



Aberdeen City
Taxi Unmet Demand and Private Hire Overprovision Survey
2024

January 2025

Executive Summary

This Aberdeen taxi unmet demand and private hire overprovision survey has been undertaken on behalf of Aberdeen City Council following appropriate available guidance.

This Executive Summary draws together key points from the main report.

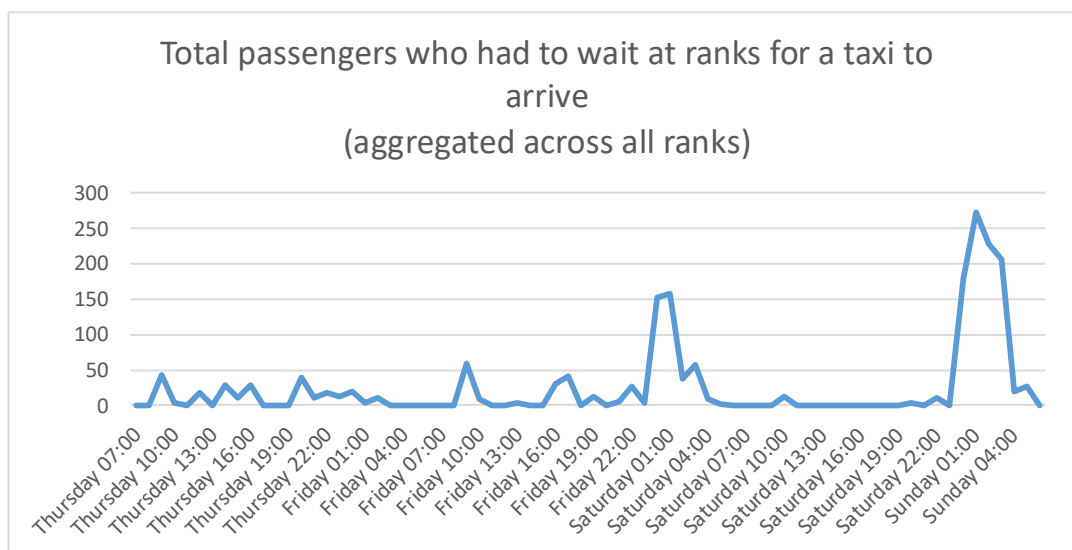
Within the Council licensing area, the council maintains a limit regarding the number of taxis which may be licensed. The current limit is set at 1,079 taxi vehicles. There is not currently a limit on the number of private hire cars.

Data has been collected through consultation with stakeholders, the trade and members of the public. In addition, observations of activity at taxi ranks were undertaken to record volumes of taxis and passengers using each rank and whether any passengers had to wait for taxis to arrive at the ranks.

Surveys were undertaken at all taxi ranks in Aberdeen known to be active. Video cameras were used to record activity at the taxi ranks and the levels of activity during active periods were tabulated and analysed.

Some passengers were observed waiting at the ranks, for Taxis to arrive at the ranks. The waiting passengers were observed at various times during periods of low activity as well as during periods of high activity. The length of time that passengers had to wait was generally low. The number of passengers who had to wait was around 17% all passengers. Passenger waiting was more common on Friday and Saturday nights.

Passenger waiting is summarised in the following figure.



Public and stakeholder perception of the Taxi fleet was generally favourable in terms of vehicle quality, driver experience and knowledge. However, there was widespread feedback that there was often a shortage of taxis available. This was a particular issue on Friday and Saturday nights. Limited availability was an issue with both taxis and private hire cars. Many of the taxis in the fleet in Aberdeen derive a significant proportion of hires through booking circuits.

Several coefficients are calculated from the rank survey results and from public consultation. The coefficients are entered into a formula to calculate the Index of Significance of Unmet Demand (ISUD). The index value for the 2024 survey was **55.7**. This value falls below the threshold value of 80, and suggests that there is **no significant unmet demand** for taxis.

The ISUD value, considered along with feedback from stakeholders and the public leads to the conclusion that there is **no significant unmet demand** in Aberdeen.

The number of private hire cars licensed and the frequency of hires undertaken by private hire cars was assessed to determine whether there is an overprovision of private hire cars. This information was considered, in conjunction with feedback from the public and stakeholders.

Trade feedback indicated that private hire cars average more hires per hour than taxis. The level of activity did not suggest that private hire cars had lengthy wait times between hires.

Feedback from the public and stakeholders indicated that there were periods, especially at times of peak demand when there were shortages of private hire cars available. This is an indication that there is no overprovision.

The assessment of private hire car overprovision must consider only private hire cars and not all vehicles working on private hire circuits. If we assume that private hire cars operate at a similar level of utilisation per vehicle as taxis working on the booking circuits, then the statistics regarding hire frequency indicate that the level of provision is not excessive.

The frequency of hires and feedback indicating that there are shortages of private hire vehicle availability at times, confirm that there is no overprovision of private hire cars.

Consequently, the assessment determined that there is **no overprovision of private hire cars**.

The elderly and people with mobility impairments rely more heavily on the services of licensed vehicles, than the population at large. Feedback from

consultation with stakeholders and with the trade, suggested that there are relatively few issues with the availability of wheelchair accessible vehicles and provision of appropriate service to mobility impaired users. Mobility impaired travellers, including wheelchair users face limited availability of licensed vehicles, at times, the same as other travellers.

It is recommended that there is no need to increase the limit on taxi licences. There is no need to introduce a limit on private hire car numbers as there is no overprovision of private hire cars.

Measures which would encourage more drivers to work unsocial hours would help to address the limited availability of licensed vehicles on Friday and Saturday nights.

Some passengers find the wheelchair accessible vehicles used in the taxi fleet to be less comfortable than saloon cars and more difficult to get in and out of. However, it was generally felt that there was a need for wheelchair accessible vehicles to be available for those who needed them. Some consultees felt that a mixed fleet was appropriate to meet the needs of all users.

A review was undertaken regarding existing ranks and potential new ranks to be implemented in Aberdeen.

The existing ranks were generally found to be suitable and well located for existing demand and patterns of use. Some limitations were identified regarding use by wheelchair user or visually impaired users. However, rank locations and configuration were generally found to be suitable.

Members of the public and the trade were asked if they could identify new locations which would be suitable for the establishment of a new rank. Suggestions were received from both the trade and the public. The potential new rank locations were assessed for suitability.

Three rank locations were identified which may be suitable as a new rank. Two of these are on Holburn Street and Justice Mill Lane. Either location could be a suitable location for a new rank.

A further suggested location is on Guild Street. This location would serve the Railway Station and potentially the bus station, together with local retailing and business premises during the day and night time economy venues in the evening. The potential location would be a small rank for up to three taxis

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1 General introduction and background

Aberdeen City Council is responsible for the licensing of taxi and private hire cars operating within the council area. At the present time it operates a limit on the number of taxi licences under the Civic Government (Scotland) Act 1982 Section 10 and on the basis of the results from previous surveys This current Report provides the results from the 2018 review of demand for taxis in Aberdeen, undertaken using the guidance given in the April 2012 "Taxi and private hire car licensing: Best Practice Guidance for Licensing Authorities" (the BPG). In addition to the survey of demand for taxis, the survey also encompassed a survey of overprovision of private hire cars, in accordance with the requirements of sub-sections 3A, 3B and 3C of Section 10 of the Civic Government (Scotland) Act 1982.

The commission also encompassed a review of existing taxi ranks and a review of proposed locations for new taxi ranks.

Stakeholder consultation was undertaken by email, and phone-calls as appropriate. Online surveys of the public and trade were undertaken during December 2024, together with the video observation of activity at ranks at during November 2024.

At the present time, a local authority is entitled to place a limit on the number of taxi licences under the Civic Government (Scotland) Act 1982 as long as the Council is satisfied that there is no significant unmet demand for the services of taxis in the City.

At the present time, each licensing authority in Scotland supervises the operations of two different kinds of locally licensed vehicle (carrying eight or less passengers):

- Taxi vehicles which alone are able to wait at ranks and pick up people in the street (ply for hire) as well as accepting pre-bookings;
- Private hire cars, which cannot ply for hire and must be pre-booked.

The "Best Practice Guidance" paragraphs 5.30 to 5.36 explain guidance regarding quantity restrictions on taxi licences. The Scottish Government remains of the view that decisions as to the case for limiting taxi licences should remain a matter for licensing authorities in the light of local circumstances (para 5.32). The key is that 'licensing authorities that presently restrict numbers of taxi licences are, however, encouraged to periodically review this policy and to examine the wider policy direction' (para 5.32).

With respect to the principal subject of this survey, local authorities retain the right to restrict the number of taxi vehicle licenses.

A more recent restriction, often applied to areas where there is no 'quantity' control felt to exist per-se, is that of 'quality control'. This is often a pseudonym for a restriction that any new taxi vehicle licence must be for a wheel chair accessible vehicle, of various kinds as determined locally. In many places this implies a restricted number of saloon style taxi licences are available, which often are given 'grandfather' rights to remain as saloon style.

2 Local background and context

Aberdeen City currently has a population of 227,430 (mid 2021 estimate).

Whilst the Council includes a large urban population in the City itself, it also covers a more rural hinterland including Dyce, Cults and Peterculter, although there are other settlements quite close to the City yet outside the Council boundary (e.g. Portlethen and Westhill). Being on the East coast, the City is the focus for a number of roads, including the A90 (central Scotland to Peterhead), the A93 to western Scotland and the A96 to Inverness. The main rail services head south to both Edinburgh and Glasgow, with a regular London service, and a service north east to Inverness. A wide range of inter-urban, regional and local buses also focus on Aberdeen. There is an important airport hub for the city, located at Dyce, which services both the oil industry and more domestic routes, including many to the islands of Scotland as well as to English and international destinations, although the main services tend to be more business based than might be the case for other similar sized airports around the UK. There are a large number of oil industry offices in and around the City.

Comparative information to other authorities

Table 1 below compares recent licensed vehicle numbers for Aberdeen with other Scottish authorities. The table is ordered in increasing proportions of total licensed vehicles per 1,000 population.

Table 1 - Licensed vehicle proportions

Licensing area	Taxis per 1,000 population	Private hire cars per 1,000 population	Total licensed vehicles per 1,000 population
Angus	0.7	0.6	1.3
Moray	1.3	0.2	1.5
Midlothian	0.4	1.3	1.7
Clackmannanshire	0.9	0.8	1.7
Dumfries and Galloway	1.4	0.3	1.8
East Ayrshire	1.0	0.9	1.9
Scottish Borders	1.4	0.5	1.9
North Ayrshire	1.8	0.3	2.1
East Lothian	1.1	1.0	2.1
Fife	1.3	0.9	2.1
Perth and Kinross	0.7	1.5	2.2
South Ayrshire	0.8	1.4	2.2
Orkney Islands	1.6	0.8	2.4
Argyll and Bute	2.0	0.6	2.6
West Lothian	0.3	2.4	2.7
Aberdeenshire	1.3	1.5	2.8
Highland	2.0	1.0	2.9
Falkirk	2.5	0.6	3.0
Stirling	1.9	1.1	3.0
Dundee City	2.0	1.1	3.2
Aberdeen City	2.6	1.0	3.6
Inverclyde	3.2	0.5	3.7
Na h-Eileanan Siar	3.1	0.7	3.8
Scotland average	1.6	2.4	4.0
North Lanarkshire	1.3	3.0	4.3
East Dunbartonshire	1.9	2.5	4.4
East Renfrewshire	0.4	4.2	4.6
West Dunbartonshire	3.7	1.0	4.7
Renfrewshire	1.2	3.8	5.1
Shetland Islands	2.7	2.8	5.4
South Lanarkshire	1.1	4.9	6.0
City of Edinburgh	2.2	4.8	7.1
Glasgow City	2.1	5.2	7.3

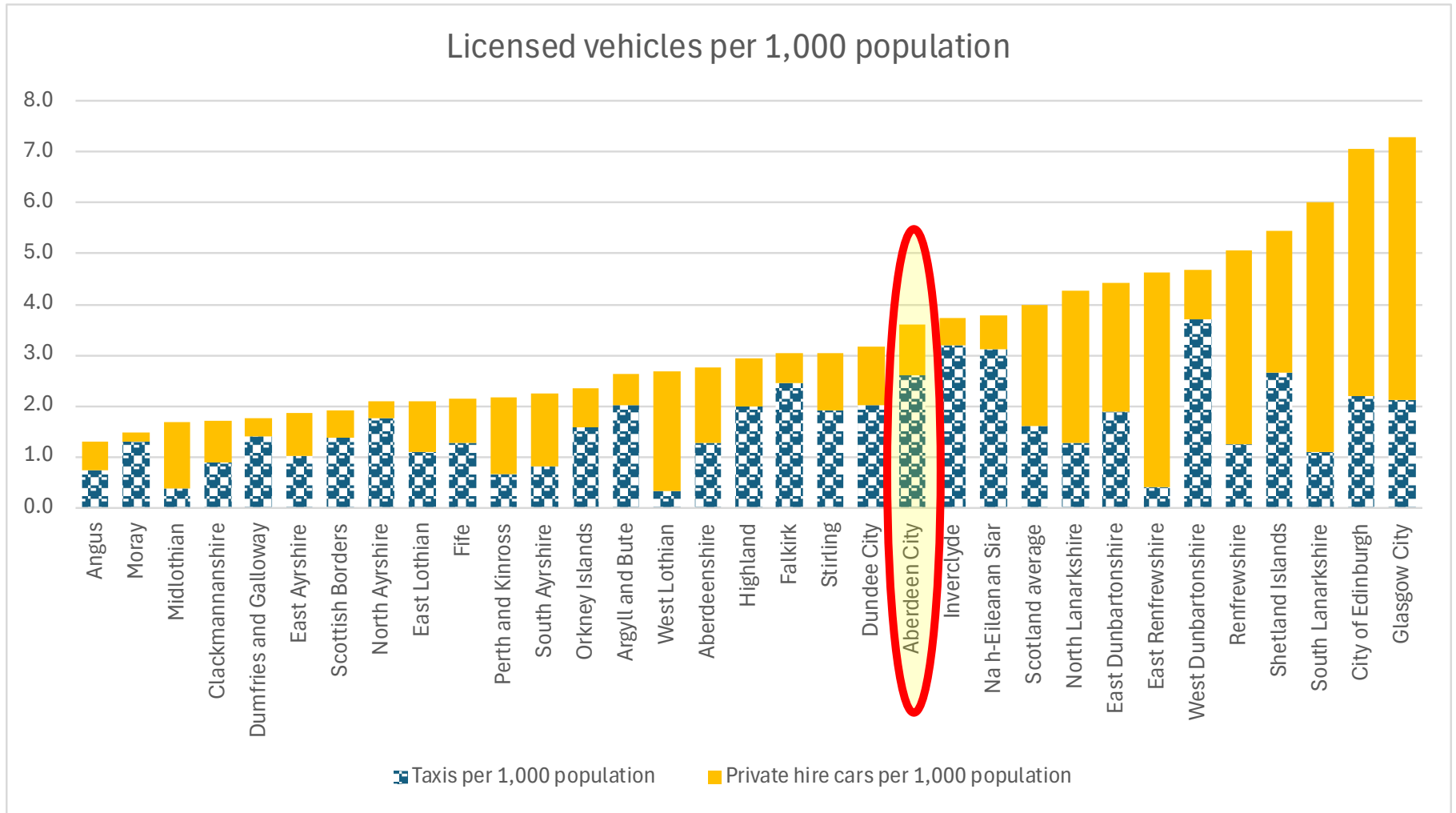


Figure 1 - Licensed vehicles per 1,000 population

Table 1 above shows Aberdeen has the fifth highest proportion of taxis per 1,000 population in Scotland. At 2.6 taxis per 1,000 population, the value is more than the Scottish average of 1.6 taxis per 1,000 population.

The proportion of private hire cars per 1,000 population in Aberdeen is relatively low at 1.0 private hire cars per 1,000 population. This is less than half the Scottish average of 2.4 private hire cars per 1,000 population.

Driver ratios

Whilst the number of licensed vehicles has a strong influence on the level of provision, the number of licensed vehicle drivers also has a strong influence on available capacity. A high driver to licensed vehicle ratio suggests that some vehicles may be operated on multiple shifts. Hence, these vehicles will provide more capacity than vehicles which only operate for single shifts under one driver.

The ratio of licensed vehicle drivers to licensed vehicles is presented in Table 2. The ratio of drivers to licensed vehicles in Aberdeen is lower than the Scottish average.

Table 2 - Ratio of drivers to licensed vehicles

Licensing authority	Licensed vehicle driver to licensed vehicle ratio
East Dunbartonshire	1.14
Falkirk	1.14
Glasgow City	1.22
South Lanarkshire	1.23
Stirling	1.24
Clackmannanshire	1.28
East Renfrewshire	1.29
North Lanarkshire	1.29
Scottish Borders	1.29
Aberdeen City	1.29
East Lothian	1.29
Highland	1.33
Renfrewshire	1.40
Na h-Eileanan Siar	1.42
Scottish average	1.44
City of Edinburgh	1.47
Dumfries and Galloway	1.47
West Lothian	1.54
Orkney Islands	1.60
East Ayrshire	1.66
Inverclyde	1.66
Angus	1.67
Midlothian	1.68
North Ayrshire	1.69
Argyll and Bute	1.69
Perth and Kinross	1.79
Aberdeenshire	1.87
Dundee City	1.92
South Ayrshire	1.94
West Dunbartonshire	1.98
Fife	2.09
Shetland Islands	2.28
Moray	2.70

Fares

Private Hire and Taxi Monthly magazine publish monthly league tables of the metred fares for taxis in Licensing Authorities in the UK. The Tariff 1 fares for a two mile journey (distance costs only) are compared and ranked. The lower the ranking (number), the more expensive the journey, compared with other authorities. The January 2025 table indicated that the fares in Aberdeen were ranked 242 out of 337 authorities listed. This indicates that taxis in Aberdeen are cheaper than for most authorities.

A comparison of the fares ranking of Scottish authorities is presented in Table 3.

Aberdeen is ranked 26 out of 32 authorities. The two mile fare for Aberdeen is £6.60. The median fare for Scotland is £6.95.

Table 3 - Average fare ranking of Scottish authorities

Local Authority	Fare	Rank
Aberdeen City	£6.60	242
Aberdeenshire	£7.06	182
Angus	£6.70	236
Argyll & Bute	£7.13	171
Clackmannan	£8.50	33
Clydebank	£6.90	201
Dumbarton & Vale of Leven	£6.80	212
Dumfries & Galloway	£6.50	256
Dundee	£7.72	98
East Ayrshire	£7.60	110
East Dunbartonshire	£6.70	239
East Lothian	£8.40	37
East Renfrew	£7.40	138
Edinburgh	£9.00	14
Falkirk	£6.20	290
Fife	£7.60	111
Glasgow	£8.90	17
Highland	£7.10	176
Inverclyde	£7.00	192
Mid Lothian	£8.80	21
Moray	£7.26	154
North Ayrshire	£6.40	274
North Lanarkshire	£5.90	315
Orkney	£6.50	260
Perth & Kinross	£6.82	205
Renfrewshire	£7.05	183
Scottish Borders	£6.05	301
Shetland	£7.62	108
South Ayrshire	£7.40	142
South Lanarkshire (Cambuslang / Rutherglen)	£6.80	224
South Lanarkshire (Clydesdale)	£6.10	299
South Lanarkshire (East Kilbride)	£6.60	250
South Lanarkshire (Hamilton)	£6.20	293
Stirling	£6.50	264
West Lothian	£6.80	229
Western Isles (Comhairle Nan Eilean Siar)	£7.00	188

3 Patent demand measurement (rank surveys)

Ranks were surveyed for 3 days from the morning of Thursday 11th November to the morning of Sunday 14th November 2024.

Full details of tabulated hourly passenger and Taxi volumes and waiting times for Taxis, are presented in Appendix A. Summary results are presented below. The results for all ranks are presented in 3D graphs, in order that the relative magnitude of passenger volumes and vehicle volumes can be presented and compared across all ranks. In addition, data aggregated for all ranks is presented in simple line graphs, to present the profiles of demand, and passenger waiting.

The taxi ranks were surveyed, using video cameras fixed to nearby lamp posts or sign posts. The footage was later processed to determine the volumes of passengers and taxis passing through each rank.

