# WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY - 2019

# **GENERAL FINDINGS**

**April 2020** 









#### 2019 WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY - GENERAL FINDINGS

Prepared by the National Capital Region Transportation Planning Board in cooperation with the Federal Aviation Administration
April 2020

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## **TABLE OF CONTENTS**

EXECUTIVE SUMMARY	1
Airport Enplanement Share (Table 2 & Figures 3 - 5) Airport Choice (Table 3) Airport Preference (Table 4)	3 3 4
Trip Purpose (Table 5)	4
Trip Origin (Table 6)	4
Mode of Access (Tables 7 - 15)	4
Air Traveler Characteristics (Tables 16 - 19) Air Traveler Spending (Tables 20 - 25)	5 5
I. INTRODUCTION	6
II. FINDINGS – TRANSPORTATION	9
Airport Enplanement Share (Survey Question A-1)	9
Airport Choice (Survey Question C-1)	12
Airport Preference (Survey Question C-2)	14
Trip Purpose (Survey Question A-3)	16
Trip Origin (Survey Question B-1)	18
Mode of Access (Survey Question B-6)	18
III. FINDINGS - AIR TRAVELER CHARACTERISTICS	30
Resident Status (Survey Questions D-1 & D-2)	30
Age (Survey Question D-5)	30
Income (Survey Question D-6)	31
IV. FINDINGS - AIR TRAVELER SPENDING	34
Ground Access Spending (Survey Question B-8)	34
Airport Concessions Spending (Survey Question D-7)	38
APPENDIX A: SURVEY METHODOLOGY	41
Survey Design	42
Changes in Survey Design Since 2011	42
Sample Selection	42
Conducting the Survey	43
Factoring the Survey Data	43
Level of Confidence	44
APPENDIX B: SURVEY QUESTIONNAIRE	45
APPENDIX C: SURVEY PROCEDURES MANUAL	52

## **LIST OF TABLES**

Table 1: Data Collection Summary	7
Table 2: Annual Air Passenger Trip Originations (000s)	10
Table 3: Primary Reason for Airport Choice (000s)	13
Table 4: Preferred Airport by Resident Status (000s)	15
Table 5: Trip Purpose (000s)	17
Table 6: Ground Trip Origin by Airport (000s)	21
Table 7: Mode of Access by Airport (000s)	22
Table 8: Drop-Off at Airport by Mode of Access (000s)	23
Table 9: Mode of Access by Resident Status (000s)	24
Table 10: Mode of Access by Trip Purpose (000s)	25
Table 11: Mode of Access by Trip Origination (000s)	26
Table 12: Mode of Access by Age (000s)	27
Table 13: Parking by Airport (000s)	28
Table 14: Carpool to Airport	29
Table 15: Drop-off by Airport (000s)	29
Table 16: Resident Status by Airport (000s)	30
Table 17: Age by Airport (000s)	32
Table 18: Household Income by Airport (000s)	33
Table 19: Household Income by Resident Status (000s)	33
Table 20: Ground Access Cost by Mode (000s)	35
Table 21: Ground Access Cost by Airport (000s)	36
Table 22: Ground Access Cost by Trip Purpose (000s)	37
Table 23: Airport Spending by Household Income (000s)	39
Table 24: Airport Spending by Time Spent at Airport (000s)	40
Table 25: Airport Spending by Airport Arrival (000s)	40

## **LIST OF FIGURES**

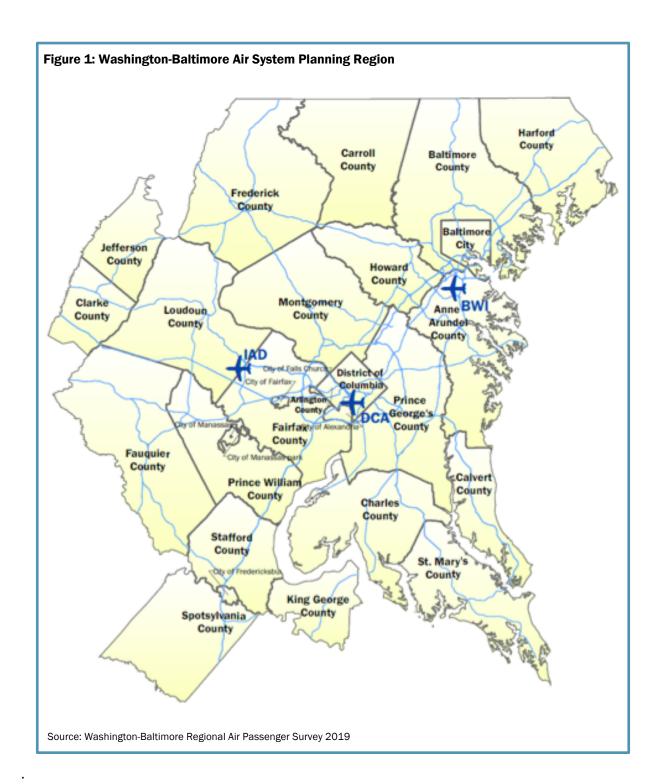
Figure 1: Washington-Baltimore Air System Planning Region	2
Figure 2: Washington-Baltimore Air System Planning Region	8
Figure 3: Airport Share of Annual Local Originating Passengers	11
Figure 4: Airport Share of Annual Connecting Passengers	11
Figure 5: Airport Share of Total Enplaned Passengers	11
Figure 6: Local Originating Air Passenger Airport Choice	12
Figure 7: Lower Airfares as Primary Factor in Airport Choice	12
Figure 8: Airport Preference Ranking (1-3)	14
Figure 9: Travel from Preferred Airport (Locally Originating Passengers)	15
Figure 10: Local Passenger Resident Status	15
Figure 11: Trip Purpose by Airport	16
Figure 12: Trip Origin	18
Figure 13: Mode of Access	18
Figure 14: Departing Passengers by Mode of Access	19
Figure 15: Mode of Access by Resident Status	20
Figure 16: Age Distribution by Airport	30
Figure 17: Income Distribution by Airport	31
Figure 18: Ground Access Spending	34
Figure 19: Ground Access Cost by Airport	36
Figure 20: Airport Spending	38
Figure 21: Airport Spending by Arrival Type	38
Figure 22: 2019 Air Passenger Survey Instrument: BWI, DCA, IAD	46

## **EXECUTIVE SUMMARY**

In October 2019, the Metropolitan Washington Council of Governments (COG) conducted a regional air passenger survey (APS) at the three major commercial airports in the Washington-Baltimore Region: Baltimore/Washington International Thurgood Marshall Airport (BWI), Ronald Reagan Washington National Airport (DCA), and Washington Dulles International Airport (IAD). 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). Field staff collected completed surveys from 23,858 out of a total of 90,964 enplaning passengers on 673 randomly selected flights (589 domestic and 84 international), an overall response rate of 28.6 percent. The survey questionnaires asked passengers to provide information about their upcoming flight, their trip to the airport, their choice of airport, their spending behavior and their demographic characteristics. The 2019 APS was the fourteenth 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 in the region and provide information necessary to account for airport ground access in the region's travel demand model.

The Washington/Baltimore air systems planning region shown in Figure 1 stretches from Harford County, Maryland on the Susquehanna River to the north, to Spotsylvania County Virginia to the south, and from the Chesapeake Bay in the east to the foothills of the Appalachian Mountains to the west. This air systems planning region consists of 25 jurisdictions, 161 Aviation Analysis Zones, and 2,604 Transportation Analysis Zones.

The General Findings Report of the 2019 APS summarizes findings regarding patterns of airport enplanement share, airport choice, airport preference, air trip purpose, ground trip origin, airport mode of access, spending behavior, air traveler characteristics, and at-airport use of facilities - an overview of which is provided below. 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. This report will be followed by a more detailed report containing geography-specific analysis and conclusions: the Geographic Findings Report of the 2019 Washington-Baltimore Regional Air Passenger Survey.



## Airport Enplanement Share (Table 2 & Figures 3 - 5)

In 2019, 37.8 million air passengers boarded a flight in the Washington-Baltimore Region, an increase of four percent from 2017 (36.4 million). This total is broken down by the percentage of passengers at each airport:

- 36 percent of passengers at BWI (the same as 2017)
- 31 percent of passengers at DCA (down from 33 percent in 2017)
- 33 percent of passengers at IAD (up from 31 percent in 2017)

Of those 37.8 million passengers, 30 million originated locally from the Washington-Baltimore Region, an increase of 12 percent from 2017 (26.7 million), while 7.8 million made a connection through the region; a decrease of 20 percent from 2017 (9.8 million). These totals are broken down by airport below:

#### **Locally Originating**

- 77 percent of passengers at BWI (up from 67 percent in 2017)
- 91 percent of passengers at DCA (up from 88 percent in 2017)
- 71 percent of passengers at IAD (up from 64 percent in 2017)

#### Connecting

- 23 percent of passengers at BWI (down from 33 percent in 2017)
- 9 percent of passengers at DCA (down from 12 percent in 2017)
- 29 percent of passengers at IAD (down from 36 percent in 2017)

## Airport Choice (Table 3)

Survey respondents were asked to rank the three most important reasons (out of a list of 10) for choosing the airport they were departing from. Closest airport (58 percent), lowest airfare (11 percent), and most convenient flight time (10 percent) were the highest ranked.

#### **Closest Airport**

- 61 percent of BWI travelers (up from 59 percent in 2017)
- 69 percent of DCA travelers (down from 70 percent in 2017)
- 44 percent of IAD travelers (down from 47 percent in 2017)

#### **Lowest Airfare**

- 19 percent of BWI travelers (unchanged from 2017)
- 7 percent of DCA travelers (down from 8 percent in 2017)
- 8 percent of IAD travelers (down from 16 percent in 2017)

#### **Convenient Flight Time**

- 7 percent of BWI travelers (unchanged from 2017)
- 8 percent of DCA travelers (unchanged from 2017)
- 17 percent of IAD travelers (up from 15 percent in 2017)

## **Airport Preference (Table 4)**

- In 2019 overall airport preference was distributed as follows: BWI (34 percent), DCA (44 percent), and IAD (22 percent). Airport preference is disaggregated below by resident status.
  - Area resident: BWI (39 percent), DCA (37 percent), and IAD (24 percent).
  - Non-resident: BWI (30 percent), DCA (50 percent), and IAD (20 percent).

