

**NTA Survey at Dublin Airport** 

### 2011

National Transport Authority, Dun Scèine, Harcourt Lane, Dublin 2. February 2012

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### **1** Introduction

#### **1.1 Background to the Survey**

Between August and November 2011, the NTA, in conjunction with the Dublin Airport Authority (DAA) undertook a survey of air passengers at Dublin Airport. The main purpose of the survey was to obtain essential information about air passengers travelling to and from Dublin Airport. The survey focused mainly on obtaining landside travel data, and hence included questions on the patterns of travel, arrival and departure times, and the mode of travel used.

A similar survey of passengers at Dublin Airport was previously undertaken by the Dublin Transportation Office in 2001 as part of a study of surface access arrangements for the Airport prior to the construction of Metro North. A key purpose of the 2011 survey was to update the 2001 data in the light of the significant changes that have occurred at Dublin Airport and the major improvements in transport infrastructure and services providing surface access to the Airport in the intervening 10 years. These changes include:

- The construction and commissioning of a second terminal T2,
- The addition of a new departure pier (Pier D) to terminal 1 (T1),
- The construction of the Dublin Port Tunnel and the addition of new bus services using the Tunnel to access the Airport,
- Major enhancements to the national road network, including a new national motorway network linking Dublin to the other main urban centres and the widening of the M50 to 3 lanes in each direction,
- Major enhancements and additions to the bus services to and from the Airport,
- New hotels within short distance from the Airport and offering shuttle bus services to the Airport,
- The recent economic downturn resulting in decreases in annual passenger throughput at the Airport between 2008 and 2010.

In July 2011, the NTA appointed Amárach Research to undertake the passenger survey at Dublin Airport. As was the case in the 2001 survey, the 2011 survey was undertaken with the full co-operation and involvement of the Dublin Airport Authority (DAA). Both Authorities worked closely with Amárach on the preparations for the survey, the design of the survey questionnaire and the survey

pilot. In addition DAA provided all the security arrangements and personnel necessary to enable Amárach surveyors to have access to Airport passengers.

#### 1.2 Aims and Objectives

The main aim of the survey was to obtain comprehensive data on the travel of air passengers to and from Dublin Airport. This data would enable both Authorities to track the changes in travel behaviour over the last 10 years and provide essential data for the planning of improvements to surface access arrangements for the Airport over the next 10 years. In addition, the survey would provide essential data to feed into the update of the NTA's transport model for the Greater Dublin Area (GDA) as well as the development (in conjunction with other agencies) of the National Transport Model over the next two years. To achieve this, the NTA drew up a detailed survey brief and agreed this in consultation with the DAA. The brief included a number of specific objectives - including:

- to survey a good representative sample of passengers travelling to Dublin Airport on week days and at the weekend,
- to undertake two separate survey waves so as to obtain a representative sample of passenger movements both at the time of highest passenger demand at the Airport (August), and at the time of highest demand on the road network serving the Airport (November),
- to achieve a total of 12,000 passenger interviews between both waves of the survey. Given that passengers travel in groups of on average 2 persons, this would mean that the survey would obtain a representative sample of circa 24,000 passengers over both waves of the survey,
- to obtain a survey sample with an equal mix of passengers who are resident in Ireland and passengers resident outside Ireland and a representative sample of passengers using all departure piers in both Airport terminals,
- to include additional questions not included in the 2001 survey -including the purpose of travel, the reasons for people's choice of travel mode and the locations where road tolls were paid by car drivers.

#### **1.3** Survey Methodology and design of questionnaires

As stated above, a key aim of the Airport survey was to obtain land-side details of passenger trips to and from Dublin Airport. Following discussions with DAA, it was agreed that the best survey methodology to obtain this data was via direct face to face interviews with air passengers at departure gates and to ask questions about both journeys to and from the Airport.

As a consequence, it was necessary to design two separate survey questionnaires – one for passengers normally resident in the island of Ireland and one for passengers normally resident outside of Ireland. In the case of both sets of passengers, it could be expected that their journey to the Airport was made on the day of the survey.

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However, in the case of Irish residents, the return journey from the Airport would be made at some future date, while in the case of Non-Irish residents; the journey from the Airport was made at some date in the past.

In August 2011 the contents of both survey questionnaires were agreed between the NTA, DAA and the survey company, Amárach Research. Both questionnaires included the following questions:

- The origin of trips to the Airport and the destination of trips from the Airport,
- Trip departure and arrival times for both to and from journeys,
- Flight number,
- Mode of travel used and the main reason for the choice of mode,
- Number of passengers travelling together (Group size),
- Purpose of trip abroad (Irish residents) and purpose of trip to Ireland (Non-Irish residents),
- Number of pieces of luggage carried by the Group,
- Parking arrangements of passengers travelling by car,
- Motorway tolls paid and the locations where these were paid for passengers travelling by car,
- Date of journey from the Airport.

#### **1.4 Survey Programme**

#### Pilot

As there were significant changes to the questionnaires that were used in the 2001 survey, it was necessary to test the questionnaires in a pilot survey.

Hence a pilot survey of 100 passengers using the draft questionnaires was undertaken on the 10th and 11th August 2011.

The pilot surveys were successful, and identified a small number of changes in the wording and content of the questionnaires. The survey methodology of face to face interviews, and the security arrangements for Amárach survey personnel provided by DAA were successful, and hence no changes were necessary for the survey methodology and fieldwork.

#### Fieldwork

In order to obtain a representative sample of airport passengers both at the busiest time for the Airport (August) and the busiest time on the road network serving the Airport (November), the survey fieldwork was undertaken in two waves. The initial plan was to undertake the first wave of surveys in the last week of August and the second wave in the second week of November. Each wave would have 5 days of surveys (3 week days and both weekend days). However, to avoid over intensification of surveys at the departure gates, and in consultation with DAA, it was decided to spread both waves of the surveys over two weeks in each case. Hence the first wave of the survey was undertaken between Sunday 28th August and Saturday 10th September, while the second wave of the survey was undertaken between Tuesday 8th November and Sunday 20th November.