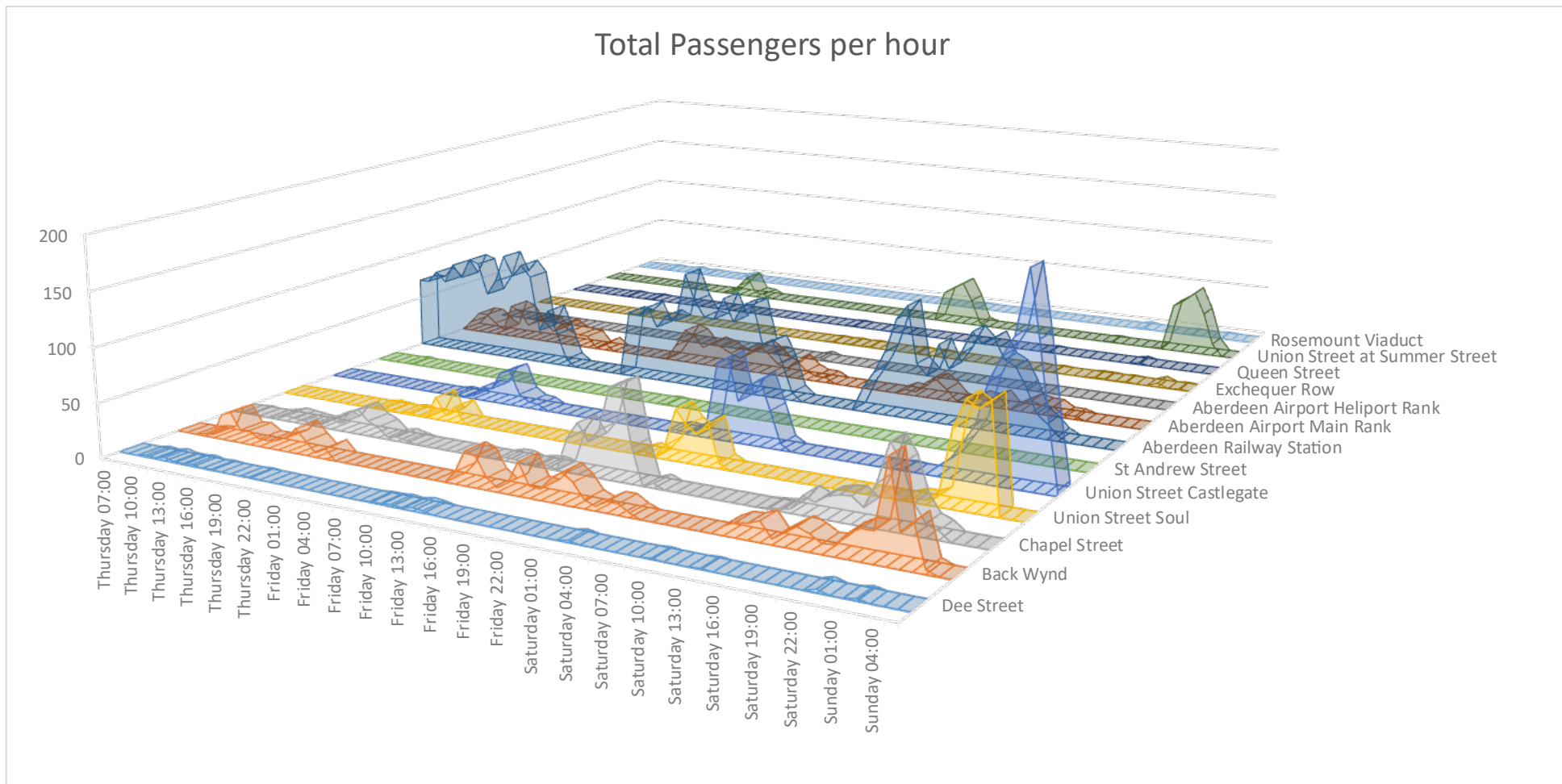


Figure 2 - Total passenger volumes using each rank

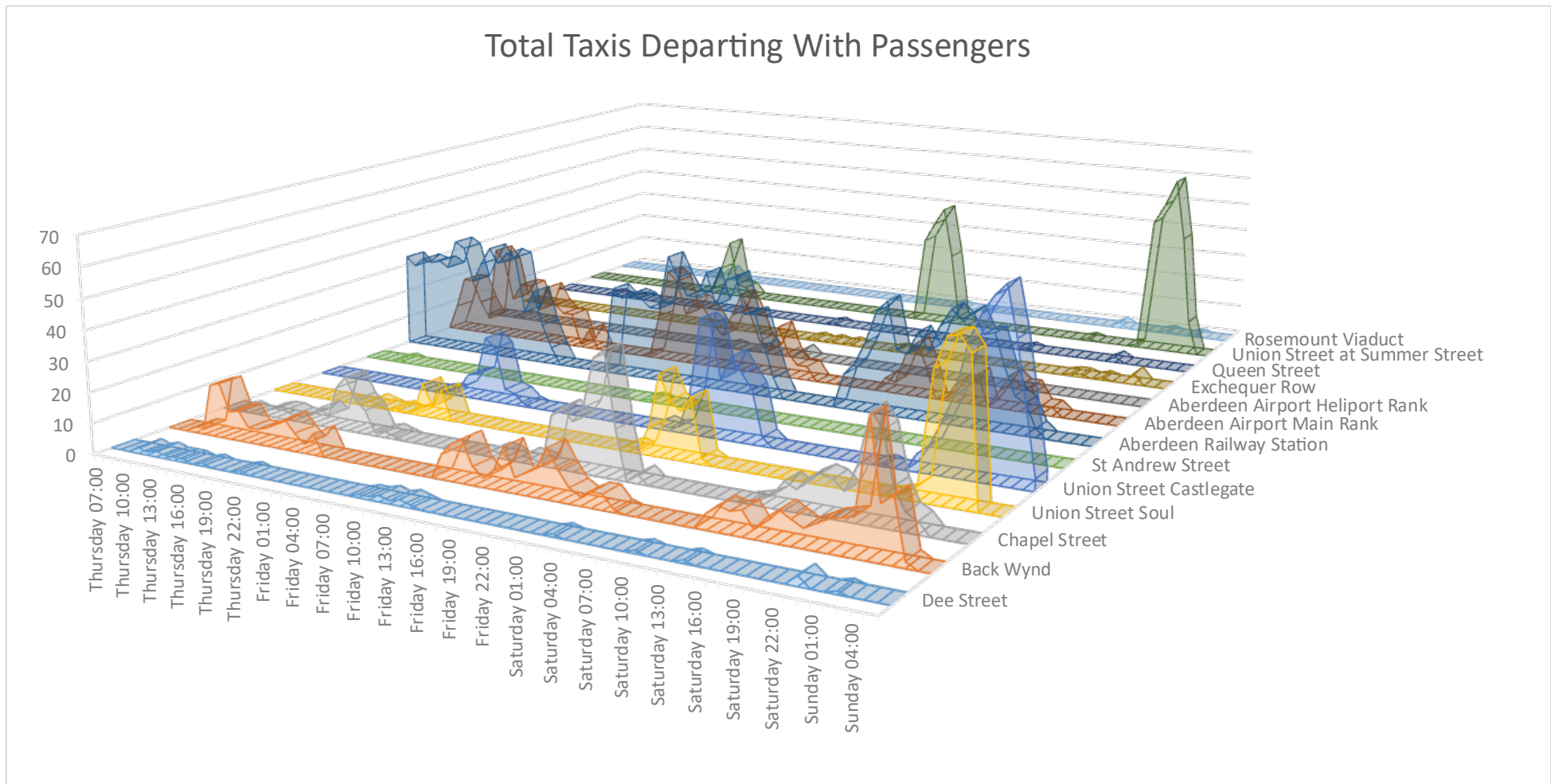


Figure 3 - Total taxis departing each rank with passengers



Figure 4 - Total hourly taxi volume aggregated across all ranks

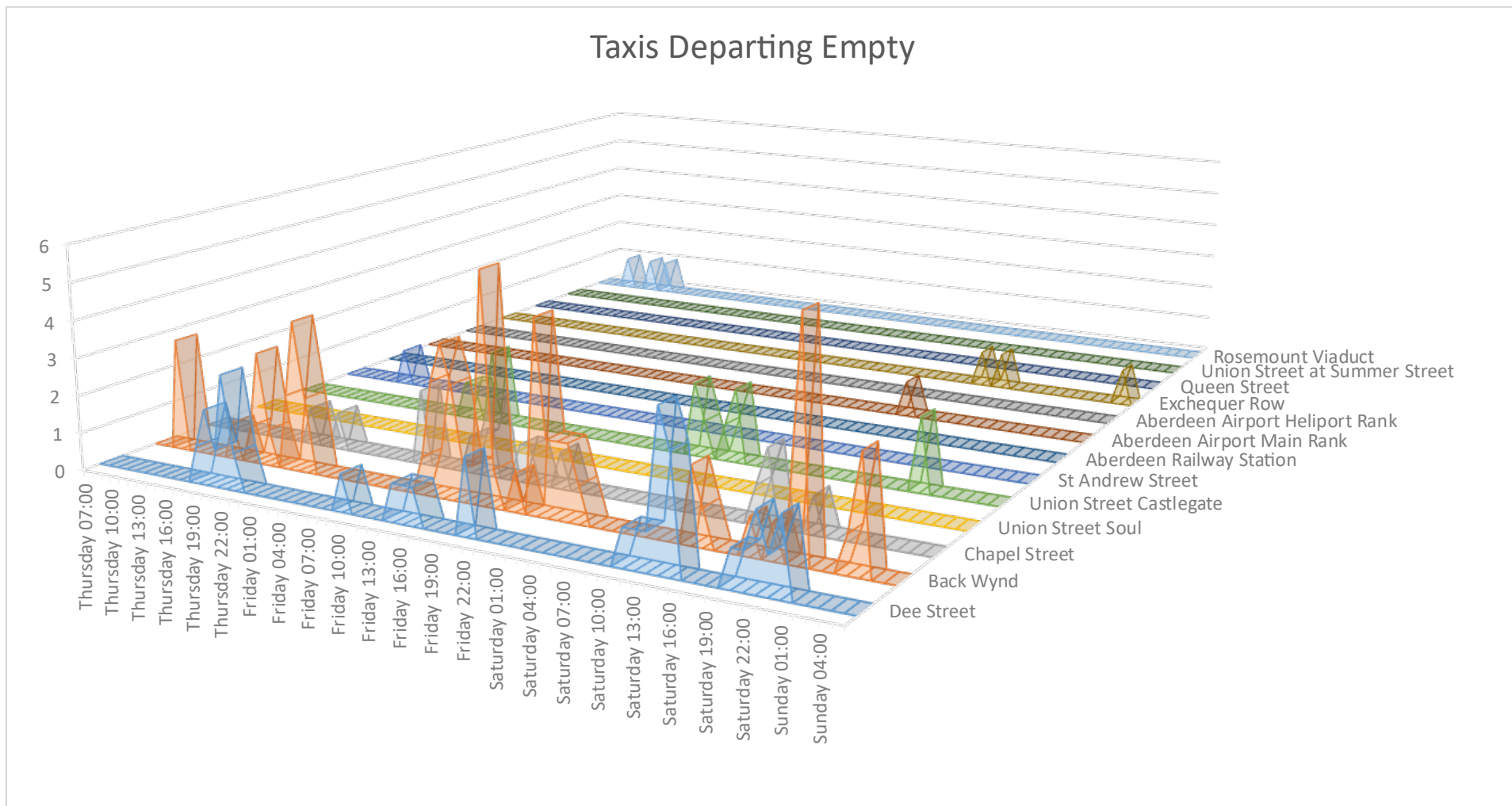


Figure 5 – Hourly total number of taxis which leave the ranks empty

Taxis may depart a rank without passengers for several reasons. The most common reasons are in response to a booking, or in order to move on to another rank which is felt to offer a better prospect of a hire.

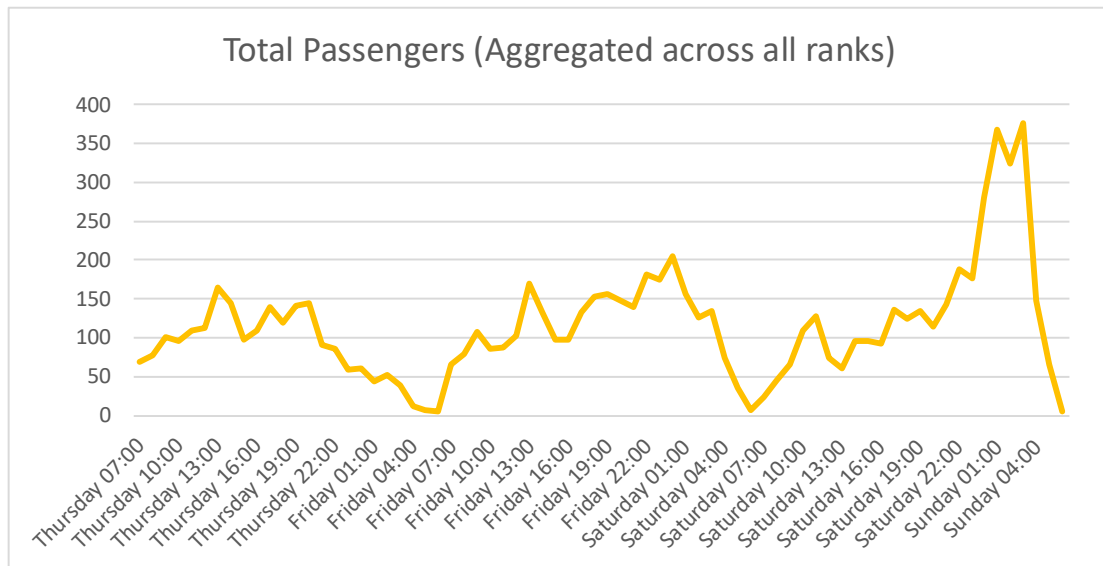


Figure 6 - Total passengers per hour

The profile of total passengers follows a similar profile to that of total hires across all ranks.

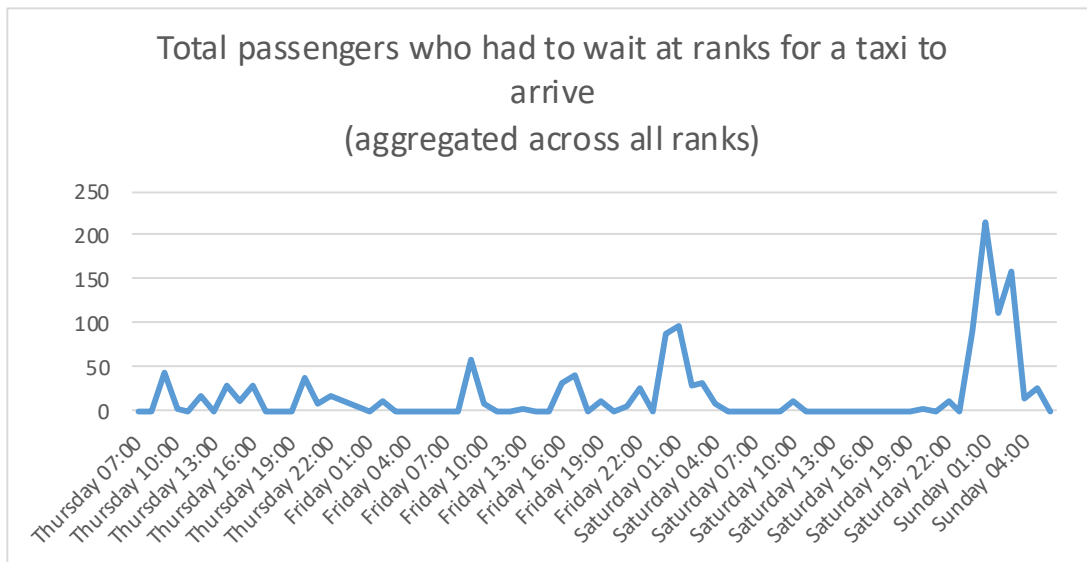


Figure 7 - Number of passengers who had to wait for a taxi

Passengers were deemed to have waited for a taxi to arrive at a rank if there were not taxis present at the rank and available for hire, when the passengers arrived. This is distinct from occasions when passenger

queues formed at times of high demand, waiting to board a queue of waiting taxis. On such occasions, the passenger wait was due to the logistical operation of the rank, such as waiting for a queued vehicle to pull up to the boarding area, rather than due to lack of availability.

There was a notable spike in the number of waiting passengers on Saturday night, during the period of peak demand.



Figure 8 - Percentage of passengers who had to wait for a taxi

The proportion of all passengers who had to wait for a taxi to arrive at the ranks, varied. The peak was around 100% of passengers during the early hours of Saturday morning.

Aggregated over all passenger observations, 17% of all passengers had to wait for a taxi to arrive at the ranks. The proportion of passengers who had to wait on Friday and Saturday nights was similar to this overall average level.



Figure 9 - Average wait time for passengers who had to wait for a taxi to arrive at the ranks

Passenger waiting was observed at various times. The highest number of passengers who had to wait, were observed late on Friday and Saturday nights.

Considering all passengers who had to wait for a taxi, the average waiting time was 3.05 minutes (3 minutes 3 seconds).

When we consider the average waiting time for all passengers, including those who didn't have to wait, the average wait time was 32 seconds.

Daily statistics from the rank surveys are presented in the following tables:

Table 4 - Daily rank statistics Thursday to Friday

Thursday - Friday					
Rank location	Total taxis departing the ranks empty	Total taxis departing the ranks with passengers	Total taxis departing the ranks	Total passengers departing the ranks	Average passengers per taxi
Total for all locations	35	1170	1205	2077	1.8
Dee Street	8	10	18	12	1.2
Back Wynd	17	108	125	166	1.5
Chapel Street	2	81	83	111	1.4
Union Street Soul	0	30	30	47	1.6
Union Street Castlegate	4	73	77	119	1.6
St Andrew Street	1	1	2	1	1.0
Aberdeen Railway Station	0	549	549	1300	2.4
Aberdeen Airport Main Rank	0	266	266	266	1.0
Aberdeen Airport Heliport Rank	0	1	1	1	1.0
Exchequer Row	0	0	0	0	0.0
Queen Street	0	2	2	2	1.0
Union Street at Summer Street	0	44	44	44	1.0
Rosemount Viaduct	3	5	8	8	1.6

Table 5 - Daily rank statistics Friday to Saturday

Friday - Saturday					
Rank location	Total taxis departing the ranks empty	Total taxis departing the ranks with passengers	Total taxis departing the ranks	Total passengers departing the ranks	Average passengers per taxi
Total for all locations	54	1607	1661	2845	1.8
Dee Street	6	9	15	12	1.3
Back Wynd	33	129	162	252	2.0
Chapel Street	9	179	188	368	2.1
Union Street Soul	0	97	97	171	1.8
Union Street Castlegate	6	186	192	371	2.0
St Andrew Street	0	1	1	1	1.0
Aberdeen Railway Station	0	550	550	1214	2.2
Aberdeen Airport Main Rank	0	298	298	298	1.0
Aberdeen Airport Heliport Rank	0	5	5	5	1.0
Exchequer Row	0	5	5	5	1.0
Queen Street	0	1	1	1	1.0
Union Street at Summer Street	0	146	146	146	1.0
Rosemount Viaduct	0	1	1	1	1.0

Table 6 - Daily rank statistics Saturday to Sunday

Saturday - Sunday					
Rank location	Total taxis departing the ranks empty	Total taxis departing the ranks with passengers	Total taxis departing the ranks	Total passengers departing the ranks	Average passengers per taxi
Total for all locations	42	1753	1795	3375	1.9
Dee Street	17	6	23	7	1.2
Back Wynd	15	183	198	360	2.0
Chapel Street	4	171	175	337	2.0
Union Street Soul	0	199	199	366	1.8
Union Street Castlegate	2	349	351	838	2.4
St Andrew Street	0	0	0	0	0.0
Aberdeen Railway Station	0	486	486	1104	2.3
Aberdeen Airport Main Rank	1	121	122	122	1.0
Aberdeen Airport Heliport Rank	0	0	0	0	0.0
Exchequer Row	3	7	10	10	1.4
Queen Street	0	3	3	3	1.0
Union Street at Summer Street	0	224	224	224	1.0
Rosemount Viaduct	0	4	4	4	1.0

Table 7 - Aggregate rank statistics Thursday to Sunday

All 3 days					
Rank location	Total taxis departing the ranks empty	Total taxis departing the ranks with passengers	Total taxis departing the ranks	Total passengers departing the ranks	Average passengers per taxi
Total for all locations	131	4530	4661	8297	1.8
Dee Street	31	25	56	31	1.2
Back Wynd	65	420	485	778	1.9
Chapel Street	15	431	446	816	1.9
Union Street Soul	0	326	326	584	1.8
Union Street Castlegate	12	608	620	1328	2.2
St Andrew Street	1	2	3	2	1.0
Aberdeen Railway Station	0	1585	1585	3618	2.3
Aberdeen Airport Main Rank	1	685	686	686	1.0
Aberdeen Airport Heliport Rank	0	6	6	6	1.0
Exchequer Row	3	12	15	15	1.3
Queen Street	0	6	6	6	1.0
Union Street at Summer Street	0	414	414	414	1.0
Rosemount Viaduct	3	10	13	13	1.3

4 General public views

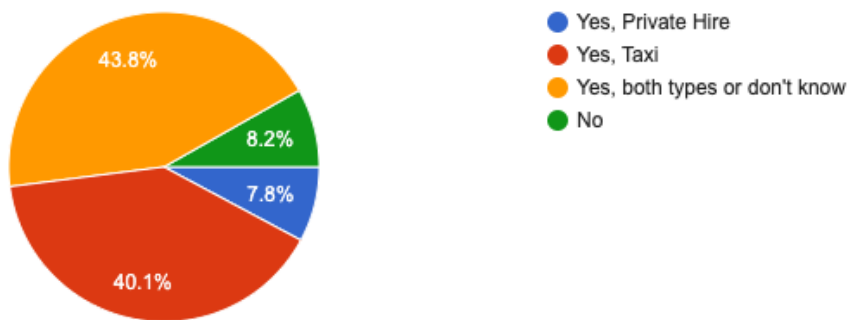
It is very important that the views of people within the area are obtained about the service provided by taxi and private hire. A key element which these surveys seek to discover is specifically if people have given up waiting for taxis at ranks (the most readily available measure of latent demand). However, the opportunity is also taken with these surveys to identify the overall usage and views of taxi and private hire vehicles within the study area, and to give chance for people to identify current issues and factors which may encourage them to use licensed vehicles more.

An online survey was used to gather views of the public.

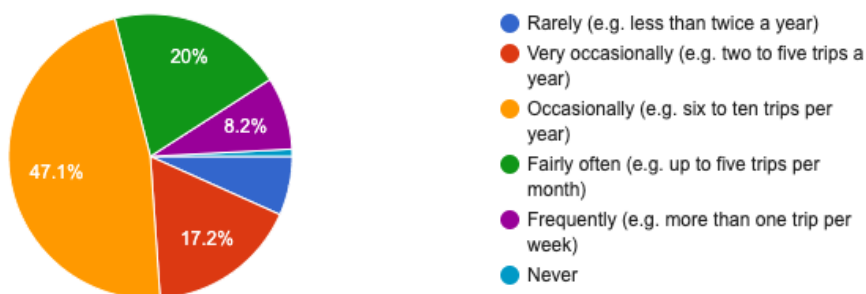
The survey obtained 1,059 responses.

The results from the survey are as follows:

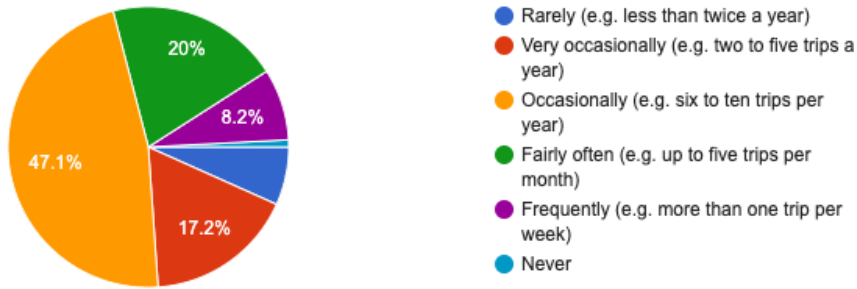
In the last three months, have you made one or more trips by Taxi or Private Hire Car in Aberdeen and, if yes, was this a Taxi or Private Hire car?



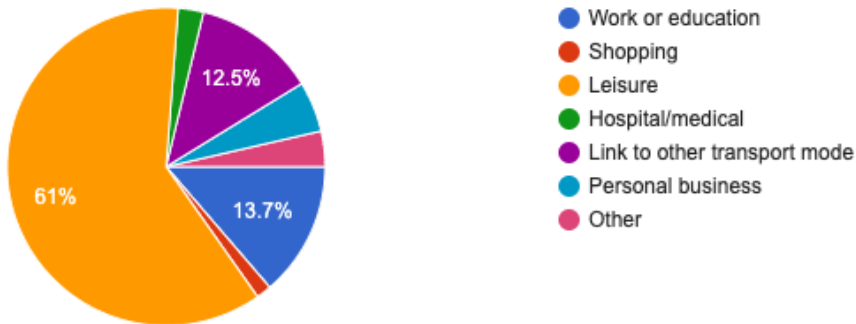
How frequently do you travel by Taxi, as opposed to Private Hire car?



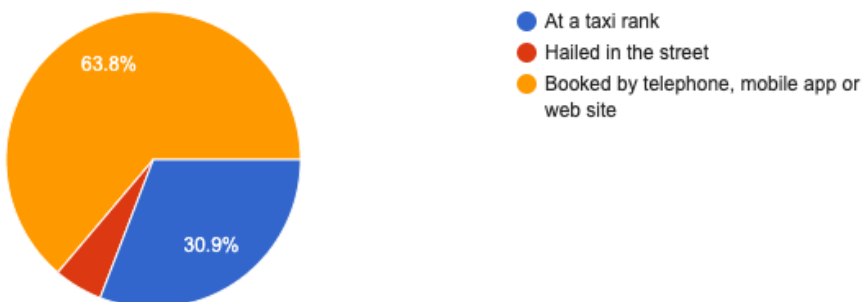
How frequently do you travel by Taxi, as opposed to Private Hire car?



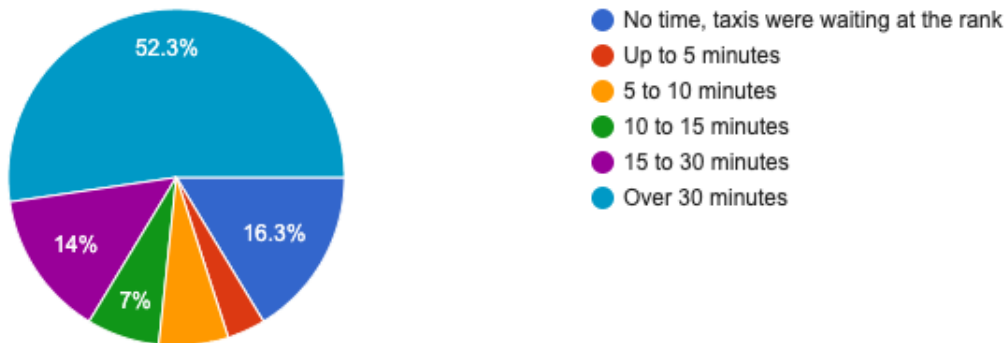
What was the purpose of your last trip by taxi?



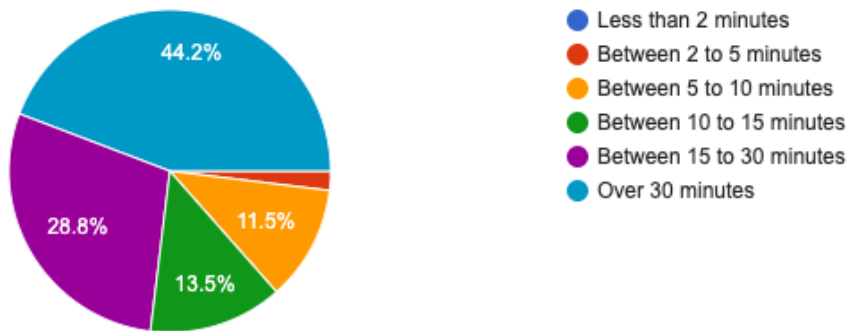
Regarding your last trip by Taxi or Private Hire Car, how did you obtain your Taxi or Private Hire Car?



