

WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY - 2015

January 2017



National Capital Region
Transportation Planning Board

2015 WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY

Prepared by the National Capital Region Transportation Planning Board in cooperation with the Federal Aviation Administration

January 2017

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The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 23 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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EXECUTIVE SUMMARY

In October 2015, the Metropolitan Washington Council of Governments (MWCOG) conducted a regional air passenger survey (APS) 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 APS was jointly funded by the Metropolitan Washington Airports Authority (MWAA) and the Maryland Aviation Administration (MAA) of the Maryland Department of Transportation (MDOT). 24,600 out of approximately 79,100 enplaning passengers on 683 randomly selected flights were interviewed as they waited to board their flights, an overall response rate of 31 percent. The survey questionnaires asked about the trip that was being made, the passenger's trip to the airport, as well as the passenger's choice of airport, and posed several questions regarding the passenger's demographic characteristics. The 2015 regional air passenger survey was the twelfth 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 provide the basis for analysis of major changes in airport use in the region. These surveys are an essential component of the air systems planning and master planning processes.

This report summarizes the findings regarding patterns of airport use, trip purpose, origin activity, mode of access, and household income. The report analyzes these data based on their geographic distribution. 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 2015 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

Closest Airport

- 67 percent of DCA travelers (up from 65 percent in 2013)
- 47 percent of IAD travelers (up from 46 percent in 2013)
- 60 percent of BWI travelers (up from 56 percent in 2013)

Lowest Airfare

- 11 percent of DCA travelers (unchanged from 2013)
- 15 percent of IAD travelers (unchanged from 2013)
- 19 percent of BWI travelers (down from 22 percent in 2013)

Airport Preference

- For all air passengers (both residents and non-residents of the area), airport preference changed little between 2013 and 2015. In 2015 overall airport preference was distributed as follows: DCA (39 percent), IAD (16 percent), and BWI (28 percent). Seventeen percent expressed no preference.
- Area resident preference distribution: DCA (38 percent), IAD (31 percent), and BWI (34 percent).
- Non-resident preference distribution: DCA (40 percent), IAD (13 percent), and BWI (25 percent).

Trip Purpose

- In 2015, the percentage of locally originating air passengers reporting that they were traveling for non-business related reasons declined between 2013 and 2015 (from 67 percent to 63 percent).
- While non-business trips such as vacation or school-related travel, personal or family affairs declined, business-related trips overall increased from 33 percent in 2013 to 37 percent in 2015.

Ground Trip Origin

- Between 2013 and 2015 the percentage of air passengers beginning their trips from a private residence declined from 60 percent to 56 percent of the total trip originations.
- The percentage of air passengers beginning their trip to the airport from a hotel or motel saw a slight increase between 2013 and 2015 (from 30 percent to 33 percent).

Mode of Access

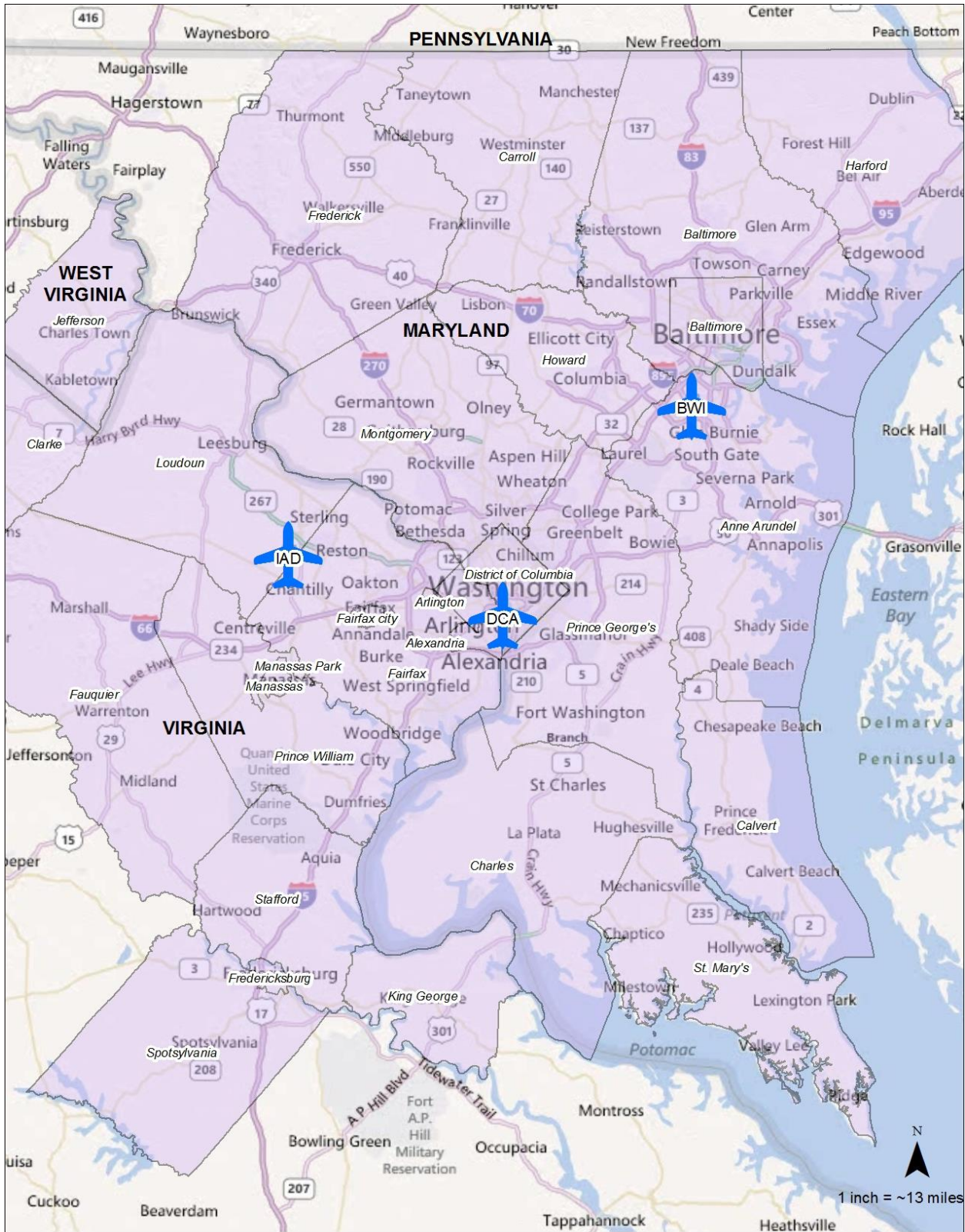
- The most common mode of access to the airports continued to be the automobile (private, rental and transportation networks such as Uber/Lyft), accounting for 66 percent of all local originations.
- Metrorail usage by passengers traveling to DCA continues to be among the highest proportions of any airport in the United States at 12 percent. However, access by private car to DCA remained the same at 35 percent.

Air Traveler Characteristics

- In 2015, area residents accounted for 35 percent of the total departing air passengers. Non-residents accounted for the remaining 65 percent of departing air passengers.
- Local originating passengers under the age of 25 remained at 8 percent. Passengers age 35 and older also remained the same when compared with 2013 figures - at 73 percent.
- Household incomes for air travelers in the Washington-Baltimore region continue to be higher than the regional median. In 2015, only 29 percent of the region's passengers had household incomes less than \$80,000, which remains unchanged from 2013. For all three airports, more than 71% 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



Source: Washington-Baltimore Regional Air Passenger Survey 2015

I. INTRODUCTION

This report summarizes the findings from the 2015 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 **Error! Reference source not found.**

The 2015 regional air passenger survey was the twelfth 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 provide 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 improvement planning continues. 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 to the Washington-Baltimore Regional Airport System Plan**

The 2015 air passenger survey was conducted during the two-week period from Wednesday, October 7th to Tuesday, October 20th. A small number of flights that were either missed or required resurveying were resurveyed between October 21st and November 1st. Approximately 24,600 passengers out of a total of 79,100 enplaning passengers on 683 (628 domestic and 55 international) flights were interviewed as they waited to board their planes, an overall response rate of 31 percent. The completed survey questionnaires representing the responses of these 24,600 passengers were processed and tabulated.¹

The survey sample included flights from 36 airlines, of which 23 were international and 11 were domestic carriers. The sample flights were grouped into 340 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 2015 survey questionnaire is included as Appendix B of this report.

Table 1: Data Collection Summary

Airport	Flights Surveyed	Rev. Pass. Count	Completed Surveys	Response Rate
BWI	210	27,894	8,509	31%
DCA	279	27,298	8,240	30%
IAD	194	23,918	7,816	33%
Total	683	79,110	24,565	31%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

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.

II. FINDINGS - TRANSPORTATION

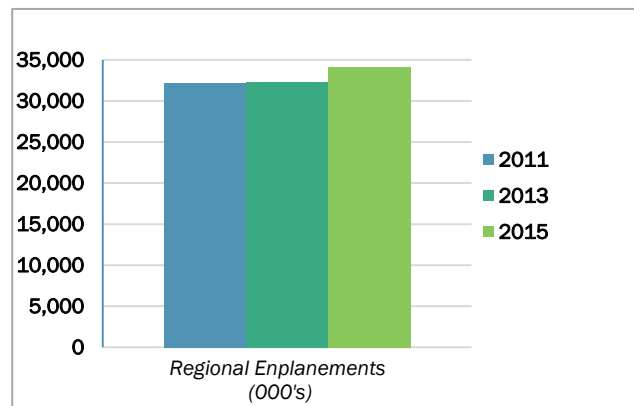
Survey results are summarized by airport as well as for the overall Washington-Baltimore air systems planning region. The various travel modes used to access each airport, trip purpose, number of trips at each airport, preferred airport, trip origin, place of origin, age of air travelers and income of 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 2015 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 2015. 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 2015 survey results are compared with results from the 2011 and the 2013 surveys.

Airport Use (Survey Question A-1)²

Figure 2: Regional Enplanements

Commercial aviation activity in the region has increased slightly between 2013 and 2015. As shown in **Error! Reference source not found.**, observed annual enplanements in 2015 (34.1 million) are now 1.9 million higher than in 2011 (32.2 million).



Error! Reference source not found. shows that local originating enplanements increased by 9 percent between 2013 and 2015, while connecting enplanements have declined regionally by 3% for the same period. While local originating enplanements increased at DCA and IAD, they almost remained the same at BWI. Regionally, DCA accounted almost entirely for the local originating enplanement increase between 2013 and 2015.

