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An exploratory examination of additional ground access trips generated by airport ‘meeter-greeters’



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ABSTRACT

A significant share of airport passengers are accompanied to and/or from the airport by friends and relatives to wave them off or greet them when they land. At some airports the number of these ‘meeter-greeters’ can be substantial, which can have important ground access planning, economic and environmental implications for the airport operator. Yet this group have received comparatively little attention in either the academic or industry literature. Consequently, to some extent ‘meeter-greeters’ have remained something of a ‘hidden’ element of ground access user. In an attempt to address this, the paper uses secondary data analysis of the UK CAA Passenger Survey Report to explore ‘meeter-greeters’ at five UK airports; Heathrow, Gatwick, Manchester, Stansted and Luton. Focus is given to assessing the scale of ‘meeter-greeter’ journeys and the role of a passenger’s trip purpose (business/leisure) and resident status (resident/non-resident) in this process. A key finding from the analysis relates to the disproportionate impact of multi-person trips, where a number of different ‘meeter-greeters’ accompany a passenger to the airport. The implications of these findings are discussed and a number of recommendations for decision makers proposed. Namely, it is suggested that airport monitoring and assessment procedures should incorporate a measure of the additional trip generation by ‘meeter-greeters’ in order to present a more complete picture of the number of people accessing/egressing an airport.

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1. Introduction—the challenges associated with ‘meeter-greeters’

Increasing demand for air travel in recent years has meant growing numbers of people travelling to and from airports. Worldwide, it is estimated that each year over 3.3 billion passengers travel between the estimated 4000 airports that support scheduled air services (ATAG, 2014). Accommodating current and future demand for air travel will require the sustained provision of safe, efficient, reliable and affordable ground access travel for passengers and other airport users. This can act as a key competitive advantage for airports and their related economies, both in terms of widening the airports’ effective catchment area and the wider benefits afforded by improved connectivity to air travel (Budd et al., 2015). At major airports with very large (even national) catchment areas the scale of ground access travel can be considerable. For example, Coogan et al. (2008) estimates that an airport handling 45 million passengers per year can generate up to 5

million vehicle miles of ground access travel per day (the equivalent of 1,825,000,000 miles per year).

In the UK, as elsewhere, ground access travel continues to be dominated by private vehicle trips. At the UK’s two largest airports, Heathrow (73.1 million annual passengers) and Gatwick (37.9 million annual passengers), private vehicles represent 58.6% and 58.3% of the mode share, respectively (CAA, 2015). At smaller regional airports private vehicle mode shares are generally even higher, such is the case at Luton (70.9% private vehicle), Manchester (83.5% private vehicle) and Birmingham (76.5% private vehicle) (CAA, 2015). Given that these trips are necessarily generated to/from a single site the implications in terms of traffic delays and congestion, as well as local air quality and human health, are profound (Budd et al., 2011a).

Many passengers travelling to/from airports will be accompanied by friends or relatives, who wish to either wave the passenger farewell or greet them on their arrival. At some airports the number of these ‘meeter-greeters’ can be significant. It has been suggested that this may be especially the case at airports that handle higher shares of international leisure passengers than those with a stronger focus on business traffic (LeighFisher et al., 2010). This is

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most likely a reflection of the differing trip characteristics of these journey types, namely that leisure passengers may be staying away for longer, travelling with luggage, and are unlikely to have their travel paid for (which will generally be the case for business passengers). The residence status of the passenger may also play a role in this, given that residents of a region are likely to have greater access to their network of friends and relatives (i.e. potential 'meeter-greeters') than passengers who are non-residents of a region. While potentially significant in scale and scope, the role of 'meeter-greeters' in a ground access context has not been widely examined or reported in the research.

Potential ground access problems may be exacerbated if the passenger chooses to be dropped-off or picked-up at the airport in a private vehicle. This is to say that the passenger is either dropped-off/picked-up at the terminal kerbside, or the vehicle is parked for a relatively short duration while the passenger is accompanied to/from the terminal building. In each case, up to four vehicle journeys are generated to and from the airport compared with two journeys if the passenger had parked their own vehicle at the airport for the duration of their trip. These additional vehicle journeys have the potential to increase congestion and associated environmental problems. Miyoshi and Mason (2013) found that drop-off/pick-up journeys produce a substantially greater volume of carbon dioxide per passenger kilometre (229 g/pkm) than cars that are driven and parked at the airport (75 g/pkm). The disproportionate environmental impact of drop-off/pickup trips is also supported by research by Budd et al. (2011b). In a series of interviews with ground access managers in the UK, it was noted by one manager at a major airport that while drop-off/pick-up accounted for only 20% of passengers journeys these trips represented 42% of the airports controllable carbon emissions.