Amárach surveyors undertook direct face to face interviews with passengers at departure gates on each of the survey days. To facilitate security clearance for the surveyors, DAA personnel accompanied the surveyors for the duration of the surveys on each day. To facilitate the most efficient deployment of surveyors, DAA provided detailed profiles of expected passenger departures from each pier in both Airport terminals. This enabled Amárch to ensure a representative sample of surveys at all departure piers.

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

Tables 2.1 and 2.2 give details of the number of passengers interviewed on each day of wave 1 and wave 2 of the surveys respectively. The tables also give the average group size represented by each passenger interview and hence the number of passengers represented in the survey sample on each day. The tables also give the DAA figures for total passenger throughput at the Airport for each day of the surveys, and give a calculation of the % passenger survey sample rate obtained on the survey days.

#### Table 2.1 – Passengers surveyed in wave 1 of survey

Day	Date	Passenger Throughput	Interviews Conducted	Average Group Size	Passengers Represented	% Sample Rate
Sunday	28/08/2011	33,647	514	2.15	1,107	3%
Monday	29/08/2011	31,835	604	1.74	1,052	3%
Tuesday	30/08/2011	28,563	666	1.90	1,268	4%
Wednesday	31/08/2011	29,747	606	1.98	1,198	4%
Saturday	03/09/2011	31,470	601	2.10	1,261	4%
Sunday	04/09/2011	33,647	652	2.24	1,459	4%
Monday	05/09/2011	31,835	645	1.92	1,240	4%
Tuesday	06/09/2011	28,563	609	1.75	1,066	4%
Wednesday	07/09/2011	29,747	558	1.81	1,010	3%
Saturday	10/09/2011	31,470	581	2.16	1,255	4%
Totals - Wave	1	310,524	6,036	1.97	11,916	4%

Day	Date	Passenger Throughput	Interviews	Average Group Size	Passengers Represented	% Sample Rate
Tuesday	08/11/2011	36,163	591	1.62	959	3%
Wednesday	09/11/2011	36,973	673	1.64	1,107	3%
Friday	11/11/2011	48,665	637	1.94	1,234	3%
Saturday	12/11/2011	37,746	595	2.57	1,531	4%
Sunday	13/11/2011	45,378	517	2.02	1,046	2%
Tuesday	15/11/2011	35,416	631	1.81	1,141	3%
Wednesday	16/11/2011	37,103	586	1.96	1,148	3%
Friday	18/11/2011	48,061	610	1.70	1,040	2%
Saturday	19/11/2011	35,818	460	1.77	813	2%
Sunday	20/11/2011	43,183	671	1.80	1,209	3%
Totals - Wave	2	404,506	5,971	1.88	11, <b>22</b> 8	3%

#### Table 2.2 Passengers surveyed in wave 2 of survey

The tables show that the target of 6,000 passenger interviews was achieved on each wave of the survey, and that with an average group size of 1.9 passengers per group, the combined number of passengers represented in both waves of the survey was in excess of 23,000. Hence, the survey achieved its overall targets in terms of passengers interviewed and sample rate. The tables show that though it was assumed that August would represent the busiest time for passenger throughput through the Airport, in fact there was a significantly higher passenger throughput during the second wave of the survey in November.

A further aim of the survey was to achieve a good representative sample of passenger trips to and from the Airport on weekdays and at weekends. Over the two waves of the survey, some 7,416 interviews were undertaken on weekdays (Mon. to Fri.), while a total of 4,591 interviews were undertaken at weekends. Given the average group size of 1.9 passengers per group, this represents sample sizes of 13,463 weekday passengers and 9,681 weekend passengers. When compared to the average weekday and weekend passenger throughput at

the Airport, the cumulative survey records obtained represent a 37% sample of average weekday passengers and a 26% sample of average weekend passengers.

#### 2.2 Sample by nationality and departure pier

Table 2.3 shows the breakdown of passengers represented in both waves of the survey broken down by Irish and Non-Irish residents and by pier of departure.

#### 2.2.1 \* Table 2.3 Passengers by residency and departure pier

Terminal	Pier	Irish	Non- Irish	Total
1	А	1,044	944	1,988
1	В	1,745	2,409	4,154
1	D	4,186	4,480	8,666
2	E	4,400	3,936	8,336
Totals		11,375	11,769	23,144

\* In table 2.3 it should be noted that piers A,B and D are in Terminal 1, while Terminal 2 has just one pier -i.e. Pier E.

The table shows that the survey achieved an even mix of Irish and Non-Irish residents in the survey sample. It also shows that Pier D had by far the largest throughput of the three piers in operation in Terminal 1, and that the number of surveys in Pier D exceeded the total number undertaken in Terminal 2.

#### 2.3 Sample by Gender and Age

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

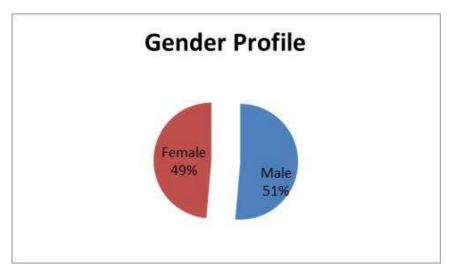
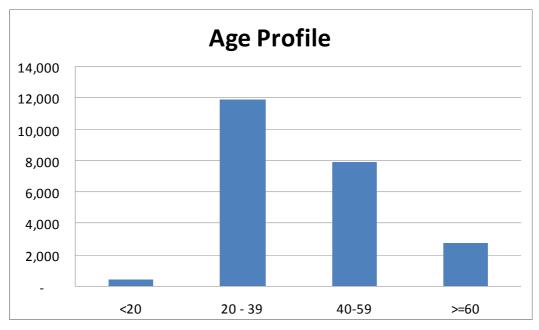


Figure 2.1 – Gender profile of survey participants

Figure 2.2 shows the age profile of participating passengers.





