2013 Washington Baltimore Regional Air Passenger Survey

March 2013

DRAFT

Table of Tables

Table of Figures

EXECUTIVE SUMMARY

In October 2013 a regional air passenger survey (APS) was conducted at the three major commercial airports in the Washington-Baltimore Region: Ronald Reagan Washington National Airport (DCA), Washington Dulles International Airport (IAD) and Baltimore/Washington International Thurgood Marshall Airport (BWI). The survey was jointly funded by the Metropolitan Washington Airports Authority (MWAA) and the Maryland Aviation Administration (MAA) of the Maryland Department of Transportation (MDOT). Approximately 24,700 passengers out of a total of 69,300 enplaning passengers on 673 flights were interviewed as they waited to board their planes, an overall response rate of 36%. More than 24,000 survey questionnaires were completed. The survey questionnaires asked about the trip that was being made, the passenger's trip to the airport, the passenger's choice of airport, and the passenger's demographic characteristics. The 2013 regional air passenger survey was the eleventh in a series of regional air passenger surveys conducted since 1981. Prior surveys were conducted in 1981/82, 1987, 1992, 1998, 2000, 2002, and every two years since 2005. Data from the air passenger surveys provides the basis for analysis of major changes in airport use in the region and are an essential component of the air systems planning and master planning processes.

This report summarizes the findings regarding passenger trip characteristics, and compares the 2013 data to similar data collected in 2009 and 2011. Regional percentages shown in this document are subject to a sampling error of approximately plus or minus three percentage points at the 90 percent confidence level. Percentages at each of the individual airports are subject to a sampling error of twice that amount.

Major findings from the 2013 APS are summarized below by the following areas of interest: airport usage, airport choice, airport preference, air trip purpose, ground trip origin, airport mode of access, and air traveler characteristics.

Airport Choice

In 2013, closest airport and air travel cost were the most important factors in selecting an airport, same as 2009 and 2011 survey results. While the percentage of passengers citing closest airport as their most important reason for choosing DCA declined when compared with 2011, more respondents cited less expensive airfare and better public transportation. Overall, quality of air service was less important than accessibility conditions in terms of airport choice.

Closest Airport

- 65% of DCA travelers (down from 71% in 2011)
- 46% of IAD travelers (up from 42% in 2011)
- 58% of BWI travelers (unchanged from 2011)

Lowest Airfare

- 11% of DCA travelers (up from 4% in 2011)
- 15% of IAD travelers (up from 8% in 2011)
- 22% of BWI travelers (unchanged from 2011)

Airport Preference

- For all air passengers (both residents and non-residents of the area) airport preference changed little between 2011 and 2013. In 2013, 37% of the air passengers preferred DCA, 17% preferred IAD, and 30% preferred BWI. About 17% of air passengers expressed no preference for a particular airport.

- In 2013, 35% of area residents preferred DCA, 16% preferred IAD, and 25% preferred BWI.

- In 2013, 38% of non-residents preferred DCA, 19% preferred IAD, and 36% preferred BWI.

Trip Purpose

- In 2013, the percentage of locally originating air passengers reporting that they were traveling for non-business related reasons increased from 56% in 2011 to 67% in 2013.

- While non-business trips such as vacation, and student or school related travel, personal or family affairs increased, business related trips overall declined from 44% in 2011 to 33% in 2013.

Ground Trip Origin

- Between 2011 and 2013 the percentage of air passengers beginning their trips from a private residence remained unchanged at 60% of the total trip originations.

- The percentage of air passengers beginning their trip to the airport from a hotel or motel show a slight increase, from 27% to 30%, between 2011 and 2013.

Mode of Access

- The most common mode of access to the airports in 2013 continued to be the automobile (private and rental), accounting for 62% of all local originations.

- Metrorail usage by passengers traveling to DCA continues to be among the highest proportions of any airport in the United States at 15%. However, access by private car to DCA remained the same at 35%.

Air Traveler Characteristics

- In 2011, area residents accounted for 42% of the total departing air passengers, and non-residents 58%.

- Local originating passengers under the age of 25 remained almost the same, 7% in 2011 and 8% in 2013, and remained the same for passengers age 35 and older with 72% while passengers between the age of 25 to 34 dropped from 21% in 2011 to 19% in 2013.

- Household incomes for air travelers in the Washington-Baltimore region continue to be higher than the regional median. In 2013, only 28% of the region's passengers had household incomes less than $80,000, same as in 2011, whereas at all three airports, more than 70% of air passengers (both residents and non-residents) had incomes of $80,000 or more.

- Comparison of residents and non-residents that are departing passengers show that just over half of area residents have an annual household income of over $120,000.

This survey was a joint venture, conducted by the National Capital Region Transportation Planning Board (TPB), the Maryland Aviation Administration and the Metropolitan Washington Airports Authority, in cooperation with the airlines serving the region. Project oversight was provided by the Aviation Technical Subcommittee of the TPB Technical Committee, composed of a broad range of Federal, State, Local, and private aviation interests.

Figure 1: Washington / Baltimore Air System Planning Region
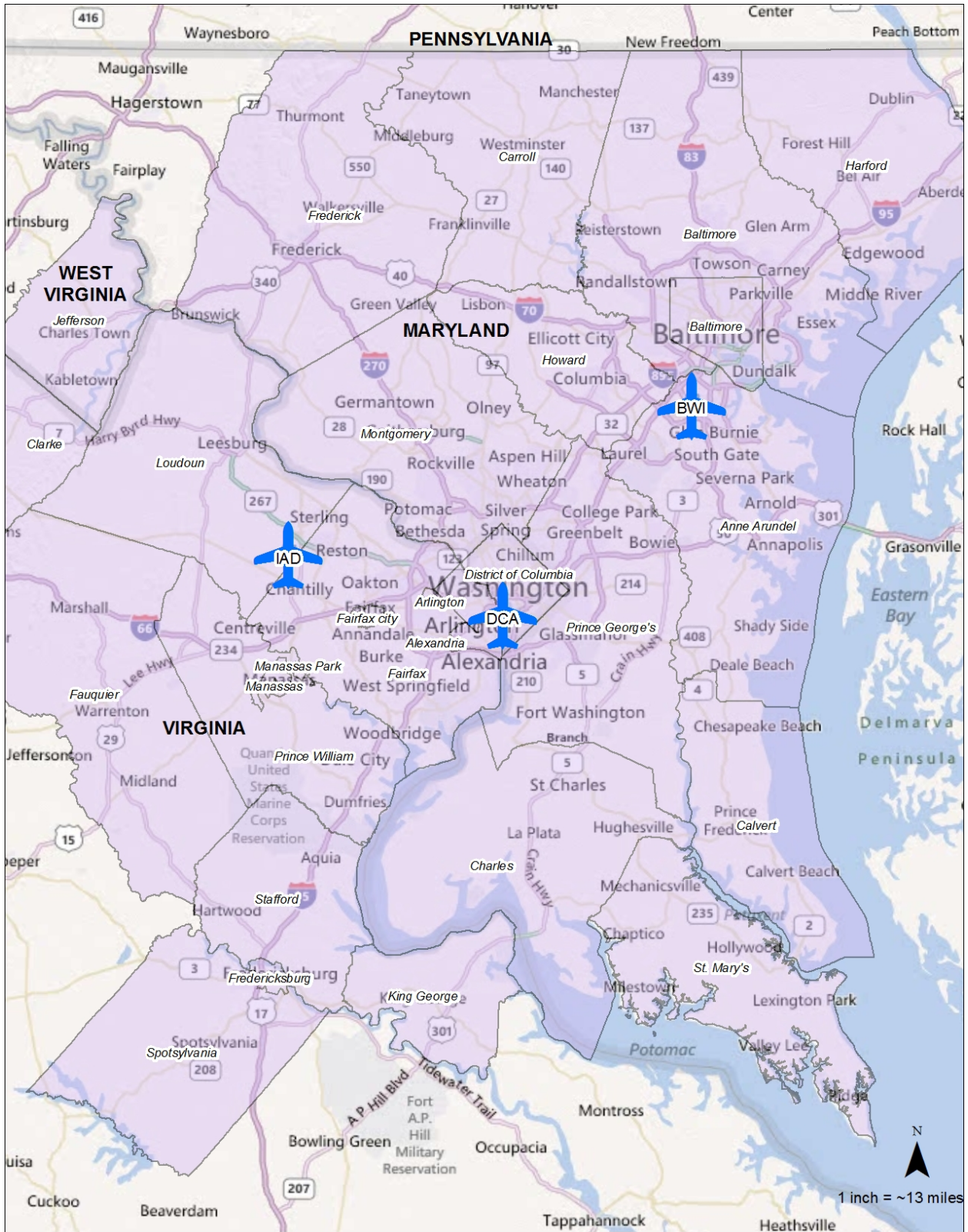
INTRODUCTION

This report summarizes the findings from the 2013 Washington-Baltimore Regional Air Passenger Survey (APS) conducted concurrently at Ronald Reagan Washington National Airport (DCA), Washington Dulles International Airport (IAD), and Baltimore/Washington International Thurgood Marshall Airport (BWI). The Metropolitan Washington Council of Governments (COG) conducted this survey as part of its Continuous Airport System Planning (CASP) program. One of the goals of the CASP program is to continue the rational development of aviation facilities and services at the three major commercial airports serving the Washington-Baltimore region, shown in Figure 1.

The 2013 regional air passenger survey was the eleventh in a series of regional air passenger surveys conducted since 1981. Prior surveys were conducted in 1981/82, 1987, 1992, 1998, 2000, 2002, and every two years since 2005. Data from the air passenger surveys provides the basis for analysis of major changes in airport use for the region. Hundreds of millions of dollars have been invested in facility improvements at the region's three major commercial airports in the past several years and more improvements are planned for the future. The data produced by these air passenger surveys will be invaluable in further planning for these improvements. Several other areas in which the survey data will be particularly useful are as follows:

- Market analyses, passenger trip mode and purpose, geographic information, preferred airport, and socioeconomic data on passengers for use in developing airport, airline and support services

- Planning for airport access roadways and services, including development of transportation model improvements such as enhanced mode split models and estimates of airport traffic volumes

- Planning terminals and groundside facilities, including parking, curbside, baggage, and passenger boarding gate areas

- Time series trend analyses of changes in air traveler characteristics and airport use

- Air passenger demand and allocation forecasting for future updates of the Washington-Baltimore Regional Airport System Plan

The 2013 air passenger survey was conducted during the two week period from Wednesday, October 9th to Tuesday, October 22nd. A small number of flights that were either missed or required resurveying were resurveyed between October 23rd and October 31st. Approximately 24,700 passengers out of a total of 69,000 enplaning passengers on 673 (592 domestic and 81 international) flights were interviewed as they waited to board their planes, an overall response rate of 36 percent. The completed survey questionnaires representing the responses of these 24,700 passengers were processed and tabulated.[1]

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[1] Families or groups traveling together may complete one questionnaire for their group, although it is preferable to have each individual over the age of 16 complete their own questionnaire.

Table 1: Data Collection Summary

Airport	No. of Flights Surveyed	Rev. Pass Count	Actual No. of Completed Surveys	Response Rate
BWI	225	25,101	8,790	35%
DCA	221	17,639	6,639	38%
IAD	227	26,320	9,313	35%
Total	**673**	**69,060**	**24,742**	**36%**

The survey sample included flights from 36 airlines, of which 23 were international and 13 were domestic carriers. The sample flights were grouped into 322 destination clusters. The survey instrument contained questions regarding the respondent's airline trip, the trip to the airport, the choice of airport, and several demographic questions, such as household size, household income, and respondent age. The 2013 survey questionnaire is included as Appendix B of this report.

FINDINGS - TRANSPORTATION

Survey results are summarized by airport as well as for the Washington-Baltimore air systems planning region as a whole. The various travel modes used to access each airport, trip purpose, number of trips at each airport, preferred airport, trip origin, place of origin, age of air travelers and income of air travelers are included. These summaries generally reflect trips where passengers arrived at the airport by ground transportation. Passengers who connected with flights are included only in discussions of total enplanements in the airport use section of this report.

Although the data for the 2013 survey were collected over a two week period in October, the survey results have been annualized to observed annual passengers for the 12-month period from January to December 2013. Regional percentages shown in the data tables are subject to a sampling error of approximately plus or minus three percentage points at the 90 percent confidence level. Percentages at individual airports are subject to a sampling error of twice that amount. Where applicable, the 2013 survey results are compared with results from the 2009 and the 2011 surveys.

Airport Use (Survey Question A-1)[2]

Commercial aviation activity in the region rebounded slightly between 2009 and 2011, after a decline of 3% between 2007 and 2009. As shown in Table 2, observed annual enplanements in 2013 (32.3 million) are now 1.4 million higher than in 2009 (30.8 million).

Table 2 shows that local originating enplanements declined by 4% between 2011 and 2013, while connecting enplanements have increased regionally by 16% for the same time period. While local originating enplanements increased at DCA, a decline of 3% and 17% was observed at BWI and IAD respectively. Regionally, DCA accounted for almost all of the local originating enplanement increase between 2011 and 2013.

Regional Enplanements (000s)
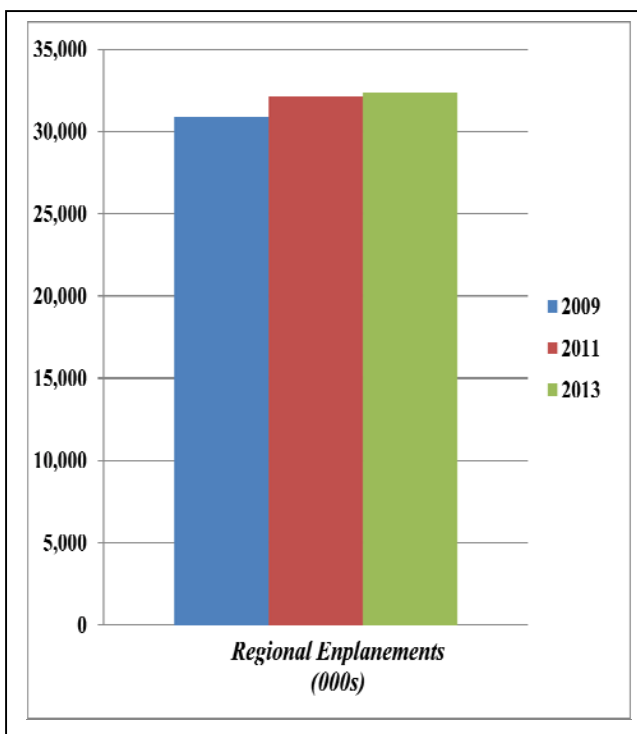
All three airports show an increase in connecting between 2011 and 2013 with a regional increase of 16%. However, IAD accounted for 45% of the total increase in connecting passengers, while DCA and BWI accounted for 29% and 25% respectively.

Local originating air passengers between 2011 and 2013 declined at both BWI and IAD while it increased at DCA. At BWI local originating passengers declined by 258,000, 3% when compared with 2011, and at IAD almost 1.3 million, a decline of 17% for the same time period. At DCA, local originating passengers increased by 475,000 between 2011 and 2013, an increase of 6%.