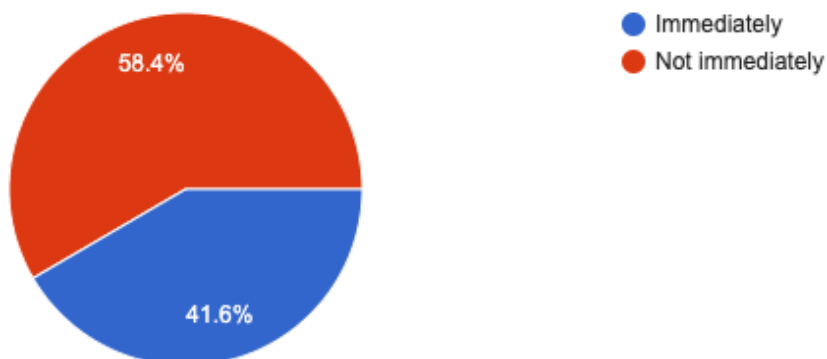
If your last trip was by taxi, hired from a rank – How long did you have to wait for a Taxi at the rank? (minutes)



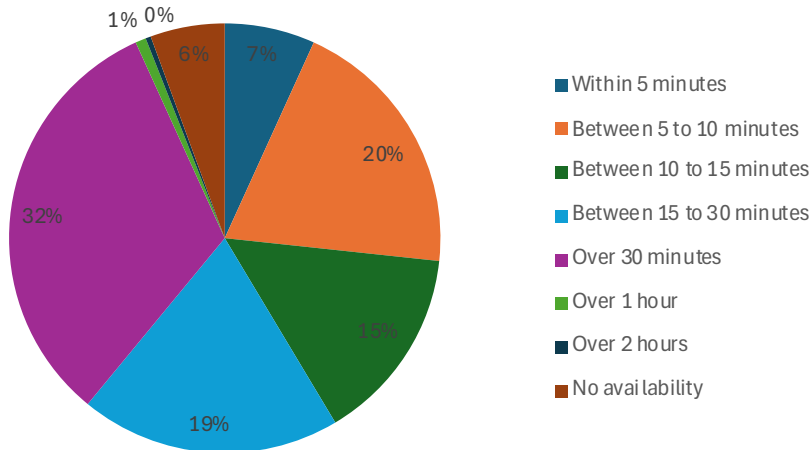
If hailed on the street- How long did it take you to hail a Taxi from the time you started looking for one? (minutes)



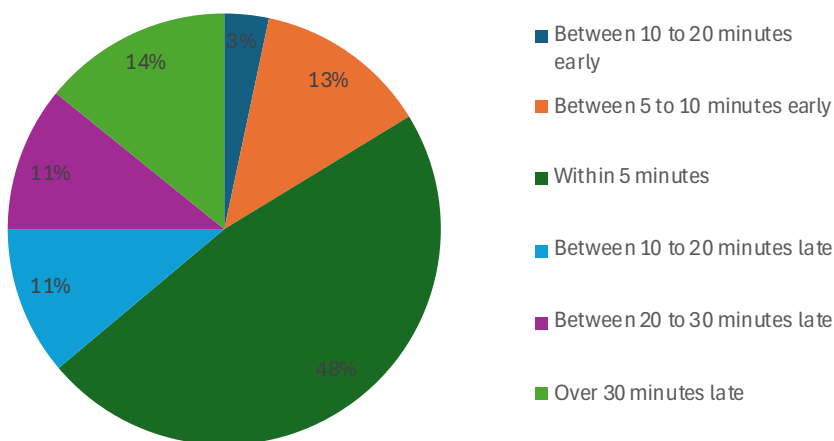
If hired by telephone, app or web site- Did you require the Taxi or Private Hire car immediately, or did you pre-book it for another time?



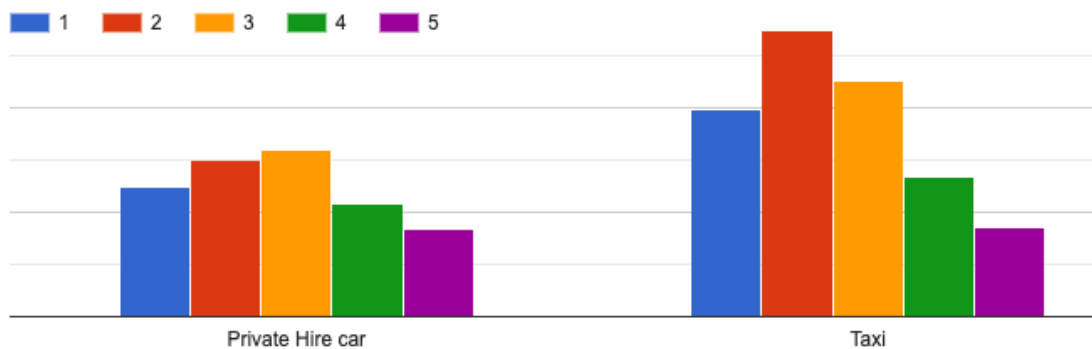
If you booked for immediate travel, how long did it take for the Taxi or Private Hire car to arrive? (minutes)



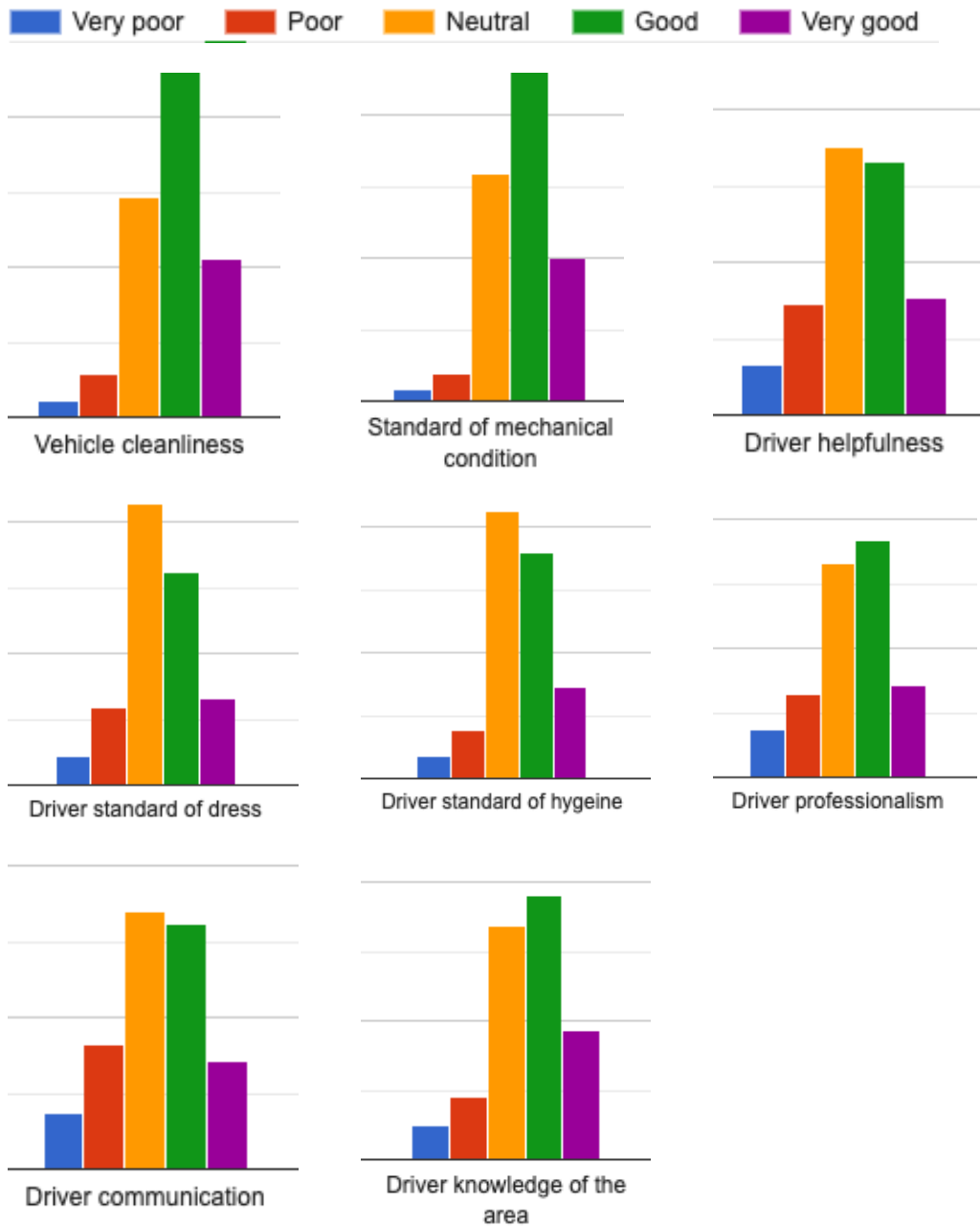
If pre-booked for another time, how close to the booked time did the Taxi or Private Hire car arrive?



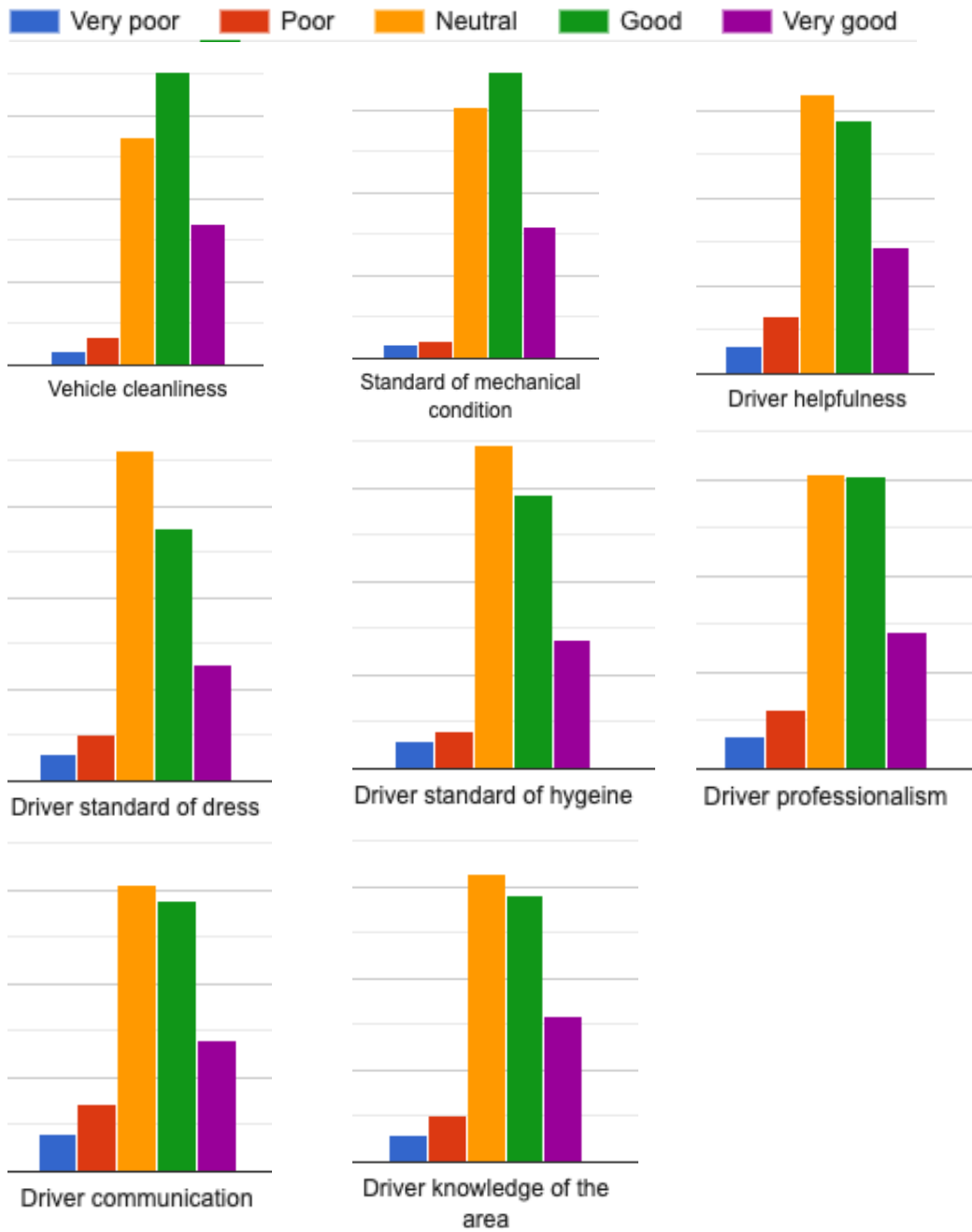
How did you rate your most recent trip by taxi or private hire car, in value for money with 1 very poor and 5 very good?



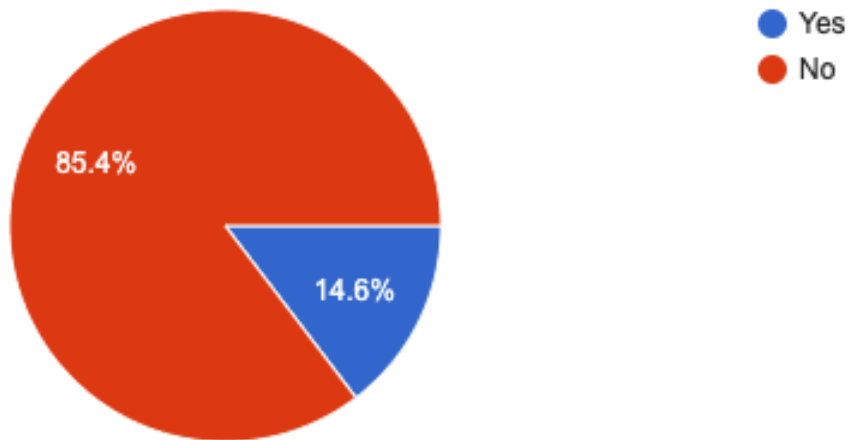
With respect to the standard of Taxis, in Aberdeen. How would you rate the following aspects:



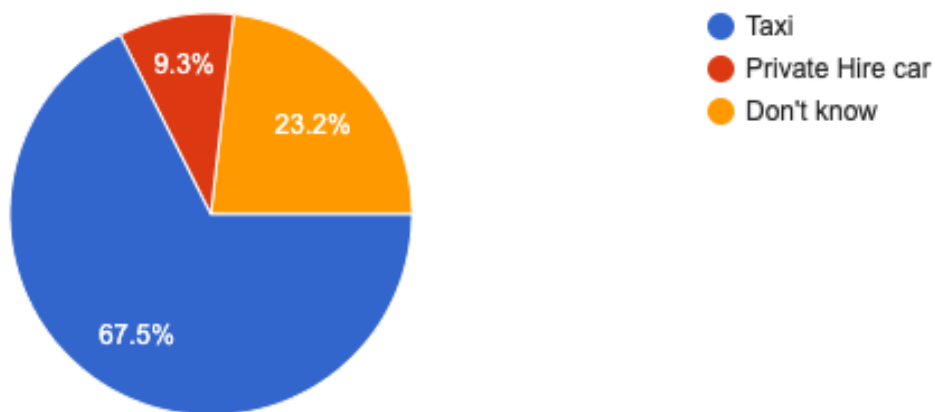
**With respect to the standard of Private Hire Cars, in Aberdeen.
How would you rate the following aspects:**



Have you encountered any difficulty in entering or exiting any particular type of Taxi or Private Hire car?



If yes, do you recall which type of vehicle this was?



Could you tell us a little more about the difficulty encountered?

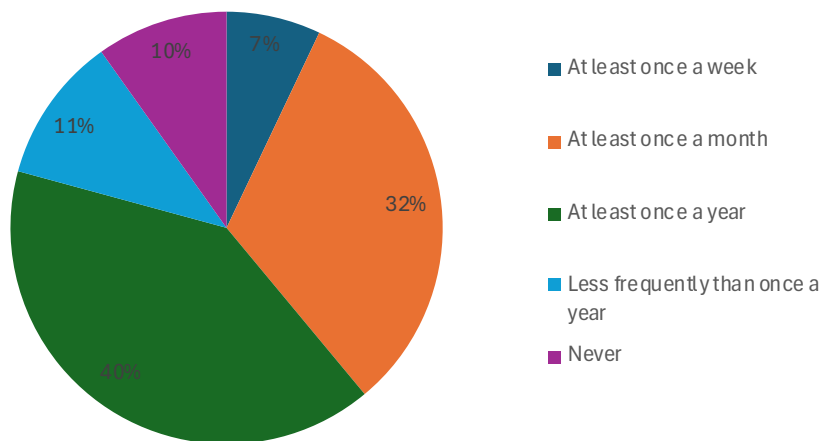
The most common responses were that larger / higher wheelchair accessible vehicles were difficult to get in and out of for some people with mobility impairments. Some vehicles are too small for tall people. Sliding doors were mentioned as difficult to close.

What is the principal factor which limits your use of Taxis in Aberdeen? i.e. the most influential factor.

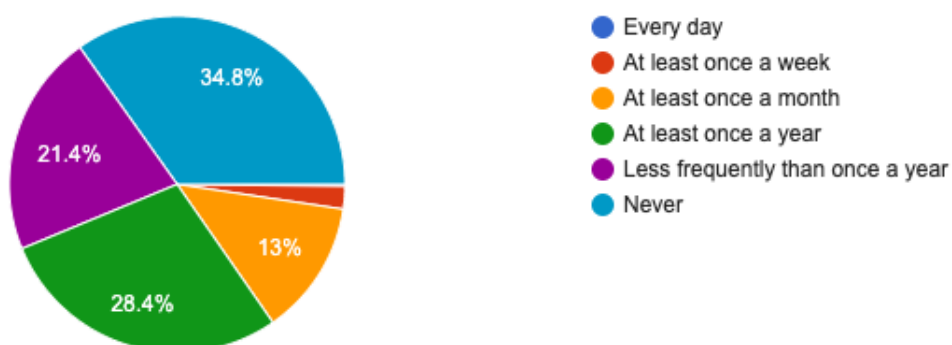
The most common limiting factors, in reducing order of frequency were:

- Waiting time / availability
- Cost
- Use a car
- Ranks are too far away
- Use the bus instead
- Prefer to use private hire cars
- Normally walk or cycle

How often do you obtain a taxi from a rank in Aberdeen?



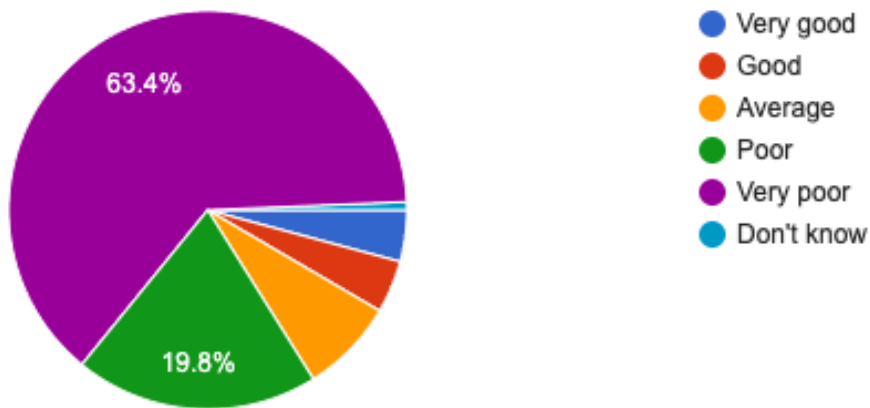
How often do you obtain a taxi by hailing (flagging down) a passing taxi. i.e. without booking or without approaching a taxi at a rank.



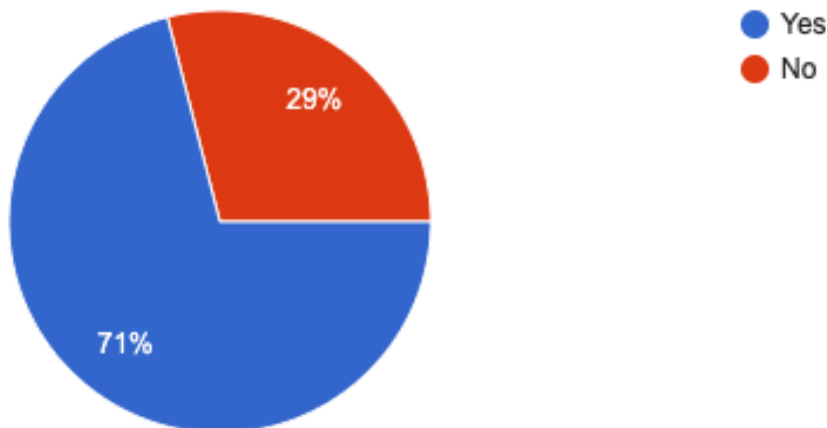
What method do you use most often to obtain a Taxi (NOT PRIVATE HIRE!)?



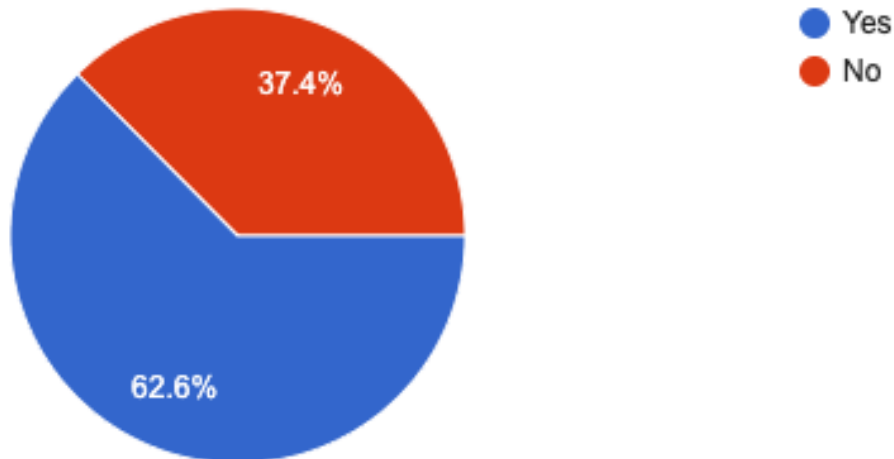
How would you assess the availability of Taxis in Aberdeen?



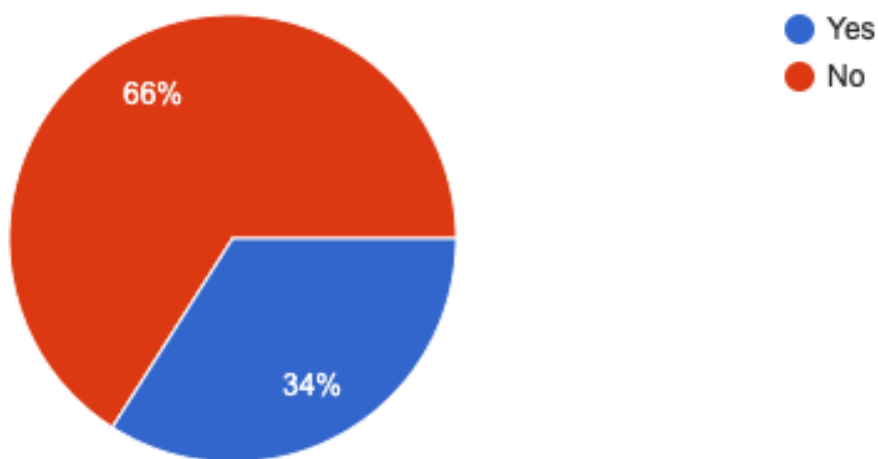
If the cost of Taxi fares was to increase by 10%, do you think this would lead to you using Taxis less frequently?



If the cost of Taxi fares was to decrease by 10%, do you think this would lead to you using Taxis more frequently?