In addition to potentially significant environmental impacts, an abundance of drop-off and pick-up journeys at an airport may have important financial implications both in terms of expenditure on monitoring, maintaining and policing terminal forecourt areas, but also lost potential car parking revenues. Although a number of airports have started charging a fee for vehicles to enter terminal forecourt areas, at many airports this is not charged for. Even where the vehicle is parked for a short period of time while the passenger is accompanied into the terminal building, the cost of this parking (i.e. short-stay) will generally be far lower than if the passenger had paid for their vehicle for the duration of their trip (i.e. long-stay). Given that car parking revenues are often the largest source of non-aeronautical revenue at an airport and can account for as much as a quarter of total revenues, the potential financial implications of this issue should not be underestimated (Jacobs Consultancy et al., 2009).

As a result, airport operators are increasingly seeking ways to reduce the share of drop-off and pick-up journeys at their airport. An important focus of this has been trying to initiate behavioural change towards more sustainable forms of travel (i.e. to reduce private vehicle use while simultaneously increasing public transport use). For example, in 2007 Manchester Airport, UK stated in their Master Plan that "our ability to influence the travel behaviour of both passengers and employees is critical to the success of our Ground Transport Plan" (Manchester Airport, 2007). Having said this, research suggests that there may be considerable barriers to achieving such goals. Budd et al. (2014) found that passengers who currently favoured being dropped-off/picked-up at the airport also showed considerable resistance to changing their behaviour. This group, termed the 'Dogmatic Drop-Offs', were found to have strong attachments to using their car for ground access journeys, a low perception of the environmental problems associated with ground access travel, and subsequently exhibited very little potential to reduce their car use as a group.

Despite their significant impacts there has been comparatively little research into the nature and scale of 'meeter-greeters' at airports. This situation is arguably due to the lack of availability of relevant data, which in turn relates to the difficulties associated with establishing and maintaining suitable data collection and monitoring regimes. Traditionally, airports have relied on passenger mode choice information and traffic count data to monitor ground access travel. However, this can fail to take into account potentially important information about the number/type of vehicles associated with a particular passenger, the volume of traffic generated by particular flights or routes, or the make-up of the 'meeter-greeter' group accompanying the passenger to/from the airport. Consequently, there is a need to examine the nature of 'meeter-greeter' trips to airports and, following this, suggest ways for improving the way in which these trips are monitored and analysed in order to aid future airport strategic development.

To this end, the paper examines the nature and scale of airport 'meeter-greeters' at five UK airports in order to address two key objectives; to examine the scale of 'meeter-greeter trip' generation, and then to assess how the nature of these trips vary according to a passenger's trip purpose and resident status. The following sections describes the study airports (Section 2) and data used (Section 3) in the study. This is followed by a description of the method (Section 4) and the results of the analysis (Section 5). The paper concludes with a discussion and conclusion of the research findings (Section 6).

2. Study airports

In order to assess 'meeter-greeter' trips at a range of airports it was considered important that the study airports varied in terms of their size, market position, and ground access. Consequently, 5 UK airports were selected for the study; Heathrow, Gatwick, Manchester, Stansted, and Luton. Table 1 provides a summary of the 5 study airports in terms of annual passengers handled, ground access mode share, access arrangements and share of business and leisure traffic.

Heathrow is the largest airport in the UK, and the UK's only true hub. In 2014 Heathrow handled 73.1 million passengers (CAA, 2015). By road, Heathrow is accessible via the busy M25 or M4 motorways. The airport is also a major public transport interchange, and is the busiest long distance passenger coach station in the UK. By rail the airport is served by the Picadilly Line of the London Underground, by local Heathrow Connect rail services and the Premium Heathrow express rail service that operates to/from London's Paddington Station. In 2014, 58.6% of passengers accessed the airport by private vehicle. Proportionally, Heathrow has the highest share of business passengers (29.6%) of the study airports.

The second largest airport in the UK, Gatwick, handled nearly 38 million passengers in 2014 (CAA, 2015). The airport is located close to the M23 motorway, and served by an extensive network of long distance coach services and local buses. By rail, the airport is served by a dedicated railway station on the Brighton to London Victoria main line. In 2014, 58.3% of passengers accessed the airport by private vehicle. Gatwick is strongly characterised by leisure traffic, which accounts for 86.1% of their passengers.

Manchester Airport (21.7 million annual passengers) is the third largest airport in the UK, located in the north-west of England. While the airport is well served by both local buses and long distance coaches, and has a dedicated railway station, the private vehicle mode share (83.5%) is considerably higher than at airports of a comparable size in the UK (CAA, 2015). The airport was recently connected to the Manchester Metro Light Rail system serving the City of Manchester. Leisure passengers account for 82.1% of all passengers at Manchester.

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