Figure 2, Figure 3, and Figure 4 illustrate the airport share of local originating passengers, connecting passengers, and total enplaning passengers from the surveys conducted in 2009, 2011, and 2013. In 2013, the greatest share of the region's total enplaning passengers departed from BWI, which accounted for 35% (same as in 2011), while 34% (down from 36% 2011) departed from IAD and 32% (up from 29% in 2011) departed from DCA. IAD had the greatest share of the region's connecting passengers (52%) and DCA has the greatest share of the region's local originating passengers (37%).

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[2] Where applicable, references are given to the survey question for which data are compiled for the analysis.

Table 2: Annual Air Passenger Trip Originations (000s[3])

Enplanement Type		BWI Marshall			Dulles			Reagan National			Region		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Local originations	*Number*	8,898	8,756	8,498	6,898	7,496	6,214	8,051	8,211	8,686	**23,847**	**24,463**	**23,398**
(came by ground	*Percent*	85%	78%	75%	60%	65%	57%	91%	88%	85%	**77%**	**76%**	**72%**
transportation)													
Connected from	*Number*	1,579	2,468	2,776	4,644	4,078	4,646	797	1,148	1,511	**7,020**	**7,694**	**8,933**
another flight	*Percent*	15%	22%	25%	40%	35%	43%	9%	12%	15%	**23%**	**24%**	**28%**
Total Enplanement	*Number*	**10,477**	**11,224**	**11,274**	**11,542**	**11,574**	**10,860**	**8,848**	**9,359**	**10,197**	**30,867**	**32,157**	**32,331**
Percent of Region		**34%**	**35%**	**35%**	**37%**	**36%**	**34%**	**29%**	**29%**	**32%**	**100%**	**100%**	**100%**

Notes:

* Totals may not add due to rounding

* "Total Enplanements" includes passengers on domestic scheduled, commuter and international flights

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[3] Unless otherwise noted, "000s" means "thousands of originations"

Figure 2: Airport Share of Annual Local Originating Passengers

Local Originating Passengers
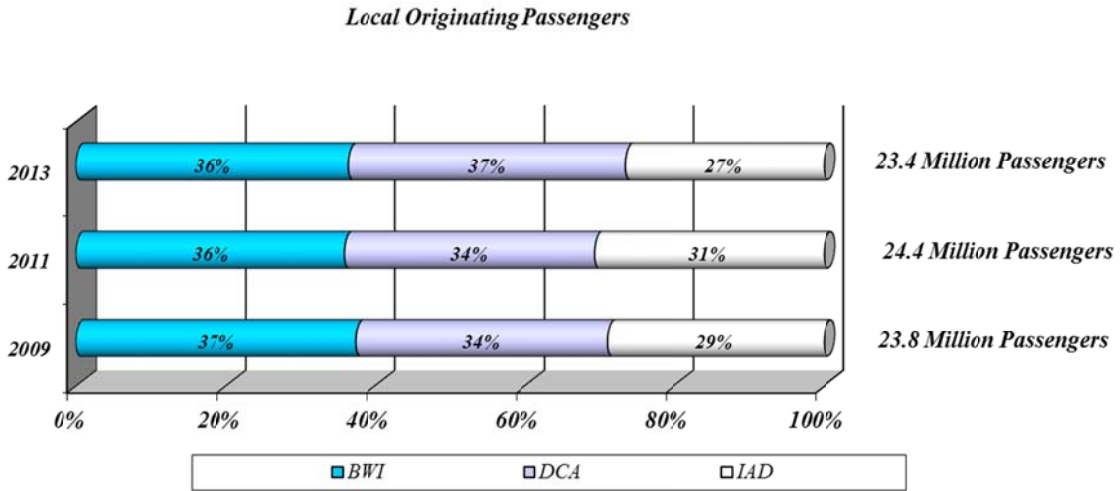
Figure 3: Airport Share of Annual Connecting Passengers

Connecting Passengers
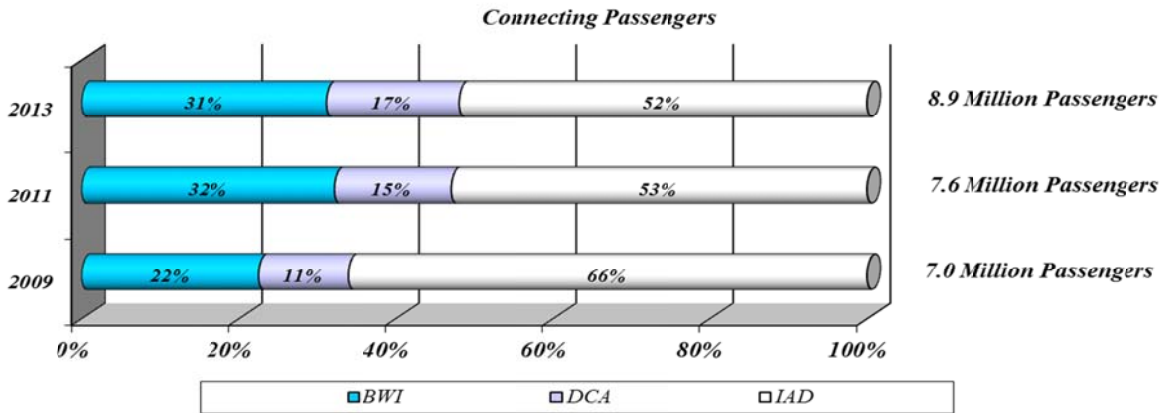
Figure 4: Airport Share of Total Annual Passengers

Total Passengers
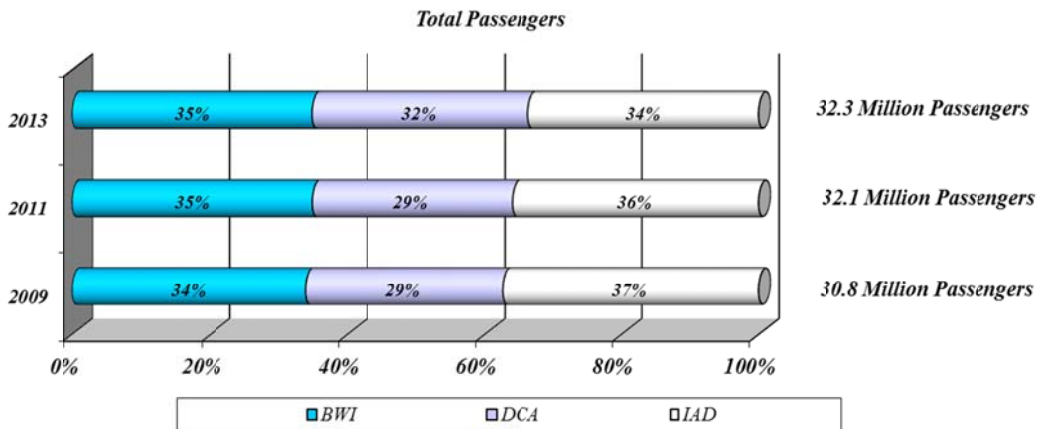
Airport Choice *(Survey Question C-3)*

Survey respondents were asked to rank the three most important reasons (out of a list of nine) for choosing the airport from where they were flying. Table 3 summarizes the airport choice responses, which are categorized either as accessibility conditions (closest airport, better public transportation, better road access and parking facilities) or quality of air service reasons (convenient flight times, nonstop or direct flights, less expensive airfares, frequent flier restrictions).

When compared with 2011, in 2013 the percentage of locally originating passengers citing accessibility conditions as the most important factor in airport choice slightly increased from 61% to 63% at the regional level. While the percentage of passengers citing this reason declined between 2009 and 2011 at all three airports, a significant increase was observed between 2011 and 2013 - from 59% to 63%, at BWI and from 44% to 5a% at IAD. At DCA however, passengers citing accessibility conditions as the most important factor declined from 76% in 2011 to 72% in 2013. This change suggests that convenience of flight times, availability of direct non-stop flights to destinations, and less expensive airfare may have caused an increase in quality of air service factors (and corresponding

decline in the prominence of accessibility factors) for passengers choosing DCA.
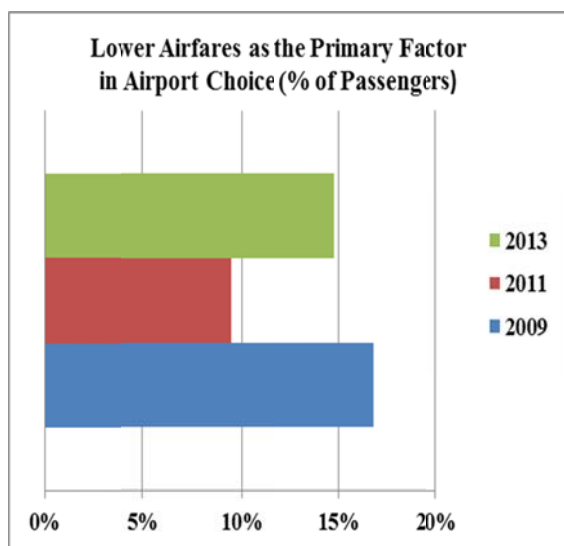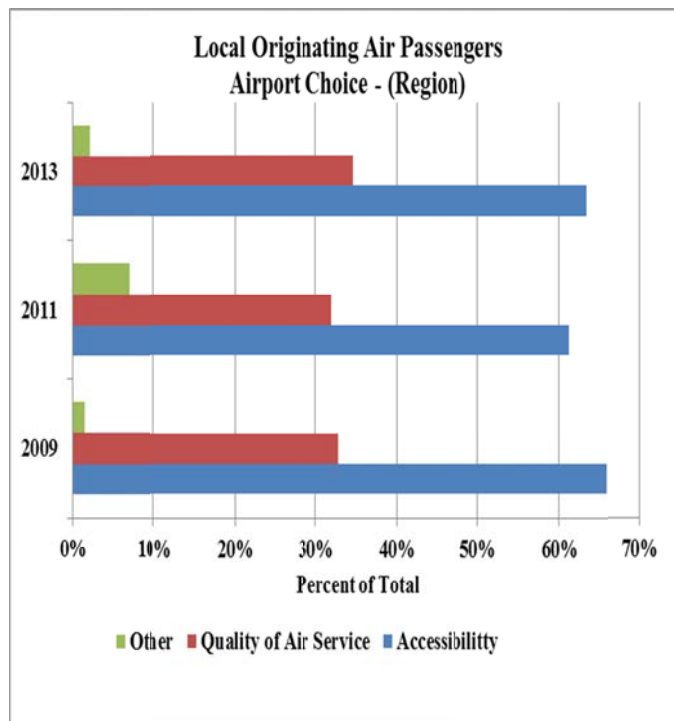
While quality of air service as an important reason for choosing an airport showed a slight decline from 33% in 2009 to 32% in 201, this factor increased slightly in 2013 to 35%. This increase could be attributed to dramatic increase of passengers citing less expensive airfare as a key factor of airport choice which has shown an increase from 9% in 2011 to 15% in 2013, reversing a downward trend observed between 2009 and 2011. Since passengers would be expected to be more sensitive to prices, the increase in lower airfare as an airport choice factor suggests that airlines may have also lowered their fares in response to the economic conditions. In addition, survey results discussed in a later section of this

report indicate that the typical air traveler using the three regional airports even though are fairly affluent may be relatively price sensitive and place more value on travel cost: the percentage of passengers citing more convenient flight times as the most important reason dropped by two percentage points when compared with 2011.

While regionally 63% of locally originating passengers cited accessibility conditions as the most important factor in airport choice, only 50% do so when accessibility conditions as either their first, second and/or third important factor in airport choice and 48% for Quality of Service. Better public transportation was sited six times more as a first, second and/or third factor for airport choice at DCA than being the only reason for doing so. Further the percentage of passengers siting more convenient flight time and better access road and parking as an important factor for choosing their particular airport more than doubled if it was their first, second or third reason at all three airports (see Table 4)

Airport Preference *(Survey Question C-2)*

Passengers were also asked which airport they would have preferred to use for their trip as travel restrictions and service availability sometimes present passengers from using their preferred airport. **Error! Reference source not found.** shows the percentages for preferred airport, by airport, for locally originating passengers for each of the survey years.

For the region, in 2013, 36% of locally originating passengers preferred to use DCA, 18% preferred to fly out of IAD. These findings are similar to 2011. In 2013, 29% (up from 28% in 2009) preferred to travel from BWI. Sixteen percent of the passengers expressed no particular preference for one of the region's three commercial airports, down from 14% in 2011.

Between 2011 and 2013, there was a slight change in the number of passengers flying out of their preferred airport. In 2013, 66% of the local originating air passengers reported that they flew out of their preferred airport, down from 67% in 2011. Figure 3 illustrates these percentages for the three most recent survey years.

Table 3: Primary Reasons for Airport Choice

Primary reason for choosing airport used	BWI Marshall			Dulles			Reagan National			REGION		
	2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Accessibility												
Closest airport	56%	56%	58%	53%	42%	46%	72%	71%	65%	61%	57%	58%
Better public ground transportation	1%	0%	1%	1%	0%	1%	6%	4%	6%	3%	2%	1%
Better access roads and parking	3%	3%	4%	3%	2%	5%	1%	1%	2%	2%	2%	5%
SUBTOTAL --Accessibility	**60%**	**59%**	**63%**	**57%**	**44%**	**51%**	**79%**	**76%**	**72%**	**66%**	**61%**	**63%**
Quality of Air Service												
More convinient flight times	5%	7%	6%	8%	11%	11%	8%	8%	7%	7%	9%	7%
Only airport with direct/non-stop flight	4%	4%	4%	11%	14%	14%	2%	3%	4%	5%	7%	5%
Less expensive airfare	27%	18%	22%	16%	8%	15%	7%	4%	11%	17%	9%	15%
Frequent flyer with specific airline	1%	4%	2%	4%	7%	3%	2%	2%	2%	2%	4%	3%
Only airport serving market	1%	2%	1%	3%	5%	4%	1%	1%	1%	2%	3%	4%
SUBTOTAL -- Quality of Air Service	**39%**	**35%**	**35%**	**42%**	**45%**	**47%**	**20%**	**19%**	**25%**	**33%**	**32%**	**35%**
OTHER	1%	6%	2%	2%	11%	2%	1%	5%	3%	1%	7%	2%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals may not add due to rounding

* "Total Enplanements" include passengers on scheduled domestic, commuter and international flights

Table 4: First, Second and/or Third Reasons for Airport Choice

Primary reason for choosing airport used	BWI 2011	BWI 2013	IAD 2011	IAD 2013	DCA 2011	DCA 2013	TOTAL 2011	TOTAL 2013
Accessibility								
Closest airport	30%	27%	27%	25%	35%	32%	31%	29%
Better public ground transportation	3%	3%	2%	3%	12%	11%	6%	6%
Better access roads and parking	16%	19%	13%	16%	11%	12%	14%	16%
SUBTOTAL --Accessibility	**49%**	**49%**	**43%**	**44%**	**59%**	**56%**	**51%**	**50%**
Quality of Air Service								
More convinient flight times	15%	16%	18%	20%	17%	17%	16%	17%
Only airport with direct/non-stop flight	2%	7%	4%	12%	2%	7%	3%	8%
Less expensive airfare	19%	18%	12%	13%	10%	11%	14%	14%
Frequent flyer with specific airline	6%	5%	8%	7%	5%	5%	6%	6%
Only airport serving market	7%	2%	11%	4%	5%	2%	7%	2%
SUBTOTAL -- Quality of Air Service	**48%**	**49%**	**53%**	**55%**	**38%**	**42%**	**46%**	**48%**
OTHER	3%	2%	4%	2%	3%	2%	3%	2%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals may not add due to rounding