This profile shows that the survey obtained a representative sample of passengers whose age profile matches the expected profile of people travelling through the Airport.

## 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 Airport,
- Origins of passengers travelling to the Airport i.e. the patterns of travel,
- Choice of bus service provider,
- Parking arrangements for passengers travelling by car,
- Nationality of visiting passengers,
- Purpose of trip abroad (Irish residents) and of trip to Ireland (Non-Irish residents),
- Average number of pieces of luggage carried,
- Tolls paid by persons travelling by car.
- Trip duration

#### **3.2** Mode of travel and reason for mode choice

Table 3.1 shows the number of passengers who travelled to the Airport by each mode – broken down by Irish and Non-Irish residents.

Mode to Airport	Irish	% Mode Share	Non-Irish	% Mode Share	Total	% Mode Share
Car / van	5,889	52%	3,339	28%	9,228	40%
Bus	2,986	26%	4,607	39%	7,593	33%
Тахі	2,269	20%	3,376	29%	5,645	24%
Other	164	1%	425	4%	589	3%
Totals	11,308	1 <b>00</b> %	11,747	100%	23,055	100%

\* Table 3.1 – Mode of travel to the Airport

\* Note "Other" includes transfers from another flight

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The data is displayed in chart form in figure 3.1.



#### Figure 3.1 – % Mode share of passengers to the Airport

The data shows that the car is the favoured mode of travel to the Airport for Irish passengers, but that bus has the highest mode share for Non-Irish passengers. Overall, one third of all passengers use the bus to access Dublin Airport. \*This represents a public transport mode share for trips to Dublin Airport on a par with or exceeding many U.K. and European international airports – including airports that are served by heavy rail or Metro services. It also represents a significant increase in the bus mode share since the previous survey in 2001 when the bus mode share was 21%. The mode share for car (including rental car) at 40% has significantly reduced since 2001 when the car mode share was 54%. There has also been an increase in Taxi mode share from 21% in 2001 to 24% in the 2011 survey.

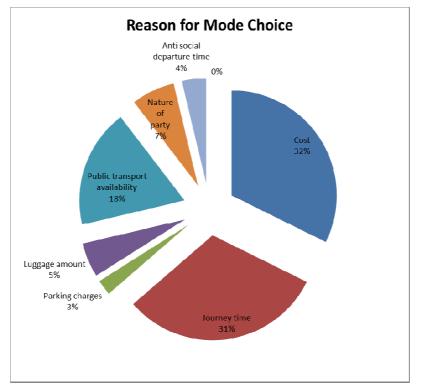
The significant increase in Bus mode share is due to a number of factors, including:

- Greatly improved and new bus services serving the Airport from most parts of the city and from outside the GDA,
- The construction of the Port Tunnel facilitating guaranteed / uncongested bus journeys through the tunnel from the city centre directly to the Airport,
- New hotels within short distance of the Airport and offering shuttle bus services to the Airport.

\* Comparisons with other international airports are given in Appendix B

As expected, analysis of the mode of travel used by passengers on their journeys from the Airport (having arrived at the Airport on an incoming flight) show a similar percentage breakdown to that shown in Figure 3.1 above.

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' choice of mode were journey cost, journey time and the availability of public transport. The nature of the travelling party (i.e. including small children or mobility impaired persons) was also cited by 7% of passengers as the main factor in mode choice. Other issues such as having to carry luggage, anti-social departure times, parking charges etc had little influence on the choice of mode for passengers travelling to the Airport.

### 3.3 Arrival and departure profiles and travel times

Figure 3.3 gives the time profile of passengers arriving at Dublin Airport, while figure 3.4 shows the equivalent profile for passenger trips from the Airport.

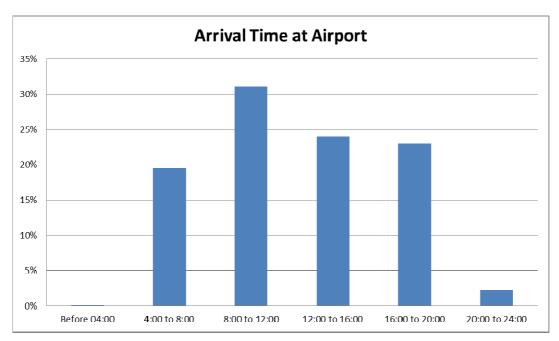
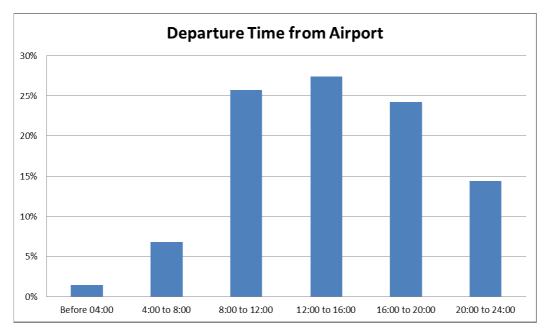


Figure 3.3 – Time profile of arrivals at the Airport

Figure 3.4 – Time profile of departures from the Airport



The arrival profile shows that 20% of passengers arrive at the Airport before 08:00. This is a significant change from 2001 when the equivalent figure was 12% of passengers arriving for flights before 08:00. The profile also shows that the busiest time for passenger arrivals is between 8am and midday and that passenger arrivals tail off after 8pm. The arrival profile shows that there has been a general shift in departing flights at the Airport to earlier time slots since 2001.