Source: Washington-Baltimore Regional 2015

Connecting passengers regionally declined by 3 percent between 2013 and 2015. DCA accounted for 42 percent of the decline and IAD for 58 percent. However, connecting passengers increased at BWI by 24 percent between 2013 and 2015, which accounted for the enplanement increase at BWI.

Between 2013 and 2015 local originating air passengers increased at both DCA and IAD while they remained almost the same at BWI. At IAD local originating passengers increased by 378,000 (6 percent) when compared with 2013, and at DCA by almost 1.6 million (19 percent) for the same period. At BWI, local originating passengers declined by 13,000 between 2013 and 2015.

Figure 3, Figure 4, and Figure 5 illustrate the airport share of local originating passengers, connecting passengers, and total enplaning passengers from the surveys conducted in 2011, 2013, and 2015. In 2015 the greatest share of the region's total enplaning passengers departed from DCA, which accounted for 41 percent, while 33 percent (down from 36 percent in 2013) departed from BWI and 26 percent (down from 27 percent in 2013) departed from IAD. IAD had the greatest share of the region's connecting passengers (47 percent) and DCA has the greatest share of the region's local originating passengers (41 percent).

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

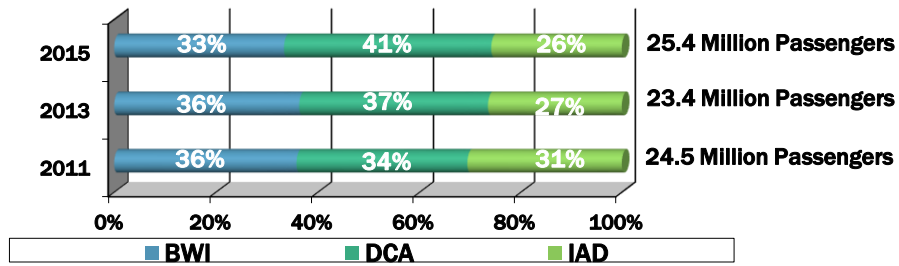
Table 2: Annual Air Passenger Trip Originations (000s)

Enplanement Type		BWI			IAD			DCA			REGION		
		2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Local Originations (Ground Transportation)	Number	8,756	8,498	8,485	7,496	6,214	6,592	8,211	8,686	10,367	24,463	23,398	25,444
	Percent	78%	75%	71%	65%	57%	62%	88%	85%	90%	76%	72%	75%
Connected from Another Flight	Number	2,468	2,776	3,449	4,078	4,646	4,120	1,148	1,511	1,127	7,694	8,933	8,697
	Percent	22%	25%	29%	35%	43%	38%	12%	15%	10%	24%	28%	25%
Total Enplanement Percent of Region	Number	11,224	11,274	11,934	11,574	10,860	10,712	9,359	10,197	11,495	32,157	32,331	34,141
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

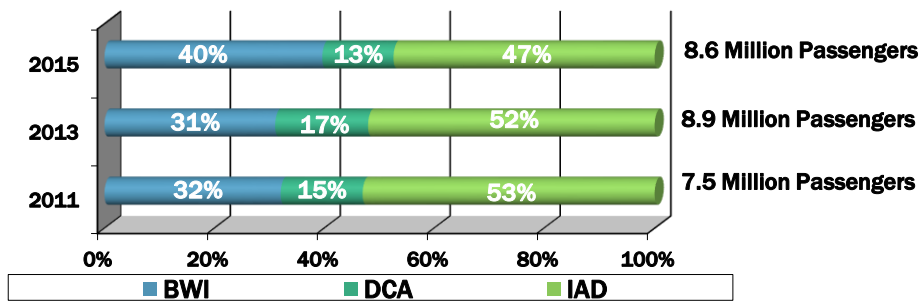
Notes: Totals may not add up due to rounding; "Total Enplanements" includes passengers on domestic scheduled, commuter, and international flights

Figure 3: Airport Share of Annual Local Originating Passengers



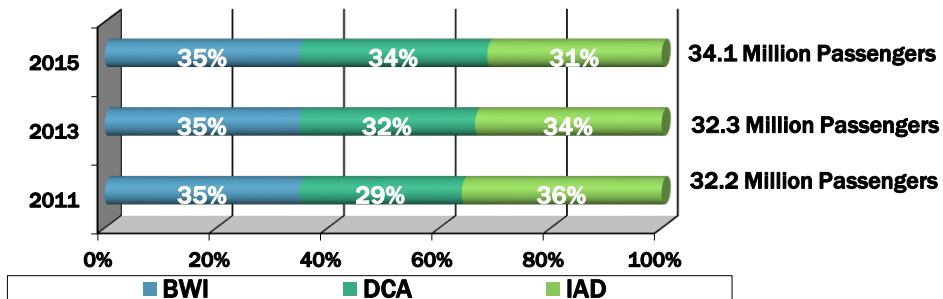
Source: Washington-Baltimore Regional Air Passenger Survey 2015

Figure 4: Airport Share of Annual Connecting Passengers



Source: Washington-Baltimore Regional Air Passenger Survey 2015

Figure 5: Airport Share of Total Annual Passengers



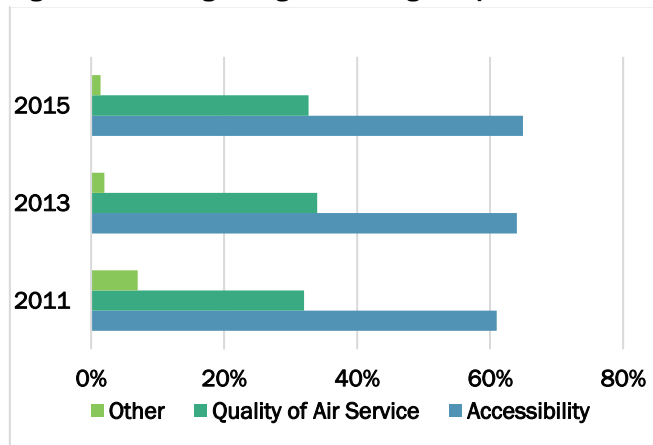
Source: Washington-Baltimore Regional Air Passenger Survey 2015

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 they were departing from. 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).

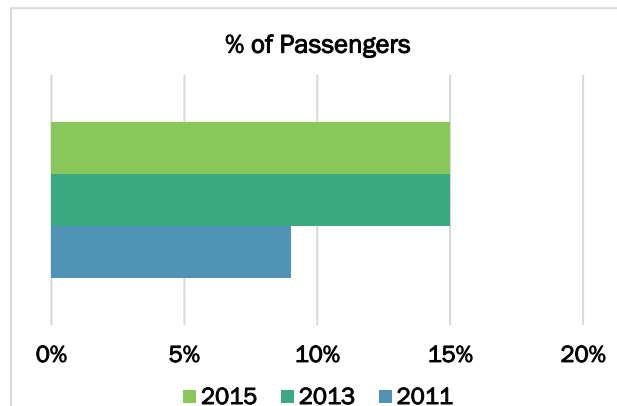
When compared with 2013, in 2015 the percentage of locally originating passengers citing accessibility conditions as the most important factor in airport choice increased (from 64 percent to 65 percent) at the regional level. While the percentage of passengers citing this reason declined between 2009 and 2011 at all three airports, a minor increase was observed between 2013 and 2015 at BWI (from 63 percent to 64 percent) and DCA (from 73 percent to 74 percent). At IAD however, passengers citing accessibility conditions as the most important factor declined between 2013 and 2015 (from 52 percent to 50 percent). 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 a corresponding decline in the prominence of accessibility factors) for passengers choosing IAD.

Figure 6: Local Originating Air Passenger Airport Choice



Source: Washington-Baltimore Regional Air Passenger Survey 2015

Figure 7: Lower Airfares as Primary Factor in Airport Choice



Source: Washington-Baltimore Regional Air Passenger Survey 2015

While quality of air service showed a slight increase between 2011 and 2013 (from 32 percent to 34 percent), this factor declined slightly in 2015 to 33 percent. This decline could be attributed to a reduced number of passengers citing frequent flyer status with specific airlines, which dropped from three percent (2013) to two percent (2015). Another contributing factor could be the decline in passengers indicated “only airport serving destination market,” which dropped from four percent (2013) to two percent (2015). The decline in both factors mark the reversal of upward trends observed between 2011 and

2013. 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, despite being rather affluent, may be relatively price sensitive and may place more value on travel cost. The percentage of passengers citing more convenient flight times as the most important reason increased by two percentage points when compared with 2013.

Within the region, 65 percent of locally originating passengers cited accessibility conditions as the most important factor in airport choice. Yet when separated out by first, second, or/or the third most important factor influencing airport choice, 50 percent indicated accessibility conditions, while 49 percent indicated Quality of Service. Better public transportation was cited six times more as a first, second and/or third factor for airport choice at DCA than as being the primary reason. At all three airports, the percentage of passengers citing more convenient flight times and more accessible roads/parking doubled if it was their first, second or third reason (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 prevent 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.

In 2015, 45 percent of locally originating passengers preferred to use DCA, while 21 percent preferred to fly out of IAD. These findings are higher than 2013. In 2015, 27 percent (down from 29 percent in 2013) preferred to travel from BWI. Eighteen percent of the passengers expressed no preference for one of the region's three commercial airports, up from 17 percent in 2013.

Between 2013 and 2015, the number of passengers departing from their preferred airport remained the same. In 2015, 66 percent of the local originating air passengers reported that they flew out of their preferred airport, same as in 2013. Figure 8 illustrates these percentages for the three most recent survey years.