* "Total Enplanements" include passengers on scheduled domestic, commuter and international flights

Table 5: Annual Originating Air Passengers' Preferred Airport (000s)

Preferred Airport		BWI Marshall			Dulles			Reagan National		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
BWI MARSHALL	*Number*	5,522	5,942	5,904	455	389	398	276	238	294
	Percent	65%	70%	72%	7%	6%	7%	4%	3%	4%
DULLES	*Number*	530	435	336	3,303	3,566	2,979	504	587	660
	Percent	6%	5%	4%	50%	52%	51%	7%	7%	8%
REAGAN NATIONAL	*Number*	1,180	1,068	863	1,549	1,623	1,242	5,946	6,092	5,981
	Percent	14%	13%	11%	24%	23%	21%	77%	77%	71%
No Preference	*Number*	1,297	998	1,085	1,248	1,333	1,218	1,023	1,010	1,441
	Percent	15%	12%	13%	19%	19%	21%	13%	13%	17%
TOTAL	*Number*	**8,529**	**8,443**	**8,188**	**6,555**	**6,911**	**5,837**	**7,749**	**7,927**	**8,376**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Non-Respondents		365	311	310	338	581	377	300	287	310
Total Originations		**8,894**	**8,754**	**8,498**	**6,893**	**7,492**	**6,214**	**8,049**	**8,214**	**8,686**

Notes:

* Totals may not add due to rounding

Figure 5: Travel from Preferred Airport (Originating Passengers Only)
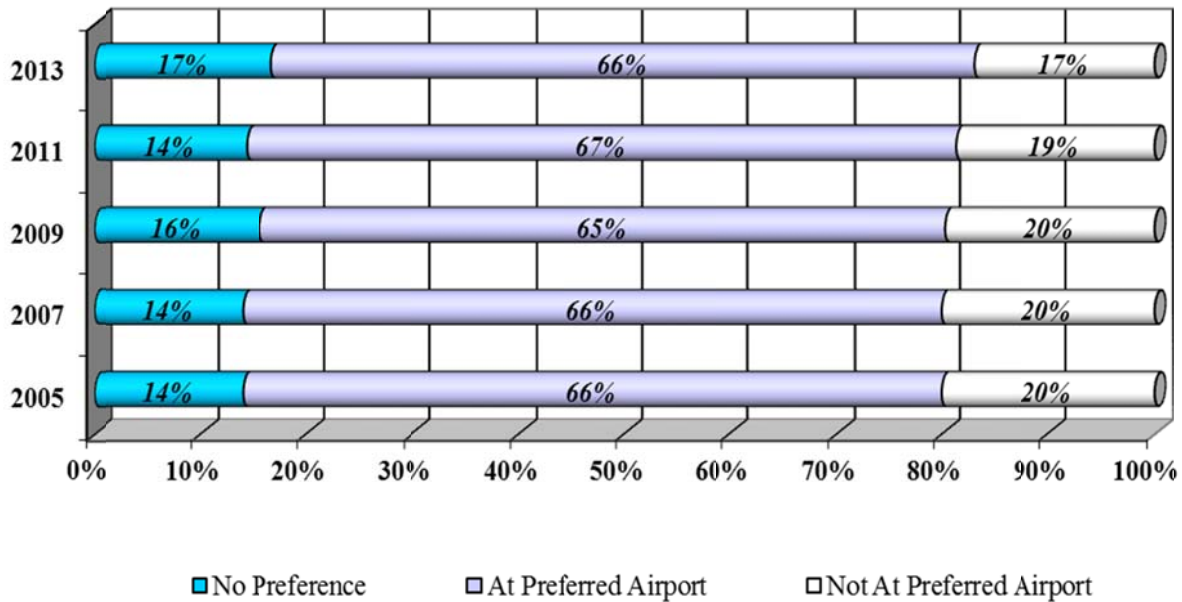
The difference in airport preference between residents and non-residents is summarized in Table 6. In 2013, local originating passengers who were visiting the region (non-residents) accounted for 57% of local originating passengers. Of these visitors, 35% selected DCA as their preferred airport compared with 38% percent of resident air passengers who preferred DCA. Preference rates for non-residents were and 16% and 25% for IAD and BWI, respectively, compared to 19% and 36% for residents. Non-residents continued to be least likely to express a preference for a particular airport, (24%), compared to residents (7%).
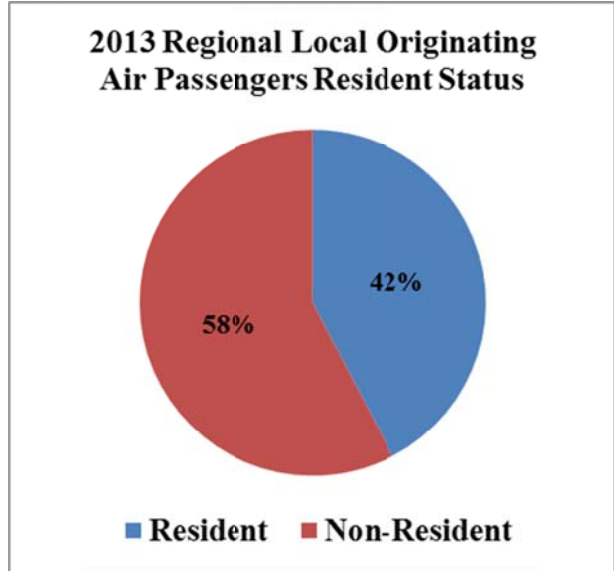
Table 6: Annual Originating Air Passengers' Preferred Airport by Resident Status (000s)

Preferred Airport		Non-Residents			Residents			TOTAL		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
BWI Marshall	*Number*	3,138	3,085	2,959	2,415	3,143	3,176	**5,553**	**6,228**	**6,135**
	Percent	26%	27%	25%	31%	31%	36%	**27%**	**29%**	**30%**
Dulles	*Number*	1,789	1,656	1,859	1,716	2,311	1,645	**3,505**	**3,967**	**3,504**
	Percent	15%	14%	16%	22%	23%	19%	**17%**	**18%**	**17%**
Reagan National	*Number*	4,634	4,464	4,181	3,227	3,681	3,330	**7,861**	**8,145**	**7,511**
	Percent	38%	39%	35%	41%	36%	38%	**39%**	**38%**	**37%**
No Preference	*Number*	2,722	2,304	2,809	559	981	602	**3,281**	**3,285**	**3,411**
	Percent	22%	20%	24%	7%	10%	7%	**16%**	**15%**	**17%**
TOTAL	*Number*	**12,283**	**11,509**	**11,808**	**7,917**	**10,116**	**8,753**	**20,200**	**21,625**	**20,561**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals do not include non-respondents and resident unknown

Trip Purpose (Survey Question A-3)

In 2013, the percentage of locally originating air passengers reporting that they were traveling for non-business related reasons decreased compared to 2011. In past surveys, business-related travel accounted for a little than half of all reported travel. As shown in Table 7, this percentage decreased to 33% in 2013 from 44% in 2011, a 10 percentage points. While non-business vacation travel dropped from 24% in 2009 to 21% and student/school-related travel dropped from 5% to 3%, in 2013 vacation travelers increased to 32% and students show a slight increase to 4% when compared with 2011. Similarly, personal or family related travel increased from 28% in 2011 to 31% in 2013.

Figure 6 shows air travel by trip purpose at each of the three airports in 2013. This figure shows that DCA generally has the greatest percentage of business-related air travel, IAD has the greatest percentage of vacation-related travel and BWI has the greatest percentage of personal or family-related travel, almost the same as in 2011.

Figure 6: Annual Originating Air Passengers by Trip Purpose (Percent by Airport)
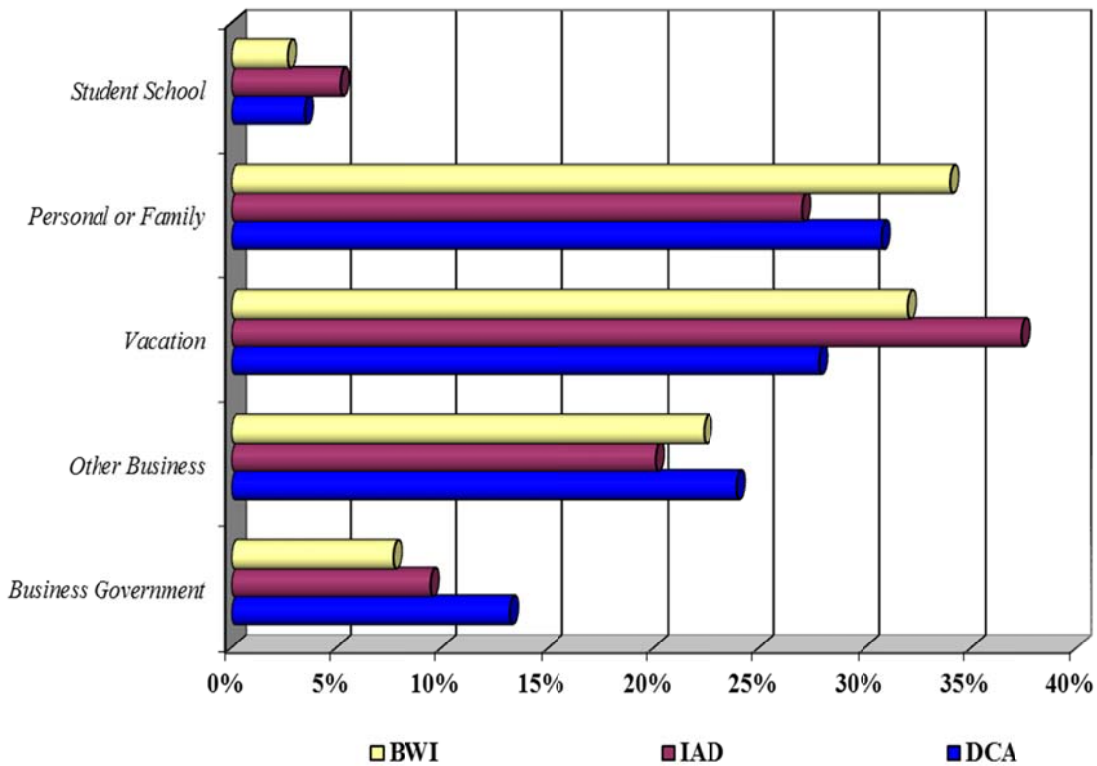
Table 7: Annual Originating Air Passenger Trip Purpose (000s)

Trip Purpose		BWI Marshall			Dulles			Reagan National			REGION		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Business Related													
Business related to government	*Number*	1,069	1,292	635	1,268	1,362	568	1,856	2,170	1111	**4,193**	**4,824**	**2,314**
(including military)	*Percent*	12%	15%	8%	19%	19%	9%	23%	27%	13%	**18%**	**20%**	**10%**
Other Business	*Number*	1,692	2,048	1851	1,238	1,596	1203	1,838	2,106	2019	**4,768**	**5,750**	**5,073**
	Percent	19%	24%	22%	18%	22%	20%	23%	26%	24%	**20%**	**24%**	**22%**
SUBTOTAL -- Business	*Number*	2761	3340	2486	2506	2958	1771	3694	4276	3130	**8961**	**10574**	**7387**
	Percent	31%	38%	30%	37%	41%	30%	46%	52%	37%	**38%**	**44%**	**33%**
Non-Business Related													
Vacation	*Number*	2,243	1,809	2650	1,728	1,803	2242	1,791	1,458	2343	**5,762**	**5,070**	**7,235**
	Percent	25%	21%	32%	25%	25%	37%	22%	18%	28%	**24%**	**21%**	**32%**
Personal or family affairs	*Number*	2,990	2,873	2815	1,997	1,878	1617	1,822	1,877	2596	**6,809**	**6,628**	**7,028**
	Percent	34%	33%	34%	29%	26%	27%	23%	23%	31%	**29%**	**28%**	**31%**
Student or school related	*Number*	567	244	225	199	221	311	347	202	296	**1,113**	**667**	**832**
	Percent	6%	3%	3%	3%	3%	5%	4%	2%	4%	**5%**	**3%**	**4%**
Other	*Number*	304	417	102	373	347	49	346	356	66	**1,023**	**1,120**	**217**
	Percent	3%	5%	1%	5%	5%	1%	4%	4%	1%	**4%**	**5%**	**1%**
SUBTOTAL -- Non-Business	*Number*	6,104	5,343	5,792	4,297	4,249	4,219	4,306	3,893	5,301	**14,707**	**13,485**	**15,312**
	Percent	69%	62%	70%	63%	59%	70%	54%	48%	63%	**62%**	**56%**	**67%**
TOTAL	*Number*	8,865	8,683	8,278	6,803	7,207	5,990	8,000	8,169	8,431	**23,668**	**24,059**	**22,699**
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	**100%**	**100%**	**100%**
Non-Respondents		29	74	220	90	286	224	50	47	257	**169**	**407**	**701**
Total Originations		8,894	8,757	8,498	6,893	7,493	6,214	8,050	8,216	8,688	23,837	24,466	23,400

Notes:

* Business related to government include Federal, State and Local Governments

** Totals may not add due to rounding

Trip Origin *(Survey Question B-1)*

Table 8 summarizes the ground trip origin responses for the last three survey years. As shown, in the current and past surveys, most local passengers left for the airport from a private residence. While the percentage of air passengers beginning their trip from a private residence increased from 56% to 60% between 2009 and 2011, has remained unchanged in 2013 with 60%. Those leaving from a hotel or motel showed a slight increase from 27% in 2011 to 30% in 2013. DCA continued to have the greatest percentage of passengers originating from a hotel or motel at 37%. For the region, there slight increase was observed in the percentage of passengers who reported beginning their trip to the airport from either their regular place of employment, while those passengers beginning their trip from another place of business remained the same.