## **Trip Purpose** (Table 5)

The dominant travel purpose varied at each airport: BWI (personal and vacation), DCA (business – both government and commercial), and IAD (school-related). The percentage of locally originating air passengers reporting that they were traveling for non-business-related reasons increased from 62 percent in 2017 to 65 percent in 2019, while business-related trips decreased from 38 percent to 35 percent.

## **Trip Origin** (Table 6)

Between 2017 and 2019, the percentage of air passengers beginning their trips from a
private residence decreased from 60 percent to 58 percent of total trip originations. The
percentage of air passengers beginning their trip to the airport from a hotel or motel saw a
two percent increase - from 28 percent to 30 percent. Short-term rental (i.e.: Airbnb, VRBO)
was added as an option in 2019, and it accounted for 2 percent of the overall share.

## Mode of Access (Tables 7 - 15)

- The region's most common mode of access to the airports continued to be the automobile (private, rental, taxicab, and transportation network companies (TNCs) such as Uber/Lyft), accounting for 84 percent of all local originations the same as in 2017. However, the distribution of the types of automobile modes differed significantly between 2017 and 2019 with TNCs experiencing the largest shift from 14 percent to 24 percent of overall mode share. Passengers between 19 and 34 years of age were twice as likely to travel by TNC as someone over 65, while those over 65 were three times as likely to use a taxi. Private car use was distributed evenly across age groups.
- Regional transit use remained constant at 7 percent. While overall use of rail and bus remained the same or declined, Metrobus increased from two to three percent at IAD.
- Of the 84 percent of trips accessed by automobile, the following numbers provide the 2019 percent breakdown for each automobile trip type in the region, followed by the 2017 percentage breakdown in parentheses: private car 41 percent (down from 47 percent), rental car 10 percent (down from 12 percent), taxicab nine percent (down from 11 percent), and TNC 24 percent (up from 14 percent).
- BWI Automobile access to BWI decreased from 89 percent to 86 percent. The following numbers provide the 2019 percent breakdown for each automobile trip type to BWI, followed

by the 2017 percentage breakdown in parentheses: private car – 57 percent (down from 63 percent), rental car – 13 percent (down from 14 percent), taxicab – three percent (down from four percent), and TNC – 13 percent (up from eight percent).

- DCA Metrorail usage by passengers traveling to DCA decreased to 12 percent (down from 13 percent in 2017). Overall access by automobile to DCA increased to 79 percent (up from 77 percent in 2017), with the following auto mode shares making up this total: private car 23 percent (down from 29 percent), rental car eight percent (down from nine percent), taxicab 12 percent (down from 18 percent), and TNC 36 percent (up from 21 percent).
- IAD Automobile access to IAD remained the same in 2019 at 89 percent, with the following auto mode shares making up this total: private car 45 percent (down from 52 percent), rental car 10 percent (down from 13 percent), taxicab 12 percent (up from 11 percent), and TNC 22 percent (up from 13 percent).

## Air Traveler Characteristics (Tables 16 - 19)

- In 2019, area residents accounted for 41 percent of the total departing air passengers. Non-residents accounted for the remaining 59 percent of departing air passengers.
- The share of local originating passengers over the age of 65 grew from 14 to 16 percent, while passengers age 50 to 64 decreased from 30 to 28 percent and those age 35 to 49 decreased from 28 to 27 percent. Passengers age 19 to 24 and 18 or younger remained the same at seven percent and two percent, respectively.
- Household incomes for air travelers in the Washington-Baltimore region continue to be higher than the regional median. Only 35 percent of the region's passengers had household incomes less than \$100,000 and 26 percent had household incomes over \$200,000.

## Air Traveler Spending (Tables 20 - 25)

- Two new questions related to air traveler spending were added to the 2019 survey: Mode of Access Spending (Question B8) and Airport Concessions Spending (Question D7)
- Survey participants were given the option of seven ground access travel cost fields ranging from \$0 to over \$100. Of those ranges, TNCs were the dominant mode for the \$10-\$99 ranges. Of the 35 percent of air passengers who spent \$0 on their mode of access, 77 percent traveled by private car. Approximately 40 percent of non-work trips spent nothing on travel, versus 25 percent of work-related trips. Overall, work-related trips also tended to spend more on travel than those traveling on non-work trips.
- Most air passengers reported spending between \$1-\$24 on airport concessions 84
  percent of connecting passengers and 63 percent of local originating air passengers while
  23 percent of overall air passengers do not spend money at the airport. The highest
  household income bracket spent most in each range while the lowest income bracket spent
  least in each range. A greater proportion of local originating passengers spent larger sums
  (\$25-\$100+).

## I. INTRODUCTION

This report summarizes the findings from the 2019 Washington-Baltimore Regional Air Passenger Survey (APS) conducted concurrently at Baltimore/Washington International Thurgood Marshall Airport (BWI), Ronald Reagan Washington National Airport (DCA) and Washington Dulles International Airport (IAD). 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 Figures 1 and 2.

The 2019 APS was the fourteenth 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. The survey data will also be useful in the following areas:

- Market analyses regarding passenger air travel and ground access behavior, geographic information, and demographic data for developing airport, airline and support services
- Planning for airport ground access, including 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 2019 air passenger survey took place during the two-week period from Wednesday, October 16<sup>th</sup> to Tuesday, October 29<sup>th</sup>. Flights requiring resurveying occurred between October 30<sup>th</sup> and November 12<sup>th</sup>. Field staff collected completed surveys from 23,858 out of a total of 90,964 enplaning passengers on 673 randomly selected flights (589 domestic and 84 international), an overall response rate of 28.6 percent. All 23,858 completed survey questionnaires have been processed and tabulated.<sup>1</sup>

The survey sample included flights from 32 airlines, of which 23 were international and 9 were domestic carriers. The sample flights were grouped into 367 clusters based on their destination. The survey instrument contained questions regarding the respondent's airline trip, the trip to the airport, the choice of airport, spending behavior, and several demographic questions, such as household size, household income, and respondent age. Appendix B contains the 2019 survey questionnaire.

<sup>1</sup> 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.

There is slight variation among the questionnaires administered at each of the airports due to facility-specific considerations at each airport.

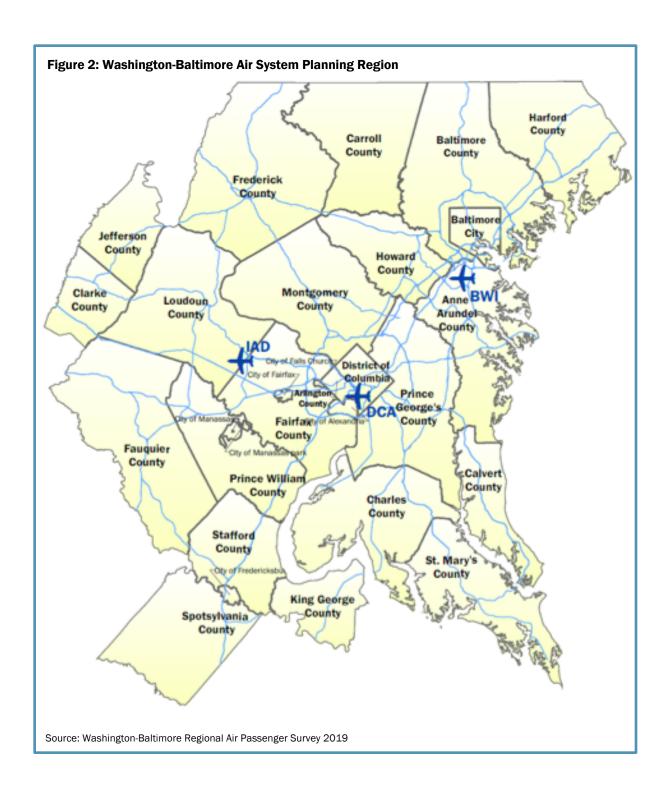
**Table 1: Data Collection Summary** 

Airport	Flight Surveyed	Revenue Passengers	Completed Surveys	Response Rate		
BWI	236	32,942	9,574	29.1%		
DCA	231	23,497	6,773	28.8%		
IAD	190	26,985	7,511	27.8%		
TOTAL	657	83,424	23,858	28.6%		

Source: Washington-Baltimore Regional Air Passenger Survey 2019

The following additions were made to the survey instrument in 2019:

- Question B1 New Origin Option: Short-term Rental (Airbnb, VRBO)
- Question B6 New Mode Options: Biking and Walking
- Question B8 Mode of Access Spending
- Question B9 Carpooling
- Question C2 Airport Preference Ranking
- Question D7 Airport Concession Spending



## II. FINDINGS - TRANSPORTATION

Survey results are summarized by airport and 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 arrive at the airport by ground transportation. Passengers arriving to the surveyed flight by a connecting flight (in contrast to ground access transportation) are only included in discussions of total enplanements in the airport use section of this report, where enplanements are defined as the number of passengers boarding.

Although the data for the 2019 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 2019. 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 2019 survey results are compared with results from the 2015 and the 2017 surveys.

## Airport Enplanement Share (Survey Question A-1)2

In 2019, 37.8 million air passengers boarded a flight in the Washington-Baltimore Region, an increase of four percent from 2017 (36.4 million). Of those 37.8 million passengers, 30 million passengers originated locally from the Washington-Baltimore Region, an increase of 13 percent (from 26.7 million) from 2017, while 7.8 million passengers made a connection through the region – a decrease of 21 percent (from 9.8 million).

The regional total of enplanements, broken out by the percentage of passengers at each airport, are: 36 percent of passengers at BWI (no change from 2017), 31 percent of passengers at DCA (down from 33 percent in 2017), and 33 percent of passengers at IAD (up from 31 percent in 2017).