Table 3: Primary Reasons for Airport Choice

Primary reason for choosing airport used	BWI			IAD			DCA			REGION		
	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Accessibility												
Closest airport	56%	58%	60%	42%	46%	47%	71%	65%	67%	57%	58%	60%
Better public ground transportation	0%	1%	1%	0%	1%	1%	4%	6%	5%	2%	1%	3%
Better access roads and parking	3%	4%	3%	2%	5%	3%	1%	2%	2%	2%	5%	2%
SUBTOTAL Accessibility	59%	63%	64%	44%	52%	50%	76%	73%	74%	61%	64%	65%
Quality of Air Service												
More convenient flight times	7%	6%	6%	11%	11%	14%	8%	7%	8%	9%	7%	9%
Only airport with direct/non-stop flights	4%	4%	4%	14%	14%	11%	3%	4%	4%	7%	5%	6%
Less expensive airfare	18%	22%	19%	8%	15%	15%	4%	11%	11%	9%	15%	15%
Frequent flyer with specific airline	4%	2%	2%	7%	3%	3%	2%	2%	2%	4%	3%	2%
Only airport serving market	2%	1%	1%	5%	4%	4%	1%	1%	1%	3%	4%	2%
SUBTOTAL Quality of Air Service	35%	35%	33%	45%	47%	47%	18%	25%	25%	32%	34%	33%
OTHER	6%	2%	2%	11%	2%	2%	5%	3%	1%	7%	2%	1%
TOTAL	100%	100%	98%	100%	101%	99%	99%	101%	100%	100%	100%	99%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add up due to rounding; "Total Enplanements" includes passengers on domestic scheduled, commuter, and international flights

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

Primary reason for airport choice	BWI			IAD			DCA			REGION		
	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Accessibility												
Closest airport	30%	27%	28%	27%	25%	25%	35%	32%	33%	31%	29%	29%
Better public ground transportation	3%	3%	3%	3%	3%	2%	12%	11%	10%	6%	6%	6%
Better access to roads and parking	16%	19%	18%	13%	15%	14%	11%	12%	12%	14%	16%	15%
SUBTOTAL Accessibility	49%	49%	49%	43%	43%	41%	58%	55%	55%	51%	51%	50%
Quality of Air Service												
More convenient flight times	15%	16%	17%	18%	19%	19%	17%	17%	18%	16%	17%	18%
Only airport with direct/ non-stop flight	2%	7%	7%	4%	12%	12%	2%	7%	7%	3%	8%	8%
Less expensive airfare	19%	18%	17%	12%	13%	14%	10%	11%	12%	14%	14%	14%
Frequent flyer with specific airline	6%	5%	6%	8%	7%	7%	5%	5%	5%	6%	6%	6%
Only airport serving market	7%	2%	1%	11%	4%	5%	5%	2%	2%	7%	2%	3%
SUBTOTAL Quality of Air Service	49%	48%	48%	53%	55%	57%	39%	42%	44%	46%	47%	49%
OTHER	3%	3%	1%	4%	2%	1%	3%	3%	2%	3%	2%	2%
TOTAL	101%	100%	99%	100%	100%	99%	100%	100%	101%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add up due to rounding; "Total Enplanements" includes passengers on domestic scheduled, commuter, and international flights

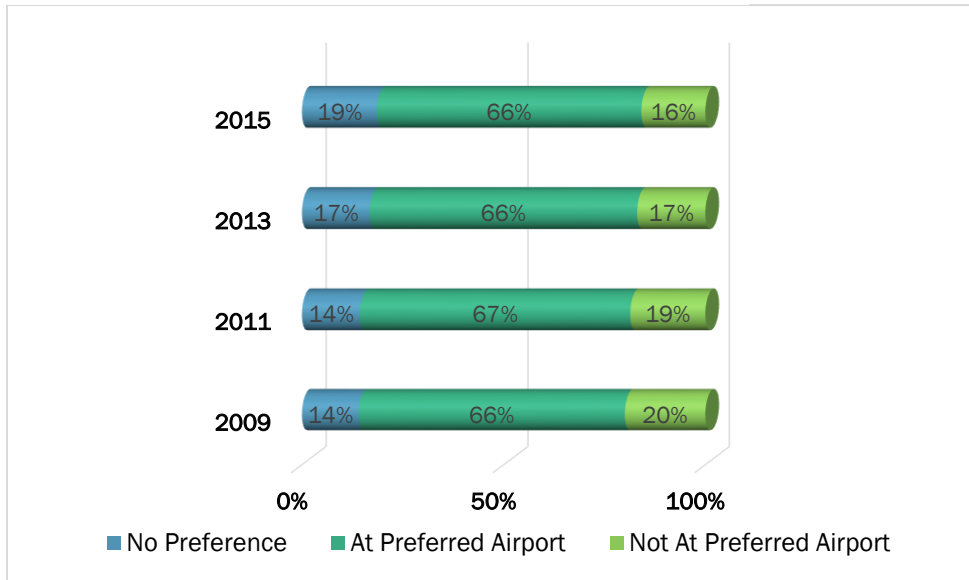
Table 5: Annual Originating Air Passenger Preferred Airport

Preferred Airport		BWI Marshall			Dulles			Reagan National		
		2011	2013	2015	2011	2013	2015	2011	2013	2015
BWI MARSHALL	Number	5,942	5,904	5,676	389	398	350	238	294	422
	Percent	70%	72%	70%	6%	7%	6%	3%	4%	4%
DULLES	Number	435	336	297	3,566	2,979	3,140	587	660	710
	Percent	5%	4%	4%	52%	51%	52%	7%	8%	7%
REAGAN NATIONAL	Number	1,068	863	774	1,623	1,242	1,265	6,092	5,981	6,947
	Percent	13%	11%	10%	23%	21%	21%	77%	71%	70%
No Preference	Number	998	1,085	1,371	1,333	1,218	1,270	1,010	1,441	1,814
	Percent	12%	13%	17%	19%	21%	21%	13%	17%	18%
TOTAL	Number	8,443	8,188	8,118	6,911	5,837	6,026	7,927	8,376	9,893
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents		311	310	367	581	377	567	287	310	474
Total Originations		8,754	8,498	8,485	7,492	6,214	6,592	8,214	8,686	10,367

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add up due to rounding

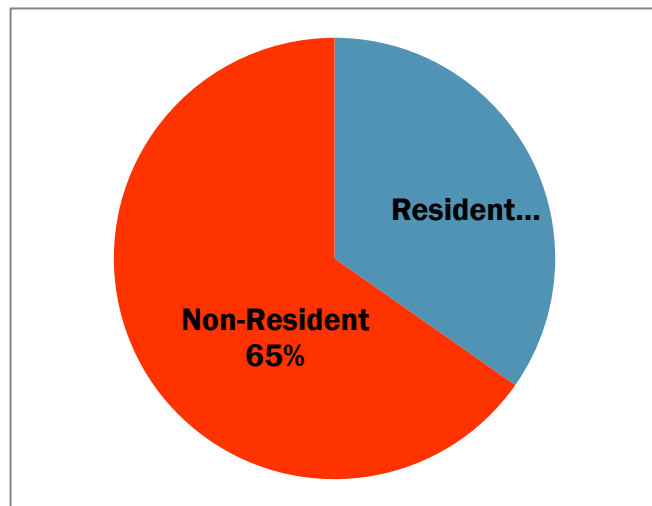
Figure 8: Travel from Preferred Airport (originating passengers)



Source: Washington-Baltimore Regional Air Passenger Survey 2015

The difference in airport preference between residents and non-residents is summarized in Table 6. In 2015, local originating passengers who were visiting the region (non-residents) accounted for 65 percent of local originating passengers. Of these visitors, 40 percent selected DCA as their preferred airport compared with 38 percent of resident air passengers who preferred DCA. Preference rates for non-residents were 13 percent and 25 percent for IAD and BWI, respectively, compared to 21 percent and 34 percent for residents. Non-residents continued to be least likely to express a preference for an airport (22 percent), compared to residents (seven percent).

Figure 9: 2015 Regional Local Originating Air Passenger Resident Status



Source: Washington-Baltimore Regional Air Passenger Survey 2015

Table 6: Annual Originating Air Passengers' Preferred Airport by Resident Status (000s)

Preferred Airport		Resident			Non-Resident			Total		
		2011	2013	2015	2011	2013	2015	2011	2013	2015
BWI Marshall	Number	3,143	3,176	2,285	3,085	2,929	3,163	6,228	6,105	5,448
	Percent	31%	36%	34%	27%	25%	25%	29%	30%	28%
Dulles	Number	2,311	1,645	1,433	1,656	1,859	1,596	3,967	3,504	3,029
	Percent	23%	19%	21%	14%	16%	13%	18%	17%	16%
Reagan National	Number	3,681	3,330	2,592	4,464	4,181	4,942	8,145	7,511	7,535
	Percent	36%	38%	38%	39%	35%	40%	38%	37%	39%
No Preference	Number	981	602	442	2,304	2,809	2,793	3,285	3,411	3,235
	Percent	10%	7%	7%	20%	24%	22%	15%	17%	17%
TOTAL	Number	10,116	8,753	6,753	11,509	11,778	12,494	21,625	20,531	19,246
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%

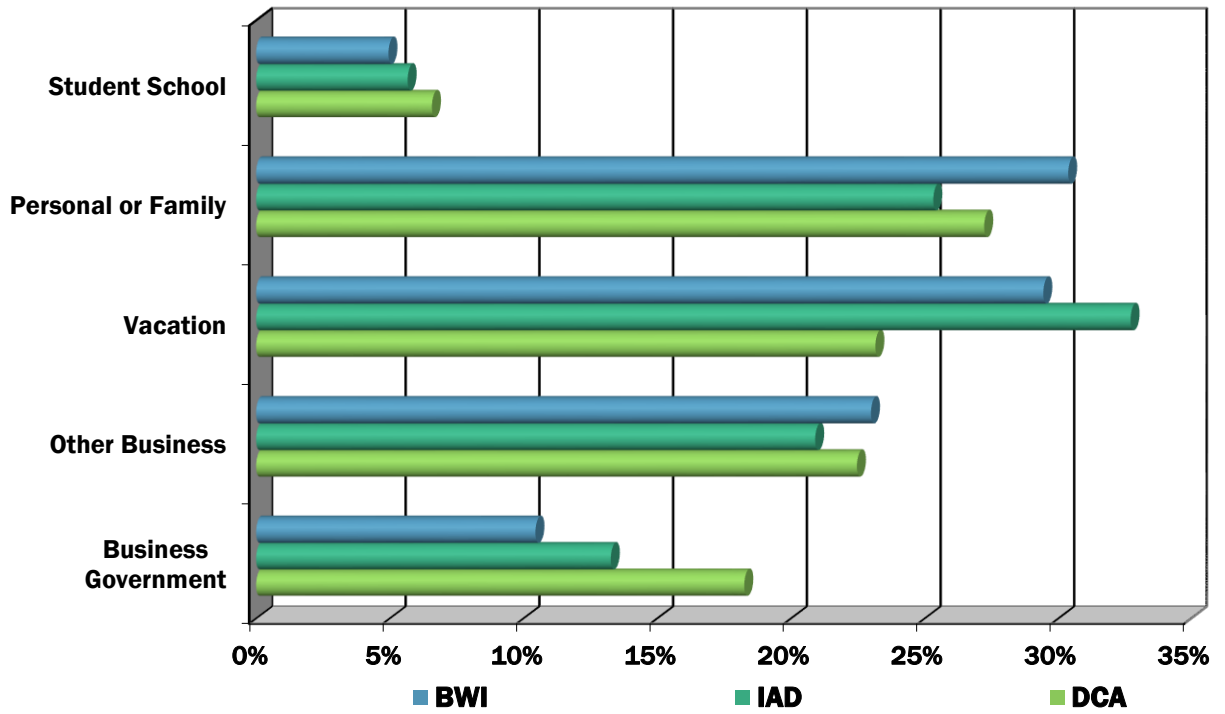
Source: Washington-Baltimore Regional Air Passenger Survey 2015
 Note: Totals do not include non-respondents and resident unknown