Local Air Passenger Trip Origins (Region)

- Private residence
- Hotel/motel
- Regular place of Employment
- Another place of Business
- Other

5% 2%
4%
30%
60%

Note:- Non-respondents are not included
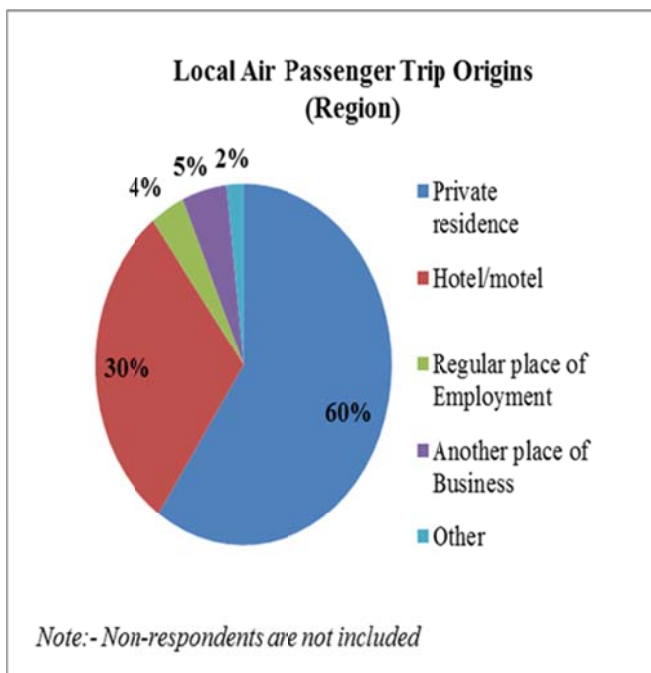
Mode of Access *(Survey Question B-7)*

Local Air Passenger Mode of Access Regional

1%
19%
18%
62%

- Auto
- Taxi
- Transit
- Other
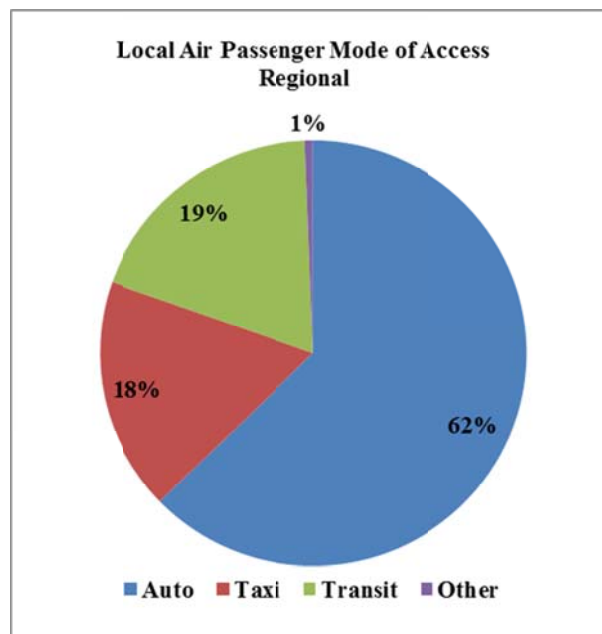
Table 9 provides a summary of mode of access to each airport and for the region. Regionally, as in previous surveys, the most common mode of access to the airports in 2013 was the automobile (both private autos and rental cars), accounting for 62% of all local originations. Taxicabs were used by 18% of the passengers, and public transportation[4] carried 14% of passengers. Courtesy buses provided by hotels and motels accounted for only 4% of all local originations in 2013, the same as in 2011.

Metrorail usage by passengers traveling to DCA continues to be among the highest proportions of any airport in the nation, at 15%. However, access by private car to DCA showed a slight decline to 34% in 2013 from 35% in 2011. The percentage of air passengers arriving by rental car at DCA remained almost the same at 9% compared with 2011 findings.

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[4] Metrorail, Metrobus / MTA bus, MTA light rail, MARC commuter rail, and airport buses, vans, and limousines.

Table 8: Annual Originating Air Passenger Trip Origin (000s)

Ground Trip Origin		BWI Marshall			Dulles			Reagan National			REGION		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Private residence	*Number*	5,376	5,740	5,676	4,026	4,570	3,760	3,614	4,127	4,398	**13,016**	**14,437**	**13,834**
	Percent	61%	66%	67%	61%	64%	61%	46%	51%	51%	**56%**	**60%**	**60%**
Hotel/motel	*Number*	2,073	1,811	1,864	1,813	1,885	1,940	2,992	2,708	3,161	**6,878**	**6,404**	**6,965**
	Percent	24%	21%	22%	27%	26%	32%	38%	33%	37%	**29%**	**27%**	**30%**
Passenger's regular place of employment	*Number*	436	463	328	242	272	180	464	476	349	**1,142**	**1,211**	**857**
	Percent	5%	5%	4%	4%	4%	3%	6%	6%	4%	**5%**	**5%**	**4%**
Another place of business	*Number*	446	418	403	268	252	203	541	631	511	**1,255**	**1,301**	**1,117**
	Percent	5%	5%	5%	4%	4%	3%	7%	8%	6%	**5%**	**5%**	**5%**
Other	*Number*	446	228	160	303	140	58	286	146	209	**1,035**	**514**	**427**
	Percent	5%	3%	2%	5%	2%	1%	4%	2%	2%	**4%**	**2%**	**2%**
TOTAL	*Number*	8,777	8,660	8,431	6,652	7,119	6,141	7,897	8,088	8,628	**23,326**	**23,867**	**23,200**
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	**100%**	**100%**	**100%**
Non-Respondents		121	96	67	246	377	73	154	123	59	**521**	**596**	**199**
Total Originations		**8,898**	**8,756**	**8,498**	**6,898**	**7,496**	**6,214**	**8,051**	**8,211**	**8,687**	**23,847**	**24,463**	**23,399**

Notes:

* Totals may not add due to rounding

Table 9: Annual Originating Air Passenger Mode of Access (000s)

Mode of Access		BWI Marshall			Dulles			Reagan National			REGION		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Private car	*Number*	5,189	5,551	5,289	3,537	3,847	3,049	2,524	2,782	2,887	11,250	12,180	11,225
	Percent	59%	64%	64%	53%	55%	50%	32%	35%	34%	48%	51%	49%
Rental car	*Number*	1,480	1,217	1,188	1,017	923	1,032	652	655	793	3,149	2,795	3,013
	Percent	17%	14%	14%	15%	13%	17%	8%	8%	9%	14%	12%	13%
Taxi	*Number*	444	516	414	946	1,174	968	2,483	2,520	2,624	3,873	4,210	4,006
	Percent	5%	6%	5%	14%	17%	16%	32%	31%	31%	17%	18%	18%
Metrorail (DCA)	*Number*	60	29	0	77	35	0	1,284	1,275	1,235	1,421	1,339	1,235
	Percent	1%	0%	0%	1%	0%	0%	16%	16%	15%	6%	6%	5%
Rail service	*Number*	208	187	130	NA	NA	NA	5	9	0	213	196	130
	Percent	2%	2%	2%				0%	0%	0%	1%	1%	1%
Light Rail (BWI)	*Number*	66	74	103	NA	NA	NA	NA	NA	NA	66	74	103
	Percent	1%	1%	1%			0%			0%	0%	0%	0%
Airport bus/Van/Limo	*Number*	803	571	629	648	630	554	444	375	527	1,895	1,576	1,710
	Percent	9%	7%	8%	10%	9%	9%	6%	5%	6%	8%	7%	8%
Hotel/motel courtesy bus	*Number*	260	289	386	199	246	268	380	327	308	839	862	962
	Percent	3%	3%	5%	3%	3%	4%	5%	4%	4%	4%	4%	4%
Metrobus/MTA Bus	*Number*	NA	79	71	NA	142	138	NA	53	65	NA	274	274
	Percent		1%	1%		2%	2%		1%	1%		1%	1%
Other	*Number*	223	103	44	196	58	33	109	53	62	528	214	139
	Percent	3%	1%	1%	3%	1%	1%	1%	1%	1%	2%	1%	1%
TOTAL	*Number*	8,733	8,616	8,254	6,620	7,055	6,042	7,881	8,049	8,501	23,234	23,720	22,797
	Percent	100%	99%	100%	100%	98%	100%	100%	99%	100%	100%	99%	100%
Non-Respondents		164	140	239	275	441	174	169	162	185	608	743	598
Total Originations		**8,897**	**8,756**	**8,493**	**6,895**	**7,496**	**6,216**	**8,050**	**8,211**	**8,686**	**23,842**	**24,463**	**23,395**

Notes:

* Totals may not add due to rounding

In 2013 survey, passengers were also asked, Is this how you usually get to this airport? (*Survey question B-8*). 81% use the same mode of access to the airport, while 22 % do not. Respondents use of parking facilities at airport show that overall 39% use the parking facilities located at the airports, 52% at BWI, 27% at DCA and 32% IAD. Among those who used parking facilities at BWI, 30% used the Long Term A or B Parking Garage, 24% used the Daily Parking garage and 22% used Off-Airport Private Parking Garage. At DCA, over half of parking usage was at Long Term / Daily Parking Garage, and at IAD Long Term / Daily Parking and Long Term / Economy Parking were used more with 34% equal share of total parking use.

On the question of being dropped off at the airport or not, with the inclusion of passengers arriving at the airport other than a private car and rental car, almost 68% (non-respondents excluded) were dropped-off at the airport, while 32% were not. At BWI among respondents dropped-off at the airport 77% came to the airport by the automobile (both private autos and rental cars, 73% at IAD, and 55% at DCA, see Table .10

The 2013 survey questionnaire included a question, Is this where you usually park your vehicle at this airport? (*Survey question B-9d*) on usual parking use for those who use the parking facilities at the airports. Overall, 77% among those who responded usually use the same parking facility at the airport. At BWI, 26% responded that their usual parking facility at the airport is the Long Term A or B Parking Garage, and 21% usually park at Off Airport Private Parking, and 19% do so usually at the Daily Parking Garage. DCA's use of parking facility show that, 82% of the respondents use the same parking facility they did during the current survey. However, almost 50% indicated that their usual location of parking is the Long Term / Daily Parking facility, and 23% of them usually park at the Long Term / Economy Parking. At IAD while 85% of respondents indicated that they park at their usual facility, 32% use the Long Term / Daily Parking and for 30% of parking facility users the Long Term / Economy Parking is their usual location.

Analyzing mode of access by resident status (as shown in Figure 7) reveals some interesting differences. While residents of the region overwhelmingly used the private auto to access an airport, air passengers visiting the region continued to be more evenly distributed among private autos (31%), rental cars (23%) and taxicabs (20%). This percentage split also occurred in both 2009 and 2011. Non-resident air passengers were also more likely than resident air travelers to use Hotel/motel courtesy bus for ground access to the airport.

Table 11 through Table 14 summarize resident versus non-resident (passengers arriving by ground transportation only) mode of access to each airport and for the region as a whole.

Figure 7: Departing Passenger Mode of Access by Resident Status
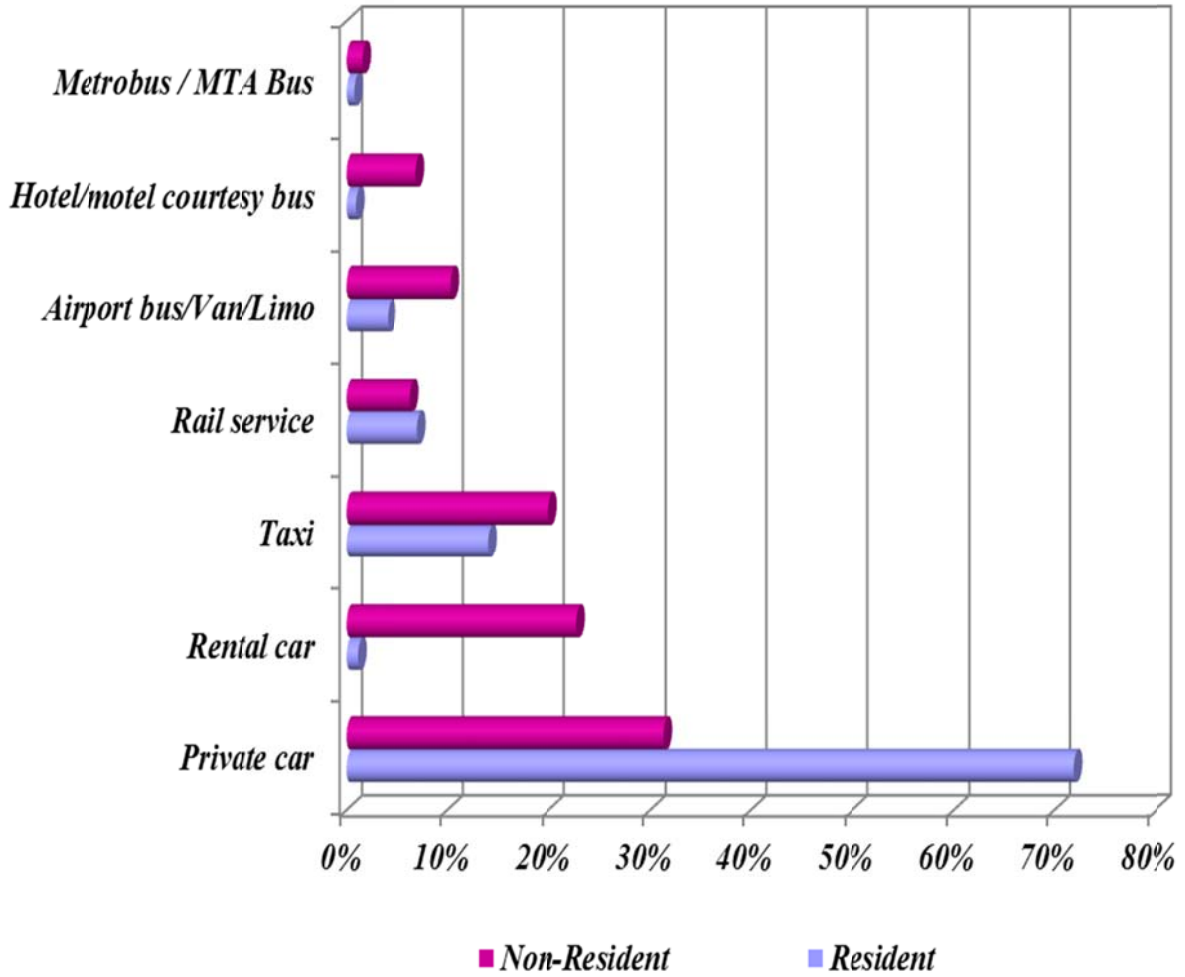
Table 10: Annual Originating Air Passenger Drop-Off At Airport by Mode of Access (000s)

Mode of Access		BWI Marshall			Dulles			Reagan National			REGION		
		YES	NO	Total	YES	NO	Total	YES	NO	Total	YES	NO	Total
Private car	Number	2,526	2,394	4,920	1,918	926	2,844	1,747	940	2,687	6,191	4,260	10,451
	Percent	76%	91%	82%	71%	80%	74%	55%	72%	60%	67%	84%	73%
Rental car	Number	139	140	279	136	139	275	104	111	215	379	390	769
	Percent	4%	5%	5%	5%	12%	7%	3%	9%	5%	4%	8%	5%
Taxi	Number	176	9	185	318	36	354	861	76	937	1,355	121	1,476
	Percent	5%	0%	3%	12%	3%	9%	27%	6%	21%	15%	2%	10%
Metrorail (DCA)	Number	0	0	0	0	0	0	62	129	191	62	129	191
	Percent	0%	0%	0%	0%	0%	0%	2%	10%	4%	1%	3%	1%
Rail service	Number	6	8	14	NA	NA	NA	0	0	0	6	8	14
	Percent	0%	0%	0%				0%	0%	0%	0%	0%	0%
Light Rail (BWI)	Number	20	13	33	NA	NA	NA	NA	NA	NA	20	13	33
	Percent	1%	0%	1%							0%	0%	0%
Airport bus/Van/Limo	Number	287	31	318	238	21	259	247	17	264	772	69	841
	Percent	9%	1%	5%	9%	2%	7%	8%	1%	6%	8%	1%	6%
Hotel/motel courtesy bus	Number	148	29	177	62	12	74	94	24	118	304	65	369
	Percent	4%	1%	3%	2%	1%	2%	3%	2%	3%	3%	1%	3%
Metrobus/MTA Bus	Number	24	5	29	25	12	37	22	4	26	71	21	92
	Percent	1%	0%	0%	1%	1%	1%	1%	0%	1%	1%	0%	1%
Other	Number	8	6	14	13	5	18	54	1	55	75	12	87
	Percent	0%	0%	0%	0%	0%	0%	2%	0%	1%	1%	0%	1%
TOTAL	Number	3,334	2,635	5,969	2,710	1,151	3,861	3,191	1,302	4,493	9,235	5,088	14,323
	Percent	99%	100%	100%	99%	99%	100%	99%	100%	100%	100%	100%	100%
Non-Respondents		33	25	58	17	9	26	25	20	45	75	54	129
Total Originations		**3,367**	**2,660**	**6,027**	**2,727**	**1,160**	**3,887**	**3,216**	**1,322**	**4,538**	**9,310**	**5,142**	**14,452**

