NTA Luas Park & Ride Pilot

2017

National Transport Authority,
Dun Scèine,
Harcourt Lane,
Dublin 2.

Contents

1   Introduction

1.1 Background to the Survey

Between October and December 2016, the NTA, in conjunction with Kantar Millward Brown (KMB) undertook a survey of Luas passengers at two specific Luas stops. The main purpose of the survey was to obtain essential information about Luas passengers travelling to and from the Stillorgan and Red Cow Luas stops. The survey focused mainly on obtaining quantitative Origin / Destination address information from Park & Ride Luas passengers, and hence included questions on the patterns of travel, arrival and departure times and parking arrangements.

As this was the first time the study was to be carried out, an agreement was made between the NTA and Kantar Millward Brown that the survey would be initially carried out as a pilot, with a view to informing possible future surveys on a larger scale in 2017.

The pilot survey was undertaken with the full co-operation and involvement of both the NTA and Kantar Millward Brown in terms of preparations for the survey, the design of the survey questionnaire and the survey pilot. In addition, Transdev provided the necessary permissions to enable Kantar Millward Brown surveyors to interview on either the Stillorgan or Red Cow Luas platforms.

1.2 Aims and Objectives

As aforementioned, the main aim of the pilot survey was to obtain quantitative Origin / Destination (O – D) address information from Park & Ride Luas passengers. This data would enable the Authority to use the data to better calibrate Park & Ride modules within its regional (computer) models. In addition, the survey would provide quantitative data on refusal rates as a function of: time of day, day of week, gender, station location and boarding versus alighting passengers. To achieve this, the NTA drew up a detailed survey brief and agreed this in consultation with Kantar Millward Brown. The brief included a number of specific objectives - including:

■   to survey a good representative sample of Park & Ride Luas passengers travelling to and from the Stillorgan & Red Cow Luas stop over the working week

■   to obtain a survey sample with a mix of both boarding and alighting Luas passengers

■   to capture information on survey refusals, recording the respondents' demographics as well as the day, date and time of the interview and whether the respondent was boarding or alighting the Luas tram

■ to record those non Park & Ride Luas passengers, but not count them towards the main survey sample

1.3 Survey Methodology and design of questionnaires

As stated above, the main aim of the pilot survey was to obtain quantitative Origin / Destination (O-D) address information on Park & Ride Luas passengers. Following discussions with the NTA, it was agreed that the best survey methodology to obtain this data was via direct face-to-face interviews with Park & Ride Luas passengers, regarding their journeys both to and from either the Stillorgan or Red Cow Luas stops.

It was also agreed that information about non Park & Ride Luas passengers would be recorded, but not counted towards the main total sample. Data on those who refused the survey would be captured as a function of time of day, day of week, gender, station location and boarding versus alighting passengers, in order to obtain quantitative data on refusal rates to better inform possible future surveys on a larger scale.

In November 2016, the contents of the survey questionnaire was agreed between the NTA and Kantar Millward Brown. The questionnaire included the following questions:

- The origin and destination of trips both to and from the Stillorgan and Red Cow Luas stops,

- Trip departure and arrival times for both to and from journeys,

- Mode of arrival at the Luas stop,

- Main purpose of journey to the Luas stop,

- Parking arrangements of Park & Ride passengers and amount paid for parking,

- Availability of a car/van for Park & Ride passengers,

- Date of last visit to either the Stillorgan or Red Cow Luas stops,

- Main reasons for driving to the Luas stop for Park & Ride passengers

1.4 Survey Programme

Pilot

As this was the first time the research was to be carried out, it was necessary to test the questions in a pilot survey.

Hence a pilot survey of 349 passengers, using the draft questionnaire developed by both the NTA and Kantar Millward Brown, was undertaken from Monday 09th January – Monday 16th January, excluding weekends. As it was necessary to reschedule three interviewing shifts on Monday 09th January, these shifts were undertaken on Monday 16th January at the same time as was scheduled for the original shifts.

It was agreed not to run the pilot survey prior to Christmas due to the Christmas period not being reflective of usual travel patterns.

Fieldwork

In order to obtain a representative sample of Park & Ride Luas passengers, interviewing was carried out across the working week, running from 07:00-19:00. These specific timings ensured that both peak and off-peak travel hours were covered to see if there were any notable differences in survey response rates at particular times of the day. This time span was also deemed sufficient time to obtain a robust enough sample to potentially inform larger research studies down the line.

Permission to interview at Luas stops was obtained from Transdev, which enabled Kantar Millward Brown interviewers to undertake face-to-face interviews with Luas passengers at both the Stillorgan and Red Cow Luas stops. One interviewer was stationed at each Luas stop per interviewing shift which allowed Kantar Millward Brown to ensure a representative sample of Park & Ride passengers on both the Red and Green Luas lines.

Chapter two of this report gives details of the survey sample rates obtained and a breakdown of the sample by various categories. Chapter three details the survey findings under various headings, while chapter four summarises the survey's key findings.

2   Survey Sample

2.1   Number of passengers surveyed

Table 2.1 gives details of the number of Park & Ride Luas passengers interviewed on each day of the pilot.

Table 2.1 – Park & Ride Passengers surveyed in survey pilot x day of week

Day	Date	% of Sample Surveyed	Interviews Conducted
Monday	09&16/01/2017	19%	66
Tuesday	10/01/2017	19%	67
Wednesday	11/01/2017	21%	72
Thursday	12/01/2017	21%	72
Friday	13/01/2017	21%	72
Totals		**100%**	**349**

Table 2.2 – Park & Ride Passengers surveyed in survey pilot x time of day

Time of Day	% of Sample Surveyed	Interviews Conducted
07:00 – 08:00	5%	20
08:01 – 09:00	7%	23
09:01 – 10:00	7%	24
10:01 – 11:00	7%	25
11:01 – 12:00	19%	65
12:01 – 13:00	9%	31
13:01 – 14:00	9%	30
14:01 – 15:00	9%	33
15:01 – 16:00	10%	36
16:01 – 17:00	14%	50
17:01 – 18:00	3%	12
Totals	**100%**	**349**

The tables show that 349 Park & Ride Luas passengers were interviewed as part of the survey pilot. It was agreed between the NTA and Kantar Millward Brown that due to the

survey being a pilot only, that no specific targets or quotas would be required. Instead the pilot was intended to inform the optimal times of day and days of week to conduct interviewing for potential larger research projects down the line.

Interviewing shifts were spread evenly across times of day and day of week and interviewers were instructed to obtain as many interviews as possible during their shift.

The tables show that successful interviews achieved were spread evenly across days of the week while in terms of time of day, successful interviews achieved were at their highest between 11:01 and 12:00 and 16:01-17:00.

2.2   Sample by Gender and Age

Figure 2.1 shows the breakdown of participating Park & Ride Luas passengers by gender. It shows that the pilot survey achieved an even mix of male and female survey participants.