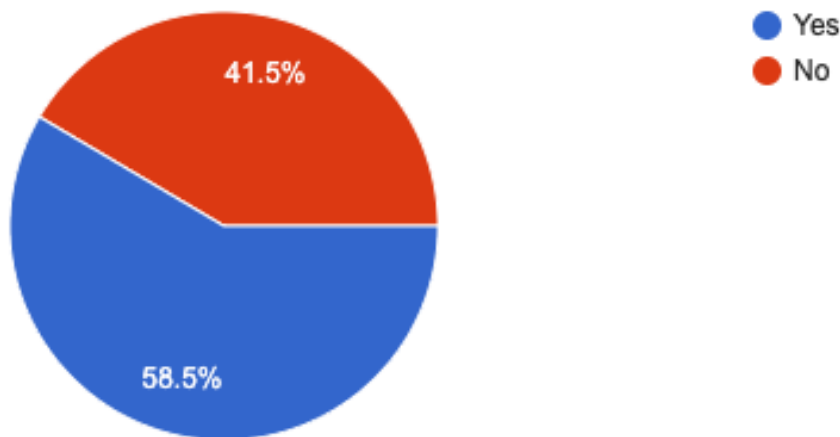
Are there any locations where you would like a new Taxi Rank?



Suggestions include the following:

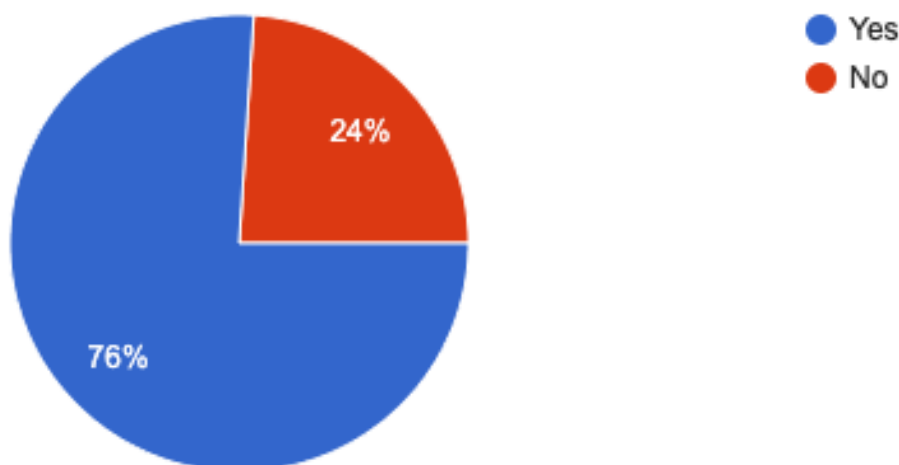
- Near the University
- Hadden Street
- Guild Street – For both bus and train passengers.
- Hospital
- Broad Street
- Albyn Place
- Market Street
- On Union Street, between Bridge Street and Bon Accord street.
- Bridge Street
- Justice Mill Lane
- Holburn Street, top end
- The beach
- Union Square

Are there any existing Taxi ranks that you would use more often if Taxis were more reliably found there?



Respondents identified all the existing ranks and some ranks which were discontinued or suspended. The ranks on Union Street, at night, were more commonly mentioned than other ranks.

Have you wanted to hire a Taxi in the last three months at a taxi rank or by hailing and given up or made alternative arrangements for travel because none were available?



Respondents who answered yes were asked where they tried to hire the taxi. This was intended to identify whether the attempt was at a rank or other location such as at home. Valid responses indicated that 66% of respondents had given up trying to hire a taxi by hailing or at a rank.

What features of Taxi services in Aberdeen that you feel are particularly good?

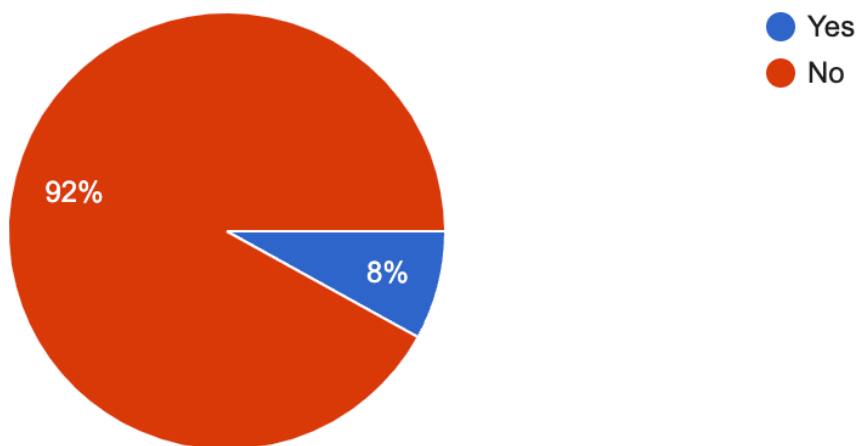
Most respondents did not identify any good features of Aberdeen taxis. However, amongst those who did, the most common features identified

were driver knowledge of Aberdeen, good quality vehicles and cleanliness of the vehicles.

What would encourage you to use Taxis more frequently?

The most common response was increased availability, the second most common response was cheaper prices. These two responses dominated the feedback. A response from a smaller proportion of respondents was willingness to accept short distance fares.

Do you, or anyone with you on a taxi journey, within the last 3 months, have a mobility or visual impairment or travel in a wheel chair?



What kind of impairment or disability is this?

Most respondents indicated a form of physical impairment which limited the ability to walk more than small distances. Some of these impairments limited the ability to move. Breathing impairments were common causes of limited ability to walk distances. Visual impairment was also listed as an impairment to mobility.

12% of respondents indicated that the person referred to was a wheelchair user.

Did this cause any difficulties when travelling? If yes, please describe.

90% of the respondents to the prior question provided further feedback. Of those who responded, 27% indicated that they had not faced problems with travelling, which related to the impairment or disability. The remainder identified a variety of difficulties.

The difficulties were related to the following factors, in order of diminishing frequency:

- Lack of available wheelchair accessible vehicles, or pre-booked for a wheelchair accessible vehicle and a non-wheelchair accessible vehicle was sent to fulfil the hire.
- Difficulty getting in and out of larger / higher wheelchair accessible vehicles.
- Difficulty getting into or out of smaller cars.
- Lack of driver help.

Did you face any difficulties hiring a suitable vehicle? If yes, please specify.

Most responses related to the waiting time for pre-booked hires to arrive / be available. This related to both wheelchair accessible vehicles (when specifically required) and general wait time for any licensed vehicle.

Are there any features of Taxi services in Aberdeen that you feel are UNSATISFACTORY? If so, please tell us what features.

The majority of responses related to lack of availability and cost of fares. Unwillingness to accept card payments was mentioned by multiple respondents.

What improvements to Taxi services in Aberdeen would you like to see?

The majority of respondents indicated increased availability and reliability (pre-booked hires arriving at the booked time).

Could you please select the option which most closely reflects your view of the level of availability of private hire cars in Aberdeen.

16% of respondents felt that there was sufficient availability at all times.

46% of respondents felt that there was sufficient availability during the day time on weekdays, but not at other times, including weekday nights and at weekends.

Around 12% didn't have an opinion or expressed other views about other aspects of licensed vehicle services in Aberdeen.

Around 26% felt that there were rarely or never sufficient availability of private hire cars.

Could you please select the option below which most closely reflects your view of the level of availability of taxis in Aberdeen.

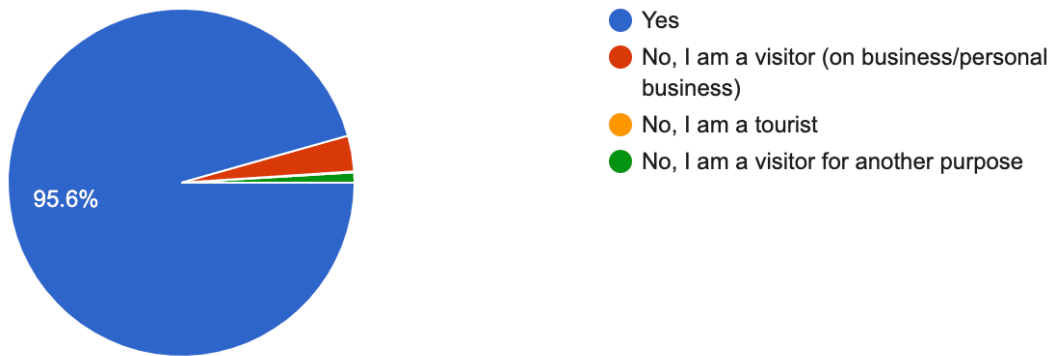
6% of respondents felt that there was sufficient availability at all times.

58% of respondents felt that there was sufficient availability during the day time on weekdays, but not at other times, including weekday nights and at weekends.

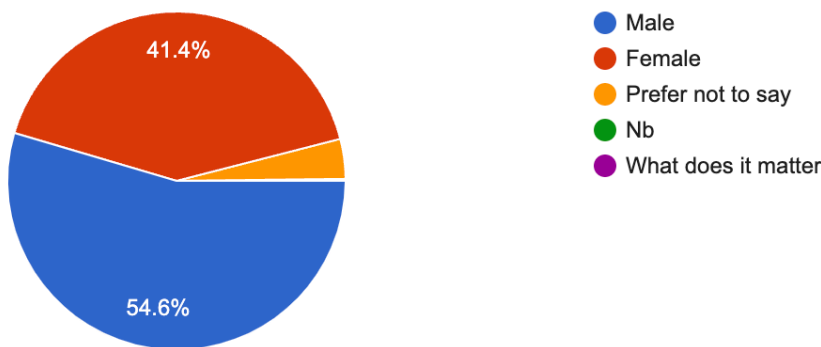
Around 4% didn't have an opinion or expressed other views about other aspects of licensed vehicle services in Aberdeen.

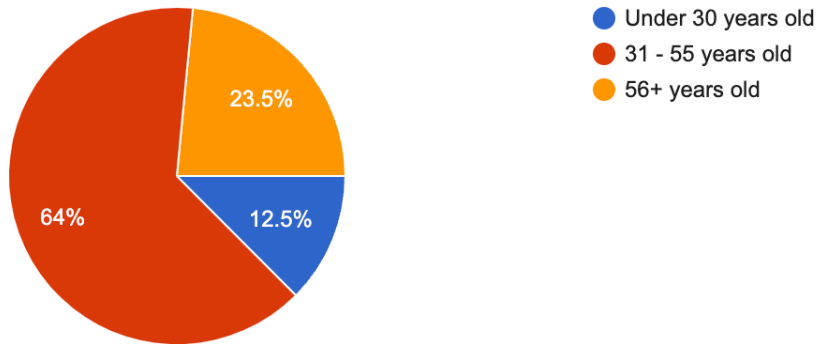
Around 32% felt that there were rarely or never sufficient availability of taxis.

Are you a permanent resident in Aberdeen?



Are you



What age range do you fall under?**Do you have any other comments, suggestions or points to make which are not covered in the earlier questions?**

This question invited responses which were not constrained to a specific question. There were 418 responses to this question.

The responses received were grouped and classified into a short range of topics.

The most common response related to a need for more taxis. These responses tended to focus on issues experienced with lack of available taxis at Aberdeen Airport, Railway Station and on Saturday night in particular. Around 34% of responses focused on this topic.

Around 20% of responses suggested that Uber would solve the issues of licensed vehicle availability. Some respondents suggested that Uber availability was being restricted by the Council or by existing licensed vehicle operators.

Around 18% of respondents suggested that the existing tests for driver licensing, including in particular, the knowledge component, should be relaxed. This would enable more drivers to become licensed.

The cost of using taxis was a topic which was raised by around 5% of respondents. They generally felt that taxi fares were too expensive, with some stating that Aberdeen fares were significantly more expensive than other parts of Scotland and elsewhere in the UK.

Around 5% of respondents mentioned that they felt that licensed vehicles provided good service.

Around 4% of respondents felt that licensed vehicles provided poor service. Poor reliability was a key issue, with some respondents providing examples of bookings which were not fulfilled. For example, licensed vehicles failing to arrive at the booked time. All the poor service comments related to pre-booked hires.

Around 2 % of respondents felt that they would prefer not to see a growth in Uber provision in Aberdeen, with some stating they would never use Uber.

Poor driver practices were mentioned by around 2% of respondents. These included examples of drivers not helping passengers with luggage or shopping and poor driving standards.

The following topics were also mentioned, in diminishing order of frequency.

- Dislike of some drivers only accepting cash, rather than card payments.
- Suggestions that drivers should be required to work during anti-social hours.
- Suggestions that more should be done to tackle anti-social behaviour at ranks and in licensed vehicles.
- Complaints about the charges levied by the airport.
- More female drivers desired.
- The knowledge test for drivers should be retained.
- Suggestion that a taxi app which covered all operators would be more convenient.
- Dislike of drivers complaining all the time.
- Lack of large vehicles with 6 or more seats.
- Expression of views that the existing trade is run by a monopoly of large operator(s).
- Complaints about drivers refusing to carry a pet in the vehicle.
- There should be priority for the elderly and disabled, when booking a licensed vehicle.
- The cap on taxi licences should be raised.
- The cost of licencing taxis should be reduced.
- The existing zones should be removed and allow Aberdeenshire taxis to work off the ranks in Aberdeen during peak periods.
- Taxis are a safe way to travel.
- Shelters at taxi ranks would be beneficial.
- Stagger pub and club closing times, to spread out the spike in demand.
- Taxis should be liveried with a common colour, to make them identifiable.
- Complaints that the cost of the same journey varies significantly each time the respondent travelled.
- WAV vehicles should be able to be specifically booked using the booking apps.

Comments on public responses

It is highly unusual for public responses in an unmet demand survey questionnaire, to comment on detailed licensing issues such as the knowledge test for aspiring licensed vehicle drivers. The high proportion

of respondents who indicated that they felt the licensing test requirements for drivers should be relaxed may be grounds for some suspicion that many of those respondents who provided these responses, were seeking to collectively influence the survey. Around 72% of those who felt the entrance requirements should be relaxed also indicated that they had given up waiting for a taxi at a rank.

A large proportion of respondents indicated that they felt more Uber availability would help to solve a lack of licensed vehicle availability. It is not unusual for responses to unmet demand surveys to express a desire for more Uber availability. However, in Aberdeen, the proportion of responses was significantly higher than normal. Around 79% of those respondents who expressed a desire for more Uber provision, also indicated that they had given up waiting for a taxi at a rank.

The most common topic in responses was to highlight shortages of supply of taxis at certain times and in certain locations. The Airport was the most common location mentioned. Shortages at the Railway Station at times was also identified by some respondents.

Most of the responses were received in December 2024. It would be anticipated that levels of demand for taxis, especially at night, would be higher during December, than at other times of the year and that this feature should be acknowledged, when analysing results.

The public consultation survey was advertised and promoted on the Aberdeen City Council social media outlets. That promotion indicated that the survey would run until the 5th of January 2025. It was anticipated that the survey would be closed at that time and the results processed. However, the resources to process the data were not available at the time and the survey was left open until resources were available to process the data. This approach was adopted in order to maximise the opportunity to obtain feedback through passive availability. Once the survey was closed and ready to be processed, a further 135 survey responses were received between 6th of January and the closure of the survey.

Results were processed using both the full data set and a reduced data set of data, which included only those responses received by the 5th of January. There were no significant differences between the data sets. With the full data set, the latent unmet demand was 66%. With the reduced data set, the latent unmet demand was 67%. The full data set results have been used in this report. The full data set data used to establish the level of latent demand, resulted in a slightly lower level than the reduced data set. However, the difference was a calculated ISUD value of 55.7 using the full data set and an ISUD value of 56.0 using the reduced data set. In either case, the value is below the threshold which indicates that the level of unmet demand is significant.

The lack of any significant variation in the public consultation responses suggests that there has been no individual person or organisation which has influenced the results. The high level of support for Uber may be a result of recent media coverage of the subject.

5 Key stakeholder consultation

The following key stakeholders were contacted in line with the recommendations of the BPG:

- Supermarkets
- Hotels
- Pubwatch / individual pubs / night clubs
- Other entertainment venues
- Restaurants
- Hospitals
- Police
- Disability representatives
- Rail operators
- Other council contacts within all relevant local councils

Comments received have been aggregated below to provide an overall appreciation of the situation at the time of this survey. In some cases, there are very specific comments from given stakeholders, but we try to maintain their confidentiality as far as is possible. The comments provided in the remainder of this Chapter are the views of those consulted, and not that of the authors of this report.

Our information was obtained by telephone or email.

For the sake of clarity, we cover key stakeholders from the public side separately to those from the licensed vehicle trade element, whose views are summarized separately in the following Chapter.

Supermarkets

No supermarkets indicated that there was any perceived issue with availability of licensed vehicles. When required, customers generally tended to call a private hire operator to arrange to be picked up. Some supermarkets had a freephone to call an operator to book a licensed vehicle. Service desk staff were not generally aware of how many people used licensed vehicles or how long they took to arrive.

Hotels

A range of large and small hotels in the City Centre and further from the centre were contacted. None indicated that they felt there was a persistent issue with availability. Some respondents indicated that there could be a wait during peak periods on a Saturday night. Some hotels have relationships with private hire operators, who they phone to book a licensed vehicle. The relationship accords a degree of priority for bookings and they do not experience any shortage of availability.

Pubs, clubs and restaurants

A selection of pubs, clubs and restaurants in the City Centre and in suburban areas were contacted regarding levels of service available. None of those contacted were aware of any issues with availability. Customers generally arrange their own bookings with mobile phones, so premises don't normally become directly involved in booking travel. However, availability is not an issue which comes up in discussion either in the City Centre, or in suburban areas. Door staff were generally more aware of the level of availability. Some respondents were aware, from personal experience, that late on a Friday or Saturday night, there was a longer wait for a licensed vehicle, whether at a rank on Union Street, or when booked by telephone. Early in the evening, availability was much better.

Other entertainment venues

The Aberdeen Exhibition and Conference Centre reception felt that there were no particular issues with availability of taxis to take people from the centre. There was a freephone available for people to use. After events, there were generally plenty taxis around to pick people up.

Local cinemas were contacted and were not aware of any particular issues.

Hospitals

Aberdeen Royal Infirmary reception staff were not aware of any issues with availability. They didn't generally get involved with taxi travel and were not able to observe how many people used taxis to get to and from the hospital. They didn't receive comment or complaint from visitors or patients.

Police

Police were contacted for comment. However, no response was received.

Mobility impaired representatives

A range of people representing user groups who may face mobility difficulties were contacted. These included representatives of the elderly and disability representatives. In addition, a sample of care homes were contacted. Response levels for this element of consultation were low. Care homes were the most readily contactable and most able to provide comment. Responses from care homes indicated that they were normally able to book licensed vehicles whenever they needed them, without issue. Travel was generally booked in advance, though often had to be booked on the day for travel later the same day. Some respondents did comment that, based on their own experience and the experience of family members, there could be shortages of supply and delay booking a taxi late at night on Friday or Saturday night.

Rail and other transport operators

Stagecoach buses, railway station management and airport management were contacted. No responses were provided.

Tourism and business representatives

Feedback was received indicating that demand often exceeded supply. There was a perception that aspiring members of the licensed vehicle trades face obstacles to entry to the trade. It was felt that the shortage of supply presented a risk to aspirations for growth in the City. The key to addressing the shortage of supply was seen as removing barriers to entry to the trade.

Views were expressed that the preferred solution to solving the shortage of available licensed vehicles in Aberdeen was to enable more drivers and licensed vehicles to become licensed in Aberdeen.

Business representatives provided the results of an online survey which they had undertaken. The survey results indicated that there was widespread perception of a shortage of licensed vehicles at times of peak demand. These results were used to further support measures which would increase the number of licensed drivers and licensed vehicles available.

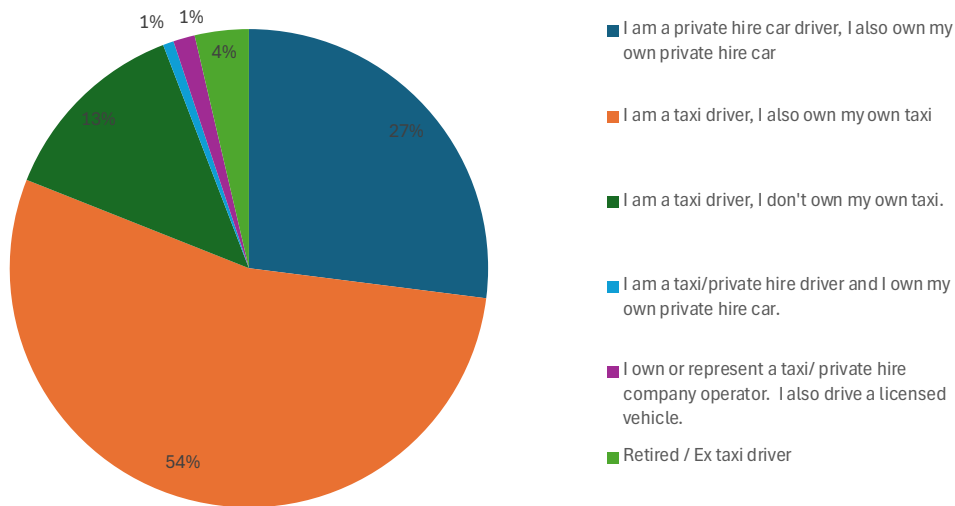
6 Trade stakeholder views

The BPG encourages all studies to include 'all those involved in the trade'. There are a number of different ways felt to be valid in meeting this requirement, partly dependent on what the licensing authority feel is reasonable and possible given the specifics of those involved in the trade in their area.

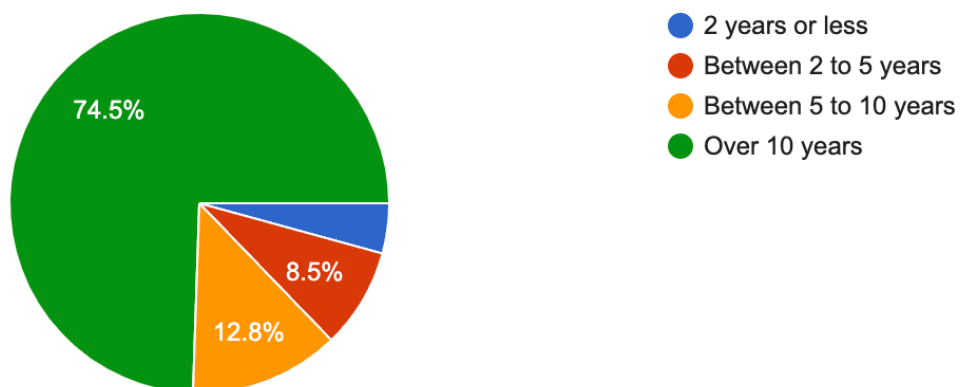
For this survey, a link to an online survey was distributed to the trade, directly through the Council. A total of 142 responses were received from the trade.

The responses to the survey are summarised as follows.

Which of the options presented best describes the nature of your involvement in the licensed vehicle trade in Aberdeen?