Notes:

* Totals may not add due to rounding

Table 11: Annual Originating Air Passenger Mode of Access by Resident Status, BWI (000s)

Mode of Access		Non-Residents			Residents			TOTAL		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
Private car	Number	2,001	2,006	1,704	2,547	3,234	3,117	**4,548**	**5,240**	**4,821**
	Percent	42%	47%	43%	87%	84%	86%	**59%**	**65%**	**63%**
Rental car	Number	1,321	1,110	1,094	43	42	42	**1,364**	**1,152**	**1,136**
	Percent	27%	26%	27%	1%	1%	1%	**18%**	**14%**	**15%**
Taxi	Number	305	330	296	65	136	85	**370**	**466**	**381**
	Percent	6%	8%	7%	2%	4%	2%	**5%**	**6%**	**5%**
Metrorail (DCA)	Number	47	14	0	11	14	0	**58**	**28**	**0**
	Percent	1%	0%	0%	0%	0%	0%	**1%**	**0%**	**0%**
Rail service	Number	122	91	50	69	80	73	**191**	**171**	**123**
	Percent	3%	2%	1%	2%	2%	2%	**2%**	**2%**	**2%**
Light Rail (BWI)	Number	45	44	48	12	24	49	**57**	**68**	**97**
	Percent	1%	1%	1%	0%	1%	1%	**1%**	**1%**	**1%**
Airport bus/ Van/Limo	Number	573	370	400	140	166	195	**713**	**536**	**595**
	Percent	12%	9%	10%	5%	4%	5%	**9%**	**7%**	**8%**
Hotel/motel courtesy bus	Number	224	193	342	18	65	21	**242**	**258**	**363**
	Percent	5%	5%	9%	1%	2%	1%	**3%**	**3%**	**5%**
Metrobus / MTA Bus	Number	NA	36	29	NA	39	34	**NA**	**75**	**63**
	Percent		1%	1%		1%	1%		**1%**	**1%**
Other	Number	174	64	34	32	30	7	**206**	**94**	**41**
	Percent	4%	2%	1%	1%	1%	0%	**3%**	**1%**	**1%**
TOTAL	Number	**4,812**	**4,258**	**3,997**	**2,937**	**3,830**	**3,623**	**7,749**	**8,088**	**7,620**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals do not include resident unknown, and non-respondents for mode of access.

Table 12: Annual Originating Passenger Mode of Access by Resident Status, DCA (000s)

Mode of Access		Non-Residents			Residents			TOTAL		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
Private car	Number	861	838	964	1,353	1,747	1,583	2,214	2,585	2,547
	Percent	19%	20%	21%	53%	55%	53%	32%	35%	33%
Rental car	Number	581	575	706	15	33	22	596	608	728
	Percent	13%	13%	15%	1%	1%	1%	9%	8%	9%
Taxi	Number	1,555	1,541	1,606	653	758	783	2,208	2,299	2,389
	Percent	35%	36%	34%	26%	24%	26%	32%	31%	31%
Metrorail (DCA)	Number	722	740	655	444	476	491	1,166	1,216	1,146
	Percent	16%	17%	14%	17%	15%	16%	17%	16%	15%
Rail service	Number	3	5	0	1	2	0	4	7	0
	Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%
Light Rail (BWI)	Number	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Percent									
Airport bus/ Van/Limo	Number	301	210	400	67	128	66	368	338	466
	Percent	7%	5%	9%	3%	4%	2%	5%	5%	6%
Hotel/motel courtesy bus	Number	346	294	263	5	6	27	351	300	290
	Percent	8%	7%	6%	0%	0%	1%	5%	4%	4%
Metrobus / MTA Bus	Number	NA	33	44	NA	8	17	NA	41	61
	Percent		1%	1%		0%	1%		1%	1%
Other	Number	82	28	56	8	22	5	90	50	61
	Percent	2%	1%	1%	0%	1%	0%	1%	1%	1%
TOTAL	Number	4,451	4,264	4,694	2,546	3,180	2,994	6,997	7,444	7,688
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%

Notes:

* Totals do not include resident unknown, and non-respondents for mode of access.

Table 13: Annual Originating Air Passenger Mode of Access by Resident Status, IAD (000s)

Mode of Access		Non-Residents			Residents			TOTAL		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
Private car	*Number*	1,170	1,096	1,043	1,774	2,348	1,562	**2,944**	**3,444**	**2,605**
	Percent	40%	40%	33%	76%	76%	75%	**56%**	**59%**	**50%**
Rental car	*Number*	796	711	897	15	39	34	**811**	**750**	**931**
	Percent	27%	26%	28%	1%	1%	2%	**15%**	**13%**	**18%**
Taxi	*Number*	358	387	468	380	483	350	**738**	**870**	**818**
	Percent	12%	14%	15%	16%	16%	17%	**14%**	**15%**	**16%**
Metrorail (DCA)	*Number*	43	10	0	17	14	0	**60**	**24**	**0**
	Percent	1%	0%	0%	1%	0%	0%	**1%**	**0%**	**0%**
Rail service	*Number*	NA	NA	NA	NA	NA	NA	**NA**	**NA**	**NA**
	Percent									
Light Rail (BWI)	*Number*	NA	NA	NA	NA	NA	NA	**NA**	**NA**	**NA**
	Percent									
Airport bus/ Van/Limo	*Number*	317	293	423	140	156	94	**457**	**449**	**517**
	Percent	11%	11%	13%	6%	5%	4%	**9%**	**8%**	**10%**
Hotel/motel courtesy bus	*Number*	137	171	214	3	21	32	**140**	**192**	**246**
	Percent	5%	6%	7%	0%	1%	2%	**3%**	**3%**	**5%**
Metrobus / MTA Bus	*Number*	NA	47	110	NA	22	15	**NA**	**69**	**125**
	Percent		2%	3%		1%	1%		**1%**	**2%**
Other	*Number*	120	31	12	13	15	8	**133**	**46**	**20**
	Percent	4%	1%	0%	1%	0%	0%	**3%**	**1%**	**0%**
TOTAL	*Number*	**2,941**	**2,746**	**3,167**	**2,342**	**3,098**	**2,095**	**5,283**	**5,844**	**5,262**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals do not include resident unknown, and non-respondents for mode of access.

Table 14: Annual Originating Air Passenger Mode of Access by Resident Status, Region (000s)

Mode of Access		Non-Residents			Residents			TOTAL		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
Private car	*Number*	4,032	3,940	3,711	5,674	7,329	6,262	**9,706**	**11,269**	**9,973**
	Percent	33%	35%	31%	73%	73%	72%	**48%**	**53%**	**48%**
Rental car	*Number*	2,698	2,396	2,697	73	114	98	**2,771**	**2,510**	**2,795**
	Percent	22%	21%	23%	1%	1%	1%	**14%**	**12%**	**14%**
Taxi	*Number*	2,218	2,258	2,370	1,098	1,377	1,218	**3,316**	**3,635**	**3,588**
	Percent	18%	20%	20%	14%	14%	14%	**17%**	**17%**	**17%**
Metrorail (DCA)	*Number*	812	764	655	472	504	491	**1,284**	**1,268**	**1,146**
	Percent	7%	7%	6%	6%	5%	6%	**6%**	**6%**	**6%**
Rail service	*Number*	125	96	50	70	82	73	**195**	**178**	**123**
	Percent	1%	1%	0%	1%	1%	1%	**1%**	**1%**	**1%**
Light Rail (BWI)	*Number*	45	44	48	12	24	49	**57**	**68**	**97**
	Percent	0%	0%	0%	0%	0%	1%	**0%**	**0%**	**0%**
Airport bus/ Van/Limo	*Number*	1,191	873	1,223	347	450	355	**1,538**	**1,323**	**1,578**
	Percent	10%	8%	10%	4%	4%	4%	**8%**	**6%**	**8%**
Hotel/motel courtesy bus	*Number*	707	658	819	26	92	80	**733**	**750**	**899**
	Percent	6%	6%	7%	0%	1%	1%	**4%**	**4%**	**4%**
Metrobus / MTA Bus	*Number*	NA	116	183	NA	69	66	**NA**	**185**	**249**
	Percent		1%	2%		1%	1%		**1%**	**1%**
Other	*Number*	376	123	102	53	67	20	**429**	**190**	**122**
	Percent	3%	1%	1%	1%	1%	0%	**2%**	**1%**	**1%**
TOTAL	*Number*	**12,204**	**11,268**	**11,858**	**7,825**	**10,108**	**8,712**	**20,029**	**21,376**	**20,570**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals do not include resident unknown, and non-respondents for mode of access.

FINDINGS - AIR TRAVELER CHARACTERISTICS

Section D of the survey questionnaire contained several questions regarding demographic characteristics of the air passenger. This section of the report summarizes the responses to these questions.

Resident Status (Question D-1)

Table 15 summarizes resident status for locally originating air passengers in 2009, 2011, and 2013. While the expected 60% non-resident / 40% resident split was observed (similar to 2009, 2007, and pre-2005 survey results)[5], in 2013 the share of resident trips decreased from 47% percent in 2011 to 42% in 2013. A more significant drop in non-resident trip originations was observed at IAD.

Age (Survey Question D-3)

Age Distribution of Locally Originating Air Passengers (Region)

Note:- Non-respondents are not included
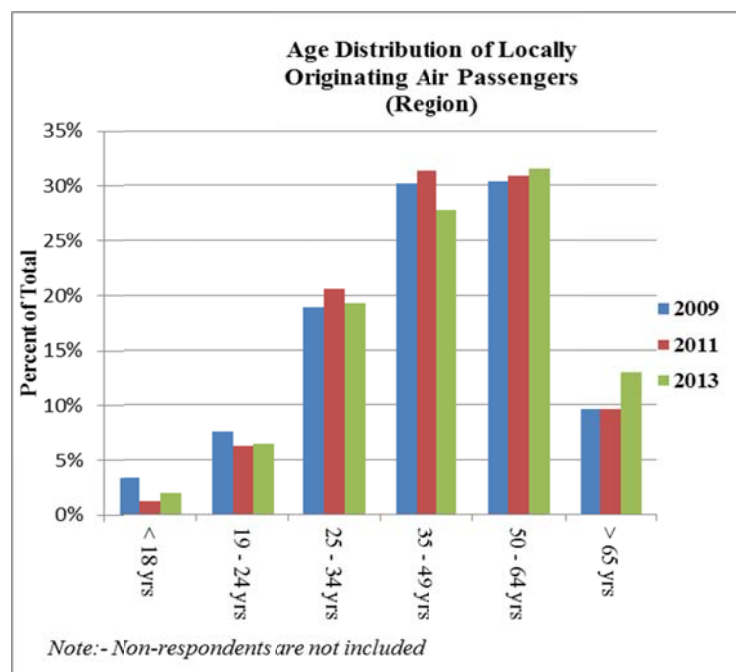
Between 2007 and 2009, the percentage of locally originating air passengers under the age of 25 increased slightly to 11%; however, in 2011 this age group decreased to only 7%, and in 2013 it increased slightly to 8% of local originations. Passengers between the ages of 25 and 49 show a decline from 52% in 2011 to 47% in 2013. Departing passengers over the age of 65 have also increased between 2011 and 2013. Table 16 provides the detailed age distribution for passengers at the three airports and the region as a whole.

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[5] The 2005 APS was conducted during spring rather than autumn, and the seasonal variation in air travel resulted in a 50/50 split between residents and non-residents for locally originating air passengers.

Income *(Survey Question D-4)*

Air travelers in the Washington-Baltimore region continue to have high household incomes. Table 17 shows originating air passengers household income data at the three airports and the region. The median household income for the region is $78,040.[6] The median household income for the U.S. is $51,914.[7] In 2013, almost half of the region's originating air passengers had household incomes of at least $120,000, slightly less when compared to the 2011 findings. At BWI, the share of departing passengers with a household income of less than $120,000 decreased from 53% in 2011 to 54% in 2013. A similar decrease was also observed at IAD and at DCA for the same income group. On average, air travelers at DCA had slightly higher household incomes than passengers at IAD and BWI.

Income Distribution of Locally Originating Air Passengers (Region)
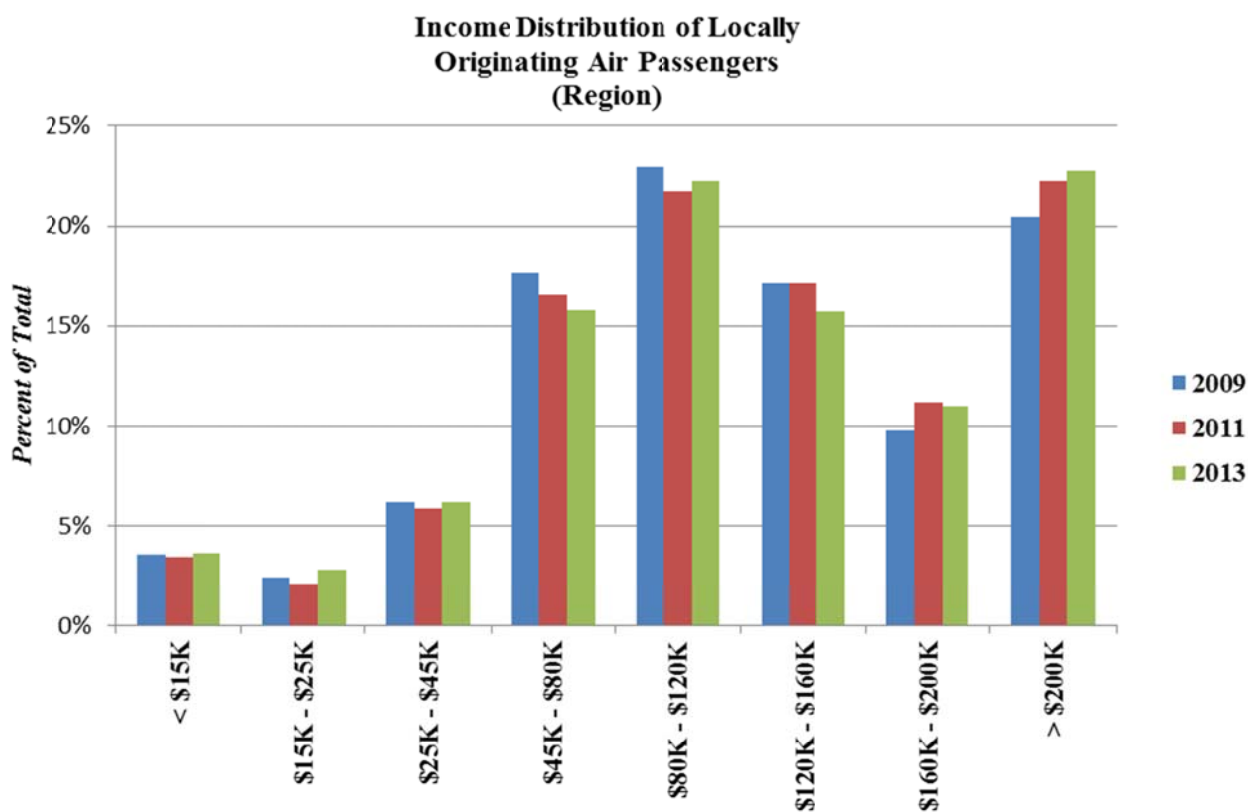
Comparing between residents and non-residents shows that over half of area resident departing passengers have an annual household income over $120,000 (see Table 18). Conversely, almost 56% of non-resident departing passengers have annual household incomes below that number. This finding demonstrates that air travelers from the Washington-Baltimore region are affluent relative to the regional and national distribution of household income.