The profile of departing passengers mirrors the profile of incoming flights to the Airport and shows a much greater concentration of incoming passengers in the later times of the day with two thirds of all passengers departing the Airport after midday.

Figure 3.5 shows the profile of journey times of passengers travelling to Dublin Airport. The figure shows that 46% of passengers have a journey time of less than 30mins and that three quarters of all passengers have a journey time of less than one hour.

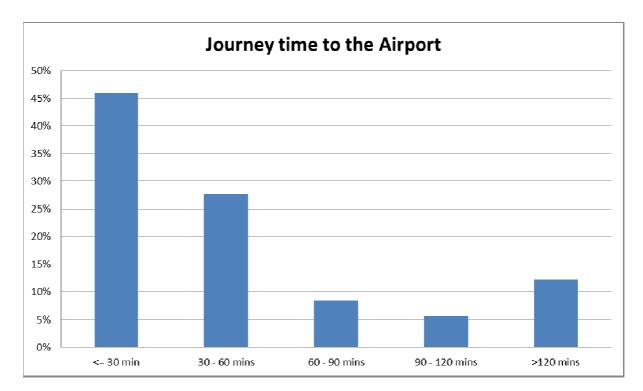


Figure 3.5 – Journey time to the Airport

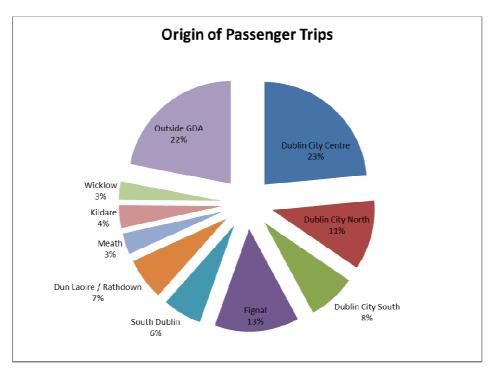
The profile of journey times reflects a shift in the pattern of trips since 2001 with a greater number of passengers starting their trip to the Airport from within Dublin city and from locations that give easy access of the Airport. This trend will be seen in the analysis to trip patterns below.

#### 3.4 Travel Patterns

Table 3.2 gives a breakdown of the origins of passengers travelling to Dublin Airport. The data is shown in diagrammatic form in Figure 3.6

#### Trip Irish % of **Non-Irish** % of All % of Origin Passengers Total Passengers Total Total Passengers **Dublin City Centre** 901 24% 8% 4,551 39% 5,452 **Dublin City North** 1,385 12% 1,159 10% 2,544 11% **Dublin City South** 907 8% 847 7% 1,754 8% 13% Fingal 1,515 13% 1,562 13% 3,077 South Dublin 972 9% 449 4% 6% 1,421 Dun Laoire / Rathdown 1,047 9% 491 4% 1,538 7% Meath 506 773 4% 267 2% 3% Kildare 603 5% 230 2% 833 4% Wicklow 429 4% 242 2% 671 3% **Outside GDA** 3,110 27% 1,971 17% 5,081 22% Total 11,375 11,769 23,144 100%

#### Table 3.2 – Origins of trips to the Airport Item of trips to the Airport



#### Figure 3.6 – Origins of trips to the Airport

Table 3.2 shows that there have been significant changes in the patterns of travel to the Airport since 2001 with a greater concentration of trip origins in the Dublin City region (43%) as against 37% in 2001. In addition, the percentage of trip origins from outside the Greater Dublin Area (GDA) has fallen from 33% in 2001 to 22% in the 2011 survey. The jump in passengers travelling from the Fingal area (8% in 2001 to 13% in 2011) reflects a significant increase in passengers choosing to stay overnight in hotels close to or within Dublin Airport and availing of convenient shuttle bus services to the Airport.

Figure 3.7 gives a further breakdown of the origins of passengers who travel from outside the GDA.



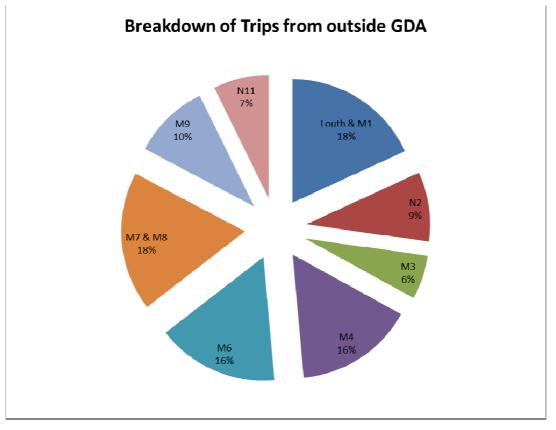


Figure 3.7 shows a similar profile of trip origins for passengers travelling from outside the GDA as was witnessed in the 2001 survey and reflects the level of national population served by each of the main road corridors entering Dublin.

As expected, analysis of the patterns of travel of passengers travelling from the Airport shows passenger destinations having a similar breakdown to the trip origins shown in Figures 3.6 and 3.7 above.

#### 3.5 Choice of bus service provider

Figure 3.8 shows the breakdown of passengers who travelled by bus to the Airport by their choice of bus service provider.