Trip Purpose (Survey Question A-3)

In 2015, the percentage of locally originating air passengers reporting that they were traveling for non-business related reasons decreased, when compared to 2013. As shown in Table 7, the percentage of business-related travel increased between 2013 and 2015 (from 33 percent to 37 percent). While non-business vacation travel increased between 2011 and 2013 (from 21 percent to 32 percent), and student/school-related travel increased (from 3 percent to 4 percent), in 2015 vacation travelers dropped to 28 percent and students showed a slight increase to 6 percent. Similarly, personal or family-related travel dropped between 2013 and 2015 (from 31 percent to 28 percent).

Figure 10 shows air travel by trip purpose at each of the three airports in 2015. 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 2013.

Figure 10: Annual Originating Air Passengers by Trip Purpose (Percent by Airport)



Source: Washington-Baltimore Regional Air Passenger Survey 2015

Table 7: Annual Originating Air Passenger Trip Purpose (000s)

Trip Purpose	BWI			IAD			DCA			REGION		
	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Business Related												
Business related to federal government (including military)	1127	554	736	1259	525	761	1915	980	1,661	4301	2,059	3,157
	13%	7%	9%	17%	9%	12%	23%	12%	16%	18%	9%	13%
Business related to state and local gov.	165	81	144	103	43	89	255	131	212	523	255	446
	2%	1%	2%	1%	1%	1%	3%	2%	2%	2%	1%	2%
Other Business	2048	1851	1,938	1596	1203	1,339	2106	2019	2,305	5750	5073	5,583
	24%	22%	23%	22%	20%	21%	26%	24%	22%	24%	22%	22%
SUBTOTAL – Business	3,340	2,486	2,819	2,958	1,771	2,188	4,276	3,130	4,178	10,574	7,387	9,186
	38%	30%	33%	41%	30%	34%	52%	37%	41%	44%	33%	37%
Non-Business Related												
Vacation	1809	2650	2,482	1803	2242	2,096	1458	2343	2,376	5070	7235	6,954
	21%	32%	29%	25%	37%	33%	18%	28%	23%	21%	32%	28%
Personal or family affairs	2873	2815	2,560	1878	1617	1,622	1877	2596	2,794	6628	7028	6,976
	33%	34%	30%	26%	27%	25%	23%	31%	27%	28%	31%	28%
Student or school related	244	225	417	221	311	363	202	296	675	667	832	1,454
	3%	3%	5%	3%	5%	6%	2%	4%	7%	3%	4%	6%
Other	417	102	155	347	49	137	356	66	242	1120	217	534
	5%	1%	2%	5%	1%	2%	4%	1%	2%	5%	1%	2%
SUBTOTAL – Non-Business	5,343	5,792	5,614	4,249	4,219	4,218	3,893	5,301	6,086	13,485	15,312	15,918
	62%	70%	67%	59%	70%	66%	48%	63%	59%	56%	67%	63%
TOTAL	8,683	8,278	8,433	7,207	5,990	6,407	8,169	8,431	10,265	24,059	22,699	25,104
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents	74	220	52	286	224	185	47	257	102	407	701	340
Total Originations	8,757	8,498	8,485	7,493	6,214	6,592	8,216	8,688	10,367	24,466	23,400	25,444

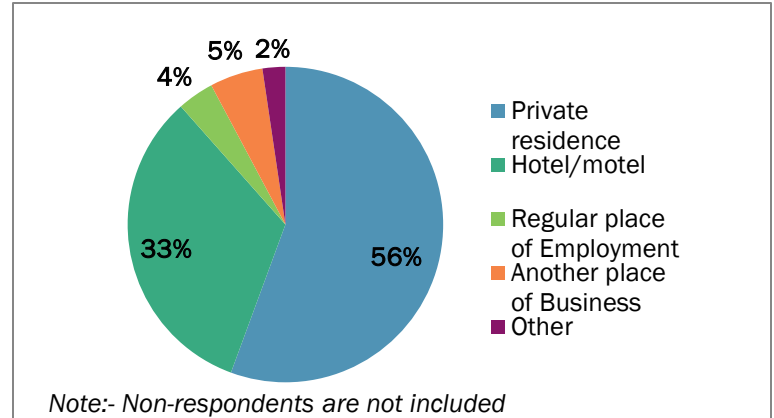
Source: Washington-Baltimore Regional Air Passenger Survey 2015

Note: 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 remained unchanged between 2011 and 2013 at 60 percent, it dropped to 56 percent in 2015. Those leaving from a hotel or motel showed a slight increase between 2013 and 2015 (from 30 percent to 33 percent). At 41 percent, DCA continued to have the greatest percentage of passengers originating from a hotel or motel. In the region, the percentage of passengers who reported beginning their trip to the airport from either their regular place of employment or from another place of business remained the same.

Figure 11: Local Air Passenger Trip Origins (Region)



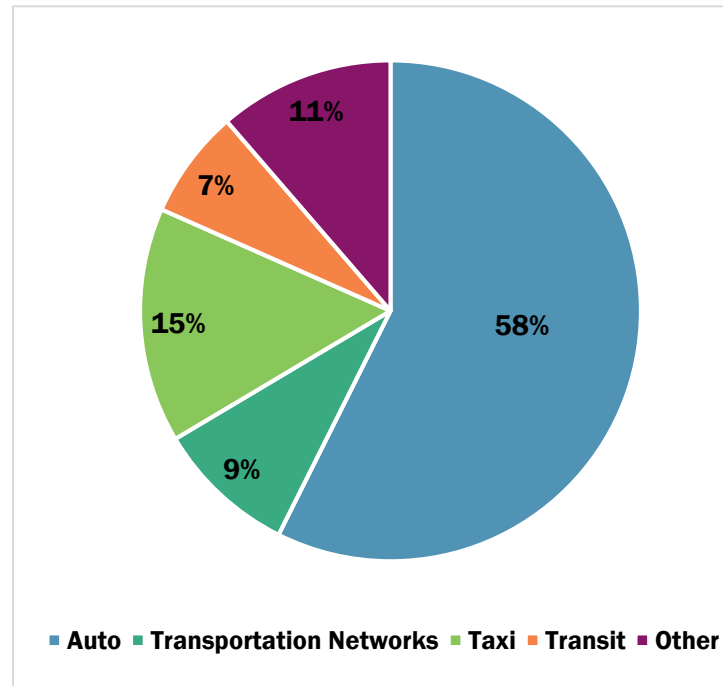
Source: Washington-Baltimore Regional Air Passenger Survey 2015

Mode of Access (Survey Question B-7)

Table 9 provides a summary of mode of access to each airport and for the region. Regionally in 2015, as in previous surveys, the most common mode of access to the airports was the automobile (both private autos and rental cars, which also includes transportation networks such as Uber and Lyft), accounting for 66 percent of all local originations. Taxicabs were used by 15 percent of passengers, and public transportation³ carried 11 percent of passengers. Courtesy buses provided by hotels and motels accounted for six percent of all local originations in 2015 – a slight increase from 2013.

At 12 percent, Metrorail usage by passengers traveling to DCA continues to be among the highest proportion of any airport in the nation. Access to DCA by private car showed a slight decline between 2013 and 2015 (from 34 percent to 28 percent). The percentage of air passengers arriving by rental car at DCA remained nearly unchanged (at 10 percent) compared with 2011 findings (eight percent).

Figure 12: Local Air Passenger Mode of Access (Regional)



Source: Washington-Baltimore Regional Air Passenger Survey 2015

³ 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			IAD			DCA			REGION		
	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Private residence	5,740	5,676	5,380	4,570	3,760	3,800	4,127	4,398	4,440	14,437	13,834	13,620
	66%	67%	65%	64%	61%	61%	51%	51%	44%	60%	60%	56%
Hotel/motel	1,811	1,864	2,071	1,885	1,940	1,884	2,708	3,161	4,090	6,404	6,965	8,045
	21%	22%	25%	26%	32%	30%	33%	37%	41%	27%	30%	33%
Passenger's regular place of employment	463	328	258	272	180	195	476	349	465	1,211	857	918
	5%	4%	3%	4%	3%	3%	6%	4%	5%	5%	4%	4%
Another place of business	418	403	340	252	203	268	631	511	727	1,301	1,117	1,335
	5%	5%	4%	4%	3%	4%	8%	6%	7%	5%	5%	5%
Other	228	160	193	140	58	110	146	209	269	514	427	572
	3%	2%	2%	2%	1%	2%	2%	2%	3%	2%	2%	2%
TOTAL	8,660	8,431	8,243	7,119	6,141	6,256	8,088	8,628	9,991	23,867	23,200	24,491
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents	96	67	242	377	73	336	123	59	376	596	199	953
Total Originations	8,756	8,498	8,485	7,496	6,214	6,592	8,211	8,687	10,367	24,463	23,399	25,444

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Note: Totals may not add due to rounding