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[6] In 2010 inflation adjusted dollars for the Washington-Baltimore-Northern Virginia DC-MD-VA-WV Combined Statistical Area. Source: 2006-2010 American Community Survey
[7] *Ibid.*

Table 15: Annual Originating Air Passenger Resident Status (000s)

Resident Status		BWI Marshall			Dulles			Reagan National			REGION		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Resident	*Number*	2,969	3,835	3,695	2,365	3,103	2,118	2,579	3,178	3,051	**7,913**	**10,116**	**8,864**
	Percent	38%	47%	47%	44%	52%	40%	36%	42%	39%	**39%**	**47%**	**42%**
Non-Resident	*Number*	4,869	4,321	4,093	3,013	2,849	3,224	4,511	4,339	4,758	**12,393**	**11,509**	**12,075**
	Percent	62%	53%	53%	56%	48%	60%	64%	58%	61%	**61%**	**53%**	**58%**
TOTAL	***Number***	**7,838**	**8,156**	**7,788**	**5,378**	**5,952**	**5,342**	**7,090**	**7,517**	**7,809**	**20,306**	**21,625**	**20,939**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

  * Totals do not include non-respondents and resident unknown

  * Totals may not add due to rounding

Table 16: Annual Originating Air Passenger Age (000s)

Age Group		BWI Marshall			Dulles			Reagan National			REGION		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
18 or Younger	*Number*	416	90	151	210	83	125	96	99	144	**722**	**272**	**420**
	Percent	5%	1%	2%	3%	1%	2%	1%	1%	2%	**3%**	**1%**	**2%**
19 to 24 Years	*Number*	732	517	539	422	396	359	480	445	492	**1,634**	**1,358**	**1,390**
	Percent	9%	7%	7%	7%	6%	6%	7%	6%	6%	**8%**	**6%**	**6%**
25 to 34 Years	*Number*	1,414	1,538	1,447	1,058	1,407	975	1,607	1,559	1,728	**4,079**	**4,504**	**4,150**
	Percent	18%	19%	18%	17%	22%	18%	22%	21%	22%	**19%**	**21%**	**19%**
35 to 49 Years	*Number*	2,220	2,382	2,073	2,004	2,097	1,609	2,287	2,388	2,300	**6,511**	**6,867**	**5,982**
	Percent	27%	30%	26%	33%	32%	29%	31%	32%	29%	**30%**	**31%**	**28%**
50 to 64 Years	*Number*	2,500	2,524	2,612	1,783	1,924	1,678	2,257	2,317	2,517	**6,540**	**6,765**	**6,807**
	Percent	31%	32%	33%	29%	30%	30%	31%	31%	31%	**30%**	**31%**	**32%**
65 or Older	*Number*	796	885	1,127	627	594	805	637	618	849	**2,060**	**2,097**	**2,781**
	Percent	10%	11%	14%	10%	9%	15%	9%	8%	11%	**10%**	**10%**	**13%**
TOTAL	***Number***	**8,078**	**7,936**	**7,949**	**6,104**	**6,501**	**5,551**	**7,364**	**7,426**	**8,030**	**21,546**	**21,863**	**21,530**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Non-Respondents		817	820	550	788	992	664	685	788	656	**2,290**	**2,600**	**1,870**
Total Originations		**8,895**	**8,756**	**8,499**	**6,892**	**7,493**	**6,215**	**8,049**	**8,214**	**8,686**	**23,836**	**24,463**	**23,400**

Notes:

* Totals may not add due to rounding

Table 17: Annual Originating Air Passenger Annual Household Income (000s)

Annual Household Income		BWI Marshall			Dulles			Reagan National			TOTAL		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Less than $15,000	*Number*	296	234	188	190	196	188	164	207	229	**650**	**637**	**605**
	Percent	4%	3%	3%	4%	4%	4%	3%	3%	4%	**4%**	**3%**	**4%**
$15,000 - $24,999	*Number*	188	139	149	125	137	164	124	110	149	**437**	**386**	**462**
	Percent	3%	2%	2%	2%	3%	4%	2%	2%	2%	**2%**	**2%**	**3%**
$25,000 - $44,999	*Number*	440	429	477	336	330	251	353	336	308	**1,129**	**1,095**	**1,036**
	Percent	6%	6%	8%	7%	6%	6%	6%	5%	5%	**6%**	**6%**	**6%**
$45,000 - $79,000	*Number*	1,354	1,293	1,093	958	850	597	911	961	947	**3,223**	**3,104**	**2,637**
	Percent	20%	19%	18%	19%	16%	14%	15%	15%	15%	**18%**	**17%**	**16%**
$80,000 - $119,000	*Number*	1,678	1,564	1,445	1,128	1,184	889	1,394	1,334	1,388	**4,200**	**4,082**	**3,722**
	Percent	24%	23%	23%	22%	22%	21%	22%	21%	22%	**23%**	**22%**	**22%**
$120,000 - $159,000	*Number*	1,181	1,229	1,040	861	856	639	1,084	1,133	955	**3,126**	**3,218**	**2,634**
	Percent	17%	18%	17%	17%	16%	15%	17%	18%	15%	**17%**	**17%**	**16%**
$160,000 - $199,999	*Number*	593	681	629	519	628	516	674	790	692	**1,786**	**2,099**	**1,837**
	Percent	9%	10%	10%	10%	11%	12%	11%	12%	11%	**10%**	**11%**	**11%**
$200,000 and up	*Number*	1,138	1,284	1,206	1,045	1,297	963	1,555	1,595	1,638	**3,738**	**4,176**	**3,807**
	Percent	17%	19%	19%	20%	24%	23%	25%	25%	26%	**20%**	**22%**	**23%**
TOTAL	*Number*	6,868	6,853	6,227	5,162	5,478	4,207	6,259	6,466	6,306	**18,289**	**18,797**	**16,740**
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	**100%**	**100%**	**100%**
Non-Respondents		**2,034**	**1,895**	**2,278**	**1,733**	**2,026**	**2,008**	**1,788**	**1,746**	**2,378**	**5,555**	**5,667**	**6,664**
Total Originations		**8,902**	**8,748**	**8,505**	**6,895**	**7,504**	**6,215**	**8,047**	**8,212**	**8,684**	**23,844**	**24,464**	**23,404**

Notes:

* Totals may not add due to rounding

Table 18: Annual Originating Air Passenger Household Income
by Resident Status (000s)

| Annual Household Income		Resident	Non-Resident	Unknown	Total
Less than $15,000	*Number*	156	394	55	**605**
	Percent	2%	4%	6%	**4%**
$15,000 - 24,999	*Number*	113	297	52	**462**
	Percent	2%	3%	6%	**3%**
$25,000 - 44,999	*Number*	328	655	53	**1,036**
	Percent	5%	7%	6%	**6%**
$45,000 - 79,000	*Number*	886	1,595	156	**2,637**
	Percent	13%	18%	18%	**16%**
$80,000 - 119,000	*Number*	1,410	2,126	186	**3,722**
	Percent	21%	24%	21%	**22%**
$120,000 - 159,000	*Number*	1,210	1,274	150	**2,634**
	Percent	18%	14%	17%	**16%**
$160,000 - 199,999	*Number*	876	887	74	**1,837**
	Percent	13%	10%	8%	**11%**
$200,000 and up	*Number*	1,839	1,818	150	**3,807**
	Percent	27%	20%	17%	**23%**
TOTAL	*Number*	6,818	9,046	876	**16,740**
	Percent	100%	100%	100%	**100%**
Non-Respondents		**2,051**	**3,024**	**1,589**	**6,664**
Total Originations		**8,869**	**12,070**	**2,465**	**23,404**

Notes:

* Totals may not add due to rounding

Boarding Pass and Bag Checking *(Question A-4)*

As in the 2009 and 2011 surveys, passengers were asked where and if passengers had made a stop for a boarding pass and/or bag check at the following locations:
- Curbside agent for boarding pass
- Curbside agent for bag check
- E-ticket kiosk for boarding pass
- E-ticket kiosk for bag check
- Ticket agent in terminal for boarding pass
- Ticket agent in terminal for bag check
- None of the above

Table 19 shows the distribution of originating air passenger activities for boarding pass and bag checking at airport terminals. Overall, 74% of departing passengers reported stopping for a boarding pass and/or bag check: 72% at DCA, 76% at IAD, and 75% at BWI. Conversely, 24% percent of departing passengers reported to have made no stop for either a boarding pass and/or bag check: 27% at DCA, 24% at BWI and IAD. When compared with the 2011 findings, passengers who made a stop for a boarding pass and/or bag check decreased at all three airports. The reduction in stops for a boarding pass could be attributed to passengers having boarding pass printed before arriving at the airport. The

decline in stops for bag checking is likely due to both the increased use of checked baggage fees by more airlines and increases in the fees themselves.
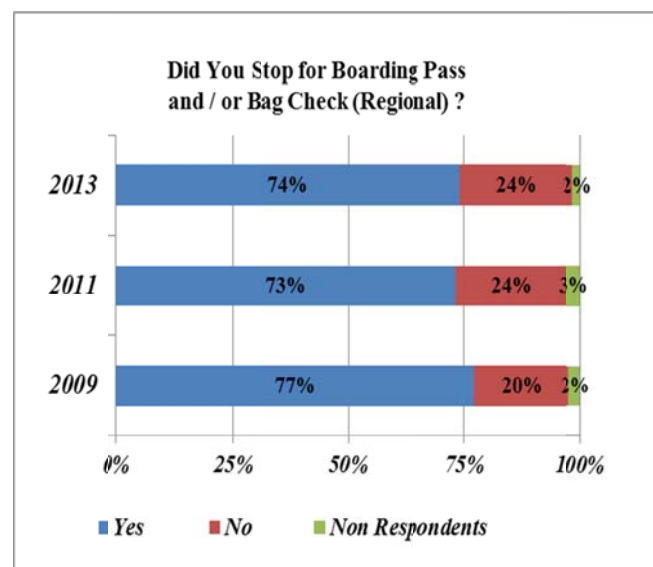
Among passengers who reported to have made a stop for boarding pass and/or bag check, 27% used the E-ticket Kiosk: 34% DCA, 20% at IAD, and 24% at BWI. Twenty two percent made a stop at the Terminal Ticket Agent: 17% at DCA, 24% at IAD, and 26% at BWI. Passengers have also used airport terminal airline curbside facilities for boarding pass and/or bag checking services. Overall, 9% of passengers reported using the curbside facilities for these services: 6% at DCA, 6% at IAD, and 14% at BWI.

Comparison of domestic and international departing passengers shows that among domestic departures overall, 73%, same as in 2011 stopped for a boarding pass and/or bag check: 72% at DCA, down from 74% in 2011, 73% at IAD, up from 69% in 2011, and 74% at BWI, up from 73% in 2011. Among international departures, 83% stopped for a boarding pass and/or bag check overall: 83% at DCA, 82% at IAD, and 93% at BWI. Table 20: At-Airport Use of Boarding Pass and Bag Check Facilities by Destination

shows departing passenger activities for boarding pass and bag checking at all three airport terminals by domestic and international travel. **Error! Reference source not found.** breaks own the information by airport, for domestic travel only; Table 22: At-Airport Use of Boarding Pass and Bag Check Facilities by Airport, International Departures
 shows the same information but for international travel only.

Table 19: At-Airport Use of Boarding Pass and Bag Check Facilities

Passengers at Airport Boarding Pass and Bag Check		BWI Marshall 2009	2011	2013	Dulles 2009	2011	2013	Reagan National 2009	2011	2013	TOTAL 2009	2011	2013
Only stopped at Curbside for Boarding Pass	Number	178	220	236	98	140	118	116	163	169	392	523	523
	Percent	2%	3%	3%	1%	2%	2%	1%	2%	2%	2%	2%	2%
Only stopped at Curbside for Bag Check	Number	486	537	625	179	163	145	206	175	225	871	875	995
	Percent	5%	6%	7%	3%	2%	2%	3%	2%	3%	4%	4%	4%
Only stopped at E-ticket Kiosk for Boarding Pass	Number	1,334	1,506	1,184	1,035	1,022	690	2,033	1,979	1,768	4,401	4,507	3,642
	Percent	15%	17%	14%	15%	14%	11%	25%	24%	20%	18%	18%	16%
Only stopped at E-ticket Kiosk for Bag Check	Number	781	544	350	593	424	257	455	395	371	1,830	1,363	978
	Percent	9%	6%	4%	9%	6%	4%	6%	5%	4%	8%	6%	4%
Only stopped at Ticket Agent for Boarding Pass	Number	625	581	517	600	702	540	653	631	606	1,879	1,914	1,663
	Percent	7%	7%	6%	9%	9%	9%	8%	8%	7%	8%	8%	7%
Only stopped at Ticket Agent for Bag Check	Number	746	861	1,100	449	729	574	416	484	461	1,611	2,074	2,135
	Percent	8%	10%	13%	7%	10%	9%	5%	6%	5%	7%	8%	9%
Stopped at Curbside for Boarding Pass and Bag Check	Number	386	479	530	153	197	284	388	304	413	928	980	1,227
	Percent	4%	5%	6%	2%	3%	5%	5%	4%	5%	4%	4%	5%
Stopped at E-ticket Kiosk for Boarding Pass and Bag Check	Number	723	438	350	501	418	436	821	538	644	2,045	1,394	1,430
	Percent	8%	5%	4%	7%	6%	7%	10%	7%	7%	9%	6%	6%
Stopped at Ticket Agent for Boarding Pass and Bag Check	Number	702	621	811	813	900	878	445	502	626	1,960	2,023	2,315
	Percent	8%	7%	10%	12%	12%	14%	6%	6%	7%	8%	8%	10%
Stopped at Curbside and E-ticket Kiosk for Boarding Pass and Bag Check	Number	10	4	5	12	10	7	18	23	32	40	37	44
	Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stopped at Curbside and Ticket Agent for Boarding Pass and Bag Check	Number	6	9	11	36	28	76	13	24	29	55	61	116
	Percent	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%
Stopped at E-ticket Kiosk and Ticket Agent for Boarding Pass and Bag Check	Number	58	45	48	60	57	73	65	50	73	183	152	194
	Percent	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Stopped at more than place for Boarding Pass and Bag Check	Number	618	581	571	704	607	651	856	828	845	2,179	2,016	2,067
	Percent	7%	7%	7%	10%	8%	10%	11%	10%	10%	9%	8%	9%
Did Not stop for Boarding Pass or Bag Check	Number	2,099	2,119	2,029	1,372	1,705	1,305	1,409	1,940	2,322	4,880	5,764	5,656
	Percent	24%	24%	24%	20%	23%	21%	18%	24%	27%	20%	24%	24%
Non Respondents	Number	143	210	129	288	387	179	155	181	100	587	778	408
	Percent	2%	2%	2%	4%	5%	3%	2%	2%	1%	2%	3%	2%
Total	Number	8,896	8,755	8,496	6,895	7,489	6,213	8,050	8,217	8,684	23,841	24,461	23,393
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Notes:

* Totals may not add due to rounding

Table 20: At-Airport Use of Boarding Pass and Bag Check Facilities by Destination

Passengers at Airport Boarding Pass and Bag Check		Domestic			International			Total		
		2009	2011	2013	2009	2011	2013	2009	2011	2013
Only stopped at Curbside for Boarding Pass	*Number*	355	429	448	38	94	75	**392**	**523**	**523**
	Percent	2%	2%	2%	2%	4%	3%	**2%**	**2%**	**2%**
Only stopped at Curbside for Bag Check	*Number*	850	835	942	40	0	53	**890**	**835**	**995**
	Percent	4%	4%	5%	2%	0%	2%	**4%**	**3%**	**4%**
Only stopped at E-ticket Kiosk for Boarding Pass	*Number*	4,282	4,337	3,515	120	170	127	**4,401**	**4,507**	**3,642**
	Percent	20%	20%	17%	6%	7%	4%	**18%**	**18%**	**16%**
Only stopped at E-ticket Kiosk for Bag Check	*Number*	1,692	1,256	927	137	107	51	**1,830**	**1,363**	**978**
	Percent	8%	6%	5%	6%	4%	2%	**8%**	**6%**	**4%**
Only stopped at Ticket Agent for Boarding Pass	*Number*	1,592	1,601	1,245	287	313	418	**1,879**	**1,914**	**1,663**
	Percent	7%	7%	6%	14%	13%	15%	**8%**	**8%**	**7%**
Only stopped at Ticket Agent for Bag Check	*Number*	1,440	1,787	1,815	171	287	320	**1,611**	**2,074**	**2,135**
	Percent	7%	8%	9%	8%	12%	11%	**7%**	**8%**	**9%**
Stopped at more than place for Boarding Pass and/or Bag Check	*Number*	6,450	5,695	6,061	940	1,003	1,332	**7,390**	**6,698**	**7,393**
	Percent	30%	26%	30%	44%	41%	47%	**31%**	**27%**	**32%**
Did Not stop for Boarding Pass or Bag Check	*Number*	4,612	5,418	5,302	268	346	354	**4,880**	**5,764**	**5,656**
	Percent	21%	25%	26%	13%	14%	12%	**20%**	**24%**	**24%**
Non Respondents	*Number*	472	622	288	115	156	120	**587**	**778**	**408**
	Percent	2%	3%	1%	5%	6%	4%	**2%**	**3%**	**2%**
Total	***Number***	**21,744**	**21,980**	**20,543**	**2,116**	**2,476**	**2,850**	**23,859**	**24,456**	**23,393**
	Percent	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:

* Totals may not add due to rounding

Table 21: At-Airport Use of Boarding Pass and Bag Check Facilities by Airport, Domestic Departures

Passengers at Airport Boarding Pass and Bag Check		BWI 2009	BWI 2011	BWI 2013	IAD 2009	IAD 2011	IAD 2013	DCA 2009	DCA 2011	DCA 2013	Total 2009	Total 2011	Total 2013
Only stopped at Curbside for Boarding Pass	Number	177	214	235	63	52	46	114	163	167	**355**	**429**	**448**
	Percent	2%	3%	3%	1%	1%	1%	1%	2%	2%	**2%**	**2%**	**2%**
Only stopped at Curbside for Bag Check	Number	485	526	618	161	137	102	204	172	222	**850**	**835**	**942**
	Percent	6%	6%	7%	3%	3%	2%	3%	2%	3%	**4%**	**4%**	**4%**
Only stopped at E-ticket Kiosk for Boarding Pass	Number	1,333	1,499	1,179	937	874	582	2,012	1,964	1,754	**4,282**	**4,337**	**3,515**
	Percent	15%	18%	14%	18%	16%	11%	25%	24%	22%	**20%**	**20%**	**16%**
Only stopped at E-ticket Kiosk for Bag Check	Number	773	539	345	465	324	211	455	393	371	**1,692**	**1,256**	**927**
	Percent	9%	6%	4%	9%	6%	4%	6%	5%	5%	**8%**	**6%**	**4%**
Only stopped at Ticket Agent for Boarding Pass	Number	576	536	432	374	452	245	642	613	568	**1,592**	**1,601**	**1,245**
	Percent	7%	6%	5%	7%	8%	5%	8%	8%	7%	**7%**	**7%**	**6%**
Only stopped at Ticket Agent for Bag Check	Number	710	822	1,043	333	493	328	397	472	444	**1,440**	**1,787**	**1,815**
	Percent	8%	10%	12%	6%	9%	6%	5%	6%	5%	**7%**	**8%**	**8%**
Stopped at more than place for Boarding Pass and/or Bag Check	Number	2,420	2,097	2,167	1,493	1,380	1,295	2,536	2,218	2,599	**6,450**	**5,695**	**6,061**
	Percent	28%	25%	25%	29%	26%	24%	32%	27%	32%	**30%**	**26%**	**28%**
Did Not stop for Boarding Pass or Bag Check	Number	2,072	2,092	2,010	1,143	1,402	994	1,397	1,924	2,298	**4,612**	**5,418**	**5,302**
	Percent	24%	25%	24%	22%	26%	19%	18%	24%	28%	**21%**	**25%**	**24%**
Non Respondents	Number	135	200	125	183	244	67	153	178	96	**472**	**622**	**288**
	Percent	2%	2%	1%	4%	5%	1%	2%	2%	1%	**2%**	**3%**	**1%**
Total	*Number*	8,680	8,525	8,154	5,153	5,358	3,870	7,911	8,097	8,519	**21,744**	**21,980**	**20,543**
	Percent	100%	100%	96%	100%	100%	72%	100%	100%	105%	**100%**	**101%**	**94%**

Notes:

* Totals may not add due to rounding

Table 22: At-Airport Use of Boarding Pass and Bag Check Facilities by Airport, International Departures

Passengers at Airport Boarding Pass and Bag Check		BWI			IAD			DCA			Total		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Only stopped at Curbside for Boarding Pass	*Number*	2	6	1	35	88	72	1	0	2	**38**	**94**	**75**
	Percent	1%	3%	0%	2%	4%	3%	1%	0%	2%	**2%**	**4%**	**3%**
Only stopped at Curbside for Bag Check	*Number*	2	11	7	18	26	43	2	3	3	**21**	**40**	**53**
	Percent	1%	5%	3%	1%	1%	2%	1%	3%	3%	**1%**	**2%**	**2%**
Only stopped at E-ticket Kiosk for Boarding Pass	*Number*	1	7	5	98	148	108	21	15	14	**120**	**170**	**127**
	Percent	0%	3%	2%	6%	7%	5%	15%	13%	12%	**6%**	**7%**	**5%**
Only stopped at E-ticket Kiosk for Bag Check	*Number*	9	5	5	129	100	46	0	2	0	**137**	**107**	**51**
	Percent	4%	2%	2%	7%	5%	2%	0%	2%	0%	**7%**	**4%**	**2%**
Only stopped at Ticket Agent for Boarding Pass	*Number*	50	45	85	226	250	295	11	18	38	**287**	**313**	**418**
	Percent	23%	20%	37%	13%	12%	14%	8%	16%	33%	**14%**	**13%**	**17%**
Only stopped at Ticket Agent for Bag Check	*Number*	37	39	57	116	236	246	18	12	17	**171**	**287**	**320**
	Percent	17%	17%	25%	7%	11%	12%	13%	10%	15%	**8%**	**12%**	**13%**
Stopped at more than place for Boarding Pass and/or Bag Check	*Number*	83	80	159	787	837	1,111	71	46	62	**940**	**963**	**1,332**
	Percent	38%	35%	69%	45%	39%	52%	51%	40%	54%	**45%**	**39%**	**54%**
Did Not stop for Boarding Pass or Bag Check	*Number*	26	27	19	230	303	311	12	16	24	**268**	**346**	**354**
	Percent	12%	12%	8%	13%	14%	15%	9%	14%	21%	**13%**	**14%**	**14%**
Non Respondents	*Number*	8	10	4	105	143	112	2	3	4	**115**	**156**	**120**
	Percent	3%	4%	2%	6%	7%	5%	2%	3%	3%	**5%**	**6%**	**5%**
Total	***Number***	**216**	**230**	**342**	**1,742**	**2,131**	**2,344**	**139**	**115**	**164**	**2,097**	**2,476**	**2,850**
	Percent	**100%**	**100%**	**149%**	**100%**	**100%**	**110%**	**100%**	**100%**	**143%**	**100%**	**100%**	**115%**

(International)

APPENDIX A:

SURVEY METHODOLOGY

The following discussion is a brief summary of the methodology used to conduct the 2011 Washington-Baltimore Regional Air Passenger Survey.

Survey Design

The survey was designed to provide current air traffic patterns and user characteristics for passengers departing from the region's three major commercial airports: Ronald Reagan Washington National Airport (DCA), Washington Dulles International Airport (IAD) and Baltimore/Washington Thurgood Marshall International Airport (BWI). It was designed to be compatible with the previous surveying efforts, done in 1981/82, 1987, 1992, 1998, 2000, 2002, 2005, 2007 and 2009, so comparative analysis could be performed.

Changes in Survey Design for 2011

For surveys conducted through 2009, the samples for domestic flights were stratified by different regions of the United States: Northeast, New York Metropolitan Area, Mid-Atlantic, Southeast, Great Lakes, and West. For international flights, the samples were stratified into twenty four different regions of the world. However, for the 2011 survey, for both domestic and international flights were stratified by airline and destination frequencies (i.e., the higher the scheduled flight frequency to a destination the higher the number of flights sampled and vice versa). Therefore, as in 2011, for the 2013 sample selection there were 266 strata for domestic and 56 international destination respectively for all three airports combined. All flights selected for surveying were scheduled during a two-week period beginning Wednesday, October 9th and extending through Tuesday October 22nd, 2013. Flights that were missed and those that required resurveying due to insufficient response rates were surveyed again during the period ending October 29th, 2013.[8]

Sample Selection

A sample of departing air travelers was obtained by surveying all passengers on selected flights scheduled during the survey period. A sample frame was developed which included all scheduled departures during the two-week period. This list was compiled electronically from the Official Airline Guide (OAG), provided by MWAA. The edited sample frames contained one record for each flight leaving from the three airports during a seven-day week (e.g. flights scheduled to fly seven days a week were included in the sample frame seven times, flights flying six days during the week were included six times, etc.)

To ensure an acceptable level of confidence for parameter estimates while remaining within the budget constraints, a sample of approximately 673 flights, were drawn. Since each of the three airports had approximately the same number of domestic departures, 213 at BWI, 211 at DCA, and 168 domestic flights at IAD were selected. For international flight activity from the region, additional international flights were selected at each airport: 12 at BWI, 10 at DCA[9], and 59 at IAD.

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[8] Previous surveys allowed for a two-week resurvey period; however, the resurvey period for this survey was truncated for the Thanksgiving holiday.

[9] DCA provides service to Canadian and Caribbean destinations.

The sample was then reviewed by MWAA and MAA, and provided any corrections or changes for their respective flights, and provided a list of any new flights that were to be added during the survey period. These editions were then used to select the final flight sample. The final samples were listed by airport, date, and departure time to enable manpower requirements to be calculated and staff time to be scheduled.

The survey was conducted of departing passengers only. Arriving passengers were not surveyed, primarily due to limited resources. It would also have been difficult to hold arriving passengers' attention as they look for a connecting flight, or hurry through the airport to ground transportation. It is assumed, therefore, that the characteristics of arriving passengers would mirror those of the departing passengers surveyed. This is a hypothesis that should be tested in a future survey.

Conducting the Survey

The survey was conducted during a two-week period beginning Wednesday, October 9th and extending through Tuesday October 22nd, 2013. Flights that were missed and those that required resurveying due to insufficient response rates were surveyed again during the period ending October 29th, 2013. Survey managers were appointed for each of the airports from MWCOG staff, and teams of surveyors were assembled. One or two surveyors were assigned to each flight that was selected, based on the size of aircraft and how many passengers were expected. Self-administered questionnaires were distributed to the passengers as they checked-in and waited for boarding, in the gate area. The questionnaires were collected as the passengers completed them, or when the flight was called for boarding. Any late arriving passengers were given a questionnaire and a self-addressed postage paid mail-back envelope and asked to complete it in route and drop it in the mail. In the 2013 survey, respondents were also given the option of responding through online questionnaire. A copy of the survey questionnaire is included in this report as Appendix B. A copy of the Survey Procedures for the 2013 Air Passenger Survey is included in this report as Appendix C.

Factoring the Survey Data

Since the survey was conducted over two weeks in October 2013, and not continuously throughout the calendar year, the survey data do not reflect any specific annual period. Rather, the survey as it was conducted represents a "snapshot" of passenger activity, taken during the fall travel period. This survey period should be representative of typical average results.

The survey responses were expanded to represent annual passenger estimates by a three-step process. The survey responses obtained on each sampled flight were first factored up to the boarding count totals (revenue passengers only). This number was obtained from the gate attendant at the closing of each flight. Secondly, the factored survey responses were expanded to represent bi-weekly passenger totals. And lastly, observed annual enplanement of regional air travel was obtained from MWAA for DCA and IAD and from MAA for BWI.

Level of Confidence

For the region as a whole, the theoretical level of error for response totals was expected to be within a range of plus or minus three percentage points. The level of error for each of the individual airports, or by other sub-units, was expected to be higher. Analysis of the survey data indicates that, at a 90 percent level of confidence, parameter at the regional level are within a range of plus or minus three percentage points. Percentages at individual airports are subject to a sampling error of twice that amount.

APPENDIX B:

SURVEY QUESTIONNAIRE[10]

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[10] There were separate questionnaires for each airport: DCA, IAD, and BWI. The questionnaires are substantively identical. The only differences are on the questionnaire front page where the specific airport is identified and in questions where a specific airport is identified or omitted from the possible answers to eliminate illogical results. These places are illustrated with rectangles on the questionnaire image.

A. ABOUT YOUR TRIP TODAY

1. How did you get to Baltimore/Washington International Thurgood Marshall Airport for this trip? *(Please check ONE answer)*

- ☐01 I came to this airport by GROUND TRANSPORTATION *(e.g. auto, taxi, Metro, etc.)* **(Please proceed directly to QUESTION #2)**
- ☐02 I was on this flight when it arrived at this airport. *(STOP. That is all the information we need)*
- ☐03 I made a connection at this airport from a DOMESTIC FLIGHT…
- ☐04 I made a connection at this airport from an INTERNATIONAL FLIGHT…

with _____ Airlines.
(Please fill in the name of the airline and STOP. That is all we need to know)

If you arrived at this airport by GROUND TRANSPORTATION, please complete the rest of this survey.