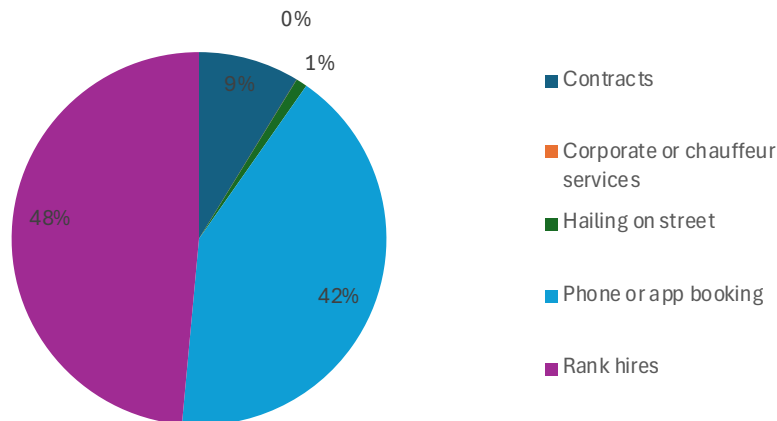


How long have you been involved in the licensed vehicle trade in Aberdeen? (number of years)

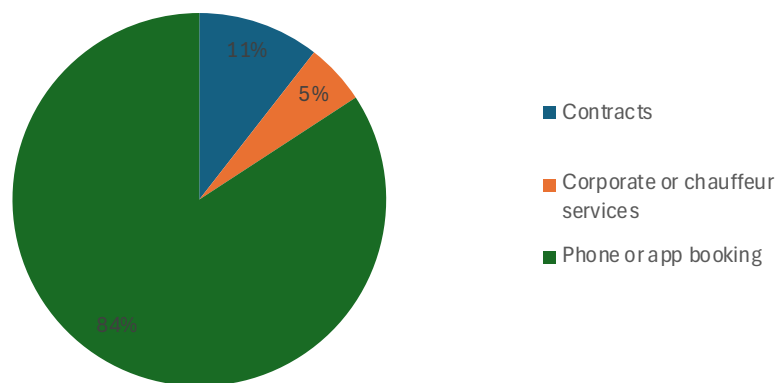


By which method do you most frequently get your fares? I.e. which is the most common

Primary hire type - Taxi drivers



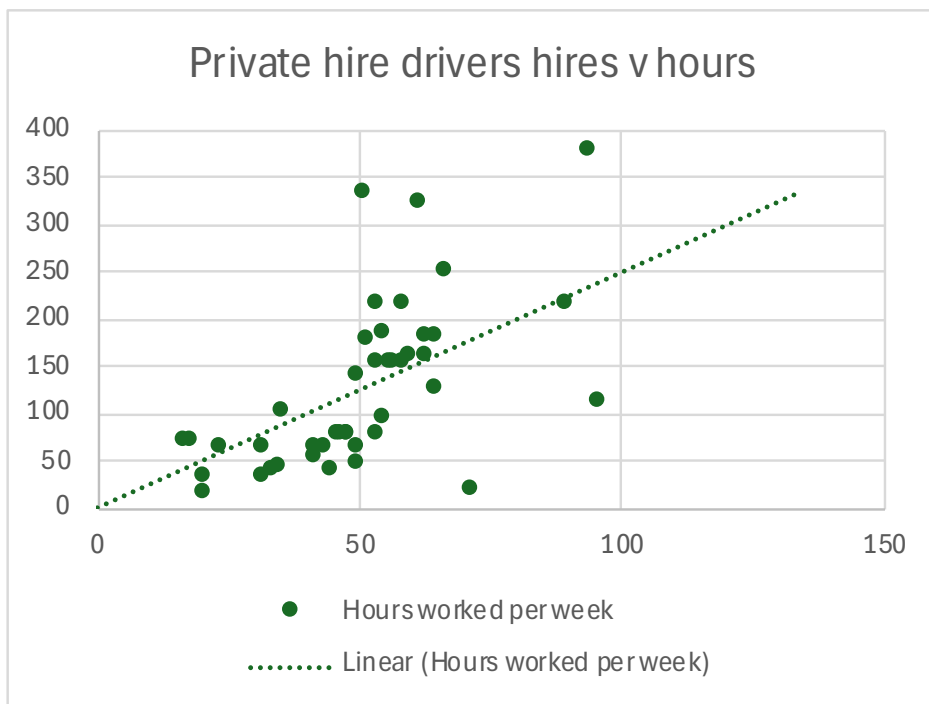
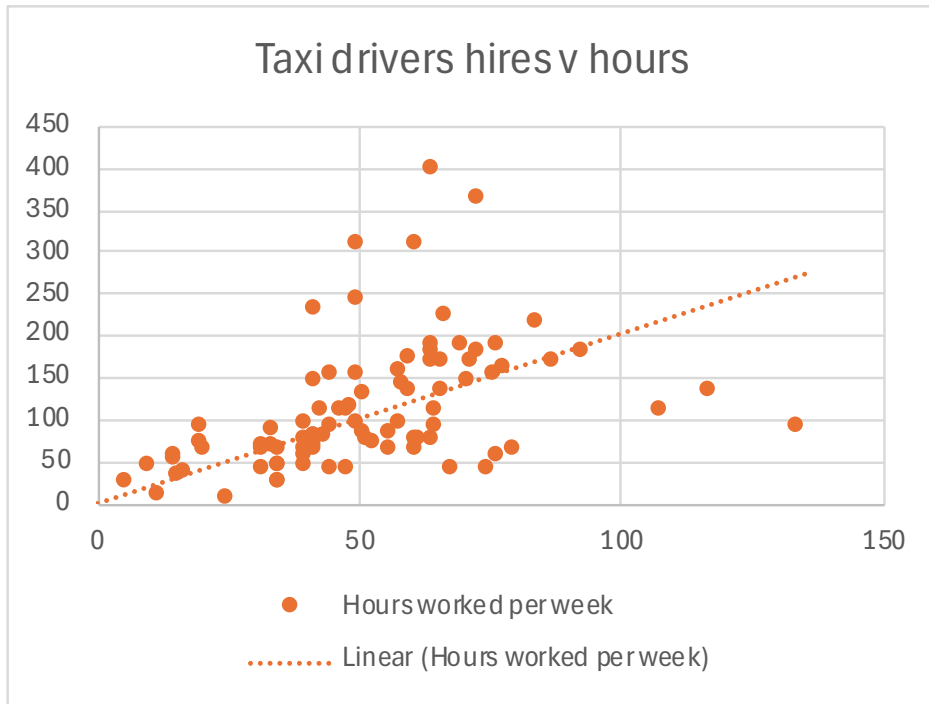
Primary hire type - Private hire drivers



Drivers were asked about how many hours that they worked and how many hires that they typically undertook. The responses were plotted with hires against the number of hours worked.

Typically, in trade surveys, some respondents will provide answers that they intend to skew results. For example, claiming to work excessive hours, or undertaking very few hires. Sometimes both.

These plots indicate the trend in responses and also highlight the outlier responses, which are intended to skew results.



Each scatter plot graph has a line of best fit, plotted amongst the data points. These lines of best fit indicate that the average hires per hour for taxi drivers are around 2 hires per hour and for private hire drivers, around 2.5 hires per hour.

Some respondents indicated that they undertake corporate and contract hires. Both types of hires tend to reduce the average number of hires per hour, as there may be only a handful of this type of hire per day.

Within the most extreme responses logged, some drivers claimed to be undertaking an average of 6 hires per hour. Based on results from similar surveys elsewhere and from the results of this survey, such high frequencies of hire are unlikely.

Even if the outliers are removed, the average number of hires per hour remains around the trend line values.

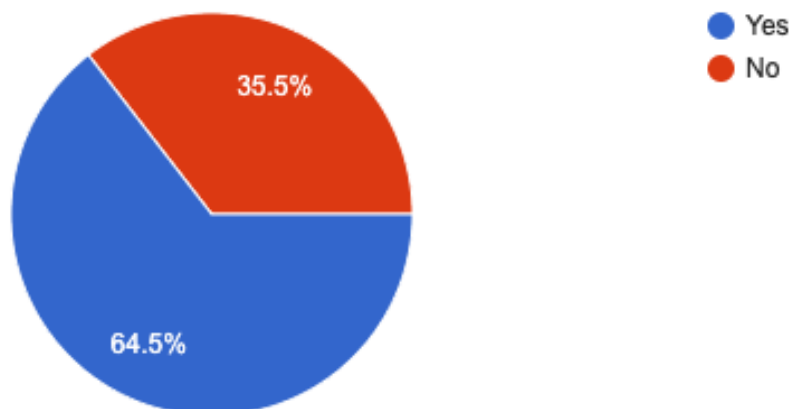
Aberdeen currently limits the number of taxis. Do you think this remains the correct policy for his area?

Most respondents felt that the limit is the correct policy.

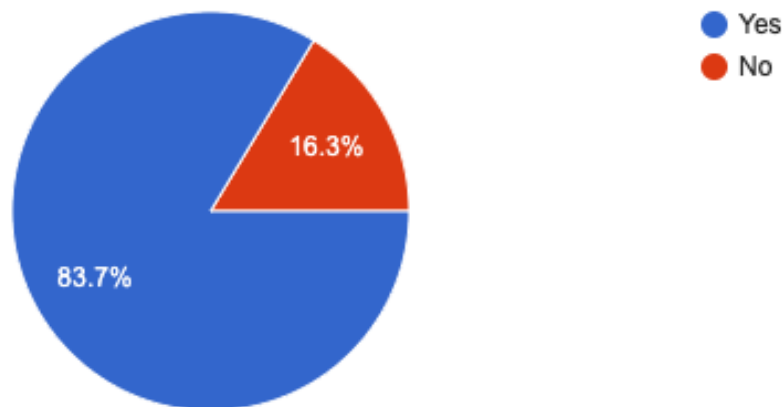
Some respondents expressed views that more taxis were needed, within the current limit.

Some felt that demand for taxis had dropped in recent years and this had led to reduced number of taxis.

Is the supply of taxis adequate to meet the needs of the public?



Is the supply of Private Hire Cars adequate to meet the needs of the public?



How do you think having a limit on the number of taxis benefits the public?

Responses to this question varied and many were not relevant to the question asked. Responses included the following relevant responses. These responses are representative examples, rather than including every response:

- Better regulated service and accountability
- The number is set at a level that provides the public with enough taxis per capita to meet demand
- Ensuring drivers can maintain an income to maintain the supply of drivers
- Allows taxi drivers to make a decent living and therefore provide excellent customer service to the public
- I believe it keeps the driver and vehicle standards up
- It ensures a good quality of vehicle
- If you flood the market then the standard of drivers drop and the customer suffers as has been seen in the past

Are there any factors which limit supply of taxis or private hire cars at certain times or in certain locations?

The following statements are representative of the responses received:

- Higher demand on Saturday night.
- Night time peak demand time, which is exacerbated by all licensed premises closing at the same time.
- Working anti social hours carries a higher risk of being attacked or abused, which means drivers are less willing to work these times.
- At the airport there can be shortages when multiple plane loads of passengers arrive at the same time.

- At the railway station, if two or more large trains arrive close together, demand can overwhelm availability of taxis at the rank.

Do any of the existing ranks need to be improved? If so, which and how could they be improved?

- Responses are summarised as follows:
- Shelters against bad weather for waiting customers, coupled with better lighting and more CCTV to spot trouble from drunken people.
- More signage for the public
- Ranks should be better policed for illegal parking

Do any new ranks need to be established? If so, where should they be located and why?

Suggestions include the following:

- Union Terrace south bound
- Hadden Street
- Make existing Union Street ranks 24 hour ranks.
- Guild Street – For both bus and train passengers.
- Outside the hospital
- Marischal College
- Albyn Place
- Market Street
- On Union Street, between Bridge Street and Bon Accord street.
- After midnight Dee Street rank should be out on union street next to Burger King. Easy access for the public rather than walking to soul bar or back wynd rank.
- Bridge Street
- Justice Mill Lane
- Holburn Street, top end
- Beach Retail Park
- Union Square back car park

Are you aware of any times or locations where members of the public may face difficulties hiring a taxi?

The following statements are representative of responses:

- Peak times, especially Saturday nights.
- At the airport at busy times
- School run times

Are you aware of any times or locations where members of the public may face difficulties hiring a private hire car?

The majority of responses indicated that Saturday night was the period when the public may face the greatest difficulty.

And the final question, are there any other comments that you would like to make?

Comments and statements are summarised as follows, in descending order of popularity.

- Allow private hire to pick up from ranks during peak periods. This would help reduce queues
- WAV requirements discouraging new entrants to trade. WAV vehicles are more expensive than other vehicles, such as saloon cars.
- No incentive to work nights. Night time drivers face anti social behaviour and the fares are not sufficient to compensate for the risk and discomfort of working at night.
- CCTV in vehicles, to help combat anti social behaviour
- Easier contact channels with the Council
- Keep the knowledge test
- Booking office charges for drivers are high.
- WAV too expensive to operate. Some people have given up and changed to private hire to reduce costs.
- Anti-social behaviour an issue.
- Make all private hire cars taxis
- Peak period waiting not unusual or unique
- Remove knowledge test
- Staggered closing times for pubs and clubs, to spread the demand.,l
- Airport taxi operator needs to improve customer service.
- Allow all taxis to pick up from the airport, after dropping off at the airport.
- Allow deposit payment at start of journey, to offset risk of not being paid.
- Allow more private hire.
- Allow private hire operators to convert to taxi operators, if they have an electric vehicle (not WAV).
- Allow private hire to change to taxi without restrictions.
- Change WAV policy
- Cost of WAV vehicles limiting amount of taxis available
- Difficult to operate. No facilities such as toilets available for drivers working late at night.
- Encourage taxi sharing

- Increase fares to encourage late night working and improve quality
- Maintain standards.
- Need more WAV during daytime
- More yellow plates
- Need a recruitment drive for new drivers
- Drivers need to have local knowledge
- Need more private hire cars
- Need more taxis
- Never carry wheelchair users despite being forced to operate a WAV
- No major queues most of the time.
- No uber should be allowed and drivers should be allowed to charge a surcharge for carrying a wheelchair using passenger, to compensate for the additional time required
- Non owner rental costs high, over £200 per week to rent a taxi.
- Only December is busy
- Require drivers to work some weekend nights each month
- Retain cap
- Rising costs
- Rota system for taxi firms to require drivers to work Saturday nights
- WAV policy is outdated

7 Evaluation of unmet demand and its significance

It is first important to define our specific view about what constitutes unmet demand. Our definition is when a person turns up at a taxi rank and finds there is no vehicle there available for immediate hire. This can lead to a queue of people building up, some of who may walk off, whilst others will wait till a vehicle collects them. Later passengers may well arrive when there are vehicles there, but because of the queue will not obtain a vehicle immediately.

There are other instances where queues of passengers can be observed at taxi ranks. This can occur when the level of demand is such that it takes longer for vehicles to move up to waiting passengers than passengers can board and move away. This often occurs at railway stations but can also occur at other ranks where high levels of passenger arrivals occur. We do not consider this is unmet demand, but geometric delay and although we note this, it is not counted towards unmet demand being significant.

The industry standard index of the significance of unmet demand (ISUD) was initiated at the time of the introduction of section 16 of the 1985 Transport Act as a numeric and consistent way of evaluating unmet demand and its significance. The ISUD methodology was initially developed by a university and then adopted by one of the leading consultant groups undertaking the surveys made necessary to enable authorities to retain their limit on taxi vehicle numbers. The index has been developed and deepened over time to take into account various court challenges. It has now become accepted as the industry standard test of if identified unmet demand is significant.

The index is a statistical guide derived to evaluate if observed unmet demand is in fact significant. However, its basis is that early tests using first principles identified based on a moderate sample suggested that the level of index of 80 was the cut-off above which the index was in fact significant, and that unmet demand therefore was such that action was needed in terms of additional issue of plates to reduce the demand below this level, or a complete change of policy if it was felt appropriate. This level has been accepted as part of the industry standard. However, the index is not a strict determinant and care is needed in providing the input samples as well as interpreting the result provided. However, the index has various components which can also be used to understand what is happening in the rank-based and overall licensed vehicle market.

ISUD draws from several different parts of the study data. Each separate component of the index is designed to capture a part of the operation of the demand for taxis and reflect this numerically. Whilst the principal inputs are from the rank surveys, the measure of latent demand comes from the public on-street surveys, and any final decision about if identified unmet demand is significant, or in fact about the value of continuing the current policy of restricting vehicle numbers, must be taken fully in the

context of a careful balance of all the evidence gathered during the survey process.

The present ISUD calculation has two components which both could be zero. In the case that either are zero, the overall index result is zero, which means they clearly demonstrate there is no unmet demand which is significant, even if other values are high.

The first component which can be zero is the proportion of daytime hours where people are observed to have to wait for a taxi to arrive. The level of wait used is when the average wait time for any passengers who have to wait for a taxi to arrive is greater than one minute. The industry definition of these hours varies, the main index user counts from 10:00 to 18:00 (i.e. eight hours ending at 17:59). The present index is clear that unmet demand cannot be significant if there are no such hours. The only rider on this component is that the sample of hours collected must include a fair element of such hours, and that if the value is non-zero, review of the potential effect of a wider sample needs to be considered.

The other component which could be zero is the test identifying the proportion of passengers which are travelling in any hour when the average passenger wait (for all passengers) in that hour is greater than one minute.

If both of these components are non-zero, then the remaining components of the index come into play. These are the peakiness factor, the seasonality factor, average passenger delay, and the latent demand factor.

Average passenger delay is the total amount of time waited by all passengers in the sample, divided by the total number of passengers observed who entered taxis.

The seasonality factor allows for the undertaking of rank survey work in periods which are not typical, although guidance is that such periods should normally be avoided if possible particularly as the impact of seasons may not just be on the level of passenger demand, but may also impact on the level of supply. This is particularly true in regard to if surveys are undertaken when schools are active or not.

Periods when schools are not active can lead to more taxi vehicles being available whilst they are not required for school contract work. Such periods can also reduce taxi demand with people away on holiday from the area. Generally, use of taxis is higher in December in the run-up to Christmas, but much lower in January, February and the parts of July and August when more people are likely to be on holiday. The factor tends to range from 0.8 for December (factoring high demand level impacts down) to 1.2 for January / February (inflating the values from low demand levels upwards).

There can be special cases where summer demand needs to be covered, although high peaks for tourist traffic use of taxis tend not to be so dominant at the current time, apart from in a few key tourist authorities.

The peakiness factor is generally either 1 (level demand generally) or 0.5 (demand has a high peak at one point during the week). This is used to allow for the difficulty of any transport system being able to meet high levels of peaking. It is rarely possible or practicable for example for any public transport system, or any road capacity, to be provided to cover a few hours a week.

The latent demand factor was added following a court case. It comes from asking people in the on-street questionnaires if they have ever given up waiting for a taxi at a rank in any part of the area. This factor generally only affects the level of the index as it only ranges from 1.0 (no-one has given up) to 2.0 (everyone says they have). It is also important to check that people are quoting legitimate taxi rank waits as some, despite careful questioning, quote giving up waiting at home, which must be for a private hire vehicle (even if in taxi guise as there are few private homes with taxi ranks outside).

The ISUD index is the result of multiplying each of the components together and benchmarking this against the cut-off value of 80. Changes in the individual components of the index can also be illustrative. For example, the growth of daytime hour queueing can be an earlier sign of unmet demand developing than might be apparent from the proportion of people experiencing a queue particularly as the former element is based on any wait and not just that averaging over a minute. The change to a peaky demand profile can tend towards reducing the potential for unmet demand to be significant.

Finally, any ISUD value must be interpreted in the light of the sample used to feed it, as well as completely in the context of all other information gathered. Generally, the guide of the index will tend not to be overturned in regard to significant unmet demand being identified, but this cannot be assumed to be the case – the index is a guide and a part of the evidence and needs to be taken fully in context.

Calculation of ISUD variables

APD: The average delay is determined by calculating the total passenger delay as aggregate passenger delay minutes, then dividing by the total number of passengers, including those who did not suffer any delay.

The average passenger delay was 32 seconds. This equates to an APD value of 0.53 minutes. **APD = 0.53**

PF There was a peak in demand on Saturday night, the level of demand compared with other periods was significantly higher. The level

of variation was sufficient to define the profile as highly peaked. **The PF value is 0.5.**

SSP Week day, daytime hours are deemed to be between 10.00 am and 6.00 pm. The data from Thursday and Friday observations was analysed to determine whether there were any occasions when passengers were delayed by more than one minute on average, at any rank. The calculated value was 7.4%., **SSP value = 7.4**

GID The percentage of taxi users travelling in hours where the average passenger delay exceeds one minute was assessed. 14.1% of all passengers travelled in hours when the average passenger wait for all passengers exceeded one minute. **GID = 17.1**

SF Due to the nature of these surveys it is not possible to collect information throughout an entire year to assess the effects of seasonality. Experience has suggested that taxi demand does exhibit a degree of seasonality and this is allowed for by the inclusion of a seasonality factor. The factor is set at a level to ensure that a marginal decision either way obtained in an "untypical" month will be reversed. This factor typically takes a value of 1 for surveys conducted in September to November and March to June, i.e. "typical" months. It takes a value of 1.2 for surveys conducted in January and February and the longer school holidays, where low demand the absence of contract work will bias the results in favour of the Hackney trade, and a value of 0.8 for surveys conducted in December during the pre-Christmas rush of activity. For this study, given that trade volume is higher during the summer, a factor of 1.0 is assumed. **SF = 1.0**

LDF Latent Demand Factor. This is derived from the public attitude interview survey results and provides a measure of the proportion of the public who have given up trying to obtain a taxi at either a rank or by flagging down. It is measured as 1+ proportion giving up waiting. The inclusion of this factor is a response to the latest DfT guidance requiring an estimate of latent demand. **LDF = 1.66**

The ISUD value was calculated as follows, using the variables derived for this study.

$ISUD = APD \times PF \times SSP \times GID \times SF \times LDF$

$ISUD = 0.53 \times 0.5 \times 7.4 \times 17.1 \times 1.0 \times 1.66 = 55.7$

Where the ISUD value is less than 80, it is generally considered to be an indicator that there is no unmet demand for taxis which is significant. The ISUD result indicates that there is **no significant unmet demand.**

It is acknowledged that feedback from the public and stakeholders indicates that the availability of taxis at the ranks or for hailing is perceived as low at peak times. However, much of the feedback

corroborates the rank observations which indicated that passenger waiting was more prevalent during the evenings than during the daytime. The average passenger waiting time observed at the ranks was lower than the periods which were mentioned by the public consultation survey.

8 Private Hire Car overprovision analysis

Background to statutory powers and guidance

Whilst there is legislative provision to enable licensing authorities to limit the number of taxis which are registered, until relatively recently, there was no such provision to limit the number of private hire cars. However, the Air Weapons and Licensing (Scotland) Act 2015 made provision, through the introduction of three new subsections to the Civic Government (Scotland) Act 1982, for a licensing authority to limit the number of private hire cars, if it were determined that there was an overprovision of private hire cars.

Guidance for assessing whether there is overprovision of private hire cars was published in October 2019. The guidance can be used to undertake an assessment of the level of provision of private hire cars, for the purpose of determining whether there was overprovision, in line with the provisions of subsections 3A, 3B and 3C of Section 10 of the Civic Government (Scotland) Act 1982.

The referenced subsections of Section 10 of the Civic Government (Scotland) Act 1982 are as follows:

"(3A) Without prejudice to paragraph 5 of Schedule 1, the grant of a private hire car licence may be refused by a licensing authority if, but only if, they are satisfied that there is (or, as a result of granting the licence, would be) overprovision of private hire car services in the locality (or localities) in their area in which the private hire car is to operate.

(3B) It is for the licensing authority to determine the localities within their area for the purposes of subsection (3A) and in doing so the authority may determine that the whole of their area is a locality.

(3C) In satisfying themselves as to whether there is or would be overprovision for the purposes of subsection (3A) in any locality, the licensing authority must have regard to—

(a) the number of private hire cars operating in the locality, and

(b) the demand for private hire car services in the locality."

The approach adopted, to determine whether overprovision existed in Aberdeen addressed the provisions set out above.

The approach to assessing private hire car provision was similar in some respects, to the approach adopted to determine whether there was unmet demand for taxis which was significant. The approach for assessing private hire cars included public consultation and stakeholder consultation, which was also undertaken for the assessment of taxi demand.

Whilst patent demand for taxis can be assessed through direct observation of hires at ranks, there is no equivalent measure which can be applied to private hire car patent demand.

A measure identified in the guidance is to seek booking records from private hire operators to determine the level of booking demand, availability of private hire cars to fulfil that demand, the hires fulfilled, any requests which could not be accepted and the number of hires per hour undertaken by private hire cars.

Licensing authorities have the power to obtain booking records from private hire booking offices to check booking records. However, this power is rarely exercised. It is also questionable whether booking data obtained under licensing powers could reasonably be used by a third party to assess overprovision. An alternative means of obtaining booking data is a simple request to operators. Some operators are willing to share data and others are less willing. Many operators in different licensing authority areas have both private hire cars and taxis working on their systems. Few differentiate between the different licensed vehicles as part of the booking records. So, for operators who do use both private hire cars and taxis on their booking systems, any records supplied can require significant additional processing to assess the level of pre-booked hire activity, differentiated by private hire cars and taxis.

In recent years, LVSA have used public consultation and trade consultation feedback to assess levels of private hire car activity, rather than rely on the goodwill of booking office operators.