Between 2017 and 2019, the number and percent share of originating air passengers increased at all three airports, though DCA did experience a slight decline in total enplanements. The overall share of local originations increased from 73 percent to 80 percent in 2019. From a regional perspective, BWI and IAD accounted for near equal shares of the increase in local originating passengers – 44 and 43 percent, respectively. Broken out by airport, the following shifts took place: BWI increased from 67 to 77 percent, DCA increases from 88 to 91 percent, and IAD increased from 64 to 71 percent. To review all shifts in these percentages, regionally and by airport, from 2015 through 2019, see Table 2.

Figures 3, 4, and 5 illustrate the airport share of local originating passengers, connecting passengers, and total enplaning passengers from the surveys conducted in 2015, 2017, and 2019. In 2019 the greatest share of the region's local originating passengers departed from DCA, (36 percent) - BWI and IAD accounted for 35 percent and 29 percent, respectively (see Figure 4). IAD had the greatest share of the region's connecting passengers at 46 percent – a significant increase from 41% in 2017, while DCA had the least at 13 percent. BWI's share of connecting passengers

<sup>&</sup>lt;sup>2</sup> Where applicable, references are given to the survey question for which data are compiled for the analysis.

decreased from 44 to 40 percent in 2019 (see Figure 5). BWI has the greatest share of the region's total enplaning passengers (36 percent), while DCA and IAD follow close behind with 31 and 33 percent, respectively (see Figure 6). Note: in Table 2 and all subsequent tables, percentages represent a percent of the total at the bottom of the table in each respective column.

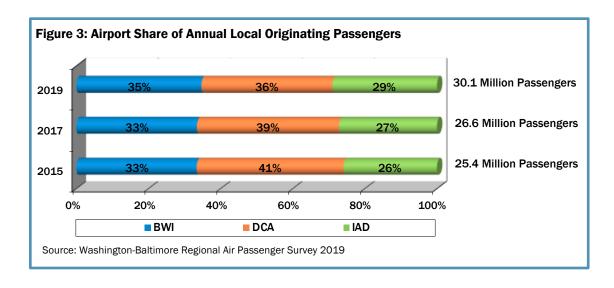
**Table 2: Annual Air Passenger Trip Originations (000s)** 

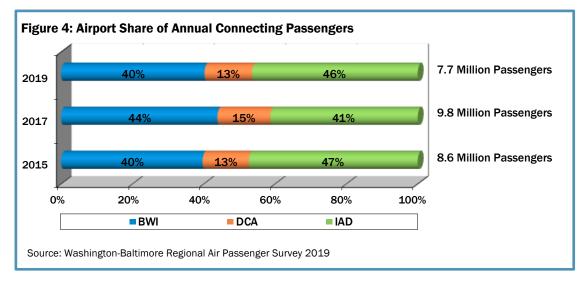
Enplanement Type		BWI				DCA			IAD		REGION			
		2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019	
Local originations	Number	8,485	8,910	10,426	10,367	10,499	10,918	6,592	7,245	8,726	25,444	26,654	30,070	
Local originations	Percent	71%	67%	77%	90%	88%	91%	62%	64%	71%	75%	73%	80%	
Connecting	Number	3,449	4,305	3,116	1,127	1,458	1,031	4,120	4,062	3,603	8,696	9,825	7,750	
Connecting	Percent	29%	33%	23%	10%	12%	9%	38%	36%	29%	25%	27%	20%	
<b>Total Enplanement</b>	Number	11,934	13,215	13,542	11,494	11,957	11,949	10,712	11,307	12,329	34,140	36,479	37,820	
Percent of Region	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

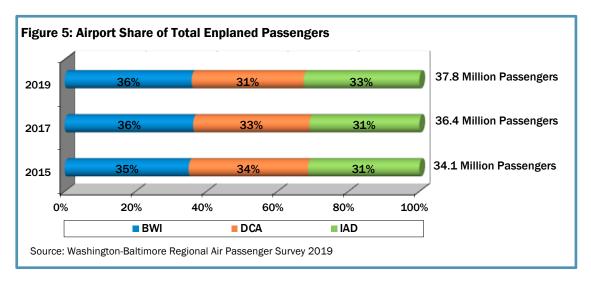
Notes:

<sup>\*</sup> Totals may not add due to rounding

<sup>\* &</sup>quot;Total Enplanements" includes passengers on domestic scheduled, commuter and international flights Source: Washington-Baltimore Regional Air Passenger Survey 2019



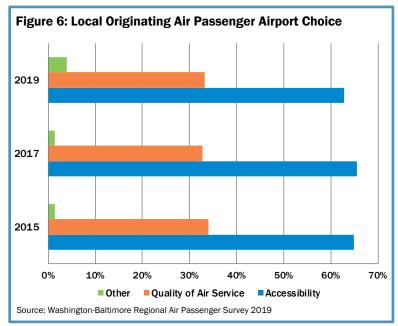




## **Airport Choice (Survey Question C-1)**

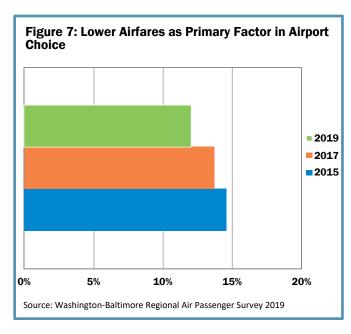
Survey respondents ranked the three most important reasons (out of a list of 10) for choosing their departing airport. Table 3 summarizes the airport choice responses, which are categorized either as "Accessibility" (closest airport, better public transportation, better road access and parking facilities) or "Quality of Air Service" (convenient flight times, less expensive airfares, nonstop or direct flights, frequent flier restrictions).

As demonstrated in Figure 6, the percentage of locally originating passengers citing accessibility



conditions as the most important factor decreased by two percent (65 to 63 percent), while air service increased by one percent (32 to 33 percent) and "Other" increased from one to four percent.

Closest airport decreased by two percent, from 60 to 58 percent, while public transportation increased from two to three percent and road access decreased from three percent to two percent; a trend reversal from 2017. Passengers citing less expensive airfare as a primary factor dropped from 14 to 11 percent, primarily due to a major shift at IAD from 16 to 8 percent. More convenient flight times and only airport serving market each increased by one percent.



Closest airport and lowest airfare, 58 percent and 11 percent, respectively, are the top two reasons reported for influencing airport choice, with more convenient flight times trailing close behind at 10 percent. For those citing closest airport, this number increased at BWI (59 to 61 percent), while decreasing at DCA (70 to 69 percent) and IAD (47 to 44 percent). For those citing lowest airfare, BWI remained unchanged at 19 percent, while decreasing at DCA (eight to seven percent) and IAD (16 to eight percent). More convenient flight times remained unchanged at BWI and DCA seven and eight percent, respectively - and increased from 15 to 17 percent at IAD.

**Table 3: Primary Reason for Airport Choice (000s)** 

Primary reason for		BWI			DCA			IAD		REGION		
choosing airport used	2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019
<u>Accessibility</u>												
Closest airport	60%	59%	61%	65%	70%	69%	47%	47%	44%	60%	60%	58%
Better public transportation	1%	1%	1%	6%	4%	4%	1%	0%	2%	3%	2%	3%
Better access roads & parking	5%	5%	2%	2%	1%	1%	3%	3%	3%	2%	3%	2%
SUBTOTAL - Accessibility	65%	65%	64%	73%	76%	74%	50%	<b>51</b> %	49%	65%	65%	63%
Quality of Air Service												
More convenient flight times	6%	7%	7%	7%	8%	8%	14%	15%	17%	9%	9%	10%
Only airport with non-stop flight	4%	4%	3%	4%	4%	4%	11%	11%	11%	6%	6%	6%
Less expensive airfare	19%	19%	19%	11%	8%	7%	15%	16%	8%	15%	14%	11%
Frequent flyer airline benefits	2%	2%	1%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Only airport serving market	1%	1%	2%	1%	1%	2%	4%	4%	7%	2%	2%	3%
SUBTOTAL - Air Service	33%	34%	32%	25%	23%	22%	47%	47%	45%	33%	32%	33%
OTHER	2%	1%	3%	3%	2%	4%	2%	2%	5%	1%	1%	4%
TOTAL	100%	100%	100%	101%	100%	100%	99%	100%	99%	99%	99%	99%

<sup>\*</sup> Totals may not add due to rounding

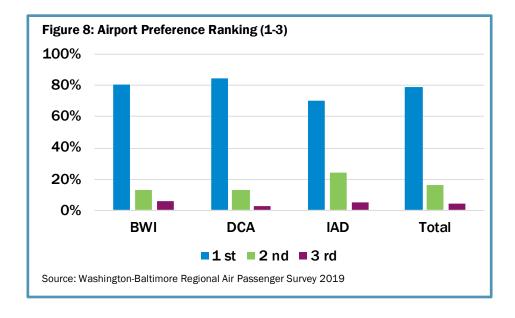
<sup>\* &</sup>quot;Total Enplanements" include passengers on scheduled domestic, commuter and international flights

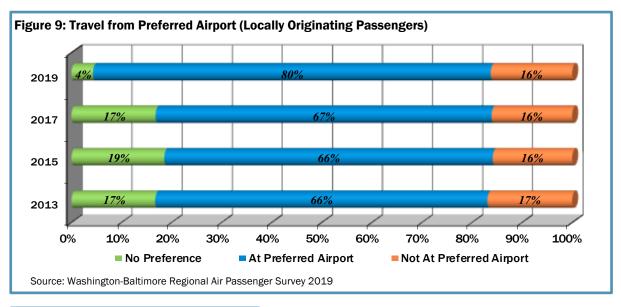
## **Airport Preference (Survey Question C-2)**

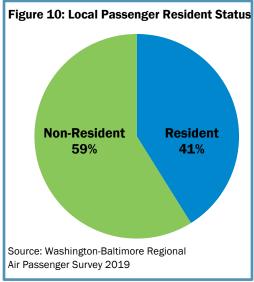
Passengers also cite their preferred airport, as travel restrictions and service availability sometimes prevent passengers from using their top choice. There was a change made on this question in 2019. Whereas previous surveys asked participants to indicate their preferred airport, in 2019 participants were asked to rank all three of the region's airports in order of preference. As such, Figure 8 shows the results of this ranking. Figure 9 shows the percentage breakdown for airport preference by locally originating passengers (no preference, at preferred airport, not at preferred airport). Table 4 shows this breakdown by the airport that surveyed passengers departed from, paired with their stated airport preference, broken down by resident status.