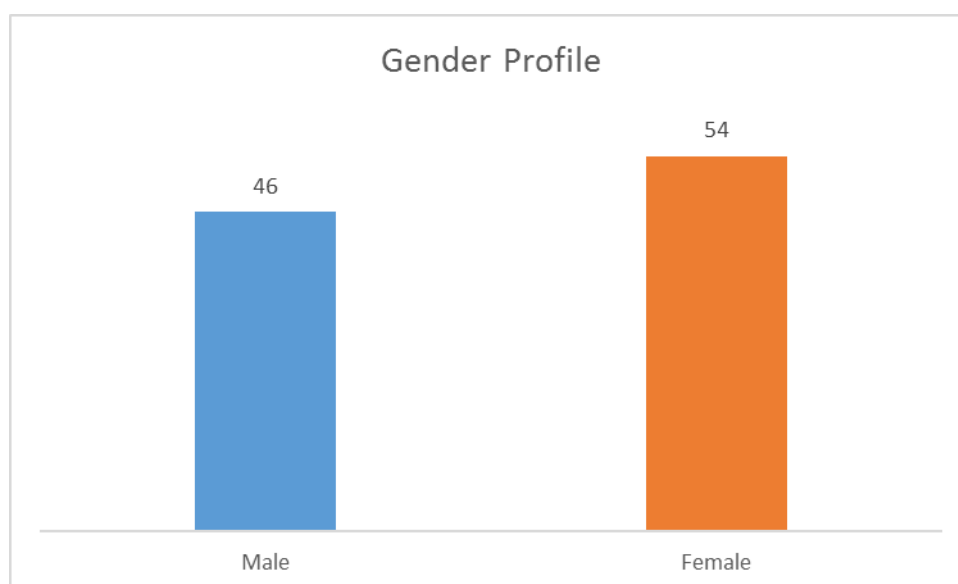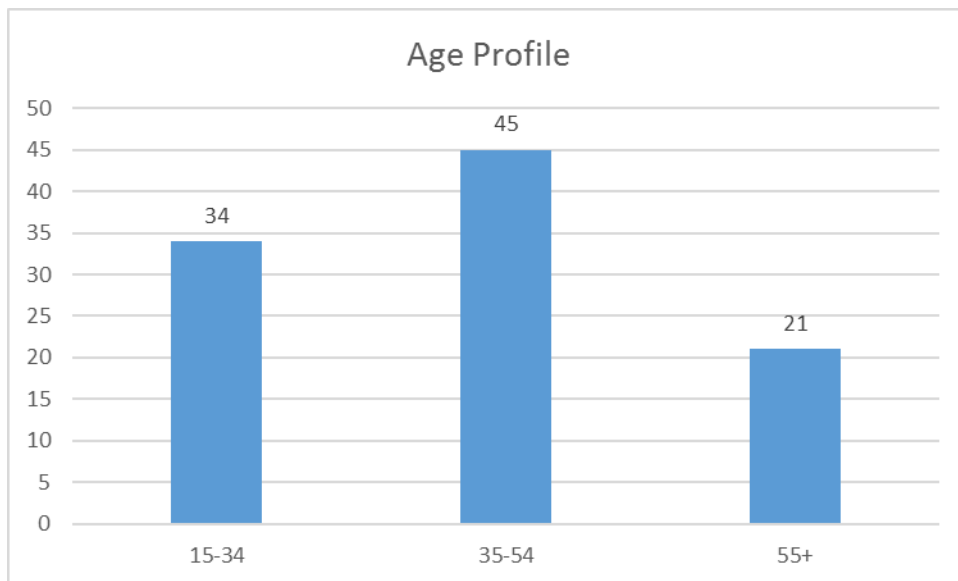*Figure 2.1 – Gender profile of survey participants*

Figure 2.2 shows the age profile of participating Park & Ride passengers.

Figure 2.2 – % Age profile of survey participants

This profile shows that the survey obtained a representative sample of Park & Ride Luas passengers.

3 Main Survey Findings

3.1 Introduction

This chapter summarises the main survey findings under the following headings:

- Mode of travel and reasons for mode choice,

- Passenger arrival and departure times and journey times to the Stillorgan and Red Cow Luas stops,

- Origins of passengers travelling to the Luas stop – i.e. the patterns of travel,

- Parking arrangements for Park & Ride passengers,

- Purpose of trip,

- Tolls paid by persons travelling by car.

## 3.2   Mode of travel and reason for mode choice

Table 3.1 shows the number of Park & Ride passengers who travelled to either the Stillorgan or Red Cow Luas stop by each mode.

* Table 3.1 – Mode of travel to the Luas Stop

Mode to Luas Stop	Stillorgan	% Mode Share	Red Cow	% Mode Share
Drove by car/van	144	84%	150	84%
Got a lift by car/van	27	16%	28	16%
Totals	**171**	**100%**	**178**	**100%**

The data is displayed in chart form in figure 3.1.

Figure 3.1 – % Mode share of passengers to the Luas Stop
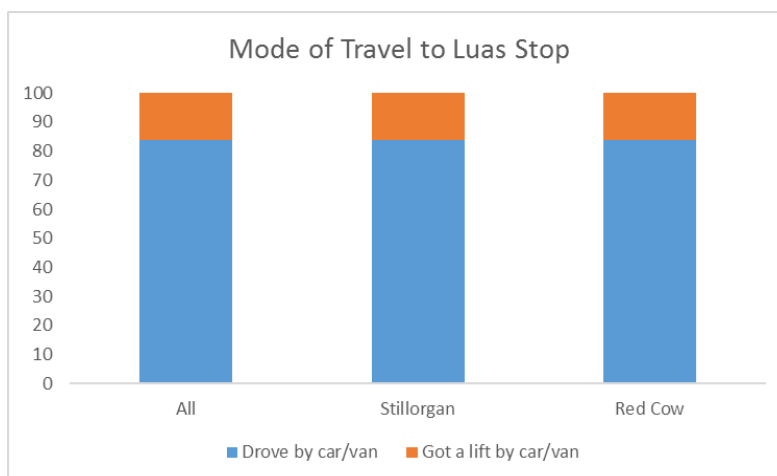
The data shows that driving to the Luas stop by car and parking nearby is the favoured mode of transport for Park & Ride passengers across the board. Overall, four in five Park & Ride passengers opted to drive themselves to the stop and park nearby, while the remaining one in five were given a lift to the stop.

Figure 3.2 below gives a breakdown of the main reasons quoted for passengers' choice of mode.

Figure 3.2 – Reason for Mode Choice
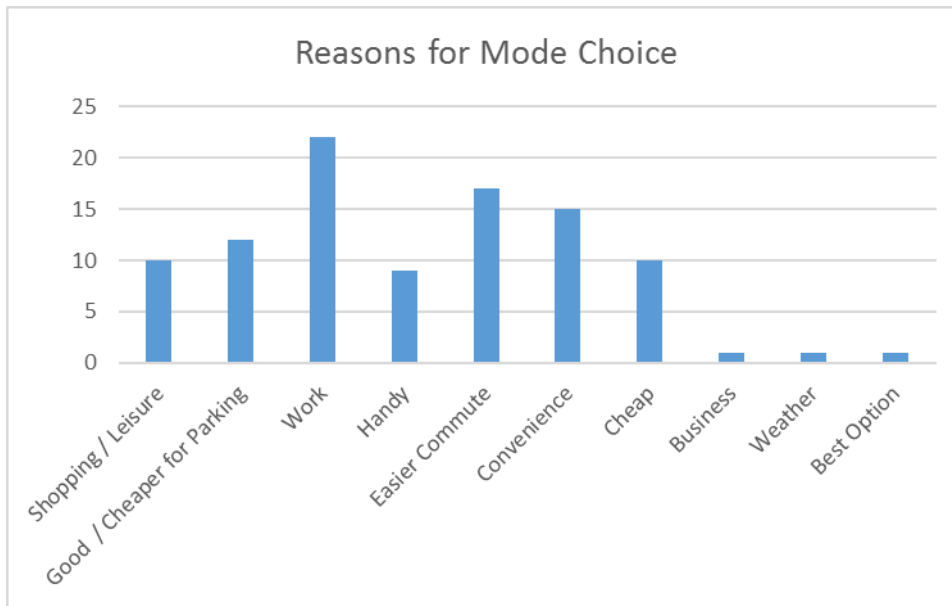
The chart shows that the main reasons for passengers' choosing Park & Ride were as a way to get to work (22%), as well as making their commute easier (17%) and more convenient (15%). Ease of parking (12%), price (10%) and shopping/leisure (10%) were also cited as main reasons for choosing Park & Ride. Other reasons such as the weather and business meetings had little influence on passengers choosing to Park & Ride.