Overview of private hire car activity

Many people have preconceptions that all private hire cars undertake public facing hires. For example, working through booking offices and undertaking hires for immediate travel booked by telephone or via an app. However, some private hire cars rarely or never undertake this type of hire work. Some private hire cars undertake less public facing hires, such as corporate hires and contract hires and do not undertake public facing hires. Other private hire cars undertake a mixture of contract work and public facing pre-booked hires. Consequently, one must be cautious regarding relating the total number of pre-booked hires to the total number of private hire cars licensed.

In Aberdeen, the public facing private hire market is serviced primarily by a small number of large operators. There are few small 'one man band' operators.

The private hire operators use a mixture of private hire cars and taxis to service bookings.

The majority of taxis operate on the systems of the private hire operators. Some of those which derive hires from the booking systems, also wait on

taxi ranks between bookings and hence derive some hires by direct hire at the ranks.

Drivers are self-employed and largely free to choose their working hours. Some taxi drivers can be logged on to the system and wait for jobs on the ranks. Other taxi drivers will wait close to the destination of the last hire, waiting for the next hire through the system.

Practices vary between operators, with some systems leaving drivers free to ignore system bookings on occasions when they are on a rank and close to the front of the queue. Other operators do not leave drivers free to operate in this way and a condition of the system is that bookings are a priority and should be serviced by the nearest available taxi, even if that vehicle is on a rank and close to the front position.

On Friday and Saturday nights, the volume of calls trying to book a hire can increase dramatically. If the first operator called cannot provide a vehicle within an acceptable timeframe then a caller will try another operator, moving on down the list. With this increased volume of calls, the call handlers cannot always answer all calls. Consequently the number of calls to operators which are unanswered can be higher at peak demand times. This can be a source of frustration for those attempting to book a licensed vehicle.

It was thought that the public do not feel they can rely on licensed vehicles to get home from a night out. Therefore, demand is not as high as it could be, with some members of the public making alternative arrangements, rather than relying solely on booking a licensed vehicle to get home.

Whilst operators use both taxis and private hire vehicles, to service bookings, it is felt by some that the differentiation is blurred. There is a single licence for drivers of both private hire cars and of taxis. A knowledge test is required for the dual vehicle type licence.

Assessment of the level of provision

The overall level of provision of private hire vehicles per 1,000 population for Aberdeen is ranked 16 out of 32 local authorities in Scotland. However, as discussed earlier, private hire bookings are shared between private hire cars and taxis and not all private hire cars undertake public facing hires.

The rate of hourly hires for private hire vehicles is higher than for taxis. If there was overprovision of private hire cars, one would expect the opposite to be true. This is one indicator that there is no overprovision of private hire cars.

A significant proportion of pre-booked hires are fulfilled by taxis. This dilutes the number of hires available to be assigned to private hire cars.

This is a further indication that there is no overprovision of private hire cars.

Members of the public have complained of frequent delays for booked hires for immediate travel. This is an indicator that, at times, demand for private hire cars exceeds demand. This is a strong indicator that there is no overprovision of private hire cars in Aberdeen.

Taking the evidence from the trade, the public and stakeholders into account, there appears to be a shortage of private hire cars to service public facing hire demand in Aberdeen. Consequently, it is concluded that **there is no overprovision of private hire cars in Aberdeen.**

10 Rank review

As a component part of the overall survey undertaken, the Licensing authority instructed a review of the current taxi rank provision and location within the city in order to identify whether any additional ranks should be provided.

Existing ranks were reviewed from the perspective of a visitor and from the perspective of a mobility impaired user.

Each rank was reviewed against several criteria and the results of the review are tabulated in this section.

Back Wynd

Land use characteristics on the vicinity	The head of the rank is at the junction with union street. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to shops and licensed premises generates demand throughout the day and late into the evening.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	No shelter is available at this rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the right side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Wheelchair bound passengers can face difficulty with some wheelchair accessible vehicles, with fixed side loading wheelchair ramps. Such vehicles have ramps which are mounted below the cab floor and are deployed to the nearside (left) of the vehicle. As such, wheelchair passengers need to board from the roadway, rather than the pavement. This can present an obvious potential additional risk from passing traffic. Rear loading wheelchair accessible vehicles, or those with manual ramps, which can be mounted on either side of the vehicle, don't face the same difficulties. Vehicles boarding passengers via rear mounted ramps often need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.

Kerb height and distinction	Kerbs along the rank are lowered for the full length of the rank, but not flush with the road surface. Kerb stones and paving stones are a different colour to the road surface, which helps the visually impaired to distinguish the kerb. Lowered kerbs can lead to difficulties for some people with mobility impairment boarding some models of wheelchair accessible taxis with high floors. Conversely, high kerbs, such as those used at bus stops, can present difficulties boarding saloon cars with low floors and low doors.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank and waiting passengers are visible from along Back Wynd and from a short but busy section of Union Street. Coupled with the busy nature of the location, it is likely that any passengers waiting at the rank will be visible to other pedestrians. The presence of other people within sight helps to provide an enhanced sense of security to waiting passengers.
Signage	The rank itself is clearly signed. There is also signage on Union Street. There is no signage at the Schoolhill junction with Back Wynd.
Markings	There are no road markings to delineate the taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	A sign adjacent to the taxi rank indicate that the rank is not operational between midnight and 5:00 am and that an adjacent rank on Union Street is active between midnight and 5:00 am. The sign indicates that the rank has capacity for 15 taxis.
Effective hours of operation	The rank was generally attended by taxis from 5:00 through to midnight.

Chapel Street

Land use characteristics on the vicinity	The head of the rank is at the junction with union street. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to shops and licensed premises generates demand throughout the day and late into the evening.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	No shelter is available at this rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Wheelchair bound passengers can be boarded via side loading ramps. However, the pavement width may not be sufficient to enable the wheelchair to clear the end of the ramp, without the taxi moving away from the kerb beforehand. Vehicles boarding passengers via rear mounted ramps often need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height for the full length of the rank. Kerb stones are dark grey whin stone and similar colour to the paving slabs and road surface. However, yellow lines in the roadway help the visually impaired to distinguish the kerb.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank and waiting passengers are visible from along Chapel Street and from a short but busy section of Union Street. There are some fast food outlets opposite the rank, which ensure that there are people present until late at night. Owing to the the busy nature of the location, it is likely that any passengers waiting at the rank will be visible to other pedestrians. The presence of other people within sight helps to provide an enhanced sense of security to waiting passengers.
Signage	The rank itself is clearly signed. There is also signage on Union Street.
Markings	There are clear road markings to delineate the taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.

Posted hours of operation	A sign adjacent to the taxi rank indicate that the rank is not operational between midnight and 5:00 am and that an adjacent rank on Union Street is active between midnight and 5:00 am. The sign indicates that the rank has capacity for 7 taxis.
Effective hours of operation	The rank was generally attended by taxis from 5:00 through to midnight.

Dee Street

Land use characteristics on the vicinity	The tail of the rank is at the junction with union street. The rank is on a one way street leading away from Union Street. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to shops and licensed premises could potentially generate demand throughout the day and late into the evening.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	No shelter is available at this rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Wheelchair bound passengers can be boarded via side loading ramps. However, the pavement width may not be sufficient to enable the wheelchair to clear the end of the ramp, without the taxi moving away from the kerb beforehand. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are low for the full length of the rank, but not flush with the road surface. Kerb stones are dark grey whin stone and similar colour to the paving slabs and road surface. However, yellow lines in the roadway help the visually impaired to distinguish the kerb.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank and waiting passengers are visible from along Dee Street and from a short but busy section of Union Street. There is also a fast food outlet on the corner of Dee Street and Union Street. This draws people to the location until late at night. Owing to the busy nature of the location, it is likely that any passengers waiting at the rank will be visible to other pedestrians. The presence of other people within sight helps to provide an enhanced sense of security to waiting passengers.
Signage	The rank itself is clearly signed. There is also signage on Union Street.
Markings	There are clear road markings to delineate the taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.

Posted hours of operation	A sign adjacent to the taxi rank indicate that the rank is not operational between midnight and 5:00 am and that an adjacent rank on Union Street is active between midnight and 5:00 am. The sign indicates that the rank has capacity for 6 taxis.
Effective hours of operation	The rank was generally attended by taxis from 5:00 continuously through to midnight.
Other remarks	The rank is split into two bays. The rank faces away from Union Street and the street is a one way street leading from Union Street. Taxis tend to wait on the first section of the rank, closer to Union Street. From this position, taxis have the option of continuing along Dee Street, or turning left on to Langstane Place, which would then provide flexibility to travel to the north, east and west. Taxis waiting on the second section of the rank can only travel south from this location.

St Andrew Street

Land use characteristics on the vicinity	The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The locality is dominated by retailing and this is the closest rank to the Bon Accord Shopping Centre.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	No shelter is available at this rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Masonry planters are placed periodically along the pavement, adjacent to the rank. These planters limit space where they are located and may prevent side loading wheelchair accessible taxis from deploying side loading ramps. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height for the full length of the rank. Kerb stones are dark grey whin stone and similar colour to the paving slabs and road surface. However, yellow lines in the roadway help the visually impaired to distinguish the kerb.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank and waiting passengers are visible from along St Andrew Street. The location is relatively busy during the daytime, when shops are open. However, in the evenings, the number of passing pedestrians is lower. The presence of other people within sight helps to provide an enhanced sense of security to waiting passengers. Waiting passengers at this location are unlikely to benefit from perceived safety of nearby pedestrians, however there is a Hilton Hotel adjacent to the rank which is active until late at night
Signage	The rank itself is not clearly signed. There no nearby signage to identify the presence of a rank. There is no information regarding operating hours. However, parking and waiting restrictions posted on adjacent signage infer that the rank is a 24 hour rank.
Markings	There are road markings to delineate the taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.

Posted hours of operation	There are no posted hours of operation.
Effective hours of operation	The rank was rarely used throughout the period of the survey.

Union Street - Soul Bar

Land use characteristics on the vicinity	The rank lies on Union Street near the Soul Bar pub. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to licensed premises generates demand late at night.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	A bus shelter is available close to the head of the rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. There is plenty room for side loading wheelchair accessible taxis to board a passenger in a wheelchair. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height. Kerb stones are dark grey whin stone and are a similar colour to the road surface and pavement surface. There are yellow lines on the roadside which may help visually impaired passengers detect the kerb location.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank location is highly visible from along Union Street. The locality is generally busy with passing pedestrians and approaching passengers. The presence of other people may help passengers feel safe at this rank.
Signage	The rank itself is clearly signed with an internally illuminated taxi rank sign at the kerb side. There are signs on the nearby daytime ranks advising of the operation of ranks on Union Street between midnight and 5:00 am..
Markings	There are road markings to delineate the taxi rank bay. These include text on the road markings to indicate that the marked bay is a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.

Posted hours of operation	There are no posted signs indicating hours of operation. Regular users who are familiar with the switch from the nearby daytime ranks, to the Union Street ranks at midnight will know the hours of operation. However, visitors may see the illuminated taxi rank signs, before midnight and deduce from the lack of taxis, that the rank is not in operation, rather than the rank operates on a part time basis.
Effective hours of operation	The rank was generally attended by taxis from before midnight until after 4:00 am.

Union Street - Summer Street

Land use characteristics on the vicinity	The rank lies on Union Street at Summer Street. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to licensed premises generates demand late at night.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	No shelter is available at this rank
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. There is plenty room for side loading wheelchair accessible taxis to board a passenger in a wheelchair. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height. Kerb stones are dark grey whin stone and are a similar colour to the road surface and pavement surface. There are yellow lines on the roadside which may help visually impaired passengers detect the kerb location.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank location is highly visible from along Union Street. The locality is generally busy with passing pedestrians and approaching passengers. The presence of other people may help passengers feel safe at this rank.
Signage	The rank itself is clearly signed with an internally illuminated taxi rank sign at the kerb side. There are signs on the nearby daytime ranks advising of the operation of ranks on Union Street between midnight and 5:00 am..
Markings	There are road markings to delineate the taxi rank bay. These include text on the road markings to indicate that the marked bay is a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.

Posted hours of operation	There are no posted signs indicating hours of operation. Regular users who are familiar with the switch from the nearby daytime ranks, to the Union Street ranks at midnight will know the hours of operation. However, visitors may see the illuminated taxi rank signs, before midnight and deduce from the lack of taxis, that the rank is not in operation, rather than the rank operates on a part time basis.
Effective hours of operation	The rank was generally attended by taxis from before midnight until after 4:00 am.

Union Street - Castlegate

Land use characteristics on the vicinity	The rank lies on Castle Street at the east end of Union Street. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to licensed premises generates demand late at night.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	A bus shelter is available adjacent to the rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. There is adequate room for most side loading wheelchair accessible taxis to board a passenger in a wheelchair. However the bus shelter located at the head of the rank limits the available space at this part of the rank. Between the bus shelter and the kerb, there is adequate space for most side loading taxis to deploy wheelchair ramps. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height. Kerb stones are dark grey whin stone and are a similar colour to the road surface and pavement surface. There are yellow lines on the roadside which may help visually impaired passengers detect the kerb location.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	The rank location is highly visible from along Union Street and Castle Street. The locality is generally busy with passing pedestrians and approaching passengers. The presence of other people may help passengers feel safe at this rank.
Signage	The rank itself is clearly signed with an internally illuminated taxi rank sign at the kerb side. There are signs on the nearby daytime ranks advising of the operation of ranks on Union Street between midnight and 5:00 am..
Markings	There are road markings to delineate the taxi rank bay. These include text on the road markings to indicate that the marked bay is a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.

Posted hours of operation	There are no posted signs indicating hours of operation. Regular users who are familiar with the switch from the nearby daytime ranks, to the Union Street ranks at midnight will know the hours of operation. However, visitors may see the illuminated taxi rank signs, before midnight and deduce from the lack of taxis, that the rank is not in operation, rather than the rank operates on a part time basis.
Effective hours of operation	The rank was generally attended by taxis from before midnight until after 4:00 am.

Railway Station

Land use characteristics on the vicinity	The rank lies within the curtilage of the railway station and primarily serves railway passengers. The rank operates in conjunction with train arrival times and during station opening times.
Pavement width	The pavement, at the pick up point, at the head of the rank, is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	The whole rank area is located under a roofed area of the station.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Bollards are placed along the edge of the rank, between the vehicle waiting space and the pedestrian footway. Passengers can pass around the concrete blocks to approach and board taxis. If a wheelchair bound passenger wishes to hire a side loading wheelchair accessible taxi, this could require the taxi to be moved to place the ramp between bollards. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	The rank is marked on asphalt with the vehicle and pedestrian spaces delineated by road markings. Effectively there is no kerb and the pedestrian and vehicle spaces are flush with each other. The edge of the pedestrian area is marked. There is no difference in height between pedestrian and vehicle space. There is a visual distinction between surfaces.
Lighting	The rank area is well lit.
CCTV coverage	The rank location is covered by railway operator CCTV cameras.
Visibility from other localities	The rank area is visible from the main concourse area. There are generally passengers and staff within sight, which is likely to lead to enhanced perception of safety.
Signage	The rank itself is signed. There is signage elsewhere in the station, indicating where the rank is located.
Markings	There are road markings to delineate the taxi rank bays, with text on the road markings to indicate that the marked bays are a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	There are no posted hours of operation.

Effective hours of operation	The rank was generally attended by taxis coinciding with train arrival times.
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Airport Main Rank

Land use characteristics on the vicinity	The rank lies outside the main airport terminal. There is a lengthy shelter adjacent to the rank area, to allow passengers to shelter from the weather whilst waiting to board taxis. The rank services passengers from the airport only.
Pavement width	The pavement is effectively enclosed within the shelter adjacent to the taxi rank. Only passengers intending to board taxis would use this section of pavement, so there is no need to pass other passengers.
Shelter available	A lengthy shelter is available for passengers.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. Whilst up to around ten vehicles can wait on the main rank bay, only the first two or three positions are suitable for passenger boarding. The first position, has space beside the vehicles, to allow a side loading ramp to be deployed for boarding passengers in wheelchairs. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height Kerb stones and asphalt paving is a similar colour to the road surface.
Lighting	The area is well lit. Lights within the passenger waiting shelter are activated by motion detectors at night.
CCTV coverage	The rank location is covered by airport CCTV cameras.
Visibility from other localities	Visibility to the rank is limited by the shelter. However, the intrinsically safe nature of the airport, with higher levels of security and awareness compared with most public areas, is likely to enable passengers to feel safe if waiting for a taxi.
Signage	The rank itself is clearly signed. There is also signage elsewhere in the airport to identify the rank location..
Markings	There are road markings to delineate the taxi rank bays. There is text on the road markings to indicate that the marked bays are a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	There are no posted operating hours.
Effective hours of operation	The rank was generally attended by taxis from 7:00 continuously through to midnight.

Airport Helicopter Terminal

Land use characteristics on the vicinity	The rank lies outside the passenger entrance to the helicopter terminal. The ranks serves demand from passengers arriving at the heliport
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are standard height. Kerb stones and paving surface is a similar colour to the road surface.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Airport CCTV cameras.
Visibility from other localities	The rank is located on a lightly trafficked road and where few pedestrians pass. The road in this location is straight and the rank is visible from neighbouring buildings.
Signage	The rank itself is clearly signed.
Markings	There are road markings to delineate the taxi rank bay.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	Adjacent signage indicates that the rank is operational 24 hours per day..
Effective hours of operation	The rank was occasionally attended by taxis.
Other remarks	There was very little hire activity observed at the rank.

Exchequer Row

Land use characteristics on the vicinity	The rank lies on Exchequer Row, near the junction with Castle Street. Taxis queue to the right side of the road. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to licensed premises could potentially generate demand late at night.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	No shelter is available at this rank
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the right side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Side loading wheelchair accessible taxis may need to move to a different position to deploy the boarding ramp from the left side door. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp. The road is cobbled and taxis face up a hill. These features can impose additional challenges for boarding passengers in wheelchairs.
Kerb height and distinction	Kerbs along the rank are low. Kerb stones are dark grey and are a similar colour to the road surface and pavement surface. Lack of visual distinction may be an issue for some visually impaired people. However, the kerb height, whilst low, is distinct enough to be detectable by tactile methods.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras and CCTV from adjacent business premises.
Visibility from other localities	The rank location is visible from Castle Street. The locality is generally busy with passing pedestrians. The presence of other people may help passengers feel safe at this rank.
Signage	The rank itself is signed as a taxi stand. Signage indicates that the rank is in 24 hour operation.
Markings	There are no road markings to delineate the taxi rank bay.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	There are posted signs indicating hours of operation. .

Effective hours of operation	There is a nearby rank on Castle Street which attracts more passengers than the Exchequer Row rank. Hence, the Exchequer Row rank is not established as a night time rank. The rank was used occasionally at various times.
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Queen Street

Land use characteristics on the vicinity	The rank lies on Queen Street, near the junction with Broad Street. The local buildings within 200 metres contain a mixture of shops, offices, licensed premises and residential properties. The proximity to offices has the potential to generate demand during daytime.
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	There is no shelter available.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the right side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. Most side loading wheelchair accessible taxis have the loading ramp to the left side of the vehicle. Therefore, if a wheelchair user were wishing to hire a side loading wheelchair accessible taxi, the vehicle would need to move to a different location with the left side to the pavement. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are lowered, flush with the road surface. Kerb stones are light coloured and a different colour to the road surface and pavement surface. There are yellow lines on the roadside which may help visually impaired passengers detect the kerb location.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by Council CCTV cameras.
Visibility from other localities	There is limited visibility of the rank from Broad Street. The locality is generally busy with passing pedestrians during the day. However, at night there are fewer people around..
Signage	The rank itself is clearly signed
Markings	There are road markings to delineate the taxi rank bay. These include text on the road markings to indicate that the marked bay is a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	There are no posted signs indicating hours of operation.
Effective hours of operation	The rank was rarely attended by taxis.

Rosemount Viaduct

Land use characteristics on the vicinity	The rank lies on Rosemount Viaduct, near His Majesty's Theatre. The local buildings within 200 metres contain a limited number of shops and residential properties, together with the theatre. The proximity to the theatre is likely to generate demand at the end of performances..
Pavement width	The pavement is wide enough to enable pedestrians to pass intending passengers waiting for taxis or boarding taxis.
Shelter available	A bus shelter is available adjacent to the rank.
Suitability for loading passengers in wheelchairs.	The taxis wait at the rank with the left side of the vehicle to the kerb. This presents no difficulties for able bodied passengers for boarding. There is adequate room for most side loading wheelchair accessible taxis to board a passenger in a wheelchair. Vehicles boarding passengers via rear mounted ramps may need to pull forward to allow sufficient space from the vehicle behind, to deploy the ramp and leave space for the passenger to approach the ramp.
Kerb height and distinction	Kerbs along the rank are low. Kerb stones are dark grey / brown whin stone and are a different colour to the road surface. There are yellow lines on the roadside which may help visually impaired passengers detect the kerb location.
Lighting	The street is well lit.
CCTV coverage	The rank location is covered by a Council CCTV camera.
Visibility from other localities	The rank location is highly visible from along Rosemount Viaduct. The locality is generally busy with passing pedestrians and traffic during the daytime. At night, there are fewer pedestrians, but relatively high traffic volume on the road. The presence of passing traffic may help passengers feel safe at this rank.
Signage	The rank itself is not sign posted. There was no posted operating times..
Markings	There are road markings to delineate the taxi rank bay. These include text on the road markings to indicate that the marked bay is a taxi rank.
Suitability of access and egress for taxis	Taxis can readily access the rank. Taxis can leave the rank from a middle position if required.
Posted hours of operation	There are no posted signs indicating hours of operation.
Effective hours of operation	The rank was rarely attended by taxis.

Suggestions for additional rank locations

Several locations were suggested by members of the public and by the trade, for new taxi ranks. These have been reviewed for suitability with respect to nearby land uses, potential road space to locate the ranks and suitability of such potential road space, together with the likelihood of a rank space becoming established.

In order to implement a new taxi rank, appropriate consultation would need to be undertaken and if the proposed locations were agreed, then appropriate traffic regulation orders would need to be defined and implemented then the rank defined with appropriate road markings and signage. This can be a time consuming and involved process. Therefore, implementing a new rank is not something to be undertaken lightly.

Following the definition of a new rank with appropriate signage and markings, this does not in itself guarantee that the rank will be regularly used by the travelling public or regularly occupied by taxis, available for hire.

In order for a new rank to come into use, it needs to become established by both the trade and by passengers. A marked rank space is not guaranteed to become established if taxis cannot be reliably found there or if passengers do not regularly use the rank. Therefore, locations chosen for new ranks should be evaluated against the likelihood of sufficient passenger demand at different times of day and the likelihood of taxis waiting on the ranks to service such demand.

In some cases, a suitable rank location can become established through informal use of a road space by taxis ranking informally. Such practice can demonstrate a viable level of demand and supply and help to justify a location for subsequent formal provision of a rank. It should also be borne in mind that an informal rank location, whilst demonstrating a level of demand and willingness to supply taxis to meet that demand, does not guarantee that the location is suitable for a rank. Other considerations such as adjacent land uses and traffic management arrangements may preclude a location from use as a taxi rank. For example, a rank which would be active at night may not be suited to location adjacent to ground floor residential properties.

In some instances, new rank locations can be identified through other means such as examination of local land uses, proximity of other existing ranks and local geography and traffic management arrangements, or suggestions from members of the public or the trade.

Locations which are on a route to an established rank offer the greatest probability of becoming an established rank. For example, the ranks on Chapel Street and Back Wynd are the principal public ranks which operate during the daytime. Additional rank locations which could be passed by

taxis travelling to these two ranks may be more likely to become established as daytime ranks. At night, the ranks on Union Street are the active ranks and locations on routes back to these ranks are the most likely to become established.

Taxis travelling back to the established ranks may pass other rank locations, to check in case there are any waiting passengers. The more often taxis obtain hires at other ranks, the more likely it is that those ranks will become established and more taxis will wait at these ranks or pass these ranks.

Rank locations which cannot readily be passed, en-route to an established rank, are less likely to be visited. Any locations which are out of the way, such as located along a dead end road, or where there is no through route, are less likely to become established, unless there is a major generator of demand nearby. In other locations in the UK, there are examples of such locations hosting viable and busy ranks. However, these locations are generally close to demand generators, such as multiple night time economy venues. As such, any drivers traveling to such ranks, have a reasonable expectation of obtaining a hire, based on prior experience.