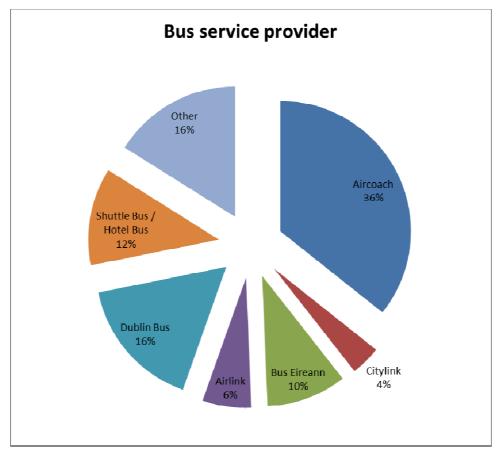


Figure 3.8 shows that despite a significant intensification of competition in the provision of bus services to the Airport since 2001, Airoach has increased its market share from 34% in 2001 to 36% in 2011. The share for Dublin Bus, however has decreased significantly from 38% in 2001 to 16% market share in 2011. The figure also shows that a significant percentage of passengers are availing of shuttle bus services provided by a number of hotels in the Dublin area – in particular hotels that are within a short bus journey time of the Airport.

#### 3.6 Parking arrangements

Table 3.3 gives the breakdown of passengers who travelled by car to the Airport by Irish and Non-Irish residents and by those who travelled by private car and those using a rental car. As expected almost all rental cars were being used by Non-Irish residents, and it can be assumed that these cars were returned at the Airport. On this basis, Table 3.4 further breaks down the private car users into those that parked the car and those where the driver drove away after dropping off the air passenger / passengers. This shows that the majority of air passengers travelling by private car (61%) do not park their car but are dropped off at the airport with the driver driving away without parking.

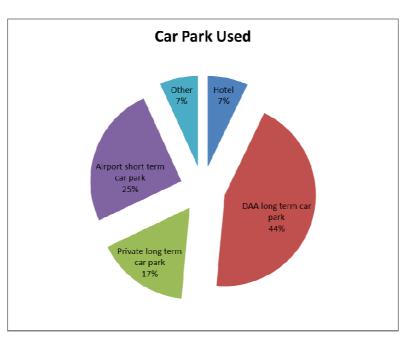
Private or Rental Car	Irish	Non- Irish	Total Passengers
Car	5,830	2,219	8,049
Car rental	59	1,120	1,179
Total Passengers	5,889	3,339	9,228

#### Table 3.3 – Car passengers by private car and rental car

 Table 3.4 – Private car users by those parking and not parking

Private car Users	Irish	Non- Irish	Total Passengers
Park car	2,669	302	2,971
Drive away after dropping off Not stated	3,161 0	1,716 201	4,877 201
Total Passengers	5,830	2,219	8,049

Figure 3.9 gives the breakdown of the car parks used by those passengers who travelled by private car and parked the car before entering the Airport.

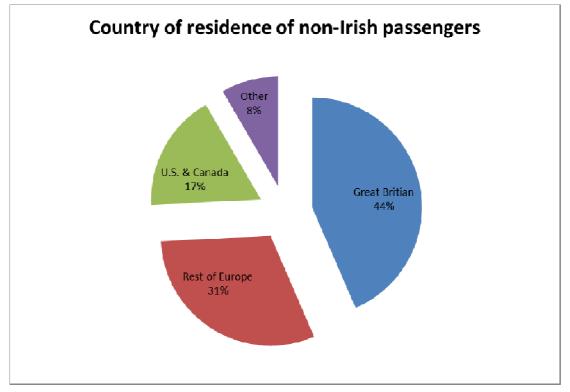


#### Figure 3.9 – Car parks used

The figure shows that 44% of passengers who parked their cars used the DAA long term car park while 25% of passengers used the short term car park. 17% of passengers made use of a private long term car park, while only 7% of passengers parked at a nearby hotel. 7% of passengers used a car park other than those listed.

#### 3.7 Nationality of visiting passengers

Figure 3.10 gives a breakdown of the country of residence of passengers who had visited Ireland.



#### Figure 3.10 Country of residence of visiting passengers

This breakdown shows that by far the greatest number of visitors to Ireland are from Great Britian (44%), but this share of visitors is down from the 55% share of U.K. visitors in the 2001 survey. The next highest proportion of visitors are from the rest of Europe (outside the U.K.) with a 31% share, and this share has increased significantly from 2001 when the equivalent figure was 25%. The number of visitors from the U.S. and Canada at 17% also shows an increase on the 2001 figure (13%). Only 8% of visitors come from the rest of the world – a similar percentage to the figure obtained in the 2001 survey.

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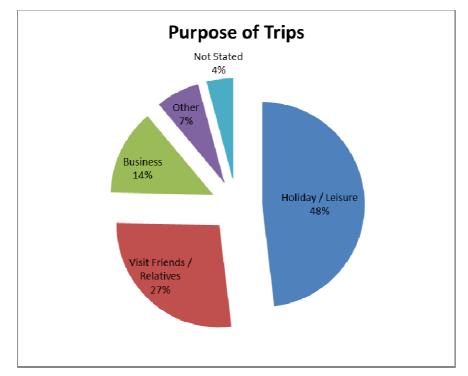
### 3.8 Trip purpose

Table 3.5 gives a breakdown of trip purpose for Irish and Non-Irish residents. In the case of Irish residents, the trip purpose refers to their reason for travelling abroad, while in the case of Non-Irish residents; the trip purpose refers to their reason for visiting Ireland. This question was not asked in the 2001 survey.

Trip Purpose	Irish	Non- Irish	Total Passengers	% of Total
Holiday / Leisure	5,426	5,704	11,130	48%
Visit Friends / Relatives	2,945	3,363	6,308	27%
Business	1,569	1,577	3,146	14%
Other	787	804	1,591	7%
Not Stated	648	321	969	4%
Total Passengers	11,375	11,769	23,144	100%

#### Table 3.5 Purpose of trip abroad (Irish) and trip to Ireland (Non-Irish) residents

The table shows that both Irish and Non-Irish residents had similar trip purposes and that almost 50% of all passengers travelled for Holiday or Leisure purposes, while the next highest journey purpose (27%) was for visiting relatives and friends. Only 14% of all passengers travelled on business. The breakdown of trip purpose for all passengers is summarised in figure 3.11 below.