3.3 Arrival and departure profiles and travel times

Figure 3.3 gives the time profile of passengers arriving at both the Stillorgan and Red Cow Luas stops, while figure 3.4 shows the equivalent profile for passenger trips from both Luas stops.

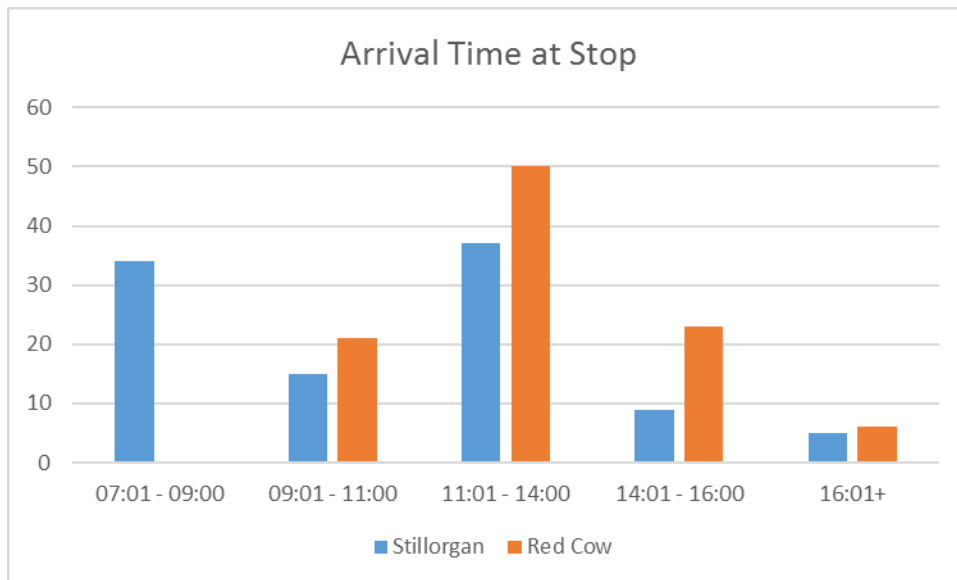*Figure 3.3 – Time profile of arrivals at both the Stillorgan & Red Cow Stops*
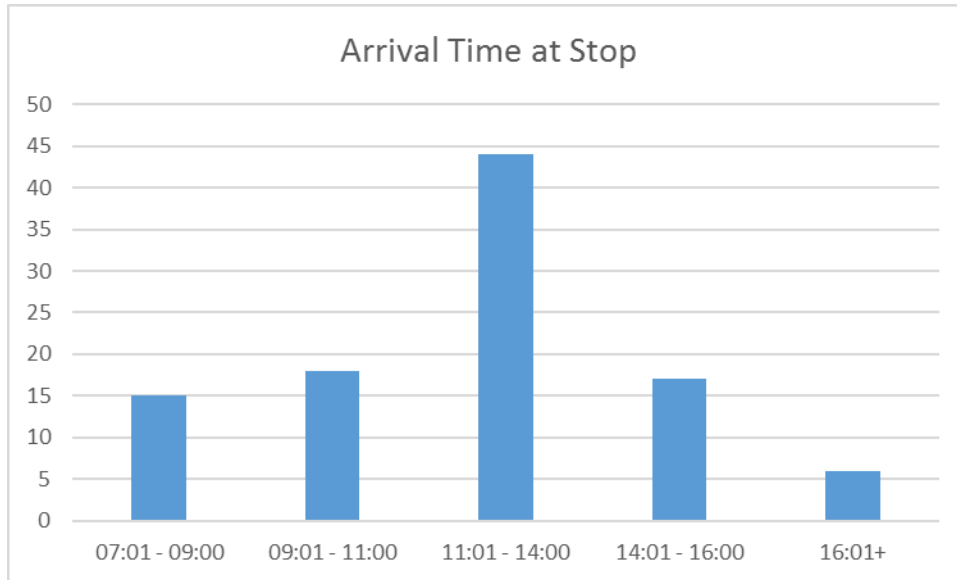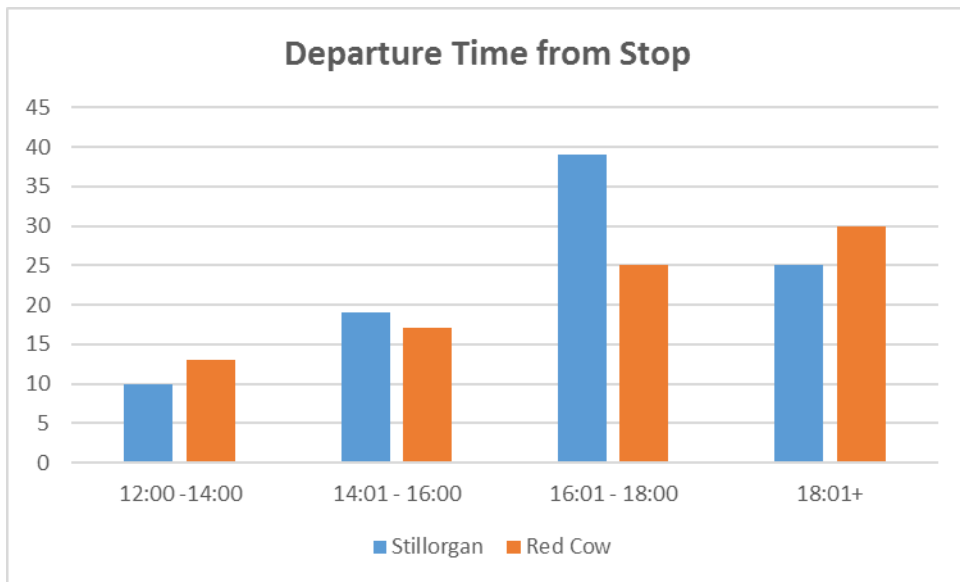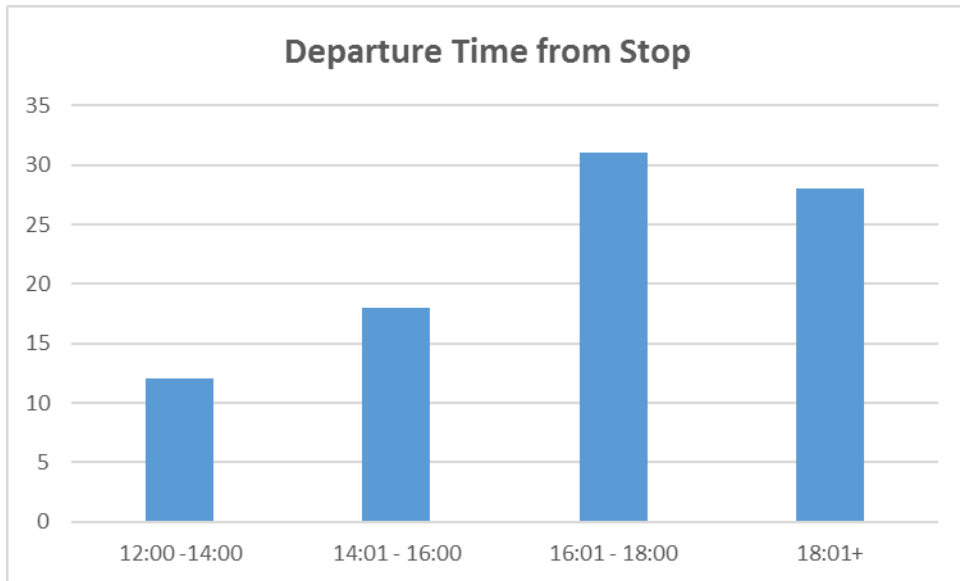
Figure 3.3.1 – Time profile of departures from both the Stillorgan & Red Cow Luas Stops

The arrival profile shows that at a total level, 44% of Park & Ride passengers arrived at either the Stillorgan or Red Cow Luas stop between 11:01 – 14:00. When looking at these figures by individual stop, 37% arrived at the Stillorgan Luas stop between 11:01 – 14:00, while 34% arrived between 07:01 – 09:00.