The popularity of pre-booked hires amongst the public, either by telephone or mobile app, further reduces the probability of non-central rank locations becoming established.

Consultation with the trade and members of the public resulted in some suggested locations for new ranks. These were:

Locations suggested for new ranks have been evaluated as follows:

- The beach
- Beach Retail Park
- Near the University
- Union Square
- Guild Street – For both bus and train passengers.
- Market Street
- Marischal College
- Broad Street
- Union Terrace
- Bridge Street
- Hadden Street
- Albyn Place
- Holburn Street, top end
- Justice Mill Lane
- Outside the hospital
- Make existing Union Street ranks 24 hour ranks.

- On Union Street, between Bridge Street and Bon Accord street.
- After midnight Dee Street rank should be out on union street next to Burger King. Easy access for the public rather than walking to soul bar or back wynd rank.

The Beach / Beach Retail Park

The beach front, along The Esplanade is a popular leisure location, with leisure facilities, dining and retailing land uses. Retailing is largely edge of town character, with ample car parking. The level of night time economy activity is likely to be low in this area and unlikely to generate sufficient business to attract taxis to the rank on a regular basis at night. A rank is more likely to be attended during day time in the summer, when the beach front premises are busiest. It is likely that anyone requiring the services of a licensed vehicle, at any time of day, would attempt to book a hire by telephone or app. The beach is not on a natural return route to established ranks, from many locations around Aberdeen

University complex

The main campus of the University of Aberdeen is likely to generate some day time demand. However, the density of retailing and other business premises in this area is low and a rank in this area is unlikely to become established. As such, a marked rank would be unlikely to be regularly attended by waiting taxis.

The main campus of Robert Gordon University is situated to the edge of a mainly residential area. A marked rank in this area would be unlikely to become established with regular availability of waiting taxis. Day time demand is likely to be low and there is little night time economy in this area.

Outside the railway station car park / Union Square / Guild Street, Bus Station / Market Street

This area is currently served by the rank within the railway station. The railway station rank is serviced by taxis with an additional permit from the railway operating company. The existing rank is not on the public road and primarily serves railway related demand rather than retail related demand.

The area around the railway station is dominated by retailing, with the Union Square and Trinity Centre shopping centres. In addition, the bus station is nearby and there are several night time economy venues in the area.

A rank in the vicinity, which was useable by all taxis, not just those with permits to operate at the railway station, may be likely to attract some users. There is limited scope for installation of a new rank on the

roadways around the Railway Station and Union Square shopping. Potentially, a rank facility could be established in the Union car park. This would require the cooperation of the property owners.

Opposite the railway station vehicle entrance on Guild Street, is the Station Hotel. Outside the Station Hotel is a road space which is out of the main flow of traffic, by virtue of a built-out section of pavement which forms part of the pedestrian crossing at this location. The resultant road space is marked with double yellow lines denoting waiting restrictions. Historically, the space has been used in the past as an informal waiting location, by taxis. The location is on a route back to the daytime and night time ranks in the City centre and could potentially become a viable taxi rank.

There appears to be sufficient road space available to form a rank for three taxis at this location, without the need for kerb re-alignment or other significant roadworks.

Guild street is a one way street outside the Station Hotel. Therefore, a new rank in this location would be used by taxis waiting on the right hand side of the road and passengers would need to board the right hand side of the taxis. This could present problems for passengers in wheelchairs boarding wheelchair accessible taxis using side mounted ramps. The location, whilst outside the running lanes of passing traffic, is located in a busy one way system. If the smooth running of traffic in this location were disturbed by taxis queueing to enter the rank and hindering passing traffic, this could have a significant impact on capacity along this stretch of road and potentially impact on upstream capacity. Notwithstanding the limitations highlighted earlier, other aspects of the location suggest it is suitable for a new rank. The kerbs are standard height kerbs and the width of the pavement in this location is suitable to allow pedestrians to pass waiting passengers without hinderance. The location is covered by Council CCTV and is a suitably busy location with frequent passing vehicles and pedestrians to enable passengers to feel safe using this location as a taxi rank.

Marischal College / Broad Street

There is an existing rank on Queen Street. It is unlikely that an additional rank in this locality would become established ahead of the existing rank on Queen Street.

Union Terrace

There are some loading spaces on Union Terrace, towards the Union Street end of the road. Some, or all of these spaces could be re-designated as taxi rank space. Union Terrace is located between the existing ranks on Back Wynd and Chapel Street. The closest of the existing loading spaces is located approximately 40 metres from Union Street. The set back distance from Union Street could limit the effectiveness of a new rank in this location. Otherwise, the pavement space and lighting are suitable for a new rank and the location could be on routes to existing ranks.

Bridge Street

Bridge Street would offer a location close to Union Street and nearby retail and licensed premises. However, there is limited road space available to allocate as a taxi rank. There could be sufficient demand to establish a rank and the location could be on routes to existing ranks. However, the available road space does not lend itself to re-designation as taxi rank space.

Hadden Street

Prior to redevelopment of adjacent buildings, there was a rank on Hadden Street. This may be suitable for re-establishing a rank in the future.

Albyn Place

Sections of Albyn Place, which are closest to Union Street, would not readily accommodate a taxi rank. There are driveways and car park entrances which are likely to limit potential implementation of a taxi rank. Further from Union Street, there is more road space, which could potentially be used as taxi rank space.

A rank on Albyn Place, further from Union Street, is likely to be on potential routes back to the central ranks. However, it is unlikely that nearby premises would generate sufficient demand to establish and sustain a new rank.

Holburn Street

Holburn Street, between Union Street and Union Grove is a busy roadway and does not lend itself to accommodating a taxi rank. However, Holburn Street, south of Union Grove, currently has a part time bus lane on the north bound side of the road. There are peak period loading restrictions during the morning and evening peak periods. Over night, between 6:00 pm and 8:00 am there are no stopping or waiting restrictions. This location would lend itself to accommodating an evening and night time rank. The location has a wide pavement, is close to several licensed premises. A rank in this location would be suitable for people seeking to travel to the south and west, from central Aberdeen. A rank in this

location would also be readily passed by taxis returning from hires to locations west and south of central Aberdeen. The part time bus lane at this location is commonly occupied by parked vehicles overnight. In such locations, vehicles parking in a part time taxi rank can present obstacles to establishing a rank.

This location could be suitable for a new rank.

Justice Mill Lane

Whilst there are several licensed premises which are accessed via Justice Mill Lane, the road is not a main route. There are parking spaces along the roadside which could be re-designated as rank space. Pavement width is variable along the road. However, at the Holburn Street end of Justice Mill Lane, there are existing parking spaces, adjacent to wide pavements, which would be suitable for re-designation as rank space.

Daytime demand is limited and unlikely to sustain a taxi rank in this location. Night time demand is likely to be higher.

A rank in this location would be likely to face westbound. However, it is likely that a high proportion of taxis approaching the rank would approach from the west. They would then either need to pass the rank and turn around, or pull on to the rank, with right side to the pavement.

There is lighting and CCTV covering the Western end of Justice Mill Lane. This location could be a suitable location for a new rank.

Hospital

Hospitals are major generators of public transport demand, including licensed vehicle demand. At many hospitals, most licensed vehicle demand is fulfilled by pre-booked hires. Some hospitals do have taxi ranks within the hospital grounds. Such ranks are often relatively busy. Most of the hospital campus is owned and maintained by the hospital. As such, any rank would need to be agreed with and accommodated by the hospital. A rank near to the main hospital entrance would normally be the best location. However, the layout doesn't necessarily lend itself to accommodating a rank near the entrance. Other locations within the campus may need to be explored, if a new rank is to be considered.

The hospital is not located within a single building. There are different buildings within the campus and pre-booked hires tend to be picked up from specific buildings. Many people may find this arrangement more suitable than walking to a rank located elsewhere within the campus.

Union Street proposals

Various proposals address the use of Union Street. One proposal is for the rank spaces on Union Street to be operated 24 hours per day. The ranks are currently part time and outside of the taxi rank operating hours,

the road space at each of the Union Street night time ranks is used as bus lanes. If the ranks were used during the daytime, this would disrupt the use of bus lanes and disrupt traffic flow along Union Street. A detailed traffic assessment would be required, to assess the level of impact that operating the taxi ranks 24 hours, would have.

The distance between the rank outside Soul Bar and the rank on Castlegate, is around 800 metres. A rank on each side of Union Street, between Soul Bar and Castlegate, would reduce walking distance to a rank, for many people. However, taxis are unlikely to drive past any passengers waiting at the Summer Street or Soul bar ranks on Union Street, to travel to a new rank further east. Similarly, taxis from the east are unlikely to travel past passengers waiting at the Castlegate rank on Union Street, to reach a central rank along Union Street. Therefore, more central ranks are more likely to be serviced by taxis travelling to Union Street, from the north or south. For example, via Union Terrace or Bridge Street.

Suggestions have been made for additional ranks on Union Street between Bridge Street and Bon Accord Street and near Dee Street.

The distance to Dee Street, from the head of the Soul Bar rank, is approximately 190 metres. This is likely to be too close to the Soul Bar rank to enable both locations to operate effectively as taxi ranks.

A location midway between Soul Bar and Castlegate would be likely to be more effective. In the past, there was a rank on Union Street at Correction Wynd. This rank has been closed, but is due to reopen later this year. Once the Correction Wynd rank reopens, this is likely to fulfil any need for an intermediate rank.

11 Summary, synthesis and study conclusions

Rank observations

The activity at the ranks broadly followed a common profile for a city. There was a drop in rank activity on Thursday night, which was unusual for a city centre. There was a modest increase on Friday night and a large increase on Saturday night. The profile is consistent with a taxi fleet which is heavily engaged with fulfilling prebooked hires, which can take precedence over rank hires.

Feedback from the public indicated that they tended to favour pre-booked hires rather than rank hires.

Passenger waiting was observed at the taxi ranks. Wating was more prevalent at night rather than during the day. Passenger wating was largely concentrated on Friday and Saturday nights.

Persistent passenger queues formed at the ranks on Union Street on Friday and Saturday nights. However, the average wait time was less than 5 minutes. Public and stakeholder consultation feedback frequently mentioned lack of availability of licensed vehicles, including both private hire cars and taxis. Mentions of lack of availability in particular at night and at the airport and Railway Station, were particularly notable.

There were not enough hires from the ranks to sustain the full fleet of all taxis, if they were all to operate from the ranks. A significant proportion of taxis operate partly or primarily on booking circuits for private hire operators. This leaves a smaller sub-set of the taxi fleet to focus on rank work, at a level which is more likely to enable drivers to make a living from rank based work.

Public consultation

Feedback from the public regarding the services provided by taxis and private hire cars focussed on issues with services. Notwithstanding the issues identified, several positive features of Aberdeen taxis were identified.

Lack of availability at night was the prevalent issue identified. Comments related to availability included those expressing a desire for more Uber licensed vehicles to be operating and for the licensing requirements for new drivers to be relaxed, to facilitate more drivers becoming licensed. In particular, there were calls for the 'knowledge test' to be suspended. It is highly unusual for members of the public to comment on detailed licensing matters such as the knowledge test for drivers. As such, this suggests that there may have been some attempt to skew the results of the survey by ensuring that a large number of responses were in favour of relaxing the licensing requirements.

Lack of reliability was identified as a particular issue throughout the public consultation. This issue related to pre-booked hires not being fulfilled, rather than rank based hires.

Key stakeholder views

Lack of availability at peak times and at the airport and Railway Station were common issues identified by stakeholders. When taxis were available, the quality of service, driver knowledge and helpfulness, were generally felt to be good.

Wheelchair users generally use a regular supplier and book any required trips. Wheelchair users also suffer from poor reliability of pre-booked hires. However, for many, their regular providers are reliable.

Trade views

Most taxis are operated by owner drivers. A large proportion of taxi drivers obtain the majority of hires from pre-booked hires.

Respondents were mostly people with lengthy experience working in the licensed vehicle trades.

Private hire overprovision analysis

Analysis of private hire data and feedback from private hire operators suggests that the busiest periods for private hire operators is during the morning from 7:00 to 10:00. After this time, demand and supply of drivers steadily declines.

Operators feel that there is demand for booked hires which is not being met at night and especially on Friday and Saturday nights. However, some drivers are unwilling to work unsocial hours. Therefore, fewer drivers are willing to log into the booking systems at night and to accept bookings. Whilst the data supplied by operators did not differentiate between bookings fulfilled by private hire cars and taxis, anecdotal feedback from operators suggested that similar working patterns and assignment of bookings to vehicles applied similarly to both taxis and private hire cars.

Operators face limits on how many bookings they can accept at times of low driver supply. As many of the licensed vehicles which undertake this work are taxis, they have a choice of not logging into a booking system and operating from the ranks. Whereas, private hire cars do not have the same choice. In some respects, it could be argued that there are too many taxis licensed for the level of rank based demand available. Many of the taxis registered need to undertake work through the booking circuits in order to generate sufficient income.

The use of taxis on booking circuits has some operating advantages. It is feasible to use a taxi call type system to alert a company that a taxi is required for passengers, from an origin such as a hotel or cinema. A

vehicle can then be dispatched to the location required. With such systems, information which would normally be required for a private hire booking, including the name of the person making the booking and the destination, is not supplied initially. If a private hire car were sent to fulfil such a notification, it could be argued that full booking information was not given before a booking was made for the trip, as would normally be required for a standard booking. However, if a taxi were sent to fulfil such a booking, then the booking contract can be made directly with the driver on arrival. As such, the notification received could be effectively treated as a hail for a taxi. Consequently, full details such as passenger name and origin and destination are not required to be provided before a hire is made with a taxi.

The assessment of private hire car overprovision must consider only private hire cars and not all vehicles working on private hire circuits. Symptoms of overprovision would be low rates of hourly hires and lengthy waits between bookings. If we assume that private hire cars operate at a similar level of utilisation per vehicle as taxis working on the booking circuits, then the statistics regarding booking frequency and wait times between bookings indicate that the level of provision is not excessive.

Private hire cars alone could not fulfil all pre-booked hire bookings. The proportion of private hire cars against population is low. The ratio may be suppressed by the predominance of taxis working on private hire circuits.

The operational characteristics with respect to frequency of hires and wait times between hires, together with the lack of sufficient capacity to cater for private hire demand solely through the private hire car fleet indicates that there is no overprovision of private hire cars. Rank review

The rank review covered both existing ranks and proposals for new ranks. Whilst there were some limitations identified for some of the existing ranks, most were well located, well used and suitably configured for most users. Two of the ranks were not used either in part or entirely. The rank on St Andrew Street, whilst close to potential demand related to retailing, was not used during the rank observation period. Some taxis waited for hires on the Dee Street rank, on the section closest to Union Street. However, the more remote section, beyond Langstane Place, the section of rank was unused for hires and only used occasionally by taxi drives wishing to park the vehicle or apparently waiting on a break before leaving without a hire.

Locations were suggested for new ranks. These were evaluated and two suggestions taken forward for consideration as new rank locations. These are at Upperkirkgate, which is close to retailing and business generated demand during the daytime and nighttime economy generated demand during the evenings. On Guild Street, a new rank which would serve the

bus station along with retail demand and night time economy generated demand, was also suggested.

Wheelchair accessible vehicles

There was some feedback from the trade, stakeholders and the public, that some people find the wheelchair accessible vehicles used in the taxi and private hire fleets, to be less comfortable than saloon cars and more difficult to get in and out of. However, it was generally felt that there was a need for wheelchair accessible vehicles to be available for those who needed them. It was generally felt that a mixed fleet was appropriate to meet the needs of all users.

There was some feedback from the trade, stakeholders and the public, that there is some reluctance amongst taxi drivers in particular, to accept hires from wheelchair users. Anecdotal evidence indicated that a minority of drivers were not keen on undertaking such hires and it was suggested that some would even go to such lengths as to leave a rank if they thought a wheelchair user was likely to try and hire them. It should be stressed that there was no suggestion that such behaviour was prevalent amongst drivers, but different sources indicated that some drivers did discriminate against wheelchair users.

Evaluation

There is consistent evidence that people experience difficulties when trying to book a licensed vehicle. The primary period of difficulty is on Saturday night and to a lesser extent on Friday night, weekday nights and during morning and afternoon peak periods.

In terms of private hire car overcapacity analysis, there is no evidence that there is an overcapacity of private hire vehicles. Much of the private hire market is serviced by taxis operating on private hire booking circuits.

From rank based analysis, passengers do suffer some delays waiting for taxis to arrive at the ranks during the periods perceived to have limited availability. However, the proportion of passengers waiting and the average wait times are relatively low. Generally, day time availability of taxis at the ranks is good. Taking account of availability and passenger waiting over all periods, the Index of Significant Unmet Demand value is below the threshold which would suggest that unmet demand is significant.

The use of licensed vehicles is dominated by private hire bookings during the day and by rank based hire at night. This is not necessarily an expected pattern and not one which is always repeated elsewhere. However, this pattern of use may be one which has developed over time through passenger experience and expectations. If passengers don't expect to be able to book a vehicle by telephone or app late at night, then they won't try and will go to the ranks instead. Therefore, drivers will

follow this trend with their working patterns and opt to service ranks at night, rather than work on the booking circuits. This can only happen where taxis are working both the booking circuits and ranks at different times. Private hire operators are of the opinion that if more drivers could be encouraged to work unsocial hours, demand would increase as the public became aware of increased availability. Measures to incentivise drivers to work during unsocial periods should be explored. These could include a new tariff within the fares structure with a more expensive distance based tariff in operation late on Friday and Saturday nights.

In summary, there is no significant unmet demand and no overprovision of private hire cars. There are limitations in availability at times, notably on Saturday nights and weekday morning peak and afternoon peak times. Wheelchair users and mobility impaired users are generally well served by licensed vehicles, however, there is some evidence of discrimination by some taxi drivers.

Members of the public are generally satisfied with licensed vehicle services and accept that there are limitations with availability at certain times.

12 Recommendations

On the basis of the evidence gathered, our key conclusion is that there is no evidence of unmet demand for the services of taxis either patent or latent which is significant at this point in time in the Aberdeen licensing area.

There is no overprovision of private hire cars in Aberdeen.

Measures which would encourage more of the licensed vehicle fleet to operate during unsocial hours would help to address limitations in provision at night.

There is no need to increase the limit to the number of taxi vehicle licences or to introduce a cap on private hire car numbers.

Appendix A – Rank Survey Results

Total Passengers

Hour beginning	Dee Street	Back Wynd	Chapel Street	Union Street Soul	Union Street Castlegate	St Andrew Street	Aberdeen Railway Station	Aberdeen Airport Main Rank	Aberdeen Airport Heliport Rank	Exchequer Row	Queen Street	Union Street at Summer Street	Rosemount Viaduct
Thursday 07:00	0	0	0	0	0	0	69	0	0	0	0	0	0
Thursday 08:00	0	0	0	0	0	0	69	9	0	0	0	0	0
Thursday 09:00	0	0	1	0	0	0	80	20	0	0	0	0	0
Thursday 10:00	2	2	0	0	0	0	71	20	0	0	0	0	0
Thursday 11:00	1	3	0	0	0	1	90	12	1	0	0	0	1
Thursday 12:00	3	23	2	0	0	0	78	6	0	0	0	0	0
Thursday 13:00	1	27	5	0	0	0	98	33	0	0	0	0	0
Thursday 14:00	1	12	4	0	0	0	95	29	0	0	1	0	2
Thursday 15:00	2	13	3	0	0	0	64	15	0	0	0	0	0
Thursday 16:00	0	7	2	0	0	0	79	21	0	0	0	0	1
Thursday 17:00	1	7	3	0	0	0	106	21	0	0	1	0	0
Thursday 18:00	0	9	10	2	0	0	87	12	0	0	0	0	0
Thursday 19:00	0	13	7	1	0	0	99	21	0	0	0	0	0
Thursday 20:00	0	23	19	0	0	0	88	15	0	0	0	0	0
Thursday 21:00	1	13	23	2	2	0	33	12	0	0	0	0	4
Thursday 22:00	0	4	14	0	1	0	55	12	0	0	0	0	0
Thursday 23:00	0	10	10	1	3	0	32	1	0	0	0	2	0
Friday 00:00	0	0	2	21	13	0	7	7	0	0	0	11	0
Friday 01:00	0	0	4	5	13	0	0	0	0	0	0	22	0
Friday 02:00	0	0	2	15	30	0	0	0	0	0	0	5	0
Friday 03:00	0	0	0	0	34	0	0	0	0	0	0	4	0
Friday 04:00	0	0	0	0	12	0	0	0	0	0	0	0	0
Friday 05:00	0	0	0	0	6	0	0	0	0	0	0	0	0
Friday 06:00	0	0	0	0	5	0	0	0	0	0	0	0	0
Friday 07:00	0	0	0	0	0	0	65	1	0	0	0	0	0
Friday 08:00	0	0	0	0	0	0	63	16	0	0	0	0	0
Friday 09:00	1	0	0	0	0	0	73	33	0	0	0	0	0
Friday 10:00	1	0	0	0	0	0	54	30	0	0	0	0	0
Friday 11:00	2	0	0	0	0	0	67	18	0	0	0	0	0
Friday 12:00	1	11	3	0	0	0	63	24	1	0	0	0	0
Friday 13:00	3	31	3	0	0	0	111	21	0	0	0	0	0
Friday 14:00	2	28	0	0	0	0	86	16	0	0	0	0	0
Friday 15:00	0	11	2	0	0	1	71	12	1	0	0	0	0
Friday 16:00	0	4	3	0	0	0	70	20	0	0	0	0	0
Friday 17:00	0	10	1	0	0	0	92	28	0	0	1	0	0
Friday 18:00	0	30	31	0	0	0	70	21	0	1	0	0	0
Friday 19:00	0	11	46	0	0	0	88	12	0	0	0	0	0
Friday 20:00	0	10	31	0	3	0	90	9	3	1	0	0	0
Friday 21:00	0	21	43	4	2	0	51	18	0	0	0	0	0
Friday 22:00	0	28	82	1	5	0	56	9	0	1	0	0	0
Friday 23:00	0	21	86	13	14	0	36	5	0	0	0	0	0
Saturday 00:00	0	8	33	47	72	0	8	5	0	0	0	32	0
Saturday 01:00	0	4	0	34	78	0	0	0	0	0	0	39	1
Saturday 02:00	0	10	4	28	39	0	0	0	0	0	0	45	0
Saturday 03:00	2	10	0	39	55	0	0	0	0	1	0	27	0
Saturday 04:00	0	4	0	5	62	0	0	0	0	0	0	3	0
Saturday 05:00	0	0	0	0	35	0	0	0	0	1	0	0	0
Saturday 06:00	0	0	0	0	6	0	0	0	0	0	0	0	0
Saturday 07:00	0	0	0	0	0	0	24	0	0	0	0	0	0
Saturday 08:00	0	0	0	0	0	0	40	5	0	0	0	0	0
Saturday 09:00	0	0	0	0	0	0	61	4	0	0	0	0	0
Saturday 10:00	1	0	0	0	0	0	94	15	0	0	0	0	0
Saturday 11:00	0	0	0	0	0	0	108	19	0	0	0	0	0
Saturday 12:00	0	8	1	0	0	0	54	11	0	0	0	0	0
Saturday 13:00	0	13	2	0	0	0	44	1	0	0	0	0	0
Saturday 14:00	1	14	4	0	0	0	75	1	0	0	1	0	0
Saturday 15:00	0	18	17	0	0	0	53	7	0	1	0	0	0
Saturday 16:00	0	5	13	0	0	0	69	6	0	0	0	0	0
Saturday 17:00	0	12	20	0	1	0	91	11	0	1	0	0	0
Saturday 18:00	0	19	23	0	0	0	81	0	0	0	0	1	0
Saturday 19:00	0	15	24	0	0	0	88	6	0	0	0	0	2
Saturday 20:00	0	9	16	0	9	0	69	12	0	0	0	0	0
Saturday 21:00	0	10	38	4	17	0	64	9	0	1	0	0	0
Saturday 22:00	0	21	74	4	33	0	46	9	0	1	0	0	0
Saturday 23:00	3	27	58	9	50	0	23	3	0	0	2	1	0
Sunday 00:00	0	27	27	69	90	0	15	3	0	1	0	48	1
Sunday 01:00	0	88	12	95	113	0	5	0	0	0	0	55	0
Sunday 02:00	2	30	8	88	132	0	0	0	0	0	0	64	0
Sunday 03:00	0	40	0	97	191	0	0	0	0	4	0	43	1
Sunday 04:00	0	4	0	0	132	0	0	0	0	0	0	12	0
Sunday 05:00	0	0	0	0	65	0	0	0	0	1	0	0	0
Sunday 06:00	0	0	0	0	5	0	0	0	0	0	0	0	0