As Figure 9 illustrates, between 2017 and 2019 the percentage of passengers departing from their preferred airport increased significantly from 67 to 80 percent, though the significant increase is likely due in part to the new question phrasing. Those traveling with no preference declined from 17 to four percent, though again, this significant shift is due in part to the changes made to the survey. The 2019 survey did not permit participants to indicate "no preference," so the four percent of those listing no preference were those who ranked all three airports equally (i.e.: "1,1,1") while those reporting not traveling at their preferred airport remained the same at 16 percent. Figure 9 illustrates these percentages for the four most recent survey years.

In 2019, 45 percent of local originating air passengers preferred to use DCA, 34 percent preferred BWI, and 22 percent preferred IAD (see Table 4). While BWI did not experience a change in preference share, preference for traveling from DCA showed a three percent decrease, while IAD experienced a four percent increase.







The difference in airport preference between residents and non-residents is summarized in Table 4. In 2019, local originating passengers visiting the region (non-residents) accounted for 59 percent of local originating passengers. Of these visitors, 50 percent selected DCA as their preferred airport, while 37 percent of resident air passengers prefer DCA. Preference rates for non-residents were 30 percent and 20 percent for BWI and IAD, respectively, compared to 39 percent and 24 percent for residents.

Table 4: Preferred Airport by Resident Status (000s)

Preferred Airport	ļ	Resident		No	n-Reside	nt		Total	
Preferred Airport	2015	2017	2019	2015	2017	2019	2015	2017	2019
BWI	36%	35%	39%	33%	32%	30%	34%	34%	34%
DCA	41%	44%	37%	51%	52%	50%	47%	49%	44%
IAD	23%	21%	24%	16%	16%	20%	19%	18%	22%
TOTAL	100%	100%	100%	100%	100%	100%	100%	101%	100%

<sup>\*</sup> Totals do not include non-respondents, resident unknown and no preference Source: Washington-Baltimore Regional Air Passenger Survey 2019

## **Trip Purpose (Survey Question A-3)**

As shown in Table 5, in 2019 the percentage of locally originating air passengers reporting traveling for business reasons decreased from 38 to 35 percent, while the share of non-business-related travel increased from 62 to 65 percent. Commercial business and business related to the federal government decreased from 23 to 21 and 13 to 12 percent, respectively, while local government business remained at two percent. Vacation travelers increased to 28 percent (from 24 percent, 2017) and school-related travel increased slightly from six to seven percent. Personal or family-related travel decreased slightly from 30 to 29 percent.

Figure 11 shows air travel by trip purpose at each of the three airports in 2019. This figure shows that BWI has the greatest share of personal and vacation air travel, DCA has the greatest share of business travel, and IAD has the greatest share of school-related travel.

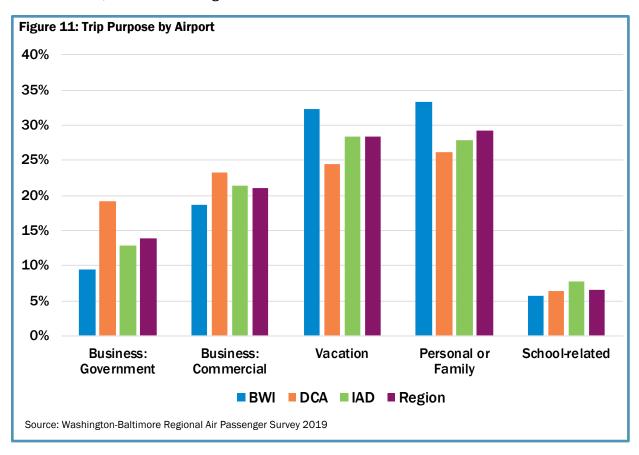


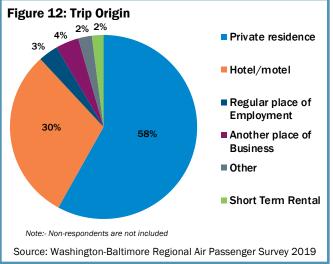
Table 5: Trip Purpose (000s)

Trin Purnoso			BWI			DCA			IAD		REGION		
Trip Purpose		2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019
Business Related													
Business related to federal	Number	736	775	699	1,661	1,779	1,480	761	901	858	3,158	3,455	3,037
government (including military) Percent		9%	9%	8%	16%	17%	17%	12%	13%	11%	13%	13%	12%
Business related to state	Number	144	145	146	212	220	209	89	100	161	445	465	516
and local gov.	Percent	2%	2%	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Commercial Business	Number	1,938	1,906	1,654	2,305	2,574	2,045	1,339	1,600	1,699	5,582	6,080	5,398
	Percent	23%	22%	19%	22%	25%	23%	21%	23%	21%	22%	23%	21%
CUDTOTAL Pusings	Number	2,818	2,826	2,499	4,178	4,573	3,734	2,189	2,601	2,718	9,185	10,000	8,951
SUBTOTAL – Business	Percent	33%	32%	28%	41%	44%	43%	34%	37%	34%	37%	38%	35%
Non-Business Related													
Vacation	Number	2,482	2,147	2,873	2,376	2,180	2,141	2,096	1,952	2,251	6,954	6,279	7,265
vacation	Percent	29%	25%	32%	23%	21%	24%	33%	28%	28%	28%	24%	28%
Personal or family affairs	Number	2,560	2,975	2,970	2,794	2,841	2,301	1,622	1,892	2,216	6,976	7,708	7,487
	Percent	30%	34%	33%	27%	27%	26%	25%	27%	28%	28%	30%	29%
Student or school-related	Number	417	549	509	675	560	554	363	423	619	1,455	1,532	1,682
Student of School-related	Percent	5%	6%	6%	7%	5%	6%	6%	6%	8%	6%	6%	7%
Other	Number	155	239	46	242	184	47	137	143	127	534	566	220
	Percent	2%	3%	1%	2%	2%	1%	2%	2%	2%	2%	2%	1%
SUBTOTAL - Non-Business	Number	5,614	5,910	6,398	6,087	5,765	5,043	4,218	4,410	5,213	15,919	16,085	16,654
SOBTOTAL - NOT-Business	Percent	67%	68%	72%	59%	56%	57%	66%	63%	66%	63%	62%	65%
TOTAL	Number	8,432	8,736	8,897	10,265	10,338	8,777	6,407	7,011	7,931	25,104	26,085	25,605
IVIAL	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents		52	174	1,529	102	162	2,141	185	234	796	339	570	4,466
Total Originations		8,484	8,910	10,426	10,367	10,500	10,918	6,592	7,245	8,727	25,443	26,655	30,071

<sup>\*</sup> Totals may not add due to rounding

## **Trip Origin (Survey Question B-1)**

In 2019, 58 percent of air passengers began their trips at a private residence – a two percent decrease from 2017. Hotel/motel originations increased by two percent as well – from 28 to 30 percent, while regular workplace and other workplace trips decreased from four to three percent and six to four percent, respectively. "Other" remained at two percent, and a new addition, short-term rental (i.e.: Airbnb, VRBO) made up two percent of all origins. See Figure 12 for a graphic depiction of local air passenger trip origins.

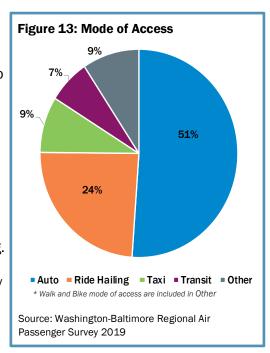


At BWI and DCA, private residence origin

decreased by five and four percent, respectively, and remained the same at IAD. Hotel/motel origins increased by four percent at BWI and by two percent at both DCA and IAD. Regular workplace origin remained the same at BWI and decreased by one percent at both DCA and IAD. Other workplace decreased by one percent at BWI and DCA and by three percent at IAD. All airports reported two percent origins of the newly added short-term rental, as well as "other." See Table 6 for more details.

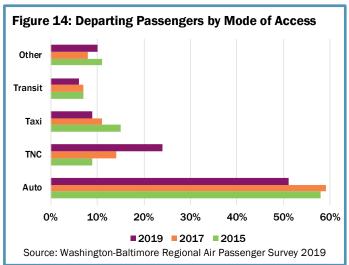
## **Mode of Access (Survey Question B-6)**

In 2019, the region's most common mode of access to the airports continued to be the automobile (private, rental, taxicab, and TNCs), accounting for 84 percent of all local originations. While the automobile also made up 84 percent of the mode share in 2017, the distribution of the types of automobile modes therein differed significantly – with TNCs experiencing the largest shift from 14 percent to 24 percent of overall mode share in 2019. The mode share of TNCs increased at all airports while private car and rental car share (grouped together as "Auto" in Figure 13) decreased at all airports. Taxi share decreased at all airports except IAD, and transit use remained at seven percent. Two new modal options were added to Question B-6 in 2019: walking and biking. In Figure 13 these modes are included in the "Other" category, along with hotel bus, airport bus, limo, and any otherwise uncategorized modes. Two percent of air passengers walked to BWI while one percent of passengers walked to DCA and IAD. See Table 7 for further detail on mode of access by airport.



#### By Region

Of the 84 percent of trips accessed by automobile, the following numbers provide the 2019 percent breakdown for each automobile trip type in the region, followed by the 2017 percentage breakdown in parentheses: private car – 41 percent (down from 47 percent), rental car – 10 percent (down from 12 percent), taxicab – nine percent (down from 11 percent), and TNC – 24 percent (up from 14 percent). See Figure 14 for a graphic depiction of modal trends between 2015, 2017, and 2019.



At BWI, automobile access decreased

from 89 percent to 86 percent. The following numbers provide the 2019 percent breakdown for each automobile trip type to BWI, followed by the 2017 percentage breakdown in parentheses: private car – 57 percent (down from 63 percent), rental car – 13 percent (down from 14 percent), taxicab – three percent (down from four percent), and TNC – 13 percent (up from eight percent).