Conversely, 50% arrived at the Red Cow Luas stop between 11:01-14:00 while 23% arrived between 14:01-16:00. This profile of arriving passengers shows a much greater concentration of Park & Ride passengers arriving at the Stillorgan Luas stop in the morning and early afternoon, while the majority of Park & Ride passengers arrive at the Red Cow Luas stop later in the day.

The profile of departing passengers shows a much greater concentration of Park & Ride passengers later in the day, with the majority departing either the Stillorgan or Red Cow stops from 16:00 onwards.

Figure 3.3.2 shows the profile of journey times of passengers travelling to either the Stillorgan or Red Cow Luas stops. The figure shows that 62% of passengers have a journey time of less than 30mins and that one fifth of all Park & Ride passengers have a journey time of up to one hour.

Figure 3.3.2 – Journey time to the Luas Stop

Journey Time to Stop
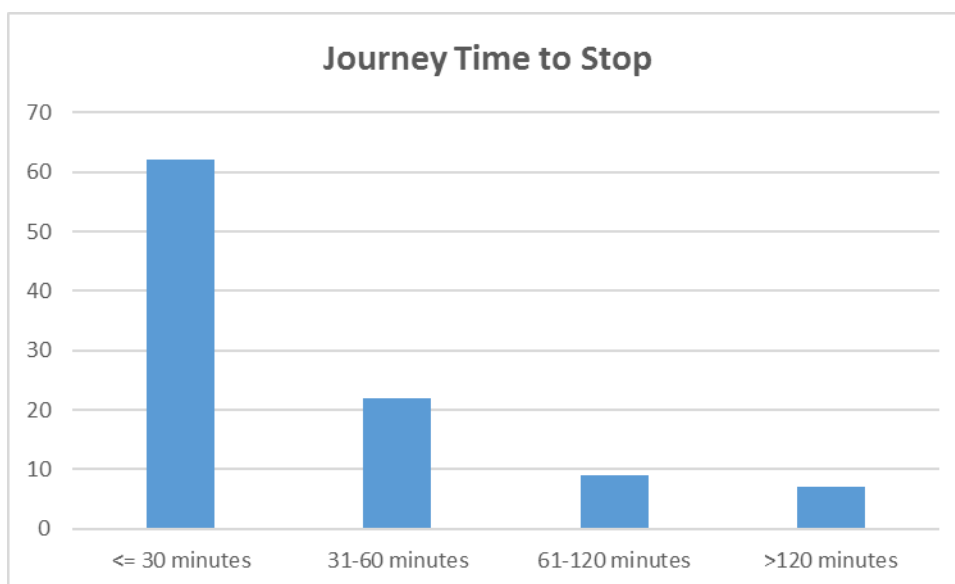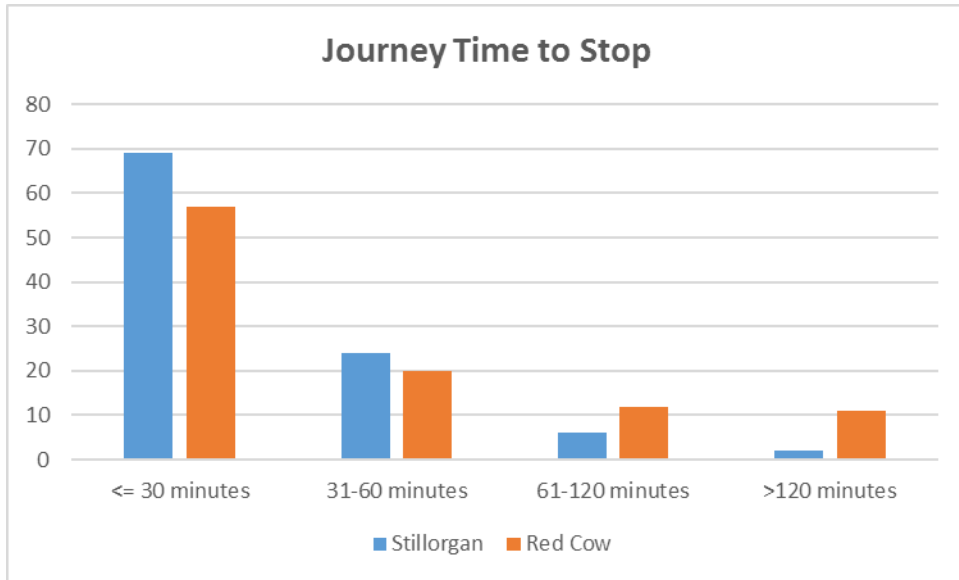
When looking at these figures by individual stop, 69% of passengers have a journey time of less than 30 minutes when travelling to the Stillorgan Luas Stop; 57% to Red Cow. One in five passengers have a journey time of less than an hour to either Luas stop while journeys of up to 120 minutes are more prevalent for Red Cow Park & Ride passengers, with one in five passengers taking up to 120 minutes to reach the Red Cow Luas stop.

3.4 Parking arrangements

Table 3.4 gives the breakdown of car parks used by Park & Ride Luas passengers, split out by stop. As expected, almost all Park & Ride passengers used the station car park when parking their car.

Table 3.4 – Carpark used by Luas Stop - Number of passengers

Car Park Used	Stillorgan	Red Cow	Total Passengers
Station Car Park	90% 129	98% 147	94% 276
Other Pay Car Park	1	1	2
Pay On-Street	3	-	3
Free On-Street	1	1	2
Other	10	1	11
Total Passengers	144	150	294

3.5   Parking arrangements (Fees)

Table 3.5 gives the breakdown of car parks used by Park & Ride Luas passengers, split out by stop. As expected, almost all Park & Ride passengers used the station car park when parking their car.

Table 3.5 – Parking fees paid by Park & Ride passengers - %

Car Park Used	Stillorgan	Red Cow	Total Passengers
Under €2	6%	3%	4%
€2 exact	27%	24%	26%
€2.01- €3.99	4%	-	2%
€4 exact *(daily rate)*	57%	71%	64%
€4.01 - €9.99	3%	2%	2%
€10.00 - €19.99	1%	-	-
€20.00+	3%	-	1%
Total Passengers	**100%**	**100%**	**100%**

Table 3.5 shows that 64% of Park & Ride passengers pay exactly €4, the daily rate, when parking their car. One quarter pay exactly €2 while few pay outside of this range. Stillorgan Park & Ride passengers were more likely than Red Cow passengers to pay up to and above €20 for parking.

3.6 Trip purpose

Table 3.6 gives a breakdown of trip purpose for Park & Ride passengers.

Table 3.6 Purpose of Trip

Trip Purpose	Stillorgan	Red Cow	Total Passengers	% of Total
Commute to Work	92	82	174	50%
Commute to Third Level College	6	8	14	4%
Commute to Second Level School	4	1	5	1%
Shopping / Leisure Trip	45	63	108	31%
Work-related Trip (not commute)	13	5	18	5%
Trip to doctor / dentist / hospital etc.	1	13	14	4%
Visit friends / relatives	5	4	9	3%
Other (specify)	5	2	7	2%
Total Passengers	**171**	**178**	**349**	**100%**

The table shows that both Stillorgan and Red Cow Luas passengers had similar trip purposes overall. Half of all Park & Ride passengers travelled for their commute to work, slightly over-indexing for Stillorgan passengers, while the next highest journey purpose (31%) was for shopping/leisure trips, over-indexing for Red Cow passengers. The breakdown of trip purpose for all passengers is summarised in figure 3.8 below.