Total taxis departing empty

Hour beginning	Dee Street	Back Wynd	Chapel Street	Union Street Soul	Union Street Castlegate	St Andrew Street	Aberdeen Railway Station	Aberdeen Airport Main Rank	Aberdeen Airport Heliport Rank	Exchequer Row	Queen Street	Union Street at Summer Street	Rosemount Viaduct
Thursday 07:00	0	0	0	0	0	0	69	0	0	0	0	0	0
Thursday 08:00	0	0	0	0	0	0	69	9	0	0	0	0	0
Thursday 09:00	0	0	1	0	0	0	80	20	0	0	0	0	0
Thursday 10:00	2	2	0	0	0	0	71	20	0	0	0	0	0
Thursday 11:00	1	3	0	0	0	1	90	12	1	0	0	0	1
Thursday 12:00	3	23	2	0	0	0	78	6	0	0	0	0	0
Thursday 13:00	1	27	5	0	0	0	98	33	0	0	0	0	0
Thursday 14:00	1	12	4	0	0	0	95	29	0	0	1	0	2
Thursday 15:00	2	13	3	0	0	0	64	15	0	0	0	0	0
Thursday 16:00	0	7	2	0	0	0	79	21	0	0	0	0	1
Thursday 17:00	1	7	3	0	0	0	106	21	0	0	1	0	0
Thursday 18:00	0	9	10	2	0	0	87	12	0	0	0	0	0
Thursday 19:00	0	13	7	1	0	0	99	21	0	0	0	0	0
Thursday 20:00	0	23	19	0	0	0	88	15	0	0	0	0	0
Thursday 21:00	1	13	23	2	2	0	33	12	0	0	0	0	4
Thursday 22:00	0	4	14	0	1	0	55	12	0	0	0	0	0
Thursday 23:00	0	10	10	1	3	0	32	1	0	0	0	2	0
Friday 00:00	0	0	2	21	13	0	7	7	0	0	0	11	0
Friday 01:00	0	0	4	5	13	0	0	0	0	0	0	22	0
Friday 02:00	0	0	2	15	30	0	0	0	0	0	0	5	0
Friday 03:00	0	0	0	0	34	0	0	0	0	0	0	4	0
Friday 04:00	0	0	0	0	12	0	0	0	0	0	0	0	0
Friday 05:00	0	0	0	0	6	0	0	0	0	0	0	0	0
Friday 06:00	0	0	0	0	5	0	0	0	0	0	0	0	0
Friday 07:00	0	0	0	0	0	0	65	1	0	0	0	0	0
Friday 08:00	0	0	0	0	0	0	63	16	0	0	0	0	0
Friday 09:00	1	0	0	0	0	0	73	33	0	0	0	0	0
Friday 10:00	1	0	0	0	0	0	54	30	0	0	0	0	0
Friday 11:00	2	0	0	0	0	0	67	18	0	0	0	0	0
Friday 12:00	1	11	3	0	0	0	63	24	1	0	0	0	0
Friday 13:00	3	31	3	0	0	0	111	21	0	0	0	0	0
Friday 14:00	2	28	0	0	0	0	86	16	0	0	0	0	0
Friday 15:00	0	11	2	0	0	1	71	12	1	0	0	0	0
Friday 16:00	0	4	3	0	0	0	70	20	0	0	0	0	0
Friday 17:00	0	10	1	0	0	0	92	28	0	0	1	0	0
Friday 18:00	0	30	31	0	0	0	70	21	0	1	0	0	0
Friday 19:00	0	11	46	0	0	0	88	12	0	0	0	0	0
Friday 20:00	0	10	31	0	3	0	90	9	3	1	0	0	0
Friday 21:00	0	21	43	4	2	0	51	18	0	0	0	0	0
Friday 22:00	0	28	82	1	5	0	56	9	0	1	0	0	0
Friday 23:00	0	21	86	13	14	0	36	5	0	0	0	0	0
Saturday 00:00	0	8	33	47	72	0	8	5	0	0	0	32	0
Saturday 01:00	0	4	0	34	78	0	0	0	0	0	0	39	1
Saturday 02:00	0	10	4	28	39	0	0	0	0	0	0	45	0
Saturday 03:00	2	10	0	39	55	0	0	0	0	1	0	27	0
Saturday 04:00	0	4	0	5	62	0	0	0	0	0	0	3	0
Saturday 05:00	0	0	0	0	35	0	0	0	0	1	0	0	0
Saturday 06:00	0	0	0	0	6	0	0	0	0	0	0	0	0
Saturday 07:00	0	0	0	0	0	0	24	0	0	0	0	0	0
Saturday 08:00	0	0	0	0	0	0	40	5	0	0	0	0	0
Saturday 09:00	0	0	0	0	0	0	61	4	0	0	0	0	0
Saturday 10:00	1	0	0	0	0	0	94	15	0	0	0	0	0
Saturday 11:00	0	0	0	0	0	0	108	19	0	0	0	0	0
Saturday 12:00	0	8	1	0	0	0	54	11	0	0	0	0	0
Saturday 13:00	0	13	2	0	0	0	44	1	0	0	0	0	0
Saturday 14:00	1	14	4	0	0	0	75	1	0	0	1	0	0
Saturday 15:00	0	18	17	0	0	0	53	7	0	1	0	0	0
Saturday 16:00	0	5	13	0	0	0	69	6	0	0	0	0	0
Saturday 17:00	0	12	20	0	1	0	91	11	0	1	0	0	0
Saturday 18:00	0	19	23	0	0	0	81	0	0	0	0	1	0
Saturday 19:00	0	15	24	0	0	0	88	6	0	0	0	0	2
Saturday 20:00	0	9	16	0	9	0	69	12	0	0	0	0	0
Saturday 21:00	0	10	38	4	17	0	64	9	0	1	0	0	0
Saturday 22:00	0	21	74	4	33	0	46	9	0	1	0	0	0
Saturday 23:00	3	27	58	9	50	0	23	3	0	0	2	1	0
Sunday 00:00	0	27	27	69	90	0	15	3	0	1	0	48	1
Sunday 01:00	0	88	12	95	113	0	5	0	0	0	0	55	0
Sunday 02:00	2	30	8	88	132	0	0	0	0	0	0	64	0
Sunday 03:00	0	40	0	97	191	0	0	0	0	4	0	43	1
Sunday 04:00	0	4	0	0	132	0	0	0	0	0	0	12	0
Sunday 05:00	0	0	0	0	65	0	0	0	0	1	0	0	0
Sunday 06:00	0	0	0	0	5	0	0	0	0	0	0	0	0

Total number of taxis departing with passengers

Hour beginning	Dee Street	Back Wynd	Chapel Street	Union Street Soul	Union Street Castlegate	St Andrew Street	Aberdeen Railway Station	Aberdeen Airport Main Rank	Aberdeen Airport Helpport Rank	Exchequer Row	Queen Street	Union Street at Summer Street	Rosemount Viaduct
Thursday 07:00	0	0	0	0	0	0	33	0	0	0	0	0	0
Thursday 08:00	0	0	0	0	0	0	30	9	0	0	0	0	0
Thursday 09:00	0	0	1	0	0	0	33	20	0	0	0	0	0
Thursday 10:00	2	2	0	0	0	0	32	20	0	0	0	0	0
Thursday 11:00	1	2	0	0	0	1	33	12	1	0	0	0	0
Thursday 12:00	2	17	2	0	0	0	31	6	0	0	0	0	0
Thursday 13:00	1	18	3	0	0	0	41	33	0	0	0	0	0
Thursday 14:00	1	9	3	0	0	0	39	29	0	0	1	0	1
Thursday 15:00	1	10	2	0	0	0	27	15	0	0	0	0	0
Thursday 16:00	0	5	2	0	0	0	34	21	0	0	0	0	0
Thursday 17:00	1	5	3	0	0	0	40	21	0	0	1	0	0
Thursday 18:00	0	6	6	2	0	0	35	12	0	0	0	0	0
Thursday 19:00	0	8	4	1	0	0	39	21	0	0	0	0	0
Thursday 20:00	0	10	14	0	0	0	38	15	0	0	0	0	0
Thursday 21:00	1	6	18	1	1	0	18	12	0	0	0	0	4
Thursday 22:00	0	3	11	0	1	0	26	12	0	0	0	0	0
Thursday 23:00	0	7	8	1	3	0	14	1	0	0	0	2	0
Friday 00:00	0	0	1	11	8	0	6	7	0	0	0	11	0
Friday 01:00	0	0	2	4	9	0	0	0	0	0	0	22	0
Friday 02:00	0	0	1	10	22	0	0	0	0	0	0	5	0
Friday 03:00	0	0	0	0	19	0	0	0	0	0	0	4	0
Friday 04:00	0	0	0	0	5	0	0	0	0	0	0	0	0
Friday 05:00	0	0	0	0	4	0	0	0	0	0	0	0	0
Friday 06:00	0	0	0	0	1	0	0	0	0	0	0	0	0
Friday 07:00	0	0	0	0	0	0	31	1	0	0	0	0	0
Friday 08:00	0	0	0	0	0	0	28	16	0	0	0	0	0
Friday 09:00	1	0	0	0	0	0	30	33	0	0	0	0	0
Friday 10:00	1	0	0	0	0	0	29	30	0	0	0	0	0
Friday 11:00	2	0	0	0	0	0	26	18	0	0	0	0	0
Friday 12:00	1	8	2	0	0	0	26	24	1	0	0	0	0
Friday 13:00	2	12	2	0	0	0	45	21	0	0	0	0	0
Friday 14:00	1	14	0	0	0	0	38	16	0	0	0	0	0
Friday 15:00	0	6	2	0	0	1	32	12	1	0	0	0	0
Friday 16:00	0	3	2	0	0	0	32	20	0	0	0	0	0
Friday 17:00	0	6	1	0	0	0	41	28	0	0	1	0	0
Friday 18:00	0	14	17	0	0	0	30	21	0	1	0	0	0
Friday 19:00	0	5	20	0	0	0	39	12	0	0	0	0	0
Friday 20:00	0	7	16	0	2	0	41	9	3	1	0	0	0
Friday 21:00	0	9	21	2	1	0	28	18	0	0	0	0	0
Friday 22:00	0	16	37	1	2	0	29	9	0	1	0	0	0
Friday 23:00	0	10	40	9	13	0	18	5	0	0	0	0	0
Saturday 00:00	0	5	16	27	39	0	7	5	0	0	0	32	0
Saturday 01:00	0	3	0	19	37	0	0	0	0	0	0	39	1
Saturday 02:00	0	5	3	16	20	0	0	0	0	0	0	45	0
Saturday 03:00	1	5	0	21	28	0	0	0	0	1	0	27	0
Saturday 04:00	0	1	0	2	23	0	0	0	0	0	0	3	0
Saturday 05:00	0	0	0	0	18	0	0	0	0	1	0	0	0
Saturday 06:00	0	0	0	0	3	0	0	0	0	0	0	0	0
Saturday 07:00	0	0	0	0	0	0	12	0	0	0	0	0	0
Saturday 08:00	0	0	0	0	0	0	16	5	0	0	0	0	0
Saturday 09:00	0	0	0	0	0	0	24	4	0	0	0	0	0
Saturday 10:00	1	0	0	0	0	0	35	15	0	0	0	0	0
Saturday 11:00	0	0	0	0	0	0	39	19	0	0	0	0	0
Saturday 12:00	0	5	1	0	0	0	23	11	0	0	0	0	0
Saturday 13:00	0	8	2	0	0	0	22	0	0	0	0	0	0
Saturday 14:00	1	7	4	0	0	0	30	1	0	0	1	0	0
Saturday 15:00	0	8	9	0	0	0	24	7	0	0	0	0	0
Saturday 16:00	0	3	7	0	0	0	33	6	0	0	0	0	0
Saturday 17:00	0	7	11	0	1	0	39	11	0	0	0	0	0
Saturday 18:00	0	10	13	0	0	0	36	0	0	0	0	1	0
Saturday 19:00	0	8	12	0	0	0	39	6	0	0	0	0	2
Saturday 20:00	0	6	9	0	6	0	32	12	0	0	0	0	0
Saturday 21:00	0	8	17	1	9	0	33	9	0	1	0	0	0
Saturday 22:00	0	10	34	2	17	0	22	9	0	1	0	0	0
Saturday 23:00	3	11	29	5	26	0	13	3	0	0	2	1	0
Sunday 00:00	0	12	13	41	43	0	11	3	0	1	0	48	1
Sunday 01:00	0	41	6	51	52	0	3	0	0	0	0	55	0
Sunday 02:00	1	17	4	52	58	0	0	0	0	0	0	64	0
Sunday 03:00	0	20	0	47	62	0	0	0	0	4	0	43	1
Sunday 04:00	0	2	0	0	46	0	0	0	0	0	0	12	0
Sunday 05:00	0	0	0	0	25	0	0	0	0	0	0	0	0
Sunday 06:00	0	0	0	0	4	0	0	0	0	0	0	0	0

Total number of taxis departing the ranks

Hour beginning	Dee Street	Back Wynd	Chapel Street	Union Street Soul	Union Street Castlegate	St Andrew Street	Aberdeen Railway Station	Aberdeen Airport Main Rank	Aberdeen Airport Heliport Rank	Exchequer Row	Queen Street	Union Street at Summer Street	Rosemount Viaduct
Thursday 07:00	0	0	0	0	0	0	33	0	0	0	0	0	0
Thursday 08:00	0	0	0	0	0	0	30	9	0	0	0	0	0
Thursday 09:00	0	0	1	0	0	0	33	20	0	0	0	0	0
Thursday 10:00	2	5	0	0	0	0	32	20	0	0	0	0	0
Thursday 11:00	1	2	0	0	0	1	33	12	1	0	0	0	1
Thursday 12:00	2	17	2	0	0	0	31	6	0	0	0	0	0
Thursday 13:00	1	18	3	0	0	0	41	33	0	0	0	0	0
Thursday 14:00	1	9	3	0	0	1	39	29	0	0	1	0	2
Thursday 15:00	1	10	2	0	0	0	27	15	0	0	0	0	0
Thursday 16:00	0	6	2	0	0	0	34	21	0	0	0	0	1
Thursday 17:00	1	5	3	0	0	0	40	21	0	0	1	0	0
Thursday 18:00	1	7	6	2	0	0	35	12	0	0	0	0	0
Thursday 19:00	2	11	5	1	0	0	39	21	0	0	0	0	0
Thursday 20:00	1	11	14	0	0	0	38	15	0	0	0	0	0
Thursday 21:00	4	6	18	1	1	0	18	12	0	0	0	0	4
Thursday 22:00	1	5	12	0	1	0	26	12	0	0	0	0	0
Thursday 23:00	0	11	8	1	3	0	14	1	0	0	0	2	0
Friday 00:00	0	2	1	11	8	0	6	7	0	0	0	11	0
Friday 01:00	0	0	2	4	9	0	0	0	0	0	0	22	0
Friday 02:00	0	0	1	10	23	0	0	0	0	0	0	5	0
Friday 03:00	0	0	0	0	20	0	0	0	0	0	0	4	0
Friday 04:00	0	0	0	0	5	0	0	0	0	0	0	0	0
Friday 05:00	0	0	0	0	6	0	0	0	0	0	0	0	0
Friday 06:00	0	0	0	0	1	0	0	0	0	0	0	0	0
Friday 07:00	0	0	2	0	0	0	31	1	0	0	0	0	0
Friday 08:00	0	0	0	0	0	0	28	16	0	0	0	0	0
Friday 09:00	2	0	0	0	0	0	30	33	0	0	0	0	0
Friday 10:00	1	0	0	0	0	0	29	30	0	0	0	0	0
Friday 11:00	2	0	0	0	0	0	26	18	0	0	0	0	0
Friday 12:00	1	9	3	0	0	0	26	24	1	0	0	0	0
Friday 13:00	2	15	3	0	0	0	45	21	0	0	0	0	0
Friday 14:00	2	18	2	0	0	0	38	16	0	0	0	0	0
Friday 15:00	1	9	2	0	0	1	32	12	1	0	0	0	0
Friday 16:00	1	4	2	0	0	0	32	20	0	0	0	0	0
Friday 17:00	0	7	2	0	0	0	41	28	0	0	1	0	0
Friday 18:00	0	20	18	0	0	0	30	21	0	1	0	0	0
Friday 19:00	0	6	20	0	0	0	39	12	0	0	0	0	0
Friday 20:00	0	7	16	0	2	0	41	9	3	1	0	0	0
Friday 21:00	2	10	22	2	1	0	28	18	0	0	0	0	0
Friday 22:00	0	16	37	1	2	0	29	9	0	1	0	0	0
Friday 23:00	0	15	40	9	13	0	18	5	0	0	0	0	0
Saturday 00:00	0	7	16	27	39	0	7	5	0	0	0	32	0
Saturday 01:00	0	5	0	19	37	0	0	0	0	0	0	39	1
Saturday 02:00	0	7	3	16	22	0	0	0	0	0	0	45	0
Saturday 03:00	1	6	0	21	29	0	0	0	0	1	0	27	0
Saturday 04:00	0	1	0	2	23	0	0	0	0	0	0	3	0
Saturday 05:00	0	0	0	0	19	0	0	0	0	1	0	0	0
Saturday 06:00	0	0	0	0	5	0	0	0	0	0	0	0	0
Saturday 07:00	0	0	0	0	0	0	12	0	0	0	0	0	0
Saturday 08:00	0	0	0	0	0	0	16	5	0	0	0	0	0
Saturday 09:00	0	0	0	0	0	0	24	4	0	0	0	0	0
Saturday 10:00	1	0	0	0	0	0	35	15	0	0	0	0	0
Saturday 11:00	1	0	0	0	0	0	39	19	0	0	0	0	0
Saturday 12:00	1	5	1	0	0	0	23	11	0	0	0	0	0
Saturday 13:00	1	10	2	0	0	0	22	1	0	0	0	0	0
Saturday 14:00	5	8	4	0	0	0	30	1	0	0	1	0	0
Saturday 15:00	3	8	10	0	0	0	24	7	0	1	0	0	0
Saturday 16:00	0	3	9	0	0	0	33	6	0	0	0	0	0
Saturday 17:00	0	7	11	0	1	0	39	11	0	1	0	0	0
Saturday 18:00	0	11	13	0	0	0	36	0	0	0	0	1	0
Saturday 19:00	0	8	12	0	0	0	39	6	0	0	0	0	2
Saturday 20:00	1	7	10	0	6	0	32	12	0	0	0	0	0
Saturday 21:00	1	8	17	1	9	0	33	9	0	1	0	0	0
Saturday 22:00	2	16	34	2	17	0	22	9	0	1	0	0	0
Saturday 23:00	4	11	29	5	28	0	13	3	0	0	2	1	0
Sunday 00:00	2	12	13	41	43	0	11	3	0	1	0	48	1
Sunday 01:00	0	41	6	51	52	0	3	0	0	0	0	55	0
Sunday 02:00	1	18	4	52	58	0	0	0	0	0	0	64	0
Sunday 03:00	0	23	0	47	62	0	0	0	0	4	0	43	1
Sunday 04:00	0	2	0	0	46	0	0	0	0	0	0	12	0
Sunday 05:00	0	0	0	0	25	0	0	0	0	1	0	0	0
Sunday 06:00	0	0	0	0	4	0	0	0	0	0	0	0	0

Percentage of all taxis which leave the rank empty

Hour beginning	Dee Street	Back Wynd	Chapel Street	Union Street Soul	Union Street Castlegate	St Andrew Street	Aberdeen Railway Station	Aberdeen Airport Main Rank	Aberdeen Airport Heliport Rank	Exchequer Row	Queen Street	Union Street at Summer Street	Rosemount Viaduct
Thursday 07:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 08:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 09:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 10:00	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 11:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Thursday 12:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 13:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 14:00	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	50%
Thursday 15:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 16:00	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Thursday 17:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 18:00	100%	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 19:00	100%	27%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 20:00	100%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 21:00	75%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 22:00	100%	40%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thursday 23:00	0%	36%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 00:00	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 01:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 02:00	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 03:00	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 04:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 05:00	0%	0%	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 06:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 07:00	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 08:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 09:00	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 10:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 11:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 12:00	0%	11%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 13:00	0%	20%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 14:00	50%	22%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 15:00	100%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 16:00	100%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 17:00	0%	14%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 18:00	0%	30%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 19:00	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 20:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 21:00	100%	10%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 22:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Friday 23:00	0%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 00:00	0%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 01:00	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 02:00	0%	29%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 03:00	0%	17%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 04:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 05:00	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 06:00	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 07:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 08:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 09:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 10:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 11:00	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 12:00	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 13:00	100%	20%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
Saturday 14:00	80%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 15:00	100%	0%	10%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%
Saturday 16:00	0%	0%	22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 17:00	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%
Saturday 18:00	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 19:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 20:00	100%	14%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 21:00	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 22:00	100%	38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Saturday 23:00	25%	0%	0%	0%	7%	0%	0%	0%	0%	0%	0%	0%	0%
Sunday 00:00	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sunday 01:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sunday 02:00	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sunday 03:00	0%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sunday 04:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sunday 05:00	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%
Sunday 06:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Number of passengers who had to wait at taxi ranks

Hour Beginning	Number of passengers who had to wait for a taxi to arrive	Percentage of all passengers who had to wait
Thursday 07:00	0	0%
Thursday 08:00	0	0%
Thursday 09:00	43	43%
Thursday 10:00	3	3%
Thursday 11:00	0	0%
Thursday 12:00	18	16%
Thursday 13:00	0	0%
Thursday 14:00	29	20%
Thursday 15:00	11	11%
Thursday 16:00	28	25%
Thursday 17:00	0	0%
Thursday 18:00	0	0%
Thursday 19:00	0	0%
Thursday 20:00	39	27%
Thursday 21:00	10	11%
Thursday 22:00	17	20%
Thursday 23:00	12	20%
Friday 00:00	19	31%
Friday 01:00	3	7%
Friday 02:00	11	21%
Friday 03:00	0	0%
Friday 04:00	0	0%
Friday 05:00	0	0%
Friday 06:00	0	0%
Friday 07:00	0	0%
Friday 08:00	0	0%
Friday 09:00	59	55%
Friday 10:00	8	9%
Friday 11:00	0	0%
Friday 12:00	0	0%
Friday 13:00	4	2%
Friday 14:00	0	0%
Friday 15:00	0	0%
Friday 16:00	31	32%
Friday 17:00	42	32%
Friday 18:00	0	0%
Friday 19:00	12	8%
Friday 20:00	0	0%
Friday 21:00	6	4%
Friday 22:00	27	15%
Friday 23:00	4	2%
Saturday 00:00	153	75%
Saturday 01:00	158	101%
Saturday 02:00	37	29%
Saturday 03:00	57	43%
Saturday 04:00	9	12%
Saturday 05:00	1	3%
Saturday 06:00	0	0%
Saturday 07:00	0	0%
Saturday 08:00	0	0%
Saturday 09:00	0	0%
Saturday 10:00	12	11%
Saturday 11:00	0	0%
Saturday 12:00	0	0%
Saturday 13:00	0	0%
Saturday 14:00	0	0%
Saturday 15:00	0	0%
Saturday 16:00	0	0%
Saturday 17:00	0	0%
Saturday 18:00	0	0%
Saturday 19:00	0	0%
Saturday 20:00	4	3%
Saturday 21:00	0	0%
Saturday 22:00	11	6%
Saturday 23:00	0	0%
Sunday 00:00	180	64%
Sunday 01:00	273	74%
Sunday 02:00	228	70%
Sunday 03:00	206	55%
Sunday 04:00	19	13%
Sunday 05:00	27	41%
Sunday 06:00	0	0%