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

Mode of Access		BWI			IAD			DCA			REGION		
		2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Private car	Number	5,551	5,289	4,864	3,847	3,049	3,006	2,782	2,887	2,866	12,180	11,225	10,737
	Percent	64%	64%	59%	55%	50%	48%	35%	34%	28%	51%	49%	44%
Rental car	Number	1,217	1,188	1,424	923	1,032	980	655	793	1,015	2,795	3,013	3,418
	Percent	14%	14%	17%	13%	17%	16%	8%	9%	10%	12%	13%	14%
Taxi	Number	516	414	476	1,174	968	788	2,520	2,624	2,481	4,210	4,006	3,745
	Percent	6%	5%	6%	17%	16%	13%	31%	31%	25%	18%	18%	15%
Transportation Network (Uber, Lyft, etc..)	Number	0	0	404	0	0	439	0	0	1,394	0	0	2,238
	Percent	0%	0%	5%	0%	0%	7%	0%	0%	14%	0%	0%	9%
Metrorail (DCA)	Number	29	0	0	35	0	39	1,275	1,235	1,173	1,339	1,235	1,213
	Percent	0%	0%	0%	0%	0%	1%	16%	15%	12%	6%	5%	5%
Rail service	Number	187	130	165	0	0	8	9	0	11	196	130	185
	Percent	2%	2%	2%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Light Rail (BWI)	Number	74	103	44	0	0	0	0	0	0	74	103	44
	Percent	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Airport bus/Van/Limo	Number	571	629	311	630	554	399	375	527	325	1,576	1,710	1,035
	Percent	7%	8%	4%	9%	9%	6%	5%	6%	3%	7%	8%	4%
Hotel/motel courtesy bus	Number	289	386	461	246	268	349	327	308	600	862	962	1,410
	Percent	3%	5%	6%	3%	4%	6%	4%	4%	6%	4%	4%	6%
Metrobus/MTA Bus	Number	79	71	79	142	138	141	53	65	73	274	274	293
	Percent	1%	1%	1%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Other	Number	103	44	71	58	33	151	53	62	130	214	139	351
	Percent	1%	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	1%
TOTAL	Number	8,616	8,254	8,299	7,055	6,042	6,301	8,049	8,501	10,068	23,720	22,797	24,668
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents		140	239	185	441	174	291	162	185	299	743	598	776
Total Originations		8,756	8,493	8,485	7,496	6,216	6,592	8,211	8,686	10,367	24,463	23,395	25,444

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Transportation Network mode of access (Uber, Lyft) was introduced in 2015 survey; Totals may not add due to rounding

Between 2013 and 2015, a few changes were made to the Regional Air Passenger Survey questionnaire. Most notably, the use of Transportation Network Company (TNC), such as Uber or Lyft, was added as an option for primary means of transportation to the airport. As shown in Table 9, nine percent of air passengers departing from the three major airports arrive using TNCs. The percentage of air passengers using TNCs varies from five percent at BWI, to seven percent at IAD, to 14 percent at DCA. Since 2013, the percentage of passengers traveling by private car has dropped significantly: at BWI by five percent, at IAD by two percent, and at DCA by six percent. Traveling by taxi dropped by three percent at IAD and six percent at DCA. At DCA, the decline in Metrorail riders could be attributed, at least in part, to increased TNC use. Travel by TNC at DCA accounted for 62 percent of the regional total, which could be due to the airport's proximity to the downtown areas of D.C. and Northern Virginia.

Table 11 provides a regional comparison of resident versus non-resident departing air passengers by mode share. For both residents and non-residents alike, TNCs comprise 11 percent of their mode share. However, between 2013 and 2015 the share of resident versus non-resident at each airport changed (from four percent to six percent at BWI, eight percent to nine percent at IAD and 22 percent to 15 percent at DCA). At DCA, the share of residents using Taxis to access the airport dropped between 2013 and 2015 from 26 percent to 20 percent, indicating a growing preference towards using TNCs.

Departing passengers travelling either for work or non-work using TNCs accounted for almost 9 percent of the total (Table 12). Among those who used TNCs to travel to the airport, almost 60 percent were non-work related trips. Originating passenger mode of access by trip origination, either home or non-home, is presented in Table 13.

In the 2015 survey, passengers were also asked, "Is this how you usually get to this airport?" (Survey question B-8). 76 percent use the same mode of access to the airport, while the remaining 24 percent do not. Respondents' use of parking facilities at the airport show that among those who have parked their cars, 86 percent use the parking facilities located at the airports: 75 percent at BWI, and 99 percent at both DCA and IAD. Among those who used parking facilities at BWI, 37 percent used the Long-Term A or B Parking Garage and 27 percent used the Daily Parking garage. At DCA, over half of parking usage was at the Long-Term / Daily Parking Garage. At IAD, Long-Term / Daily Parking and Long-Term / Economy Parking made up 34% of total parking use.

Almost 67 percent of passengers (non-respondents excluded) were dropped-off at the airport, while 33 percent were not. At BWI, 84 percent of those dropped off arrived by automobile (private autos, transportation networks and rental cars). The same was true for 76 percent at IAD and 70 percent at DCA (see Table 10).

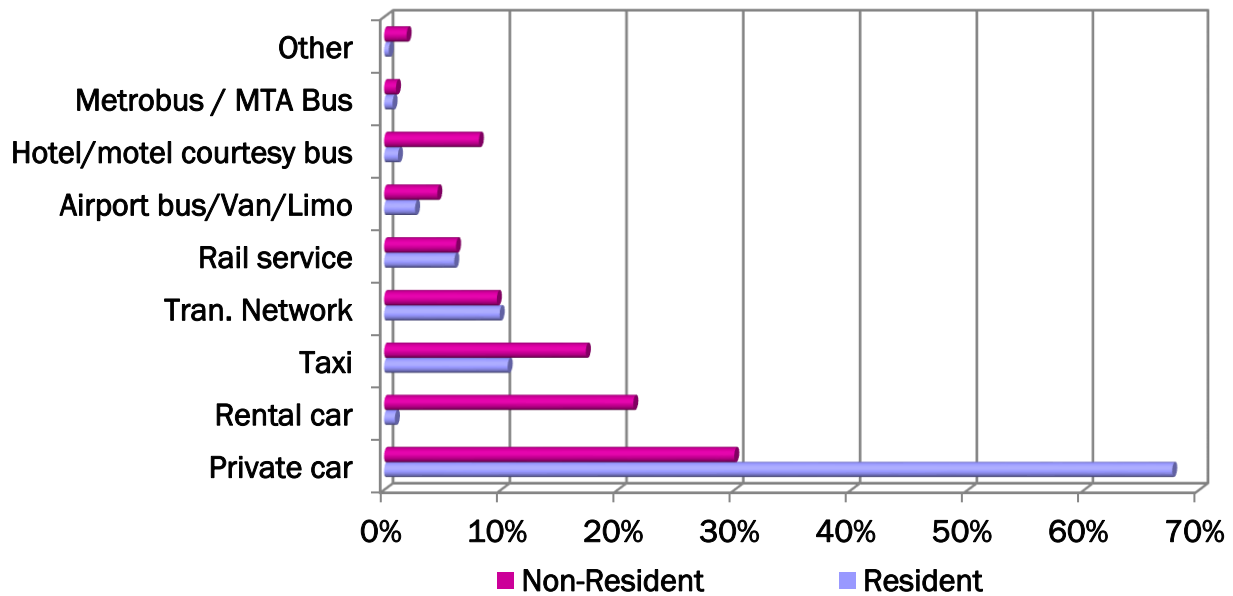
The 2015 survey questionnaire included a question, "Is this where you usually park your vehicle at this airport?" (Survey question B-9d) on usual parking use for those who use the parking facilities at the airports. Overall, 83 percent among those who responded usually use the same parking facility at the airport. At BWI, 28 percent responded that their usual parking facility at the airport is the Long-Term A or B Parking Garage, and 33 percent do so usually at the Daily and/or Hourly Parking Garage. DCA's use of parking facilities shows that 80 percent of the respondents use the same parking facility they did during the current survey. However, almost 45 percent indicated that their usual location of parking is the Long Term / Daily Parking facility, and 34 percent of them usually park at the Long Term / Economy Parking. At IAD, while 84 percent of respondents indicated that they park

at their usual facility, 40 percent use the Long-Term / Daily Parking, and 30 percent use the Long-Term / Economy Parking.

Analyzing mode of access by resident status (as shown in Figure 13) reveals some interesting differences. While residents of the region overwhelmingly used a private auto to access an airport, air passengers visiting the region continued to be more evenly distributed among private autos (33%), rental cars (24%) and taxicabs (19%). This percentage split also occurred in both 2011 and 2013. Non-resident air passengers were also more likely than resident air travelers to use hotel/motel courtesy bus for ground access to the airport.

Tables 10 through 13 summarize resident versus non-resident (passengers arriving by ground transportation only) mode of access to each airport and for the region overall.

Figure 13: Departing Passenger Mode of Access by Resident Status



Source: Washington-Baltimore Regional Air Passenger Survey 2015

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	2,460	2,011	4,471	1,789	944	2,733	1,796	850	2,646	6,045	3,805	9,850
	Percent	72%	85%	78%	63%	81%	68%	48%	61%	51%	60%	77%	66%
Rental Car	Number	130	206	336	138	95	233	102	177	279	370	478	848
	Percent	4%	9%	6%	5%	8%	6%	3%	13%	5%	4%	10%	6%
Taxi	Number	182	40	222	263	30	293	733	108	841	1,178	177	1,356
	Percent	5%	2%	4%	9%	3%	7%	19%	8%	16%	12%	4%	9%
Transportation Network (Uber, Lyft, etc..)	Number	268	9	277	236	9	246	749	53	802	1254	71.3	1,325
	Percent	8%	0%	5%	8%	1%	6%	20%	4%	16%	13%	1%	9%
Metrorail (DCA)	Number	0	0	0	5	2	7	30	129	159	35	130	165
	Percent	0%	0%	0%	0%	0%	0%	1%	9%	3%	0%	3%	1%
Rail Service	Number	13	25	37	0	3	3	3	1	4	15	29	44
	Percent	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Light Rail (BWI)	Number	3	9	12	0	0	0	0	0	0	3	9	12
	Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Airport Bus/Van/Limo	Number	135	20	155	190	25	214	145	8	153	470	53	522
	Percent	4%	1%	3%	7%	2%	5%	4%	1%	3%	5%	1%	3%
Hotel/Motel Courtesy Bus	Number	155	27	182	130	29	158	142	38	179	426	93	520
	Percent	5%	1%	3%	5%	2%	4%	4%	3%	3%	4%	2%	3%
Metrobus/MTA Bus	Number	15	4	20	37	24	61	5	11	16	57	39	96
	Percent	0%	0%	0%	1%	2%	2%	0%	1%	0%	1%	1%	1%
Other	Number	33	10	43	63	10	73	56	15	71	153	35	188
	Percent	1%	0%	1%	2%	1%	2%	1%	1%	1%	2%	1%	1%
TOTAL	Number	3,394	2,362	5,756	2,852	1,168	4,020	3,761	1,389	5,150	10,006	4,920	14,926
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Transportation Network mode of access (Uber, Lyft) was introduced in 2015 survey; Totals may not add due to rounding; Totals do not include non-respondents