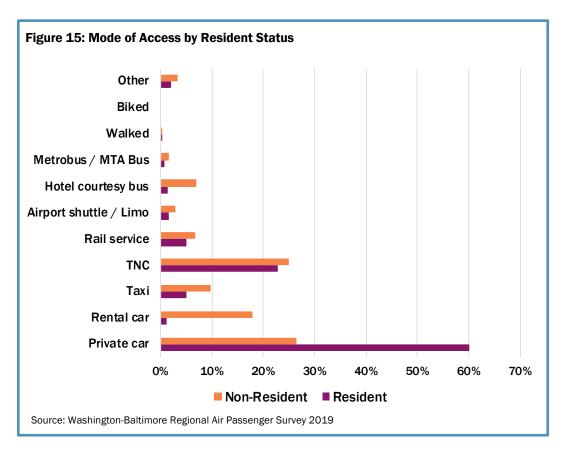
Metrorail usage by passengers traveling to DCA decreased to 12 percent (down from 13 percent in 2017). Overall access by automobile to DCA increased to 79 percent (up from 77 percent in 2017), with the following making up this total: private car – 23 percent (down from 29 percent), rental car – eight percent (down from nine percent), taxicab – 12 percent (down from 18 percent), and TNC – 36 percent (up from 21 percent).

Automobile access to IAD increased remained the same at 89 percent, with the following up this total: private car – 45 percent (down from 52 percent), rental car – 10 percent (down from 13 percent), taxicab – 12 percent (up from 11 percent), and TNC – 22 percent (up from 13 percent).

#### **Resident Status (Table 9)**

Table 9 and Figure 15 provide a regional comparison of resident versus non-resident departing air passengers by mode of access. Regionally, TNCs comprised 22 percent of the mode share for residents in 2019. Although the majority of area residents accessed the airports by private auto (57 percent), this is an eight percent share decrease from 2017, while TNCs increased by a six percent share and a 38 percent absolute increase. At all airports, the share of residents using private auto, taxis and rental cars to access the airport declined or remained the same between 2017 and 2019, which could be attributed, at least in part, to the increase in TNC ridership by residents.

In 2019, TNCs comprised 18 percent of the mode share for non-residents. While 29 percent of area residents accessed the airports by private auto, this is a seven percent share decrease from 2017, while TNCs increased by a seven percent share and a 64 percent absolute increase. At all airports, the share of non-residents using private auto and rental cars declined or remained the same between 2017 and 2019. Taxi share decreased at BWI and DCA, while it increased by a two percent share from seven to nine percent at IAD. As with the mode share of resident air passengers, these trends could be attributed, at least in part, to the increase in TNC ridership by non-residents.



#### Trip Purpose (Table 10)

Whereas 28 percent of those traveling for work travel to the airport by private car, 31 percent of work travelers travel by TNC. – a nine percent difference in absolute value. Among those who used TNCs to travel to the airport, more than 60 percent were work trips.

#### Parking, Drop-off, Carpooling (Tables 8, 13-15)

Survey results reveal that 77 percent of air passengers do not park when traveling out of the airport. This number was lowest at BWI (65 percent), highest at DCA (87 percent) and precisely at 77 percent for IAD. At BWI, six percent use the Daily garage and five percent use the Long-Term A or B parking garage. At DCA, one percent of passengers use the Short-term Hour and the Long-term Economy parking, each, while two percent use Long-term/Daily. At IAD, it is a three-way split where three percent of passengers each use Short-term Hour, Long-term/Daily, and Long-term/Econ. Including non-respondents which accounted for 31 percent of individuals, 52 percent of passengers are dropped-off at the airport.

The 2019 survey questionnaire included a new question (B9): "If you arrived in a private or rented car, taxi, or ride-hailing vehicle (note: otherwise referred to in this document as TNC), did you carpool with someone else?" Overall, including non-respondents which accounted for 29 percent of individuals, 24 percent of passengers indicated that they did carpool to the airport.

Table 6: Ground Trip Origin by Airport (000s)

Ground Trip			BWI			DCA			IAD		REGION			
Origin		2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019	
Private residence	Number	5,380	5,985	6,004	4,440	4,940	4,302	3,800	4,385	5,030	13,620	15,310	15,336	
r iivate residence	Percent	65%	70%	65%	44%	49%	45%	61%	64%	64%	56%	60%	58%	
Hotel/motel	Number	2,071	1,652	2,093	4,090	3,755	3,735	1,884	1,716	2,154	8,045	7,123	7,982	
riotely moter	Percent	25%	19%	23%	41%	37%	39%	30%	25%	27%	33%	28%	30%	
Workplace: regular	Number	258	332	334	465	488	347	195	256	223	918	1,076	904	
workplace. regular	Percent	3%	4%	4%	5%	5%	4%	3%	4%	3%	4%	4%	3%	
Workplace: other	Number	340	404	330	727	747	570	268	332	155	1,335	1,483	1,055	
Workplace. Other	Percent	4%	5%	4%	7%	7%	6%	4%	5%	2%	5%	6%	4%	
Other	Number	193	228	218	269	252	233	110	126	174	572	606	625	
Other	Percent	2%	3%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	
Short-Term Rental	Number			222			295			161			678	
(Air BNB, VRBO)	Percent			2%			2%			2%			2%	
TOTAL	Number	8,242	8,601	9,201	9,991	10,182	9,482	6,257	6,815	7,897	24,490	25,598	26,580	
TOTAL	Percent	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%	100%	100%	
Non-Respondents		242	309	1,224	376	316	1,436	339	430	829	957	1055	3,489	
<b>Total Originations</b>		8,484	8,910	10,425	10,367	10,498	10,918	6,596	7,245	8,726	25,447	26,653	30,069	

<sup>\*</sup> Totals may not add due to rounding

Table 7: Mode of Access by Airport (000s)

Mode of Access			BWI			DCA			IAD		REGION			
		2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019	
Deivote con	Number	4,864	5,299	5,670	2,866	2,889	2,418	3,006	3,420	3,607	10,736	11,608	11,694	
Private car	Percent	59%	63%	57%	28%	29%	23%	48%	52%	45%	44%	47%	41%	
Dontal cov	Number	1,424	1,193	1,253	1,015	853	845	980	837	785	3,419	2,883	2,883	
Rental car	Percent	17%	14%	13%	10%	9%	8%	16%	13%	10%	14%	12%	10%	
Tovi	Number	476	303	288	2,481	1,783	1,217	788	759	980	3,745	2,845	2,484	
Taxi	Percent	6%	4%	3%	25%	18%	12%	13%	11%	12%	15%	11%	9%	
TNC	Number	404	633	1,273	1,394	2,057	3,802	439	871	1,780	2237	3,561	6,855	
INC	Percent	5%	8%	13%	14%	21%	36%	7%	13%	22%	9%	14%	24%	
Metrorail (DCA)	Number	0	0	0	1,173	1,263	1,264	39	35	8	1,212	1,298	1,272	
Wettorall (DCA)	Percent	0%	0%	0%	12%	13%	12%	1%	1%	0%	5%	5%	4%	
Rail service	Number	165	217	265	11	62	16	8	25	1	184	304	283	
Rail Service	Percent	2%	3%	3%	0%	1%	0%	0%	0%	0%	1%	1%	1%	
Light Rail (BWI)	Number	44	53	34	0	0	0	0	0	0	44	53	34	
Light Kall (DVVI)	Percent	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Number	311	188	245	325	172	191	399	143	193	1,035	503	628	
Airport bus/Van/Limo	Percent	4%	2%	2%	3%	2%	2%	6%	2%	2%	4%	2%	2%	
Hotel courtesy bus	Number	461	269	466	600	467	495	349	247	345	1,410	983	1,307	
Tioter courtesy bus	Percent	6%	3%	5%	6%	5%	5%	6%	4%	4%	6%	4%	5%	
Metrobus/MTA Bus	Number	79	94	58	73	16	62	141	113	241	293	223	361	
Wictiobus/ WITA bus	Percent	1%	1%	1%	1%	0%	1%	2%	2%	3%	1%	1%	1%	
Walked	Number			8			4			6	0	0	18	
Waincu	Percent			2%			1%			1%	0%	0%	1%	
Biked	Number			0			3			0	0	0	3	
Bircu	Percent			0%			0%			0%	0%	0%	0%	
Other	Number	71	151	324	130	243	224	151	155	145	352	549	694	
•	Percent	1%	2%	3%	1%	2%	2%	2%	2%	2%	1%	2%	2%	
TOTAL	Number	8,299	8,400	9,885	,	9,805	10,542	6,300	6,605	8,091	24,667	24,810	28,517	
	Percent	100%	100%	101%	100%	100%	101%	100%	100%	101%	100%	100%	101%	
Non-Respondents		185	511	541	185	299	377	174	291	635	544	1,101	1,553	
Total Originations		8,484	8,911	10,426	10,253	10,104	10,918	6,474	6,896	8,726	25,211	25,911	30,070	

<sup>\*</sup> Transportation Network mode of access, (Uber, Lyft) was introduced in 2015 survey

<sup>\*</sup> Walk and Bike mode of access were introduced in 2019 survey

<sup>\*</sup> Totals may not add due to rounding

Table 8: Drop-Off at Airport by Mode of Access (000s)