#### Figure 3.11 Passengers by journey purpose

#### 3.9 Luggage carried

Interviewed passengers were asked how many pieces of luggage the group were carrying. As passengers travelled in groups of on average 1.9 persons, the number of luggage pieces were divided by the group size in each case to calculate the average number of luggage pieces per passenger travelling. The breakdown of luggage pieces carried per passenger is shown in figure 3.11 below:

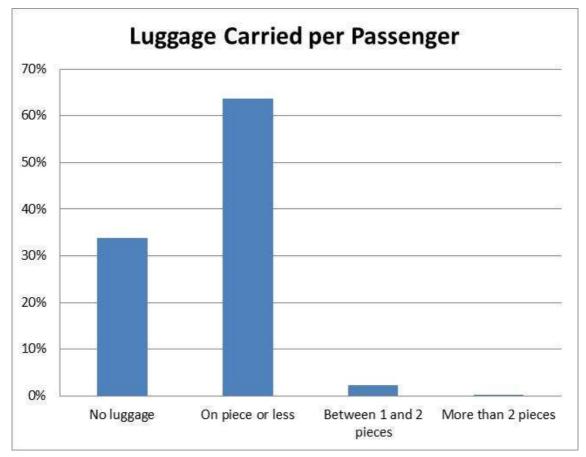


Figure 3.12 – Luggage pieces carried per passenger

Figure 3.12 shows that over 30% of passengers carried no luggage and that of those groups that did carry luggage, over 60% of these carried on average one piece of luggage or less per passenger. Hence overall, almost 98% of passengers carried one piece of luggage or less and virtually no passengers carried more than 2 pieces of luggage. This shows a marked change in air travel habits in relation to luggage carried since 2001. In the 2001 survey some 24% of passengers carried two pieces of luggage and 11% carried more than two items of luggage.

#### 3.10 Tolls paid by car passengers

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Passengers travelling by private car to the Airport were asked if the car driver had paid a toll on the way to the Airport and to give the location / locations where these tolls were paid. The purpose of this question was to provide an indication of the main routes used to access the Airport and to find out if car passengers were avoiding the new National and City motorway network and using more minor roads in order to avoid having to pay tolls.

Figure 3.13 below shows that 53% of passengers accessing the Airport by car did pay a toll. The breakdown is to be expected, given the high percentage of passengers with origins in the city centre and other locations from which they would have no tolls on

their direct route to the Airport. Hence, there does not seem to be strong evidence of people taking detours or choosing to use minor roads to avoid paying tolls.

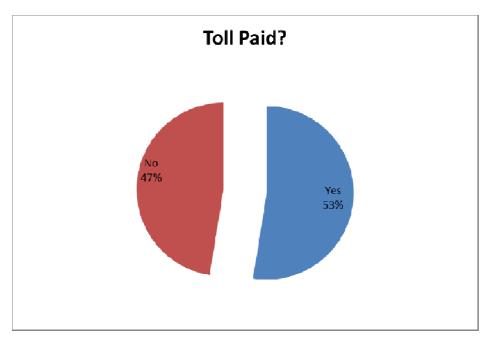
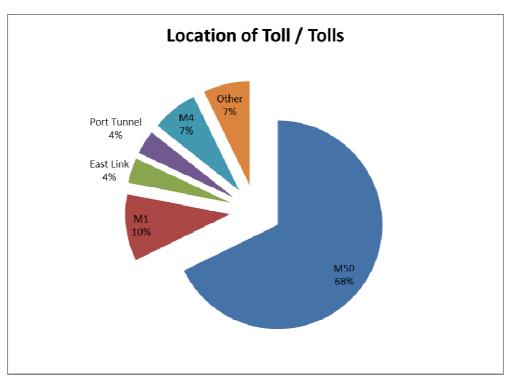


Figure 3.13 Percentage of car passengers who paid a toll

Figure 3.14 gives a breakdown of the main location / locations where car passengers paid tolls on route to the Airport.

Figure 3.14 – Locations where tolls were paid



Not surprisingly, the vast majority of tolls were paid on the M50 (68%), with the M1 toll being paid by 10% of passengers, and 7% of passengers paying a toll on the M4. Tolls on the East Link and Port Tunnel were paid by only 4% of passengers in each case – the low percentage reflecting the availability of alternative routes in both cases and the high level of the weekday tolls in the Port Tunnel. Tolls were also paid by a small number of passengers at other locations well outside the GDA – including the M3, M7, M8 and M6 motorways. In addition, 14% of passengers paid more than one toll – the most common combination (6%) being on the M4 and M50.

#### **3.11 Trip duration**

An analysis was also undertaken of the durations of trips abroad (in the case of Irish residents) and trips to Ireland (in the case of visitors). Figure 3.15 shows the breakdown of the duration of trips abroad for Irish residents, while Figure 3.16 shows the breakdown of the duration of trips by visitors to Ireland.

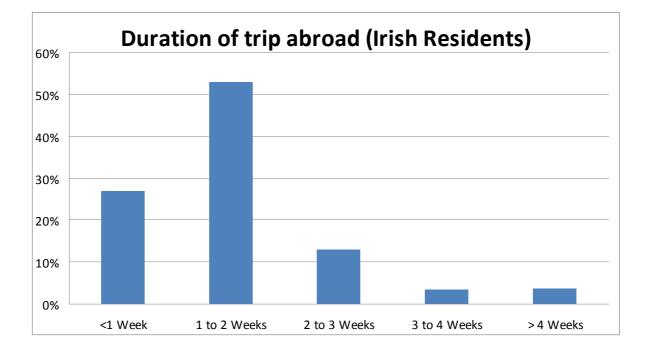


Figure 3.15 – Duration of trips abroad (Irish residents)

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#### Figure 3.16 – Duration of trips to Ireland (Non-Irish Residents)

Both figures 3.15 and 3.16 show a similar breakdown. The vast majority of passengers (80% in each case) were on a trip / visit of 2 weeks or less.