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

Mode of Access		Non-Residents			Residents			TOTAL		
		2011	2013	2015	2011	2013	2015	2011	2013	2015
Private car	Number	3,940	3,711	3,772	7,329	6,262	4,577	11,269	9,973	8,349
	Percent	35%	31%	33%	73%	72%	75%	53%	48%	48%
Rental car	Number	2,396	2,697	2,684	114	98	62	2,510	2,795	2,746
	Percent	21%	23%	24%	1%	1%	1%	12%	14%	16%
Taxi	Number	2,258	2,370	2,173	1,377	1,218	719	3,635	3,588	2,892
	Percent	20%	20%	19%	14%	14%	12%	17%	17%	17%
Transportation Network (Uber, Lyft, etc..)	Number	N/A	N/A	1,214	N/A	N/A	669	N/A	N/A	1,883
	Percent			11%			11%			11%
Metrorail (DCA)	Number	764	655	653	504	491	353	1,268	1,146	1,006
	Percent	7%	6%	6%	5%	6%	6%	6%	6%	6%
Rail Service	Number	96	50	101	82	73	49	178	123	150
	Percent	1%	0%	1%	1%	1%	1%	1%	1%	1%
Light Rail (BWI)	Number	44	48	20	24	49	4	68	97	25
	Percent	0%	0%	0%	0%	1%	0%	0%	0%	0%
Airport Bus/ Van/Limo	Number	873	1,223	572	450	355	179	1,323	1,578	751
	Percent	8%	10%	5%	4%	4%	3%	6%	8%	4%
Hotel/Motel Courtesy Bus	Number	658	819	1,020	92	80	80	750	899	1,100
	Percent	6%	7%	9%	1%	1%	1%	4%	4%	6%
Metrobus / MTA Bus	Number	116	183	127	69	66	49	185	249	176
	Percent	1%	2%	1%	1%	1%	1%	1%	1%	1%
Other	Number	123	102	241	67	20	27	190	122	268
	Percent	1%	1%	2%	1%	0%	0%	1%	1%	2%
TOTAL	Number	11,268	11,858	11,364	10,108	8,712	6,098	21,376	20,570	17,463
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Transportation Network mode of access (Uber, Lyft) was introduced in 2015 survey; Totals may not add due to rounding; Totals do not include non-respondents

Table 12: Annual Originating Passenger Mode of Access by Trip Purpose (000s)

Mode of Access		Work	Non-Work	Unknown	Total
Private car	Number	2,783	7,746	207	10,737
	Percent	31%	51%	34%	44%
Rental car	Number	1,566	1,765	88	3,418
	Percent	17%	12%	14%	14%
Taxi	Number	2,054	1,595	96	3,745
	Percent	23%	11%	16%	15%
Transportation Network (Uber, Lift, etc..)	Number	867	1,323	48	2,238
	Percent	10%	9%	8%	9%
Metrorail (DCA)	Number	390	802	20	1,213
	Percent	4%	5%	3%	5%
Rail Service	Number	46	139	0	185
	Percent	1%	1%	0%	1%
Light Rail (BWI)	Number	19	21	4	44
	Percent	0%	0%	1%	0%
Airport Bus/Van/Limo	Number	408	558	69	1,035
	Percent	5%	4%	11%	4%
Hotel/Motel Courtesy Bus	Number	650	711	49	1,410
	Percent	7%	5%	8%	6%
Metrobus/MTA Bus	Number	72	195	26	293
	Percent	1%	1%	4%	1%
Other	Number	101	243	8	351
	Percent	1%	2%	1%	1%
TOTAL	Number	8,956	15,097	616	24,668
	Percent	100%	100%	100%	100%
Non-Respondents		230	288	258	776
Total Originations		9,186	15,385	873	25,444

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add due to rounding

Table 13: Annual Originating Passenger Mode of Access by Trip Origination (000s)

Mode of Access		Home	Non-Home	Unknown	Total
Private Car	Number	9,355	1,293	88	10,737
	Percent	69%	12%	21%	44%
Rental Car	Number	852	2,482	84	3,418
	Percent	6%	23%	20%	14%
Taxi	Number	1,024	2,650	70	3,745
	Percent	8%	25%	17%	15%
Transportation Network (Uber, Lift, etc..)	Number	1,101	1,107	30	2,238
	Percent	8%	10%	7%	9%
Metrorail (DCA)	Number	470	709	34	1,213
	Percent	3%	7%	8%	5%
Rail Service	Number	101	82	1	185
	Percent	1%	1%	0%	1%
Light Rail (BWI)	Number	13	31	0	44
	Percent	0%	0%	0%	0%
Airport Bus/Van/Limo	Number	288	694	52	1,035
	Percent	2%	6%	12%	4%
Hotel/Motel Courtesy Bus	Number	50	1,321	39	1,410
	Percent	0%	12%	9%	6%
Metrobus/MTA Bus	Number	107	181	5	293
	Percent	1%	2%	1%	1%
Other	Number	109	225	17	351
	Percent	1%	2%	4%	1%
TOTAL	Number	13,470	10,776	421	24,668
	Percent	100%	100%	100%	100%
Non-Respondents		150	94	532	776
Total Originations		13,620	10,871	953	25,444

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add due to rounding

III. 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.

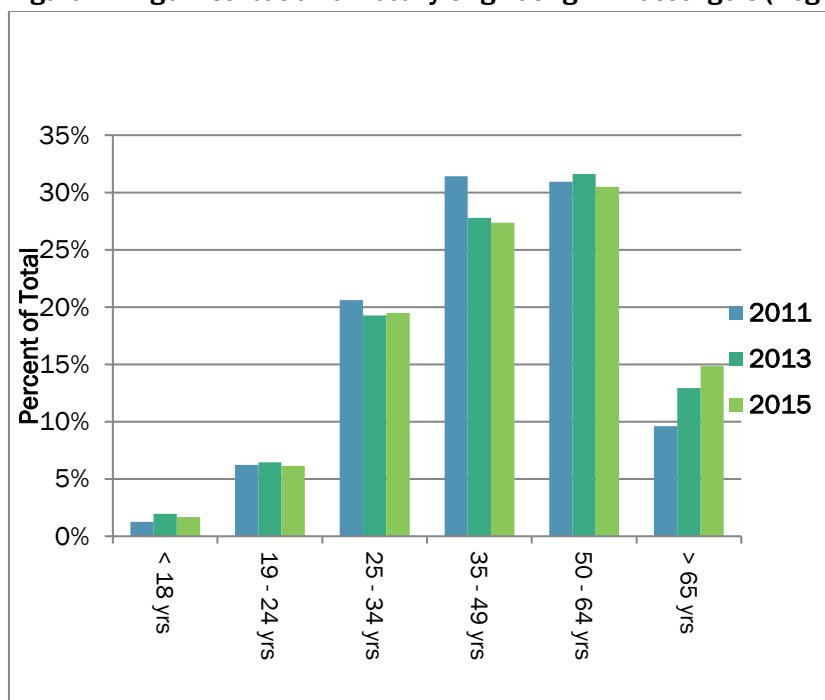
Resident Status (Question D-1)

Table 14 summarizes resident status for locally originating air passengers in 2009, 2011, and 2013. While the expected 60 percent non-resident / 40 percent resident split was observed (which is similar to 2009, 2007, and pre-2005 survey results)⁴, the share of resident trips decreased between 2013 and 2015 from 42 percent to 35 percent. A more significant drop in non-resident trip originations was observed at IAD.

Age (Survey Question D-3)

Between 2007 and 2009, the percentage of locally originating air passengers under the age of 25 increased slightly to 11 percent. In 2011 this age group decreased to 7 percent, in 2013 it increased slightly to 8 percent of local originations, and this number remained the same in 2015. Passengers between the ages of 25 and 49 showed a decline from 52 percent in 2011 to 47 percent in 2013, which also remained the same in 2015. Departing passengers over the age of 65 have also increased between 2013 and 2015. Table 15 provides the detailed age distribution for passengers at the three airports and the region overall.

Figure 14: Age Distribution of Locally Originating Air Passengers (Region)



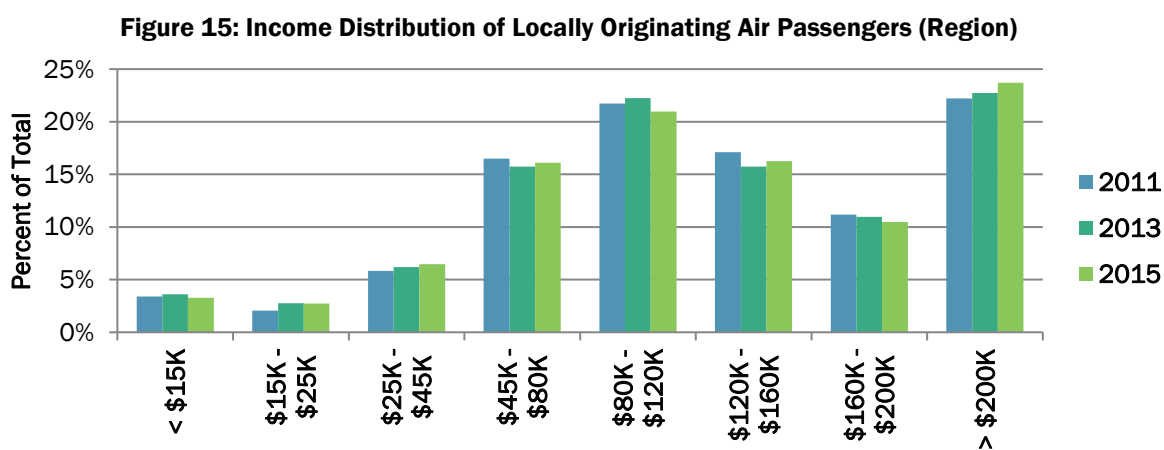
Source: Washington-Baltimore Regional Air Passenger Survey 2015

⁴ 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 16 shows originating air passenger household income data at the three airports and in the region. The median household income for the region is \$78,040.⁵ The median household income for the U.S. is \$51,914.⁶ In 2015, almost half of the region's originating air passengers had household incomes of at least \$120,000, which is similar when compared to the 2013 findings. At BWI, the share of departing passengers with a household income of less than \$120,000 increased between 2011 and 2013 from 53 percent to 54 percent, and remained the same in 2015. A similar increase was also observed at IAD between 2011 and 2013, however in 2015 the share dropped back down to 49 percent, which was the same as in 2011. At DCA, between 2011 and 2013 the same household income level share increased from 46 percent to 48 percent, and then decreased slightly to 47 percent in 2015. On average, air travelers at DCA had slightly higher household incomes than passengers at IAD or BWI.