Mode of Acce	200		BWI			DCA			IAD		REGION			
Widde of Acce	555	YES	NO	TOTAL	YES	NO	TOTAL	YES	NO	TOTAL	YES	NO	TOTAL	
Private car	Number	2,579	1,933	4,512	1,412	570	1,982	2,119	843	2,962	6,110	3,345	9,456	
	Percent	60%	90%	70%	34%	63%	39%	48%	89%	56%	47%	84%	56%	
Rental car	Number	186	109	295	103	88	190	151	43	195	440	240	680	
	Percent	4%	5%	5%	2%	10%	4%	3%	5%	4%	3%	6%	4%	
Taxi	Number	143	6	149	516	11	526	675	5	680	1,334	22	1,355	
	Percent	3%	0%	2%	12%	1%	10%	15%	1%	13%	10%	1%	8%	
TNCs	Number	725	31	756	1,838	28	1,866	1,035	26	1,060	3597	85	3,682	
	Percent	17%	1%	12%	44%	3%	37%	24%	3%	20%	28%	2%	22%	
Metrorail (DCA)	Number	0	0	0	14	108	122	1	0	1	16	108	124	
	Percent	0%	0%	0%	0%	12%	2%	0%	0%	0%	0%	3%	1%	
Rail service	Number	73	25	98	12	0	12	0	0	0	85	25	110	
	Percent	2%	1%	2%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Light Rail (BWI)	Number	1	0	1	0	0	0	0	0	0	1	0	1	
-	Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Airport shuttle / Limo	Number	144	18	163	81	2	82	83	7	89	308	27	334	
	Percent	3%	1%	3%	2%	0%	2%	2%	1%	2%	2%	1%	2%	
Hotel shuttle bus	Number	255	14	269	122	26	148	205	14	219	581	54	635	
	Percent	6%	1%	4%	3%	3%	3%	5%	1%	4%	5%	1%	4%	
Metrobus/MTA Bus	Number	26	1	27	10	7	17	24	4	29	61	12	73	
	Percent	1%	0%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	
Walked	Number	0	7	7	0	0	0	4	0	4	4	7	11	
-	Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Biked	Number	0	0	0	0	0	0	0	0	0	0	0	0	
Other	Percent Number	0% 197	0% 8	0% 205	0% 87	0% 68	0% 155	0% 87	0% 2	0% 89	0% 371	0% 78	0% 449	
Outel	Percent	197 5%	0%	3%	2%	8%	3%	2%	0%	2%	3%	78 2%	3%	
	Number	4,330	2,152	6,482	4,194	907	5,100	4,384	944	5,328		4,003	16,910	
TOTAL	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	′	100%	100%	

<sup>\*</sup> Walk and Bike mode of access, were introduced in 2019 survey

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Totals do not include non-respondents .

Table 9: Mode of Access by Resident Status (000s)

Made of Assess		R	esident	S	Nor	n-Reside	ents	TOTAL			
Mode of Acces	S	2015	2017	2019	2015	2017	2019	2015	2017	2019	
Private car	Number	4,577	5,143	4,834	3,771	4,036	2,992	8,348	9,179	7,826	
	Percent	75%	65%	57%	33%	36%	29%	48%	48%	40%	
Rental car	Number	61	83	97	2,684	2,183	2,017	2,745	2,266	2,114	
	Percent	1%	1%	1%	24%	20%	19%	16%	12%	11%	
Taxi	Number	720	605	411	2,173	1,384	1,103	2,893	1,989	1,514	
	Percent	12%	8%	5%	19%	12%	11%	17%	10%	8%	
Transportation Network	Number	669	1,270	1,839	669	1,270	1,839	1,883	2,852	4,662	
Company (Uber, Lyft, etc.)	Percent	8%	16%	22%	6%	11%	18%	11%	15%	24%	
Metrorail	Number	353	349	320	653	735	608	1,006	1,084	928	
(DCA)	Percent	6%	4%	4%	6%	7%	6%	6%	6%	5%	
Rail service	Number	49	96	73	101	129	140	150	225	213	
	Percent	1%	1%	1%	1%	1%	1%	1%	1%	1%	
Light Rail	Number	20	12	8	4	12	8	24	46	23	
(BWI)	Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Airport bus/	Number	178	135	175	572	240	328	750	375	503	
Van/Limo	Percent	3%	2%	2%	5%	2%	3%	4%	2%	3%	
Hotel/motel	Number	80	50	327	1,021	724	788	1,101	774	1,115	
courtesy bus	Percent	1%	1%	4%	9%	7%	8%	6%	4%	6%	
Metrobus /	Number	49	60	121	127	83	169	176	143	290	
MTA Bus	Percent	1%	1%	1%	1%	1%	2%	1%	1%	1%	
Walked	Number	N/A	N/A	2	N/A	N/A	2	N/A	N/A	4	
	Percent	N/A	N/A	0%	N/A	N/A	0%	N/A	N/A	0%	
Biked	Number	N/A	N/A	0	N/A	N/A	0	N/A	N/A	0	
	Percent	NyA	TV/A	0%	Тул	1971	0%	Тул	Тул	0%	
Other	Number	27	94	251	242	290	367	269	384	618	
	Percent	0%	1%	3%	2%	3%	4%	2%	2%	3%	
TOTAL	Number	6,114	7,897	8,456	11,348	11,086	10,359	17,462	19,317	19,806	
TOTAL	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Totals do not include resident unknown, and non-respondents for mode of access.

<sup>\*</sup> Walk and Bike mode of access, were introduced in 2019 survey

Table 10: Mode of Access by Trip Purpose (000s)

Mode of Access		Work	Non-Work	Unknown	Total
Private car	Number	2,457	7,741	1,496	11,694
	Percent	28%	49%	37%	41%
Rental car	Number	1,099	1,440	344	2,883
	Percent	13%	9%	9%	10%
Taxi	Number	1,036	1,092	357	2,484
	Percent	12%	7%	9%	9%
TNCs	Number	2,703	3,050	1,103	6,855
	Percent	31%	19%	27%	24%
Metrorail (DCA)	Number	366	671	237	1,274
	Percent	4%	4%	6%	4%
Rail Service	Number	62 19/	198 1%	21 1%	281 1%
	Percent	1%			
Light Rail (BWI)	Number Percent	14 0%	11 0%	9 0%	34 0%
Airport Shuttle/Limo	Number	166 2%	357 2%	106 3%	628 2%
	Percent				
Hotel Bus	Number	440	678	189	1,307
	Percent	5%	4%	5%	5%
MTA/Metrobus	Number Percent	81 1%	287 2%	22 1%	391 1%
	Number	4	11	3	18
Walked	Percent	0%	0%	0%	0%
		0%		3	3
Biked	Number	0%	0 0%	0%	0%
	Percent				
Other	Number	216	357	121	694
	Percent	3%	2%	3%	2%
TOTAL	Number	8,643	15,894	4,010	28,547
. • 17 12	Percent	100%	100%	100%	100%
Non-Respondents		338	540	675	1,553
Total Originations		8,981	16,434	4,685	30,100

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Walk and Bike mode of access, were introduced in 2019 survey

Table 11: Mode of Access by Trip Origination (000s)

<b>Mode of Access</b>		Home	Non-Home	Unknown	Total
Dialor	Number	9,381	1,173	1,002	11,556
Private car	Percent	62%	11%	38%	41%
Double Long	Number	683	1,861	273	2,817
Rental car	Percent	5%	18%	10%	10%
<b>T</b> '	Number	804	1,435	208	2,446
Taxi	Percent	5%	14%	8%	9%
TNO	Number	2,997	2,990	742	6,729
TNCs	Percent	20%	29%	28%	24%
Motroroil (DCA)	Number	424	646	165	1,235
Metrorail (DCA)	Percent	3%	6%	6%	4%
Deileamica	Number	75	170	14	259
Rail service	Percent	1%	2%	1%	1%
Light Rail (BWI)	Number	11	14	1	26
	Percent	0%	0%	0%	0%
Aller and Obs. III a /I have	Number	169	349	69	587
Airport Shuttle/Limo	Percent	1%	3%	3%	2%
Llotal Chuttle	Number	84	1,121	95	1,300
Hotel Shuttle	Percent	1%	11%	4%	5%
MTA /Matrabus	Number	125	196	20	340
MTA/Metrobus	Percent	1%	2%	1%	1%
Walked	Number	0	15	3	18
	Percent	0%	0%	0%	0%
Biked	Number	0	0	0	0
	Percent	0%	0%	0%	0%
Other	Number	258	339	61	658
	Percent	2%	3%	2%	2%
TOTAL	Number	15,011	10,308	2,653	27,971
	Percent	100%	100%	100%	100%
Non-Respondents		326	311	828	1,466
Total Originations		15,337	10,619	3,481	29,437

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Walk and Bike mode of access, were introduced in 2019 survey

Table 12: Mode of Access by Age (000s)

		Age Group									
Mode of Access		<b>1</b> 8 or	19 - 24	25 - 34	35 - 49	50 - 64	65 or				
		Younger	Years	Years	Years	Years	Older	Total			
Private Car	Number	195	718	1,882	2,470	2,823	1,725	9,813			
	Percent	41%	41%	39%	38%	42%	45%	41%			
Rental Car	Number	69	69	401	722	822	425	2,508			
	Percent	14%	4%	8%	11%	12%	11%	10%			
Taxi	Number	24	66	229	578	679	536	2,112			
	Percent	5%	4%	5%	9%	10%	14%	9%			
TNCs	Number	45	501	1,507	1,764	1,362	586	5,766			
	Percent	9%	28%	32%	27%	20%	15%	24%			
Metrorail (DCA)	Number	16	137	246	267	284	107	1,058			
	Percent	3%	8%	5%	4%	4%	3%	4%			
Rail Service	Number	0	54	102	40	26	47	269			
	Percent	0%	3%	2%	1%	0%	1%	1%			
Light Rail (BWI)	Number	0	2	7	6	7	3	25			
	Percent	0%	0%	0%	0%	0%	0%	0%			
Airport Shuttle /Limo	Number	1	34	89	143	170	102	539			
Amport Shuttle / Elino	Percent	0%	2%	2%	2%	3%	3%	2%			
Hotel Shuttle	Number	64	70	138	306	322	176	1,077			
Tioter Shattie	Percent	13%	4%	3%	5%	5%	5%	4%			
Metrobus/MTA Bus	Number	55	53	57	68	44	40	318			
	Percent	11%	3%	1%	1%	1%	1%	1%			
Walked	Number	0	3	0	4	1	8	16			
waineu	Percent	0%	0%	0%	0%	0%	0%	0%			
Biked	Number	0	0	0	0	0	0	0			
вікеа	Percent	0%	0%	0%	0%	0%	0%	0%			
Othor	Number	12	64	113	176	141	62	568			
Other	Percent	2%	4%	2%	3%	2%	2%	2%			
TOTAL	Number	481	1,771	4,772	6,542	6,682	3,819	24,068			
IOIAL	Percent	100%	100%	100%	100%	100%	100%	100%			