Figure 3.8 Passengers by journey purpose
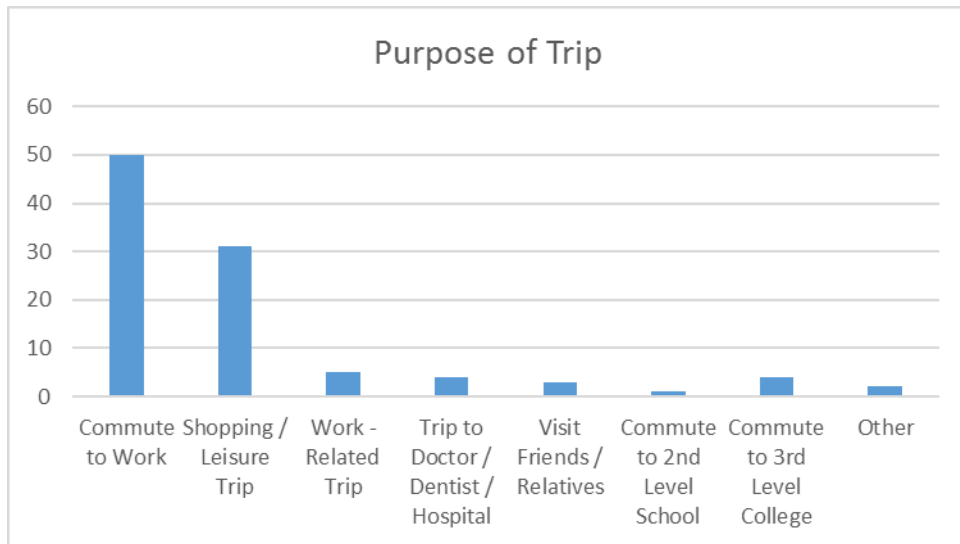
4   Refusals or exclusions from survey

Rate of Refusals	Total	Red Cow	Stillorgan	Male	Female
Base	(24)	(1)	(23)	(12)	(12)
Boarding	46%	100%	43%	50%	42%
Alighting	54%	-	57%	50%	58%

Very few potential respondents refused to complete the survey, a total of 24 people, all bar one at the Stillorgan Stop.

The table below shows that we approached another 485 respondents who were willing to be interviewed but did not qualify as either Park & Ride or being dropped off by car. Two thirds of these 66% had walked to the Luas Stop.

Rate of Exclusions	Total	Boarding	Alighting
Base	(485)	(460)	(25)
Walked	66%	68%	28%
Cycled	2%	2%	4%
Taxi	-	-	-
Dublin Bus	8%	8%	4%
Motorbike	-	-	-
Other	24%	22%	64%

5   Summary of Key Findings

Some of the more significant findings of the Park & Ride pilot study 2017 are as follows:

- Commuting to work (50%) and shopping/leisure (31%) were cited as the main purpose for passengers' trips to the Luas stop, with similar results seen for both Luas stops.

- Overall 44% of participating passengers arrived at the Luas stop between 11:00 -14:00. In general, passengers were more likely to arrive at the Stillorgan Luas stop earlier in the day, with one third (34%) arriving between 07:01-09:00. Conversely, passengers were more likely to arrive at the Red Cow Luas stop later in the day with one quarter (23%) arriving between 14:00-16:00.

- Three in five Park & Ride passengers (62%) take less than thirty minutes to reach the Luas stop on their journey. Stillorgan passengers tend to take less time to reach the Luas stop, with seven in ten taking less than thirty minutes to reach the stop, while one in five Red Cow passengers take up to two hours to reach the stop.

- Two thirds of Park & Ride passengers pay exactly €4 for parking, while one quarter pay exactly €2. Stillorgan Park & Ride passengers were more likely than Red Cow passengers to pay up to and above €20 for parking.

- When asked why they chose the use park & ride, 22% said they used it for getting to work, 17% stated it made their journey easier and 15% found it convenient.

- If not using park & ride or being dropped off but another car user, the most popular mode to get to the Luas stop was walking at 66%.

6   Recommendations for Future Rollout of Survey

There were many learnings gathered from this survey and we would recommend taking the following into account when rolling out further:

- Sampling: It is critical to ensure even interviewing coverage over the times of day during the days of the week. We recommend keeping with 3 non-overlapping shifts per day: 7am-11 am, 11am-3pm and 3pm-7pm.

- Inclusions & Exclusions: We recommend including some further questions for those using other modes of transport to get to the stop/station being researched, in order to provide context at the same time of year, day of week and time of day for those using Park & Ride or being dropped off. We had very few refused interviews, as many were excluded on the grounds of mode used.

- Questionnaire: We recommend the questionnaire stay similar to the current format, however, we suggest that the question on why use this mode (Q10) be changed to a pre-coded question (but still unprompted) and also ask it in such a way that it is not confused with purpose of trip (Q1).

- Address capture: Detailed capture of address as street, town, county and postcode in separate text boxes should continue.

- Scope: We suggest that this approach be rolled out to other Luas Stops and Park & Ride facilities for train and bus stations as well as any significant bus stops where relevant. For certain locations, interviewing could be conducted at weekends, where appropriate.

- Time of year: We recommend avoiding times of the year that impact on travel patterns, such as school holidays, bank holidays and around festivals/events, etc. (unless this is the specific purpose).

Appendix A

Survey Questionnaires

41113912
National Transport Authority Park & Ride Survey

Questionnaire

INTRODUCTION
INTERVIEWER: **READ OUT**
SCRIPTER: INTRODUCTION SCREEN

Good morning/afternoon/evening. I'm _____ from Kantar Millward Brown. We are carrying out a short survey on behalf of the National Transport Authority with Luas users and I'd be grateful for your help in answering some questions. **[For refusals, record day, date, time, gender, and whether passenger was boarding or alighting]**

Q. A   RECORD IF PASSENGER
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: **RECORD** ALL

1: Boarding
2: Alighting

Q. B   This survey is about travel to and from public transport and should only take a few minutes, are you happy to take part?
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: ASK ALL

1: Yes - Continue
2: No – Record refusals [RECORD AGE & GENDER OF RESPONDENT + DAY, DATE & TIME OF INTERVIEW, WHETHER BOARDING OR ALIGHTING]

Q. C How did you initially arrive at this Luas stop today?
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: ASK ALL

1: Drove yourself by car/van and parked nearby
2: Got a lift here by car/van
3: Walked –   RECORD BUT DO NOT COUNT TO SAMPLE
4: Cycled –   RECORD BUT DO NOT COUNT TO SAMPLE
5: Arrived by taxi –   RECORD BUT DO NOT COUNT TO SAMPLE
6: By Dublin Bus –   RECORD BUT DO NOT COUNT TO SAMPLE
7: By motorbike –   RECORD BUT DO NOT COUNT TO SAMPLE
8: Other –   RECORD BUT DO NOT COUNT TO SAMPLE

If Answer 1 or 2, for Q. C, then Continue; otherwise thank the passenger and end the interview.