### 4 Summary of Key Findings

Some of the more significant findings of the Airport survey 2011 are as follows:

- There has been a significant increase in the number of passengers using the bus to travel to Dublin Airport with a mode share rise from 21% in 2001 to 33% in 2011.
- Aircoach is now the favourite service provider for passengers travelling by bus and Dublin Bus has lost market share. There are now significant numbers of passengers availing of hotel shuttle bus services.
- There has been a change in the patterns of travel to the Airport since 2001 with a greater percentage of passengers having origins in Dublin city and a significant reduction in the number of passengers travelling from outside the GDA. One of the factors in this shift is the increase in the number of hotels in the city and in close proximity to the Airport offering shuttle bus services to the Airport.
- In general, more passengers arrive at Dublin Airport in early morning and before midday than was the case in 2001 reflecting the shift in flight departures to earlier time slots.
- Passengers now carry and check in much less luggage than they did in 2001.
- The construction of the Port Tunnel and the major improvements to the National and City road network since 2001 have greatly improved access to the Airport by both car and bus modes. There is no strong evidence that the payment of tolls has deterred passengers from using the new motorway network to access the Airport.

# 5 Appendix A

# **Survey Questionnaires**

	Irish Residents – Page 1
	Airport Survey 2011 000000
	For Passengers normally resident in Ireland
	DAY: TERMINAL:
	DATE: PIER:
	TIME: Am/Pm given circle GENDER:
	INTERVIEWER: APPROX. AGE:
	For your Journey to Dublin Airport Today
(1)	How many passengers are travelling in your group (including you)?
(2)	How many pieces of luggage did your group check in?
(3)	What time did you begin your journey to the airport? N.B H H M M
(4)	What time did you arrive at the airport?
(5)	What is your Flight Number?
(6)	From what exact address did you begin your journey to the airport today? Please provide the full address i.e. in as full a manner as possible as below.
	House /unit Number:
	Address Line 1:
	Address Line 2:
	Address Line 3
	Town/Village:
	County:
(7)	What is the main purpose of your journey? please mark just one box
	Holiday/Leisure 1 Visit Friends/Relatives 2 Business 3 Other 99
(8)	How did you get to the airport? please mark just one box
	By Bus 1 By Car/Van 4 By Motorcycle 7
	On East Another Dist
(=)	By Bixe 3 By Texi 6 Other (upedity) 99 If you were driven to the airport as a PASSENGER did the person with you: please mark just one box
(9)	
	Drive away after dropping you? 1 Park the car and accompany you into the terminal? 2 Not Applicable 99
(10)	If you travelled by BUS (i.e. Code 1 in Q.8 above) what bus company provided the service?
	If yes, please specify
(11)	If you arrived to the airport by CAR (i.e. Code 4 or 5 at Q.8 above) where did you please mark just one box PARK the car?
	Hotel 1 DAA Long term Car park 2 Private Long term Car park 3
	Airport Short Term Car park 4 Other 99
{12}	If you parked your car in a hotel (i.e. Code 1 Q.11 above), did you stay overnight? please mark just one box
	Yes 1 No 2
(13)	If you arrived to the airport by CAR (i.e. Code 4 or 5 at Q.8 above), did the DRIVER pay a TOLL(s)?
	Yes 1 No 2
	If yes, please specify the location/locations that a toll was paid
	DTO
	FIU

NTA

#### Irish Residents – Page 2

Airport S	Survey	2011
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#### For Passengers normally resident in Ireland

[14]	What was the PRIMARY factor influencing your choice of mode of transport? please mark just one box
	Cost 1 Luggage Amount 4 Anti Social Departure Time 7
	Journey Time 2 Public Transport Availability 3 Other 99
	Parking Charges 3 Nature of Party Smult children, elderly, mobility impaired etc 6
	For your Return Journey through Dublin Airport
(15)	On what date will you return to Dublin airport? Please enter 9999 if N/A
(15)	What time will you arrive at the airport? N.B н н м м
(17)	How do you intend to get to your final destination from the airport?
	By Bus 1 By Car/Van (Private) 4 By Motorcycle 7
	On Foot 2 By Car/Van (Rental) 5 Another Flight 8
	By Bike 3 By Taxi 6 Other (specify) 59
(15)	If your final destination will be other than that given in Q6— Please provide the full address i.e. in as full a manner as possible as below.
	House /unit Number:
	Address Line 1:
	Address Line 2:
	Address Line 3
	Town/Village:
	County:
(19)	How long will the journey take you to get to the address above?
	N.B H H M M
	Thank and End Interview