<sup>\*</sup> Total may not add due to rounding

<sup>\*</sup> Non-Respondents not included

<sup>\*</sup> Walk and Bike mode of access, were introduced in 2019 survey

Table 13: Parking by Airport (000s)

Parking Facility Use		BWI	DCA	IAD	Total
Not Parked	Number	6,782	9,510	6,731	23,023
Not Faikeu	Percent	65%	87%	77%	77%
Hourly Parking Lot	Number	354	18	10	382
Hourly Farking Lot	Percent	3%	0%	0%	1%
Daily Parking Garage	Number	588	9	4	601
Daily Farking Garage	Percent	6%	0%	0%	2%
Express Parking Lot	Number	106	0	0	106
Express Farking Lot	Percent	1%	0%	0%	0%
Long-Term A/B Parking Garage	Number	559	0	0	559
Long-Term A/ B Farking Garage	Percent	5%	0%	0%	2%
Short-Term Hourly Parking	Number	0	148	250	398
Short-renni Hourly Farking	Percent	0%	1%	3%	1%
Long-Term / Daily Parking	Number	0	207	296	503
Long-Term / Daily Farking	Percent	0%	2%	3%	2%
Long-Term / Economy Parking	Number	3	154	242	399
Long-term/ Leonomy ranking	Percent	0%	1%	3%	1%
BWI Rail Station Garage	Number	20	0	0	20
	Percent	0%	0%	0%	0%
Valet Parking	Number	29	7	17	53
valet Farking	Percent	0%	0%	0%	0%
Off Airport Private Parking	Number	310	0	0	310
	Percent	3%	0%	0%	1%
Non-Respondents	Number	1,675	865	1,176	3,716
<u> </u>	Percent	16%	8%	13%	12%
TOTAL	Number	10,426	10,918	8,726	30,070
	Percent	100%	100%	100%	100%

<sup>\*</sup> Totals may not add due to rounding

Table 15: Drop-off by Airport (000s)

Drop-off		BWI	DCA	IAD	Total
Yes	Number	3,447	3,766	3,829	11,042
163	Percent	48%	51%	60%	52%
No	Number	1,970	609	874	3,453
NO	Percent	27%	8%	14%	16%
Non-Respondents	Number	1,814	3,062	1,665	6,541
Non-Respondents	Percent	25%	41%	26%	31%
Total		7,231	7,437	6,368	21,036
Total		100%	100%	100%	100%

**Table 14: Carpool to Airport** 

Carpool		BWI	DCA	IAD	Total
Yes	Number	1,814	2,192	1,681	5,687
165	Percent	21%	26%	24%	24%
No	Number	3,723	3,981	3,588	11,292
INO	Percent	44%	48%	50%	47%
Non-Respondents	Number	2,946	2,106	1,881	6,933
Non-Respondents	Percent	35%	25%	26%	29%
Total	8,483	8,279	7,150	23,912	
Total	100%	100%	100%	100%	

#### Notes:

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Only includes Private Car, Taxi and Transportation Networks

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Only includes Private Car, rental Car, Taxi and Transportation Networks

#### III. FINDINGS - AIR TRAVELER CHARACTERISTICS

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

## Resident Status (Survey Questions D-1 & D-2)

Table 16 summarizes resident status for locally originating air passengers in 2015, 2017, and 2019. At the regional level, the Resident/Non-Resident breakdown was 59/41 percent. BWI and IAD were very similar at 46/54 and 45/55 percent, respectively.

Table 16: Resident Status by Airport (000s)

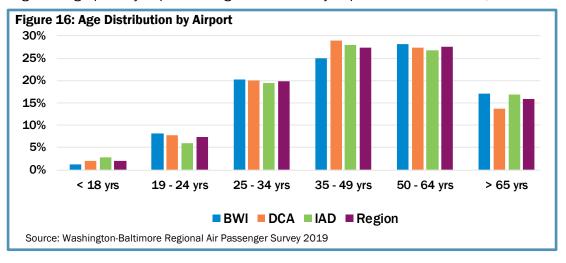
Resident Status			BWI		DCA			IAD			REGION		
Resident	Status	2015 2017 201		2019	2015 2017 2019		2015 2017 2019		2015	2017	2019		
Resident	Number	2,531	3,043	3,202	2,440	2,842	2,586	1,851	2,247	2,297	6,822	8,132	8,085
	Percent	36%	42%	46%	29%	34%	34%	44%	49%	45%	35%	40%	41%
Non-Resident	Number	4,447	4,213	3,733	5,989	5,480	5,089	2,389	2,327	2,761	12,825	12,020	11,583
	Percent	64%	58%	54%	71%	66%	66%	56%	51%	55%	65%	60%	59%
											·	·	
TOTAL	Number	6,978	7,256	6,935	8,429	8,322	7,675	4,240	4,574	5,058	19,647	20,152	19,668
	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Votes:

Source: Washington-Baltimore Regional Air Passenger Survey 2019

## Age (Survey Question D-5)

The share of local originating passengers over the age of 65 grew from 14 to 16 percent, while passengers age 50 to 64 decreased from 30 to 28 percent. Passengers age 35 to 49 decreased from 28 to 27 percent, while passengers age 25 to 34 increased from 19 to 20 percent. Passengers age 19 to 24 and 18 or younger remained the same at seven percent and two percent, respectively. Figure 16 graphically depicts the age distribution by airport. For further detail, see Table 17.



<sup>\*</sup> Totals do not include non-respondents and resident unknown

<sup>\*</sup> Totals may not add due to rounding

## **Income (Survey Question D-6)**

Household incomes for air travelers in the Washington-Baltimore region continue to be higher than the regional median. Table 18 shows originating air passenger household income data at the three airports and in the region, while Table 19 shows income by resident status. Figure 17 graphically depicts the distribution by income and airport. In 2019, only 35 percent of the region's passengers had household incomes less than \$100,000. Over a quarter of the region's air passengers (26 percent) had household incomes over \$200,000.

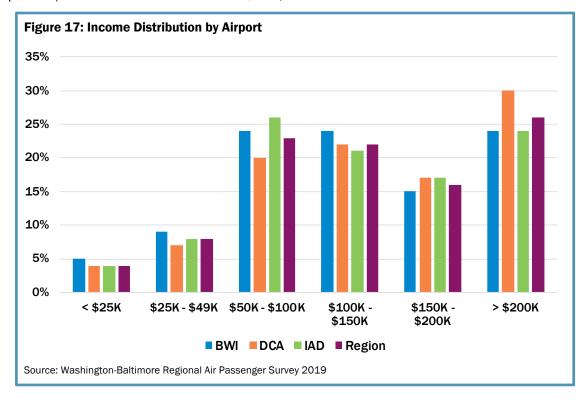


Table 17: Age by Airport (000s)

Age Group			BWI			DCA			IAD			REGION	
		2015	2017	2019	2015	2017	2019	2015	2017	2019	2015	2017	2019
18 or Younger	Number	119	125	104	194	148	181	79	108	211	392	381	496
	Percent	1%	2%	1%	2%	2%	2%	1%	2%	3%	2%	2%	2%
<b>19</b> to <b>24</b> Years	Number	501	705	687	649	645	686	296	407	436	1,446	1,757	1,809
	Percent	6%	9%	8%	7%	7%	8%	5%	7%	6%	6%	7%	7%
25 to 34 Years	Number	1,483	1,564	1,707	2,047	1,761	1,776	1,062	1,289	1,416	4,592	4,614	4,899
	Percent	18%	19%	20%	21%	19%	20%	18%	21%	19%	19%	19%	20%
35 to 49 Years	Number	2,022	2,073	2,117	2,723	2,705	2,558	1,708	1,780	2,029	6,453	6,558	6,704
	Percent	25%	25%	25%	28%	29%	29%	29%	29%	28%	27%	28%	27%
50 to 64 Years	Number	2,600	2,489	2,376	2,799	2,881	2,425	1,792	1,717	1,953	7,191	7,087	6,754
	Percent	32%	30%	28%	29%	31%	27%	30%	28%	27%	31%	30%	28%
65 or Older	Number	1,292	1,231	1,449	1,232	1,283	1,217	979	913	1,231	3,503	3,427	3,897
	Percent	16%	15%	17%	13%	14%	14%	17%	15%	17%	15%	14%	16%
TOTAL	Number	8,017	8,187	8,440	9,644	9,423	8,843	5,916	6,214	7,276	23,577	23,824	24,559
IOIAL	Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-Respondents		468	723	1,986	723	1,076	2,074	675	1,031	1,449	1,866	2,830	5,509
Total Originations		8,485	8,910	10,426	10,367	10,499	10,917	6,591	7,245	8,725	25,443	26,654	30,068

<sup>\*</sup> Totals may not add due to rounding

Table 18: Household Income by Airport (000s)

Annual					
Household Income		BWI	DCA	IAD	REGION
Less than \$25,000	Number	335	328	212	875
Less than \$25,000	Percent	5%	4%	4%	4%
\$25,000 - \$49,000	Number	622	546	453	1,621
Ψ23,000 - Ψ43,000	Percent	9%	7%	8%	8%
\$50,000 - \$100,000	Number	1,703	1,495	1,416	4,614
Ψ50,000 - Ψ100,000	Percent	24%	20%	26%	23%
\$100,000 - \$150,000	Number	1,670	1,618	1,154	4,442
Ψ100,000 - Ψ130,000 	Percent	24%	22%	21%	22%
\$150,000 - \$200,000	Number	1,023	1,256	900	3,179
Ψ130,000 - Ψ200,000	Percent	15%	17%	17%	16%
\$200,000 and up	Number	1,649	2,205	1,300	5,154
Ψ200,000 and ap	Percent	24%	30%	24%	26%
TOTAL	Number	7,002	7,448	5,435	19,885
IUIAL	Percent	100%	100%	100%	100%
Non-Respondents		3,420	3,475	3,296	10,191
Total Originations		10,422	10,923	8,731	30,076

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 19: Household Income by Resident Status (000s)