Q.1   What is the <u>main</u> purpose of this journey today?
INTERVIEWER: SINGLE CODE ONLY
SCRIPTER: SINGLE CODE
FILTER: ALL

   1: Commute to work
   2: Commute to 3rd level college
   3. Commute to 2nd level school
   4. Shopping / leisure trip
   5. Work-related trip (but not commute)
   6. Trip to doctor / dentist or hospital, etc.
   7. Visit friends / relatives
   99. Other (specify)

Q. 2A From where did you start your trip to this station?
INTERVIEWER: Record Address, Street/Road, City/Town/Village, Townland (if rural), County, Postcode (if known)
SCRIPTER: Text box 1   Street or Road and other information to narrow down a bit, if need be
FILTER: ASK ALL

SCRIPTER: Text box 2   Town / village or neighbourhood
FILTER ASK ALL

SCRIPTER: Text box 3   County
FILTER: ASK ALL

```

```

SCRIPTER: Text box 3   Post Code
FILTER: ASK ALL

```

```

Q. 2B Where is your destination from this station?
INTERVIEWER: Record Address, Street/Road, City/Town/Village, Townland (if rural),
County, Postcode (if known)
SCRIPTER: Text box 1 Street or Road and other information to narrow down a bit, if need
be
FILTER: ASK ALL

```

```

SCRIPTER: Text box 2 Town / village or neighbourhood
FILTER: ASK ALL

```

```

SCRIPTER: Text box 3 County

```

```

FILTER: ASK ALL

SCRIPTER: Text box 3   Post Code
FILTER: ASK ALL

```

```

Q.3   What time did you arrive at this station today?
INTERVIEWER: Record time as 4 digits (24 hours clock) eg. 8.30am = 0830, 8.30pm =
2030
SCRIPTER: 24 hour clock – allow 4 digits
FILTER: Those coded 1 (Boarding) at QA

Q.4 What time did you begin your journey to this station?
INTERVIEWER: Record time as 4 digits (24 hours clock) eg. 8.30am = 0830, 8.30pm = 2030
SCRIPTER: 24 hour clock – allow 4 digits
FILTER: Those coded 1 (Boarding) at QA

Q. 4a So it took _____ minutes to get to the station today?
INTERVIEWER: Calculate journey time to station. Record in hours and minutes in 4 digits
SCRIPTER: New Screen. Allow 4 digits
FILTER: Those coded 1 (Boarding) at QA

Q. 5 At what time do you expect to be arriving back at this station today?
INTERVIEWER: Record time as 4 digits (24 hours clock)
SCRIPTER: 24 hour clock – allow 4 digits
FILTER: Those coded 1 (Boarding) at QA

99. Not applicable

Q. 4b About how long will it take you to reach your final destination from this stop? _____ minutes?
INTERVIEWER: Calculate journey time to station. Record in hours and minutes in 4 digits
SCRIPTER: New Screen. Allow 4 digits
FILTER: Those coded 2 (Alighting) at QA

Q. 5b At about what time did you arrive at this station earlier today?
INTERVIEWER: Record time as 4 digits (24 hours clock)
SCRIPTER: 24 hour clock – allow 4 digits
FILTER: Those coded 2 (**Alighting**) at QA
[PO'S] What to do if Alighter going to Work, say, and not returning home?

99. Not applicable

Q. 6 If you were driven to the station as a **passenger**, did the person with you?
INTERVIEWER: **SINGLE CODE ONLY**

FILTER: Those who code 2 at QC

    1: Drive away after dropping you?
    2: Park the car and accompany you into the station?
    99: Not applicable

Q.7 If you arrived **by car**, where did you **park** the car?
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: All those who code 1 at QC

    1: Station car park
    2: Other pay car park (Incl. Hotel, Shopping Centre)
    3: Pay on-street
    4: Free on-street
    99: Other (specify)

Q.7b If you arrived **by car**, about how much did you (or do you) pay to **park**?
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: All those who code 1 at QC

    99: Other (specify)

€   .

Q.8 Did you have a car/van available to drive yourself to the station today?
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: Those who code Code 2 at Q

    1: Yes
    2: No

Q.9 When did you last use this station to make this trip?
INTERVIEWER: Record Day, Month and Year eg. 02 April 2016 would be 020416
SCRIPTER: Allow 6 digits
FILTER: ASK ALL
    1:

    2. Never/first time

Q.10   What are the main reasons you drove to this station today (please specify)?
INTERVIEWER: **MULTIPLE RESPONSES ALLOWED**
SCRIPTER: Text boxes (1 screen per reason given)
FILTER: All those who code 1 at QC

INTERVIEWER: READ OUT: And now, finally some classification questions just to ensure we interview a broad cross-section of people.

AGE: Which of these age groups do you fit into?
INTERVIEWER: Record Age
SCRIPTER: Single Code
FILTER: ASK ALL
      1: 15-24
      2: 25-34
      3: 35-44
      4: 45-54
      5: 55-64
      6: 65+
      7: Refused

RECORD STATION
INTERVIEWER: RECORD STATION
SCRIPTER: Single Code
FILTER: ALL
1: Stillorgan
2: Red Cow

For quality control purposes, can I please ask your name and contact number of email address. Please be assured that this information will never be used for any purpose other than the verification of this interview.
INTERVIEWER: RECORD RESPONDENT NAME AND PHONE NUMBER OR EMAIL ADDRESS
SCRIPTER: text box
FILTER: ASK ALL

INTERVIEWER: Please thank respondent for participating in survey.

INTERVIEWER: COMPLETE THE FOLLOWING SCREENS FOR OFFICE
ADMINISTRATION PURPOSES.

AGE: Which of these age groups do you fit into?
INTERVIEWER: Record Age
SCRIPTER: Single Code
FILTER: ASK THOSE WHO CODE 2 AT QB
     1: 15-34
     2: 35-54
     3: 55+

Q. A   RECORD IF PASSENGER
INTERVIEWER: **SINGLE CODE ONLY**
SCRIPTER: SINGLE CODE
FILTER: ALL

1: Boarding
2: Alighting

RESPONDENT GENDER:
INTERVIEWER: RECORD GENDER OF RESPONDENT
SCRIPTER: Single Code
     1: Male
     2: Female

DAY:
INTERVIEWER: Record day.
SCRIPTER: Single Code
FILTER: ALL

     1: Monday
     2: Tuesday
     3: Wednesday
     4: Thursday
     5: Friday

DATE:
INTERVIEWER: Record Date of Interview
SCRIPTER: Allow 2 digits
FILTER: ALL

TIME OF INTERVIEW:
INTERVIEWER: Record time as 4 digits eg. 8.30pm = 2030, 8.30am = 0830
SCRIPTER: Allow 4 digits
FILTER: ALL

