of the 1996 study was that there was no attempt made to gather data relating to the running costs of taxis. This aspect of the industry was not in the study's terms of reference but for the purposes of gaining a complete picture of the taxi industry it should be included. Again it would be imperative that data relating to individual operators and drivers be treated with strict confidence.

The wider environment: Finally, there was the apparent paradox that although use of taxis was declining, customers were saying they thought the industry was improving. One explanation for this is that while the service offered by the industry is getting better, environmental changes are working against the industry. One obvious factor is the work taken by the less regulated hire car sector. But more profound impacts may be the result of changes in the accessibility of private motor vehicles. For example, in 1987 60% of users were female (Travers Morgan, 1988, p. 38). Now the figure is less than half. Could this be related to the proportion of women with driver's licences and their own cars? Clearly a true understanding of the industry and its future needs an understanding of the environment in which it exists.

References

- Radbone, I G (1991) *The taxi and hire vehicle futures paper: response and recommendations* South Australian Office of Transport Policy and Planning
- South Australia, Office of Regulation Review (1991) *The taxi and hire vehicle industry in Adelaide: A Futures Paper*
- Transport Systems Centre (1996) *Adelaide taxi industry baseline study, interim report 1* Adelaide: TSC, University of South Australia
- Transport Systems Centre (1996) *Adelaide Taxi Industry Baseline Study, Interim Report 2* Adelaide: TSC, University of South Australia
- Transport Systems Centre (1996) *Adelaide taxi industry baseline study, September quarterly report* Adelaide: TSC, University of South Australia
- Transport Systems Centre (1997) *Adelaide taxi industry baseline study, final report* Adelaide: TSC, University of South Australia
- Travers Morgan and Associates (1988) *Review of the economic regulation of the taxi industry in Adelaide* Adelaide: Travers Morgan

Appendix A

Omnibus Survey Questionnaire

The following questions were asked:

How often do you use taxis?

- daily/most days
- two or three times a week
- about once a week
- two or three times a month
- about once a month
- once every few months
- less often
- never

If you use taxis what is your usual purpose?

- business/work related
- visiting friends/ social recreation
- shopping
- medical journeys
- other — specify

Would you say that, overall, Adelaide's taxi service is now better or worse than it was two years ago?

- a lot better (specify why)
- a little better
- about the same
- a little worse
- a lot worse (specify why)
- don't know

What would encourage you to use them more often?

- reduce fares
- shorten waiting time
- keep them cleaner
- have them smell fresher
- improve the courtesy of drivers
- improve driving skills
- more advertising
- other (specify)
- don't know
- nothing/ won't use more often

Appendix B

Adelaide Taxi Industry at a glance

The following are key statistics for Adelaide's taxi industry. They do not include other information less amenable to this form of presentation, such as waiting times at taxi ranks or origins and destinations.

Operators and drivers

Accredited operators	1551	Accredited drivers	4419
Owners:	1028	male	94.4%
Lessees:	523	female	5.6%

The taxi

Total taxis	1011	Ave daily travel	340.5 km
Standard	918	Ave annual travel	124,272 km
Special purpose	51	Ave age of taxi	5yrs 45 days
Standby	42		

Hirings

Total number:	8 52m	Ave distance:	7.3km
Average number of passengers:	1.50	Ave number of passengers per shift:	16
Total passengers:	12.8m		

Proportion of Total Hirings by Shift (estimates only)

	Day shift (%)*	Night shift**
Sunday	3.5	2.5
Monday	9.6	2.9
Tuesday	9.4	2.9
Wednesday	10.0	3.2
Thursday	10.7	4.7
Friday	10.7	11.5
Saturday	6.6	12.0

* six am to six pm

** six pm to six am. (e.g. Saturday night is Saturday 6pm to Sunday 6am)

Means of engagement (%)

Booked	61.9
Taxi rank	26.6
Hail	11.4

Method of Payment (%)

Cash	72.6
Other	27.4

Efficiency

Percentage of shift with passenger:	34.1*
Percentage of kilometres driven with passenger:	47.9

* time off during shift deducted

Revenue (\$)

Total (\$m):	85.63
per kilometre:	0.65
per shift:	153.15
per hour:	15.30
per trip:	9.98

The customer

Percentage of Adelaide's population claiming to use a taxi at least once a month:	18
Percentage of males claiming to use a taxi at least once a month:	22
Percentage of females claiming to use a taxi at least once a month:	12

Use of Taxis (%)