A comparison between residents and non-residents shows that over half of area resident departing passengers have an annual household income over \$120,000 (see Table 17). Conversely, almost 56 percent 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.



Source: Washington-Baltimore Regional Air Passenger Survey 2015

⁵ In 2010 inflation adjusted dollars for the Washington-Baltimore-Northern Virginia DC-MD-VA-WV Combined Statistical Area. Source: 2006-2010 American Community Survey

⁶ *Ibid.*

Table 14: Annual Originating Air Passengers Resident Status

Resident Status		BWI			IAD			DCA			REGION		
		2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Resident	Number	3835	3695	2,531	3103	2118	1,851	3178	3051	2,440	10,116	8,864	6,823
	Percent	47%	47%	36%	52%	40%	44%	42%	39%	29%	47%	42%	35%
Non-Resident	Number	4321	4093	4,447	2849	3224	2,389	4339	4758	5,989	11,509	12,075	12,825
	Percent	53%	53%	64%	48%	60%	56%	58%	61%	71%	53%	58%	65%
TOTAL	Number	8,156	7,788	6,979	5,952	5,342	4,240	7,517	7,809	8,429	21,625	20,939	19,648
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals do not include non-respondents and resident unknown; Totals may not add due to rounding

Table 15: Annual Originating Air Passenger Age (000s)

Age Group		BWI			IAD			DCA			REGION		
		2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
18 or Younger	Number	90	151	119	83	125	79	99	144	194	272	420	393
	Percent	1%	2%	1%	1%	2%	1%	1%	2%	2%	1%	2%	2%
19 to 24 Years	Number	517	539	501	396	359	296	445	492	649	1,358	1,390	1,446
	Percent	7%	7%	6%	6%	6%	5%	6%	6%	7%	6%	6%	6%
25 to 34 Years	Number	1538	1447	1,483	1407	975	1,062	1559	1728	2,047	4,504	4,150	4,592
	Percent	19%	18%	18%	22%	18%	18%	21%	22%	21%	21%	19%	19%
35 to 49 Years	Number	2382	2073	2,022	2097	1609	1,708	2388	2300	2,723	6,867	5,982	6,453
	Percent	30%	26%	25%	32%	29%	29%	32%	29%	28%	31%	28%	27%
50 to 64 Years	Number	2524	2612	2,600	1924	1678	1,792	2317	2517	2,799	6,765	6,807	7,191
	Percent	32%	33%	32%	30%	30%	30%	31%	31%	29%	31%	32%	31%
65 or Older	Number	885	1127	1,292	594	805	979	618	849	1,232	2,097	2,781	3,503
	Percent	11%	14%	16%	9%	15%	17%	8%	11%	13%	10%	13%	15%
TOTAL	Number	7,936	7,949	8,016	6,501	5,551	5,918	7,426	8,030	9,644	21,863	21,530	23,578
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents		820	550	468	992	664	675	788	656	723	2,600	1,870	1,866
Total Originations		8,756	8,499	8,485	7,493	6,215	6,592	8,214	8,686	10,367	24,463	23,400	25,444

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add due to rounding

Table 16: Annual Originating Air Passenger Annual Household Income by Airport (000s)

Annual Household Income		BWI			IAD			DCA			REGION		
		2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Less than \$15,000	Number	234	188	182	196	188	167	207	229	241	637	605	590
	Percent	3%	3%	3%	4%	4%	4%	3%	4%	3%	3%	4%	3%
\$15,000 - \$24,999	Number	139	149	153	137	164	147	110	149	192	386	462	493
	Percent	2%	2%	3%	3%	4%	3%	2%	2%	3%	2%	3%	3%
\$25,000 - \$44,999	Number	429	477	456	330	251	282	336	308	424	1,095	1,036	1,162
	Percent	6%	8%	7%	6%	6%	7%	5%	5%	6%	6%	6%	6%
\$45,000 - \$79,000	Number	1,293	1,093	1,091	850	597	686	961	947	1,115	3,104	2,637	2,892
	Percent	19%	18%	18%	16%	14%	16%	15%	15%	15%	17%	16%	16%
\$80,000 - \$119,000	Number	1,564	1,445	1,382	1,184	889	824	1,334	1,388	1,564	4,082	3,722	3,770
	Percent	23%	23%	23%	22%	21%	19%	21%	22%	21%	22%	22%	21%
\$120,000 - \$159,000	Number	1,229	1,040	1,034	856	639	669	1,133	955	1,216	3,218	2,634	2,920
	Percent	18%	17%	17%	16%	15%	16%	18%	15%	16%	17%	16%	16%
\$160,000 - \$199,999	Number	681	629	623	628	516	437	790	692	826	2,099	1,837	1,887
	Percent	10%	10%	10%	11%	12%	10%	12%	11%	11%	11%	11%	10%
\$200,000 and up	Number	1,284	1,206	1,178	1,297	963	1,105	1,595	1,638	1,980	4,176	3,807	4,262
	Percent	19%	19%	19%	24%	23%	26%	25%	26%	26%	22%	23%	24%
TOTAL	Number	6,853	6,227	6,100	5,478	4,207	4,317	6,466	6,306	7,559	18,797	16,740	17,976
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents		1,895	2,278	2,384	2,026	2,008	2,276	1,746	2,378	2,808	5,667	6,664	7,468
Total Originations		8,748	8,505	8,485	7,504	6,215	6,592	8,212	8,684	10,367	24,464	23,404	25,444

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add due to rounding

Table 17: Annual Originating Air Passenger Household Income by Resident Status

Annual Household Income		Resident Status			Total
		Resident	Non-Resident	Unknown	
Less than \$15,000	Number	112	252	226	590
	Percent	2%	3%	8%	3%
\$15,000 - \$24,999	Number	78	260	154	493
	Percent	1%	3%	5%	3%
\$25,000 - \$44,999	Number	204	665	293	1,162
	Percent	4%	7%	10%	6%
\$45,000 - \$79,000	Number	712	1,658	523	2,892
	Percent	13%	17%	18%	16%
\$80,000 - \$119,000	Number	1,065	2,151	554	3,770
	Percent	20%	22%	19%	21%
\$120,000 - \$159,000	Number	939	1,621	360	2,920
	Percent	18%	17%	13%	16%
\$160,000 - \$199,999	Number	654	999	234	1,887
	Percent	12%	10%	8%	10%
\$200,000 and up	Number	1,519	2,208	535	4,262
	Percent	29%	22%	19%	24%
TOTAL	Number	5,284	9,813	2,879	17,976
	Percent	100%	100%	100%	100%
Non-Respondents		1,538	3,012	2,917	7,468
Total Originations		6,823	12,825	5,796	25,444

Source: 2015 Washington-Baltimore Regional Air Passenger Survey

Notes: Totals may not add due to rounding

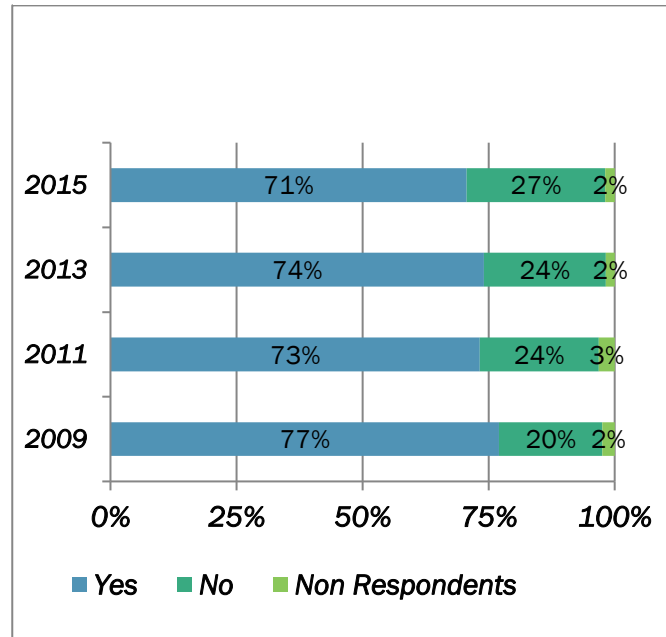
Boarding Pass and Bag Checking (Question A-4)

As in the 2009, 2011 and 2013 surveys, passengers were asked if and where 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 18 shows the distribution of originating air passenger activities for boarding pass and bag checking at airport terminals. Overall, 71 percent of departing passengers reported stopping for a boarding pass and/or bag check: 69 percent at DCA, 72 percent at IAD, and 72 percent at BWI. Conversely, 27 percent of departing passengers reported to have made no stop for either a boarding pass and/or bag check: 30 percent at DCA, 26 percent at BWI and 25 percent at IAD. When compared with the 2013 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 passes printed prior to arrival at the airport, or utilizing web-based applications where boarding passes can be accessed digitally. 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.

Figure 16: Passengers Who Stopped for Boarding Pass and/or Bag Check (Regional)



Source: Washington-Baltimore Regional Air Passenger Survey 2015

Among passengers in the region who reported making a stop for a boarding pass and/or bag check, 34 percent used the E-ticket Kiosk: 44 percent at DCA, 30 percent at IAD, and 19 percent at BWI. 25 percent made a stop at the Terminal Ticket Agent: 18 percent at DCA, 24 percent at IAD, and 26 percent at BWI. Passengers also used airport terminal airline curbside facilities for boarding pass and/or bag checking services. Overall, 15 percent of passengers reported using the curbside facilities for these services: 14 percent at DCA, 6 percent at IAD, and 23 percent at BWI.