NTA

Non-	[rish	residents -	Page 1

	Airport Survey 2011 0000
	For Passengers NOT normally resident in Ireland
	DAY: Country of Residency of Respondent:
	DATE: PIER:
	IN IERVIEWER:
2	For your Journey to Dublin Airport Today
9	How many passengers are travelling in your group (including you)?
)	How many pieces of luggage did your group check in?
1	What time did you begin your journey to the airport?
ł	What time did you arrive at the airport?
ł	What is your Flight Number?
1	What is the main purpose of your journey to ireland? please mark just one box
	Holiday/Leisure 1 Visit Friends/Relatives 2 Business 3 Other 39
1	From what exact address did you begin your journey to the airport today? Please provide the full ad-
	dress i.e. in as full a manner as possible as below.
	House /unit Number:
	Address Line 1:
	Address Line 2:
	Address Line 3 Town/Village:
	County: How did you get to the airport? presse mark just one box
1	
	By Sus 1 By Car/Van 4 By Motorcycle 7
	Cin Foot 2 By Car/Van (Rental) 5 Another Flight 5
	By Bike 3 By Texi 6 Other (specify) 59
	If you were driven to the airport as a PASSENGER did the person with you: please mark just one box
	Orive away after dropping you? 1 Park the car and accompany you into the terminal? 2 Not Applicable 99
	If you travelled by BUS (i.e. Code 1 in Q.8 above) what bus company provided the service?
	-
5	
2	If you arrived to the airport by CAR (i.e. Code 4 or 5 at Q.8 above) where did you please mark just one box PARK the car?
	Hotel 1 DAA Long term Car park 2 Private Long term Car park 3
	Airport Short Term Car park 4 Other 99
	If you parked your car in a hotel (i.e. Code 1 Q.11 above), did you stay overnight? please mark just one box
i	If you arrived to the airport by CAR (i.e. Code 4 or 5 at Q.8 above), did the DRIVER pay a TOLL(s)?
	Yes 1
	No 2
	If yes, please specify the location/locations that a toll was paid
	DTA
	PIO

Non	Irish	Residents	– Page	2
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Airport	Survey	2011
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For Passengers NOT normally resident in Ireland

(14)	What was the PRIMARY factor influencing your choice of mode of transport? please mark just one box			
	Cost 1 Luggage Amount 4 Anti Social Departure Time 7			
	Journey Time 2 Public Transport Availability 5 Other 99			
	Parking Charges 3 Nature of Party 6 Small children, elderly, mobility impaired etc 6			
	For your Incoming Journey through Dublin Airport (Thinking back to your arrival)			
(15)	On what date did you arrive at Dublin airport? Please enter 9999 if N/A			
(16)	What time did you leave Dublin airport?			
{17}	When you arrived at Dublin airport what was the address of your first destination? Please provide the full address i.e. in as full a manner as possible as below.			
	House /unit Number:			
	Address Line 1:			
	Address Line 2:			
	Address Line 3			
	Town/Village:			
	County:			
(18)	How do you get to this address?			
	By Bus 1 By Car/Van (Private) 4 By Motorcycle 7			
	On Foot 2 By Car/Van (Rental) 5 Another Flight 8			
	By Bike 3 By Taxi 6 Other (specify) 99			
(19)	How long did the journey take you to get to the address above?			

Thank and End Interview

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# 6 Appendix B

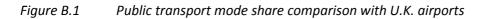
Mode Share comparisons with other Airports

Table B.1 below gives a comparison of public transport mode share for air passengers accessing a number of international airports in the U.K. with the current mode share for Dublin Airport. The comparison is shown in bar chart format in Figure B.1. The U.K. data is provided by the U.K. Civil Aviation Authority and refers to data from 2009 and 2010.

Table B.1 Public Transport mode share comparison of Dublin with other U.K. airports

U.K Airport	% Public Transport Mode Share for passengers
Stansted	47%
Heathrow	40%
Gatwick	38%
* Dublin	33%
Edinburgh	27%
Glasgow	11%
Newcastle	13%
Manchester	13%
* Figure for Dublin is from t	the 2011 NTA survey,

U.K. figures relate to 2009 and 2010 data



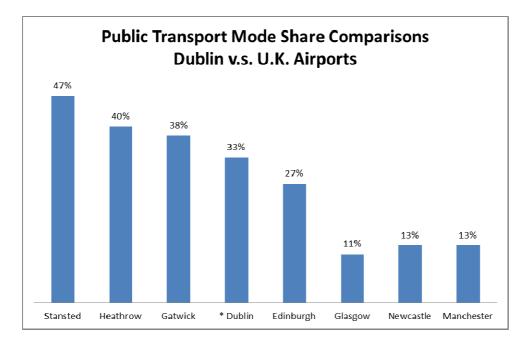


Table B.1 shows that Dublin compares favourably with U.K. international airports in terms of public transport mode share for passengers accessing the airport. It should be noted that the only three airports in the table not served by a fixed rail link are Dublin, Edinburgh and

Glasgow. It should also be noted that the three airports that outperform Dublin in terms of public transport mode share are each served by more than one fixed-line rail link.

Table B.2 below gives a comparison of public transport mode share for air passengers accessing a number of European international airports with the current mode share for Dublin Airport. The comparison is shown in bar chart form in Figure B.2. The data for the European airports was supplied by the individual airport authorities and refers to 2009 and 2010.

European Airport	% Public Transport Mode Share for passengers
Copenhagen	57%
Vienna	38%
Munich	38%
* Dublin	33%
Brussels	30%
Dussledorf	21%

*Figure B.1 Public transport mode share comparison with European airports* 

Figure for Dublin is from the 2011 NTA survey,

Other European figures relate to 2009 and 2010 data

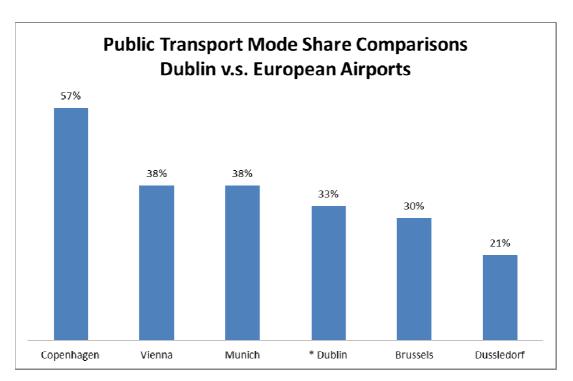


Figure B.2 Public transport mode share comparison with European airports

Table B.2 shows that Dublin compares favourably with other international airports across Europe in terms of public transport mode share for passengers accessing the airport. It should be noted that all airports in the table except Dublin are served by fixed-line rail links.