Visiting friends/recreation	Business/work related	Shopping	Medical	Other
67	21	12	11	9

Customers' Attitude to Taxi Service (%)*

A lot better	A little better	About the same	A little worse	A lot worse	Don't know
10	16	24	2	3	47

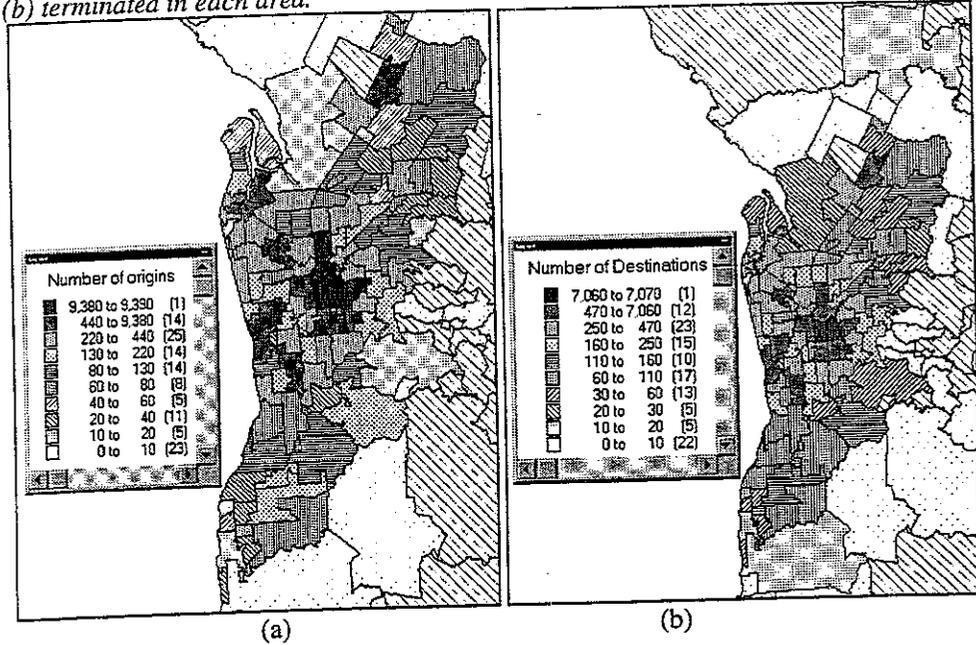
*with respect to survey of previous year

Other

Average weekly number of taxi driver wanted advertisements	45
Average length of shift	10 hrs 6 min
Price of taxi plate as at 1 July	\$151,900
Weekly lease rate. as at 1 July (plate only)	\$320

Appendix C

Adelaide metropolitan area indicating the number of trips that were (a) initiated and (b) terminated in each area.



Appendix D

The worksheets distributed to taxi operators.

UNIVERSITY OF SOUTH AUSTRALIA
Adelaide Taxi Industry Baseline Study 1996
 Daily Trip Record Sheet

Date: _____ Driver's Name: _____ Driver's Accreditation #: _____
 Plate #: _____ Fleet #: _____ Licence Holder's Name: _____

Shift Times: _____ Kilometres: _____
 Finish: _____ am/pm _____ Finish: _____
 Start: _____ am/pm _____ Start: _____
 Total: _____ Total: _____

B = Radio Booking C = Cab
 H = Street Hail G = Other
 S = Taxi Stand

#	Start of hiring		D H S	# pass	Individual Trips (please write clearly)		C G	End of hiring		Fee \$
	km	time			From	To		km	time	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Other Costs \$ _____ Total Takings _____

#	Start of hiring		D H S	# pass	Individual Trips (please write clearly)		C G	End of hiring		Fee \$
	km	time			From	To		km	time	
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										

Other Costs \$ _____ Total Takings _____

1. Set of drivers? M F

2. How many passengers can this taxi carry? _____

3. If you have been inactive for more than one hour please indicate the times and reasons for the inactivity in the table below. Please also record details of any accidents.

Times (from and to)	Reasons

The ATIB Study is being conducted by the Transport Systems Centre of the University of South Australia for the Passenger Transport Board and the Taxi Industry. The information contained on this form will be treated as the strictest confidence for the purposes of the Adelaide Taxi Industry Baseline Study 1996.

For comments, information or comments on the study please contact Dr Les Radbone, Study Coordinator on (08) 841 1821 or a representative on the advisory panel for the study.

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Thank you for your cooperation