Table 18: At-Airport Use of Boarding Pass and Bag Check Facilities

Use of Boarding Pass and Bag Check	BWI			IAD			DCA			REGION		
	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
Only Stopped at Curbside for Boarding Pass	220	236	257	140	118	92	163	169	234	523	523	583
	3%	3%	3%	2%	2%	1%	2%	2%	2%	2%	2%	2%
Only Stopped at Curbside for Bag Check	537	625	585	163	145	102	175	225	294	875	995	982
	6%	7%	7%	2%	2%	2%	2%	3%	3%	4%	4%	4%
Only Stopped at E-ticket Kiosk for Boarding Pass	1,506	1,184	970	1,022	690	677	1,979	1,768	1,880	4,507	3,642	3,527
	17%	14%	11%	14%	11%	10%	24%	20%	18%	18%	16%	14%
Only Stopped at E-ticket Kiosk for Bag Check	544	350	335	424	257	273	395	371	466	1,363	978	1,074
	6%	4%	4%	6%	4%	4%	5%	4%	4%	6%	4%	4%
Only Stopped at Ticket Agent for Boarding Pass	581	517	554	702	540	553	631	606	638	1,914	1,663	1,745
	7%	6%	7%	9%	9%	8%	8%	7%	6%	8%	7%	7%
Only Stopped at Ticket Agent for Bag Check	861	1,100	1,137	729	574	710	484	461	592	2,074	2,135	2,439
	10%	13%	13%	10%	9%	11%	6%	5%	6%	8%	9%	10%
Stopped at Curbside for Boarding Pass and Bag Check	479	530	569	197	284	96	304	413	472	980	1,227	1,137
	5%	6%	7%	3%	5%	1%	4%	5%	5%	4%	5%	4%
Stopped at E-ticket Kiosk for Boarding Pass and Bag Check	438	350	297	418	436	484	538	644	750	1,394	1,430	1,531
	5%	4%	3%	6%	7%	7%	7%	7%	7%	6%	6%	6%
Stopped at Ticket Agent for Boarding Pass and Bag Check	621	811	737	900	878	888	502	626	668	2,023	2,315	2,292
	7%	10%	9%	12%	14%	13%	6%	7%	6%	8%	10%	9%
Stopped at Curbside and E-ticket Kiosk for Boarding Pass and Bag Check	4	5	6	10	7	16	23	32	36	37	44	59
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stopped at Curbside and Ticket Agent for Boarding Pass and Bag Check	9	11	22	28	76	35	24	29	21	61	116	78
	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Stopped at E-ticket Kiosk and Ticket Agent for Boarding Pass and Bag Check	45	48	31	57	73	49	50	73	83	152	194	164
	1%	1%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Stopped at more than place for Boarding Pass and Bag Check	581	571	646	607	651	753	828	845	969	2,016	2,067	2,368
	7%	7%	8%	8%	10%	11%	10%	10%	9%	8%	9%	9%
Did Not stop for Boarding Pass or Bag Check	2,119	2,029	2,215	1,705	1,305	4	1,940	2,322	18	5,764	5,656	2,237
	24%	24%	26%	23%	21%	0%	24%	27%	0%	24%	24%	9%
Non-Respondents	210	129	121	387	179	1,860	181	100	3,247	778	408	5,228
	2%	2%	1%	5%	3%	28%	2%	1%	31%	3%	2%	21%
Total	8,755	8,496	8,485	7,489	6,213	6,592	8,217	8,684	10,367	24,461	23,393	25,444
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add due to rounding

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

Passengers at Airport		Domestic			International			Total		
Boarding Pass and Bag Check		2011	2013	2015	2011	2013	2015	2011	2013	2015
Only Stopped at Curbside for Boarding Pass	Number	429	448	518	94	75	65	523	523	583
	Percent	2%	2%	2%	4%	3%	2%	2%	2%	2%
Only Stopped at Curbside for Bag Check	Number	835	942	910	0	53	72	835	995	982
	Percent	4%	5%	4%	0%	2%	2%	3%	4%	4%
Only Stopped at E-ticket Kiosk for Boarding Pass	Number	4,337	3,515	3,383	170	127	144	4,507	3,642	3,527
	Percent	20%	17%	15%	7%	4%	5%	18%	16%	14%
Only Stopped at E-ticket Kiosk for Bag Check	Number	1,256	927	1,002	107	51	72	1,363	978	1,074
	Percent	6%	5%	4%	4%	2%	2%	6%	4%	4%
Only Stopped at Ticket Agent for Boarding Pass	Number	1,601	1,245	1,330	313	418	415	1,914	1,663	1,745
	Percent	7%	6%	6%	13%	15%	14%	8%	7%	7%
Only Stopped at Ticket Agent for Bag Check	Number	1,787	1,815	2,099	287	320	340	2,074	2,135	2,439
	Percent	8%	9%	9%	12%	11%	11%	8%	9%	10%
Stopped at more than place for Boarding Pass and Bag Check	Number	5,695	6,061	6,303	1,003	1,332	1,326	6,698	7,393	7,629
	Percent	26%	30%	28%	41%	47%	44%	27%	32%	30%
Did Not Stop for Boarding Pass or Bag Check	Number	5,418	5,302	2,210	346	354	28	5,764	5,656	2,237
	Percent	25%	26%	10%	14%	12%	1%	24%	24%	9%
Non-Respondents	Number	622	288	4,703	156	120	525	778	408	5,228
	Percent	3%	1%	21%	6%	4%	18%	3%	2%	21%
Total	Number	21,980	20,543	22,456	2,476	2,850	2,987	24,456	23,393	25,444
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Notes: Totals may not add due to rounding

APPENDIX A: SURVEY METHODOLOGY

The following is a summary of the methodology used to conduct the Washington-Baltimore Regional Air Passenger Survey 2015.

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 conducted in 1981/82, 1987, 1992, 1998, 2000, 2002, 2005, 2007, 2009, 2011 and 2013, so that comparative analysis could be performed.

Changes in Survey Design Since 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 surveys since 2011, 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, for the 2015 sample selection there were 301 strata for domestic and 48 for international destinations, respectively, for all three airports combined. All flights selected for surveying were scheduled during a two-week period beginning Wednesday, October 7th and extending through Tuesday October 20th, 2015. Flights that were missed and those that required resurveying due to insufficient response rates were surveyed again during the period ending November 3rd, 2015.⁷

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 628 domestic flights were drawn. The domestic flight distribution consisted of 202 at BWI, 271 at DCA, and 155 at IAD. An additional 55 international flights were drawn and distributed among the airports as follows: 8 at BWI, 8 at DCA⁸, and 39 at IAD.

⁷ Previous surveys allowed for a two-week resurvey period; however, the resurvey period for this survey was truncated for the Thanksgiving holiday.

⁸ DCA provides service to Canadian and Caribbean destinations.

The sample was reviewed by MWAA and MAA with corrections or changes being made as necessary, including any new flights that were to be added during the survey period. These additions were then used to select the final flight sample. The flights were listed by airport, date, and departure time, to enable manpower requirements to be calculated and staff time to be scheduled.

The survey only involved departing passengers. Arriving passengers were not surveyed, primarily due to limited resources. Additionally, it would have been difficult to maintain arriving passengers' attention as they proceeded to their connecting flights, baggage claim, or 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 7th and extending through Tuesday October 20th, 2015. Flights that were missed and those that required resurveying due to insufficient response rates were surveyed again during the period ending November 3rd, 2015. 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 selected flight, based on the size of the aircraft and how many passengers were expected. Self-administered questionnaires were distributed to the passengers in the gate area as they checked-in and waited to board. The questionnaires were collected as the passengers completed them, or when the flight was called for boarding. Late-arriving passengers were given a questionnaire with a self-addressed postage paid mail-back envelope. These passengers were asked to complete the questionnaire en route and drop it in the mail upon arrival at their destination. In the 2015 survey, respondents were also given the option of responding through an online questionnaire. A copy of the survey questionnaire is included in this report as Appendix B. A copy of the Survey Procedures for the 2015 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 2015, 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 finally, 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, parameters 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 QUESTIONNAIRE⁹

⁹ 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.

Figure 17: 2015 Air Passenger Survey

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 government (Including military)
- ₀₂ Business related to state or local government
- ₀₃ Business that is not related to government
- ₀₄ Vacation
- ₀₅ Personal or family affairs
- ₀₆ Student or school related
- ₀₇ 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
- ₀₅ 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 Transportation Network Company (ex. Uber, Lyft)
- ₀₅ Airport van/limo
- ₀₆ Hotel/Motel courtesy bus
- ₀₇ Other (Specify: _____)
- ₀₈ Metrorail
- ₀₉ Amtrak/MARC (BWI)
- ₁₀ Light Rail (BWI)
- ₁₁ Metrobus/MTA Bus
- ₁₂ Airport Bus

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: _____)

Source: Washington-Baltimore Regional Air Passenger Survey 2015

Survey Continued

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)
- ₀₂ Washington Dulles International
₀₃ Ronald Reagan Washington National
₀₄ Other airport (Specify: _____)
₀₅ 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

Thanks for Your Help!



**2015
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.



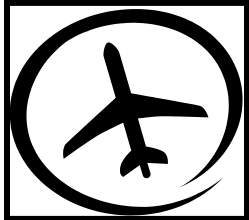
ID number below is required to access online survey.

This survey is being conducted by:
 Metropolitan Washington Council of Governments
 Metropolitan Washington Airports Authority
 Maryland Aviation Administration
 in cooperation with the airlines
 serving the region's airports.

Source: Washington-Baltimore Regional Air Passenger Survey 2015

APPENDIX C: SURVEY PROCEDURES MANUAL

2015 Washington-Baltimore Regional Air Passenger Survey



SURVEY PROCEDURES MANUAL



OCTOBER 2015

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. Casual attire is not acceptable.

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 encounters fewer problems and produces even better results than the surveys done in the past.

BWI

B100915US1933

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

(Valid for Flights between October 4, 2013, and October 31, 2015)

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.”

FRI 10/9/2015

**2015 WASHINGTON / BALTIMORE REGIONAL AIR
PASSENGER SURVEY FLIGHT RECORD**

SAMPLE: **B100915US1933**

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

DAY: **FRI** CARRIER: **US Airways**

DATE: **10/9/2015** 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 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); and,
 - 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 prior to the flight's scheduled departure time (for international flights, the surveyors should arrive up to an hour and a half early).
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?”

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.
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 too

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. If you miss some, it will be acceptable.

ABOVE ALL ELSE, DO NOT INTERFERE WITH THE AIRLINES' 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; and,

- 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.