FOR OFFICE USE ONLY

Record Interviewer Number

Record first two digits of the assignment number

Record the last four digits of the assignment number

I CERTIFY THAT I HAVE CARRIED OUT THIS INTERVIEW STRICTLY IN ACCORDANCE WITH INSTRUCTIONS GIVEN. INTERVIEWER: IF NO, PLEASE CLOSE
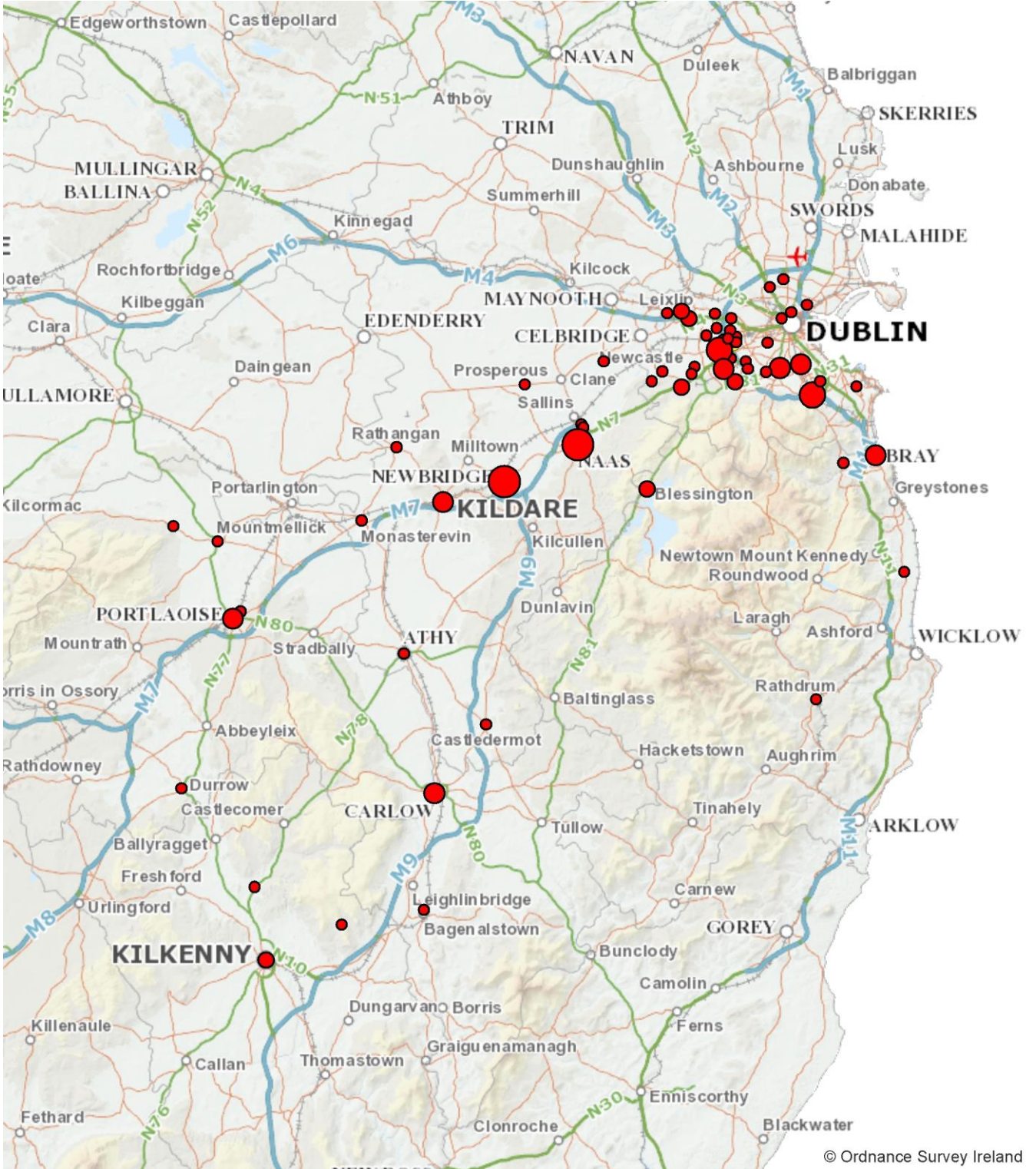
1: Yes

Appendix B

Red Cow Luas Park-and-Ride: Origins of Boarding Passengers; diameter indicates weighted responses.
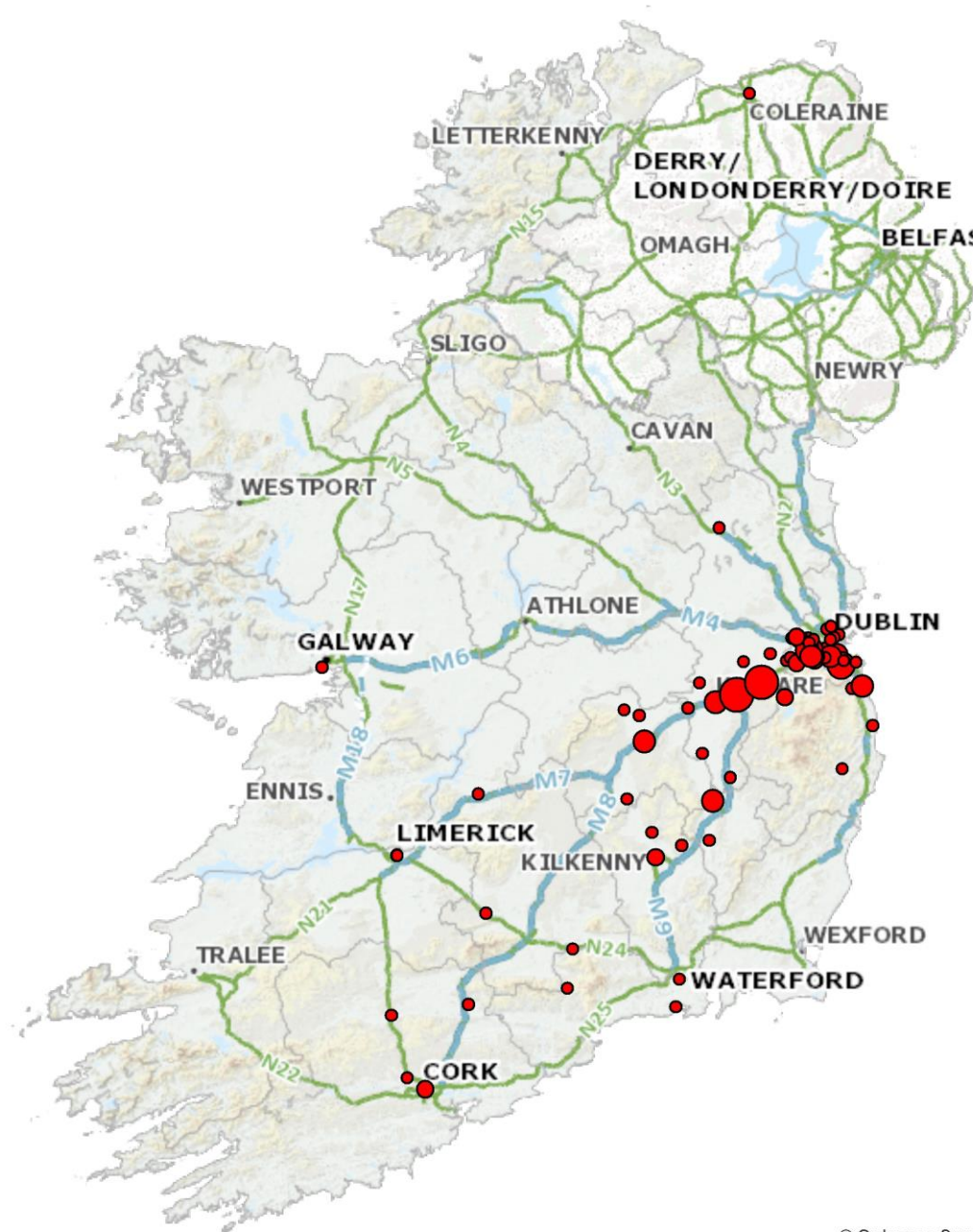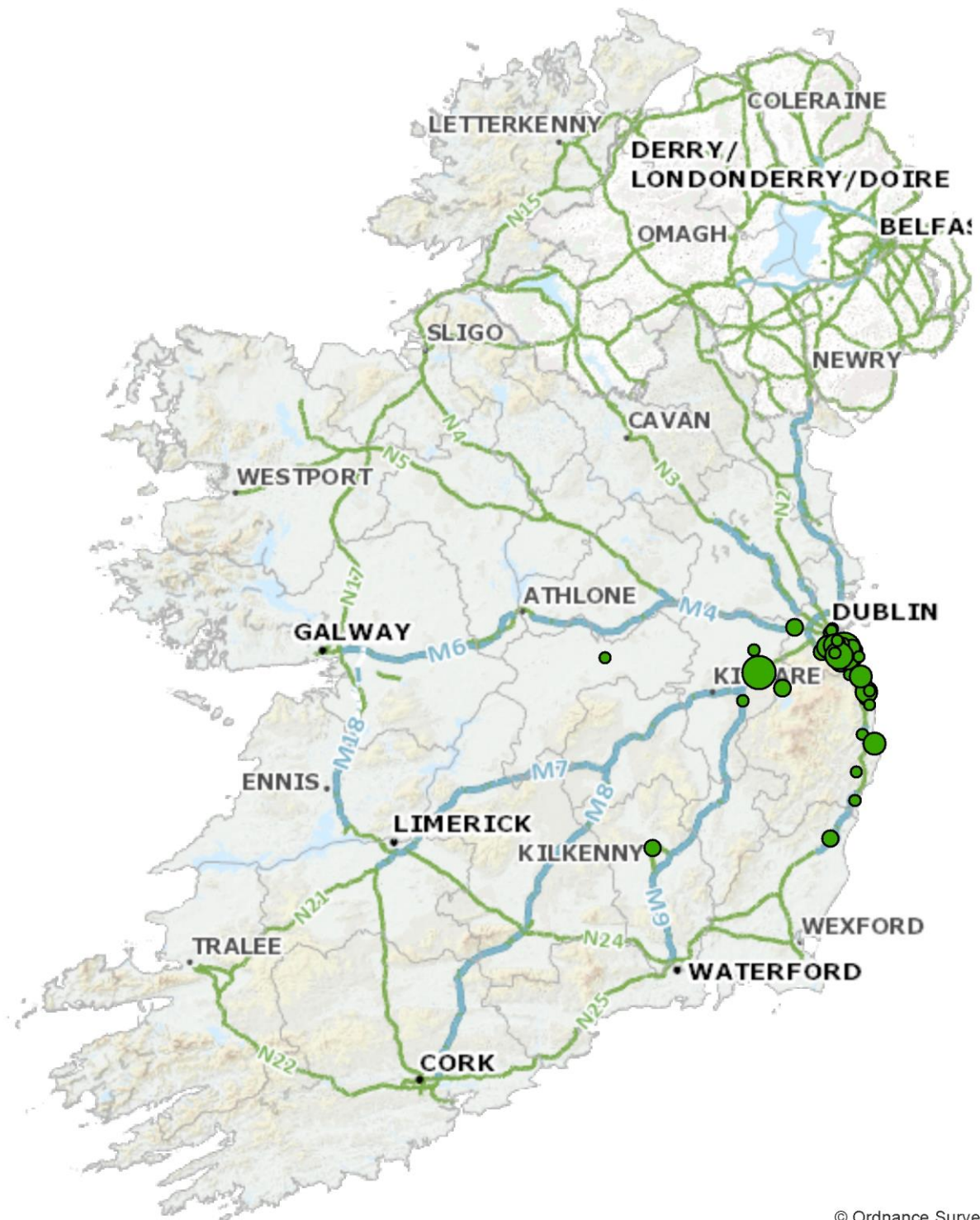