2. What is the final destination of your trip today?

_____   _____
Airport   City

_____   _____
State/Province   Country

3. What type of trip is this? *(Please check the answer for the main purpose of your travel)*

- ☐01 Business related to the federal/state/local Government (Including military)
- ☐02 Business that is not related to government
- ☐03 Vacation
- ☐04 Personal or family affairs
- ☐05 Student or school related
- ☐95 Other purpose (Specify:_____)

4. Since your arrival at the airport, did you stop at any of the following? *(Please check ALL that apply)*

- ☐01 Curbside agent for boarding pass
- ☐02 Curbside agent for bag check
- ☐03 E-ticket kiosk for boarding pass
- ☐04 E-ticket kiosk for bag check
- ☐05 Ticket agent in terminal for boarding pass
- ☐06 Ticket agent in terminal for bag check
- ☐07 None of the above

B. ABOUT YOUR GROUND TRIP TO BWI MARSHALL AIRPORT:

1. Where did you start your ground trip to this airport (BWI)? *(Please check ONE answer)*

- ☐01 Private residence
- ☐02 Hotel/Motel
- ☐03 My regular place of employment
- ☐04 Another place of business
- ☐95 Other (Specify:_____)

2. What is the address of the place above?
(If you prefer to provide a less specific geographic location, please indicate the nearest intersection, or building name)

Street Number	Street Name	City Quadrant (e.g., SW, NE)

City	State	Zip Code

3. What time did you begin your trip to the airport today? *(Enter time and circle AM or PM)*

☐☐ : ☐☐   AM   PM

4. What time did you arrive at the airport today? *(Enter time and circle AM or PM)*

☐☐ : ☐☐   AM   PM

5. How many people who came to the airport with you are getting on the plane with you (including yourself)?

_____ People *(Including yourself)*

6. How many checked-in bags on this flight are yours?

_____ Bags *(Enter '0' if no bags were checked)*

7. What was your primary means of transportation to this airport today? *(Please check ONE answer)*

- ☐01 Private Car
- ☐02 Rented Car
- ☐03 Taxi
- ☐04 Airport bus/van/limo
- ☐05 Metrorail
- ☐06 Amtrak/MARC (BWI)
- ☐07 Light Rail (BWI)
- ☐08 Hotel/Motel courtesy bus
- ☐09 Metrobus/MTA Bus
- ☐95 Other (Specify:_____
_____)

8. Is this how you usually get to the airport?

☐01 Yes   ☐02 No

9. If you arrived in a private vehicle (excluding rental cars):

a. Were you dropped off at the terminal curbside?

☐01 Yes   ☐02 No

b. Where was that vehicle parked (either directly or after dropping you off)?

- ☐01 It was not parked
- ☐02 Hourly Parking Garage
- ☐03 Daily Garage
- ☐04 Express Parking Lot
- ☐05 Long Term A or B
- ☐06 BWI Rail Station Garage
- ☐07 Off-Airport Private Parking

b1. For how long?

- ☐01 For a few hours or less
- ☐02 Until you return from this trip

c. Is this where you usually park your vehicle at the airport?

☐01 Yes   ☐02 No

C. ABOUT YOUR AIRPORT CHOICE

1. Please rank the three most important reasons for choosing BWI Marshall Airport for your flight today. *(Please write 1, 2 or 3 in the appropriate spaces)*

- _____ Closest airport
- _____ Easy road access
- _____ Convenient limo, bus, or rail service
- _____ Good parking facilities
- _____ More convenient flight times
- _____ Less expensive airfare
- _____ Only airport with non-stop flights
- _____ Only airport that serves market
- _____ Frequent flyer specific airline
- _____ Other (Specify: _____)

2. If you could have arranged the airline schedule for your trip today, which airport would you have PREFERRED to use?
(Please check ONE answer)

- ☐₀₁ BWI Marshall
- ☐₀₂ Washington Dulles International
- ☐₀₃ Ronald Reagan Washington National
- ☐₀₄ No preference

3. Please indicate which other airport(s) you considered using today.
(Please check ALL answers that apply)

- ☐₀₁ Washington Dulles International
- ☐₀₂ Ronald Reagan Washington National
- ☐₉₅ Other airport (Specify:_____)
- ☐₀₄ Did not consider another airport

4. During the last twelve months, how many flights did you make from each of the following airports?
(Please write a number in the appropriate spaces. Count today's trip as one flight)

- _____ BWI Marshall
- _____ Washington Dulles International
- _____ Ronald Reagan Washington National

D. ABOUT YOURSELF

1. Please indicate the location of your current residence:

_____|_____|_____
City/County   State   Zip Code

_____
Country

2. How many people live in your household?

_____ People *(Enter '1' if you live alone)*

3. Please check your age bracket:

☐₀₁ 18 or younger	☐₀₄ 35–49
☐₀₂ 19–24	☐₀₅ 50–64
☐₀₃ 25–34	☐₀₆ 65 or older

4. Please check the category that includes the total annual income of all persons in your household:

☐₀₁ Less than $15,000	☐₀₅ $80,000-119,999
☐₀₂ $15,000-24,999	☐₀₆ $120,000-159,999
☐₀₃ $25,000-44,999	☐₀₇ $160,000-199,999
☐₀₄ $45,000-79,999	☐₀₈ $200,000 or more

If you were visiting the Washington-Baltimore area, please answer questions 5 and 6, then proceed directly to section E.

5. How many nights did you stay in the area?

_____ Nights *(Enter '0' if you are leaving the same day you arrived)*

6. Approximately how much did you spend PER DAY while you were in the area?
(Include expenses which are meals, hotels, rental cars, etc. Do not include airfare. Please check ONE answer)

☐₀₁ Less than $100	☐₀₅ $400-499
☐₀₂ $100-199	☐₀₆ $500-749
☐₀₃ $200-299	☐₀₇ $750-999
☐₀₄ $300-399	☐₀₈ $1,000 or more

If your air travel begins from this airport please answer question 7, then proceed to section E.

7. How many nights will you spend away on this trip?

_____ Nights *(Enter '0' if you are returning today)*

E. PLEASE WRITE ANY COMMENTS YOU MAY WISH TO BRING TO OUR ATTENTION BELOW

[blank box]

Thanks for Your Help!

[blank box]

2013
WASHINGTON – BALTIMORE REGIONAL AIR PASSENGER SURVEY

TO DETERMINE LOCAL AIRPORT NEEDS
BWI

This survey concerns your trip today.
Please complete this form, even if you have received a form on other days.

All answers are confidential.
Personal identification is not required.
Thank you for your cooperation.
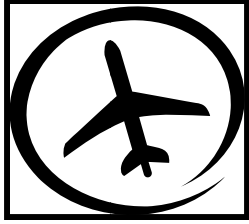
You can take this survey online by visiting

http://tinyurl.com/oop9u62

or scan the QR code below.

[QR code]

ID number below is required to access online survey.

ID NUMBER (PASSWORD)

APPENDIX C:

SURVEY PROCEDURES MANUAL

SURVEY PROCEDURES MANUAL

OCTOBER 2013

Metropolitan Washington Council of Governments

PERSONNEL REQUIREMENTS

While working on this survey, you will be representing the *Metropolitan Washington Council of Governments*, the *Maryland Aviation Administration* of the Maryland Department of Transportation, the *Metropolitan Washington Airports Authority,* and to some extent, the airlines themselves. Your appearance must be business-like. It will be easier to conduct the interviews if you present yourself in this manner. Business casual attire is preferred and comfortable shoes are recommended.

You are expected to engage only in activities or discussions that are directly related to the work of obtaining the information required for the survey.

The success or failure of this survey will be due in large part to your efforts. COG, MAA, and MWAA would like to thank you in advance for your participation in this survey. We are looking forward to conducting a survey that produces even better results than the surveys done in the past.

MAKE SURE YOU HAVE THE FOLLOWING ITEMS:

- **Questionnaires**
- **Gate Announcement**
- **Survey Flight Record Sheet**

BWI

B100913US1933

GATE ATTENDANTS: PLEASE READ THE FOLLOWING ANNOUNCEMENT TWICE PRIOR TO THE INITIAL BOARDING ANNOUNCEMENT FOR THIS FLIGHT.

(Valid for Flights between October 9, 2013, and October 22, 2013)

LADIES AND GENTLEMEN,
THE PASSENGERS ON ___*US Airways*___, *Flight Number* __*1933*__ TO __*Charlotte NC*__ HAVE BEEN SELECTED TO PARTICIPATE IN AN AIR PASSENGER SURVEY BEING CONDUCTED IN THE WASHINGTON-BALTIMORE REGION.

YOUR PARTICIPATION IN THE SURVEY IS COMPLETELY VOLUNTARY; IT WILL ONLY TAKE A FEW MINUTES TO COMPLETE THE QUESTIONNAIRE.

A SURVEY REPRESENTATIVE IS HERE TO DISTRIBUTE THE QUESTIONNAIRES AND COLLECT THEM WHEN YOU ARE FINISHED.

__*US Airways*__ AND BWI MARSHALL AIRPORT WOULD LIKE TO THANK YOU FOR YOUR COOPERATION."

2013 WASHINGTON / BALTIMORE REGIONAL AIR PASSENGER SURVEY FLIGHT RECORD

SAMPLE: **B100913US1933**

AIRPORT: **BWI**   DESTINATION CITY: *Charlotte NC*

DAY: **WED**   CARRIER: **US Airways**

DATE: **10/9/2013**   FLIGHT #: **1933**

DEPARTURE TIME: **5:15:00 AM**

AIRCRAFT: **319**   NO. SEATS: **124**   OAG CODE: **US**

QUESTIONNAIRES:

IN PACKET: BEGINNING # **B00001**   ENDING # **B00124**

ADDITIONAL: BEGINNING # _____   ENDING# _____

ADDITIONAL: BEGINNING # _____   ENDING# _____

NO. OF NON-MAILBACK FORMS DISTRIBUTED: ___**X**___

NO. OF ONLINE RESPONSE: ___**X**___

NO. OF MAILBACKS DISTRIBUTED: ___**X**___

TOTAL NO. OF FORMS DISTRIBUTED: ___**X**___

NO. OF COMPLETED QUESTIONNAIRES; ___**X**___

NO. OF REVENUE PASSENGERS: ___**X**___

RESPONSE RATE: _____   SUCCESSFUL FLIGHT? **YES/NO**___

RESURVEY DATE #1: _____   RESURVEY DATE #2: _____

REMARKS: _____

SURVEYING PROCEDURES
FOR SURVEY INTERVIEWERS

Upon arriving at the airport each day, surveyors are to go to the field office and check in with the lead assistant on duty. Lead assistants will also be assigned to survey flights.

1. The lead assistant will supply each surveyor with the following:

   ➢ All necessary identification badges;
   ➢ The flight package(s) for the flight(s) to be surveyed. ***It is important that each surveyor double check that you have the correct flight package, and that it contains the correct materials.*** (NOTE: All attempts will be made to group flights to be surveyed that are in the same general areas of the airport. Surveyors, therefore, may not be returning to the field office between flights. When this is the case, the surveyor is to make sure you have all materials needed to survey all flights that have been selected)
   ➢ Any additional supplies, such as extra questionnaires, pencils, rubber bands, extra mail-back envelopes, etc., and any special instructions for the day.

2. Lead assistants will check the airport schedule monitors and identify the gates at which the selected flights will board, and make sure the surveyors know how to get to those gates. In general, the surveyor should be at the gate at least one hour and half (90 minutes) prior to the flight's scheduled departure time for domestic flights and at least two hours (120 minutes) prior to the flight's scheduled departure time for international flights.

3. When you reach the gate, introduce yourself to the gate attendant on duty, and tell them that the flight has been selected to be surveyed. If there are any problems with the gate personnel, leave the gate area immediately and contact the field office. Otherwise, present the gate announcement to the attendant and ask that it be read over the PA system two times during the passenger check-in period. In some instances, the surveyor will make the announcement, if the gate attendants are extremely busy.

4. Once the announcement is first read, approach the passengers who have already checked-in. One suggested introduction would be:

"Good morning (afternoon, evening), we are conducting an air passenger survey at Dulles (BWI, Ronald Reagan National) Airport. Are you waiting to board (flight number) to (flight destination) (for example, United Flight number 127 to Los Angeles)? Would you mind taking a few minutes to fill out this brief

questionnaire? You may also complete the survey on-line using a smartphone, tablet, or computer.

5. If the passenger agrees, hand him/her a questionnaire and thank them. Inform them that you will be collecting the completed questionnaires before the flight is called for boarding. Be sure to show the passenger the QR code and web address located on the questionnaire for completing the survey on-line, as well as the survey number that they will need to login to the on-line version of the survey.

6. *If the passenger does not want to participate, thank them anyway and go to the next passenger.*

7. If the passenger identifies him/herself as an airline employee or other non-revenue passenger, *DO NOT GIVE THEM A QUESTIONNAIRE. Thank them as well and go to the next passenger.*

8. Move around the waiting room in an organized fashion, remembering to *smile* and be as polite as possible.

9. Although we are interested in obtaining information from as many passengers on a flight as possible, there may be situations in which a single passenger can fill out a single questionnaire for more than one passenger:

   ➢ A tour group that is traveling to and from the same destination, especially if the group is non-English speaking.

   The passenger who fills out the questionnaire should indicate that the information provided counts for *(X)* number of passengers. This can be done by placing the number in the box located at the bottom of the comments section. However the passenger who fills out the questionnaire should fill out Section D, About Yourself

10. After you have distributed questionnaires to the passengers waiting in the boarding area, move toward the check-in desk. Position yourself near the check-in desk, and, as passengers leave the desk, briefly explain the survey and hand them a questionnaire.

    IT IS EXTREMELY IMPORTANT THAT YOU DO NOT INTERFERE WITH THE CHECK-IN PROCESS.

11. If the flight package does not contain a sufficient number of questionnaires, use the extra forms that you should be carrying.

Be sure to note the sequence numbers of the extra questionnaires on the survey log sheet.

12. Approximately ten minutes after the first announcement was read, ask the gate attendant to read it a second time, if possible.

13. As boarding time approaches, begin to hand out mail-back envelopes with the questionnaires to all late-arriving passengers, and any others who may not have time to complete the form.

14. At boarding time, the surveyor needs to collect all completed questionnaires while watching for additional late-arriving passengers. Your goal is to try and reach every passenger on that selected flight.

    ABOVE ALL ELSE, DO NOT INTERFERE WITH THE AIRLINE BOARDING PROCESSES.

15. After the flight boards, there are two things the surveyors need to do:

    ➤ Organize the flight package for the return to the office. Separate completed questionnaires from undistributed ones (and any that were not completed fully). Write down the number of mail-backs you distributed on the flight log.

    ➤ Obtain the total number of revenue passengers who boarded that flight from the airline gate attendant. Make sure the attendant gives you the *revenue* count. Record this number on the flight log sheet.

16. If the boarding process is delayed, try to stay at the gate so you can survey any late-arriving passengers.

17. When you have the chance, return to the field office and transfer your notes to the Flight Log.

18. When you are not surveying a flight or on a break, help the lead assistant maintain records and prepare for the upcoming flights.

19. Before leaving for the day, be sure to verify when your next shift will be, and what flights you are expected to survey.

THANK YOU FOR MAKING THIS SURVEY A SUCCESS!!!