© Ordnance Survey Ireland

Appendix C

Red Cow Luas Park-and-Ride: Origins of Boarding Passengers but zoomed in; diameter indicates weighted responses
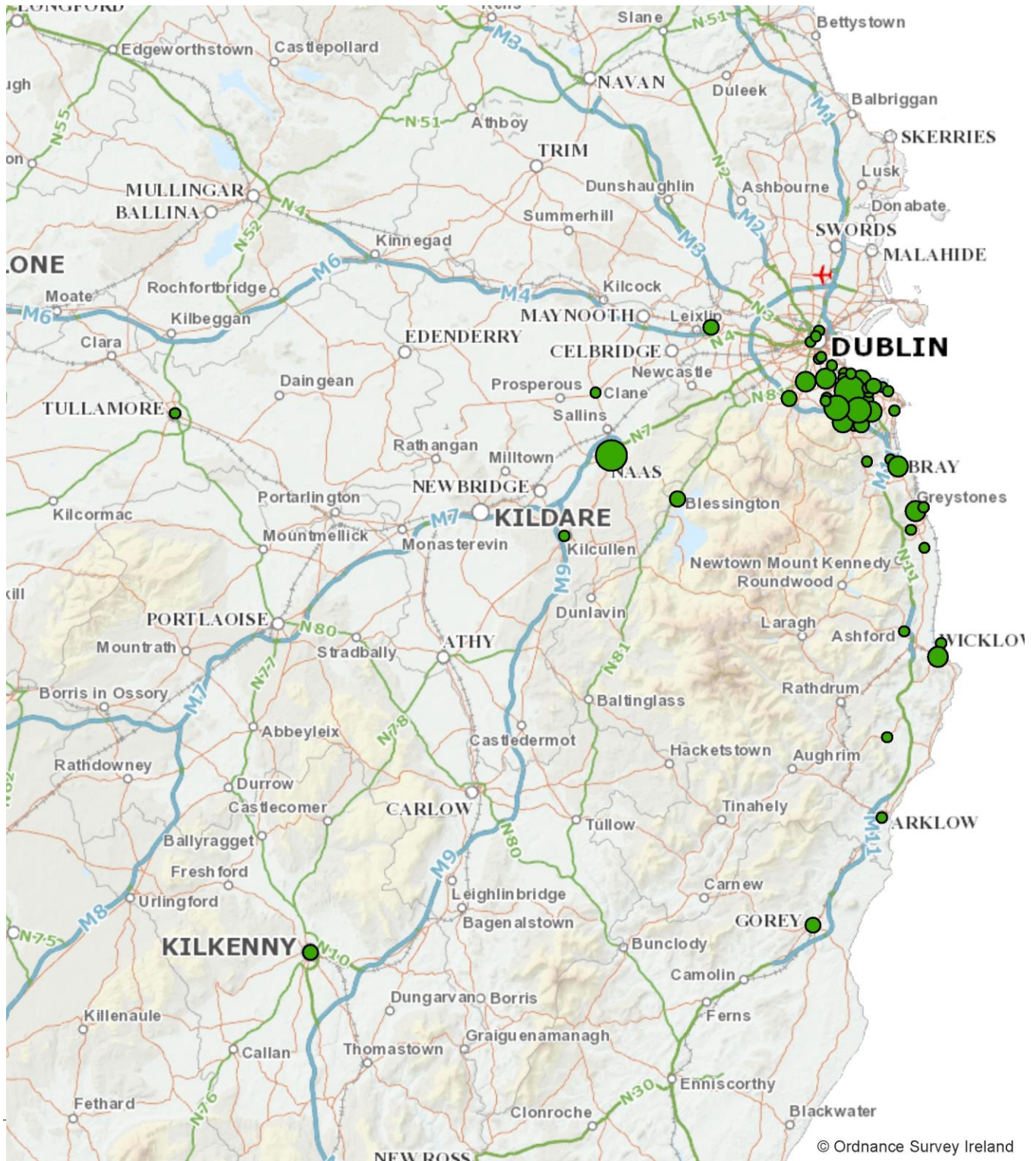

© Ordnance Survey Ireland

Appendix D

Stillorgan Luas Park-and-Ride: Origins of Boarding Passengers; diameter indicates weighted responses

© Ordnance Survey Ireland

Appendix E

Stillorgan Luas Park-and-Ride: Origins of Boarding Passengers but zoomed in; diameter indicates weighted responses

© Ordnance Survey Ireland

Appendix F

Depicted are the Destinations of passengers who boarded at either Park-and-Ride Luas stop (Pink for Red Cow / Red Line, and Lime Green for Stillorgan Luas). The area of each dot corresponds with the number of responses giving this location as their destination. The "destination" in some cases is approximate since it sometimes means the stop where the passenger intends to alight, and not necessarily their final destination. Lastly, some destinations have been geo-coded quite approximately, for example "Town" was taken to mean the Grafton Street area. Note that for reasons of data privacy the NTA did not want to press passengers for particularly accurate information."

"The yellow dots in the first image indicate the locations of the two Park-and-Ride Luas stations".