Annual		R	esident Statu	IS	
Household Income		Resident	Non-Resident	Unknown	Total
Less than \$25,000	Number	218	399	258	875
	Percent	3%	4%	6%	4%
\$25,000 - \$49,000	Number	430	730	461	1,621
	Percent	7%	8%	12%	8%
\$50,000 - \$100,000	Number	1,288	2,239	1,087	4,614
	Percent	20%	24%	27%	23%
\$100,000 - \$150,000	Number	1,453	2,198	791	4,442
	Percent	22%	24%	20%	22%
\$150,000 - \$200,000	Number	1,147	1,426	606	3,179
	Percent	17%	15%	15%	16%
\$200,000 and up	Number	2,031	2,353	770	5,154
	Percent	31%	25%	19%	26%
TOTAL	Number	6,567	9,345	3,973	19,885
	Percent	100%	100%	100%	100%
Non-Respondents		1,516	2,245	6,430	10,191
Total Originations		8,083	11,590	10,403	30,076

Notes:

<sup>\*</sup> Totals may not add due to rounding

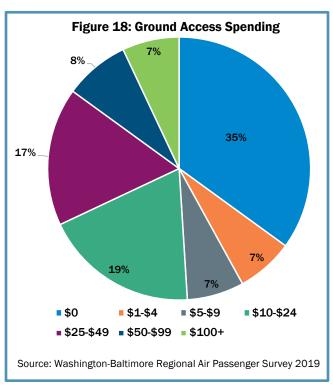
<sup>\*</sup> Totals may not add due to rounding

# IV. FINDINGS - AIR TRAVELER SPENDING

Two new questions related to air traveler spending were added to the 2019 survey: Ground Access Spending (Question B8) and Airport Concessions Spending (Question D7)

# Ground Access Spending (Survey Question B-8)

Survey participants were given the option of seven ground access travel cost fields ranging from \$0 to \$100+ (see Figure 18). Of those ranges, TNCs were the dominant mode for the \$10-\$99 ranges. Of the 35 percent of air passengers who report spending no money on their mode of access, 77 percent travel by private car. While it is unclear how survey respondents define ground access spending. it is likely that most respondents did not factor in the cost of gas or maintenance for their personal vehicles when providing their responses. Approximately 40 percent of nonwork trips spend nothing on travel, versus 25 percent of work-related trips. Overall, workrelated trips also tend to spend more on travel than those traveling on non-work trips.



#### Mode (Table 20)

- No cost: 77% by private car
- \$1-\$4: 35% by Metrorail to DCA: 47% by private car
- \$5-\$9: 51% by private car
- \$10-\$24: 51% by TNC
- \$25-\$49: 58% by TNC
- \$50-\$99: 38% by TNC
- \$100 or more: 71% are rental cars

#### Airport (Table 21, Figure 19)

- No Cost: 35% overall: 43% at BWI
- \$1-\$4: 10% at DCA
- \$5-\$9: Nearly equal; 8% at BWI
- \$10-\$24: 30% at DCA
- \$25-\$49: 22% at IAD
- \$50-\$99: 12% at IAD
- \$100 or more: 9% at BWI

#### **Trip Purpose (Table 22)**

- 40% of non-work trips spend nothing on travel, versus 25% of work-related trips.
- Work-related trips tend to spend more on travel than those traveling on non-work trips.

Table 20: Ground Access Cost by Mode (000s)

				Travel Cost					
Mode of Access					\$10 -	\$25 -	\$50 -		
Widde of Access		None	\$1 - \$4	\$5 - \$9	\$24	\$49	\$99	\$100 +	Total
Private car	Number	6,520	849	889	803	461	259	178	9,958
Filvate car	Percent	76.7%	46.5%	50.9%	17.3%	10.9%	13.8%	10.7%	40.7%
Rental car	Number	389	50	64	188	240	305	1,173	2,410
Relital Cal	Percent	4.6%	2.8%	3.7%	4.1%	5.7%	16.2%	70.9%	9.9%
Taxi	Number	107	15	56	724	789	467	72	2,230
I GAI	Percent	1.3%	0.8%	3.2%	15.6%	18.7%	24.9%	4.3%	9.1%
TNC	Number	222	40	104	2,368	2,441	719	87	5,980
	Percent	2.6%	2.2%	5.9%	51.1%	57.8%	38.3%	5.3%	24.5%
Metrorail (DCA)	Number	47	642	312	60	13	1	18	1,092
Metiorali (DOA)	Percent	0.6%	35.1%	17.9%	1.3%	0.3%	0.0%	1.1%	4.5%
Rail service	Number	5	6	90	118	25	2	12	259
Trail Service	Percent	0.1%	0.3%	5.1%	2.5%	0.6%	0.1%	0.7%	1.1%
Light Rail (BWI)	Number	1	18	5	1	0	0	0	25
Light Itali (BWI)	Percent	0.0%	1.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%
Airport bus/Van/Limo	Number	188	42	34	69	99	78	43	554
Airport busy vary Little	Percent	2.2%	2.3%	1.9%	1.5%	2.3%	4.1%	2.6%	2.3%
Hotel shuttle	Number	718	98	69	99	48	12	31	1,076
	Percent	8.5%	5.4%	4.0%	2.1%	1.1%	0.7%	1.9%	4.4%
Metrobus/MTA Bus	Number	25	44	103	103	23	3	5	305
Metropus/ MTA bus	Percent	0.3%	2.4%	5.9%	2.2%	0.5%	0.1%	0.3%	1.2%
Walked	Number	12	0	0	0	3	0	1	15
	Percent	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%
Biked	Number	0	0	0	3	0	0	0	3
Direct	Percent	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Other	Number	263	22	20	98	82	30	36	551
Otilei	Percent	3.1%	1.2%	1.2%	2.1%	1.9%	1.6%	2.2%	2.3%
TOTAL	Number	8,498	1,826	1,746	4,634	4,224	1,876	1,656	24,459
TOTAL	Percent	100%	100%	100%	100%	100%	100%	100%	100%
Notes:	. 0.00110				_5070		_0070	_3070	

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Non-Respondents for travel cost and mode not included

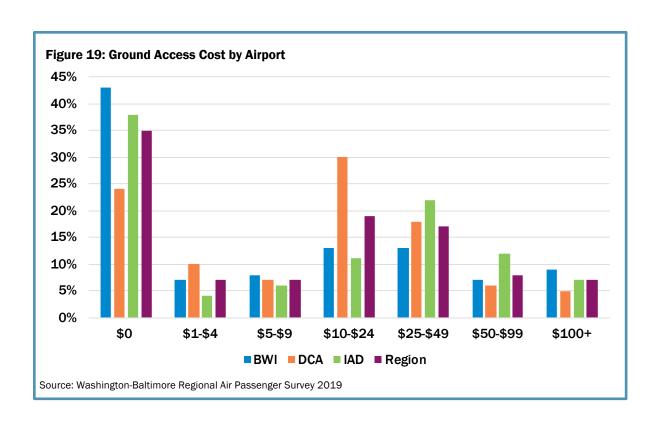


Table 21: Ground Access Cost by Airport (000s)

Travel Co	ost	BWI	DCA	IAD	REGION
None	Number	3,672	2,192	2,720	8,584
None	Percent	43%	24%	38%	35%
¢1 ¢1	Number	603	951	291	1,845
\$1 - \$4	Percent	7%	10%	4%	7%
<b>\$5 - \$9</b>	Number	662	657	439	1,758
უე - უყ	Percent	8%	7%	6%	7%
<b>\$10 - \$24</b>	Number	1,125	2,755	809	4,690
<b>⊅10 - ⊅24</b>	Percent	13%	30%	11%	19%
\$25 - \$49	Number	1,107	1,608	1,571	4,285
<b>Φ20 - Φ49</b>	Percent	13%	18%	22%	17%
\$50 - <b>\$</b> 99	Number	581	494	829	1,904
   <del> </del> \$20 - \$99	Percent	7%	5%	12%	8%
¢400.00 i	Number	764	444	495	1,703
<b>\$1</b> 00.00 +	Percent	9%	5%	7%	7%
TOTAL	Number	8,514	9,101	7,153	24,769
TOTAL	Percent	100%	100%	100%	100%
Non-Respondents		1,912	1,817	1,573	5,302
<b>Total Originations</b>		10,426	10,918	8,726	30,070

<sup>\*</sup> Totals may not add due to rounding

Table 22: Ground Access Cost by Trip Purpose (000s)

			Trip Purpose								
Travel		Federal	State/Local	Commercial		Personal	School-		Non		
Cost		Gov.	Gov.	Business	Vacation	Family	Related	Other	Respondent	Total	
None	Number	739	98	1,248	2,571	2,802	576	65	486	8,584	
	Percent	26%	21%	25%	39%	42%	40%	34%	30%	35%	
\$1 - \$4	Number	280	37	319	499	497	90	11	113	1,845	
	Percent	10%	8%	6%	7%	7%	6%	6%	7%	7%	
\$5 - \$9	Number	190	17	252	494	517	152	9	126	1,758	
	Percent	7%	4%	5%	7%	8%	10%	5%	8%	7%	
\$10 - \$24	Number	651	124	1,105	1,071	1,067	280	39	352	4,690	
	Percent	23%	27%	22%	16%	16%	19%	21%	22%	19%	
\$25 - \$49	Number	501	96	1,100	1,104	926	212	36	311	4,285	
	Percent	18%	21%	22%	17%	14%	15%	19%	19%	17%	
\$50 - \$99	Number	217	43	498	574	360	83	27	102	1,904	
	Percent	8%	9%	10%	9%	5%	6%	14%	6%	8%	
\$100 +	Number	230	48	410	352	481	59	3	119	1,703	
	Percent	8%	10%	8%	5%	7%	4%	2%	7%	7%	
TOTAL	Number	2,809	462	4,932	6,665	6,649	1,452	190	1,610	24,769	
	Percent	100%	100%	100%	<b>100</b> %	<b>100</b> %	100%	100%	100%	100%	
Non-Respondents <b>Total Originations</b>		229 <b>3,038</b>	55 <b>517</b>	464 <b>5,396</b>	599 <b>7,265</b>	838 <b>7,487</b>	230 <b>1,682</b>	28 <b>219</b>	2,857 <b>4,467</b>	5,302 <b>30,070</b>	

<sup>\*</sup> Totals may not add due to rounding

# **Airport Concessions Spending (Survey Question D-7)**

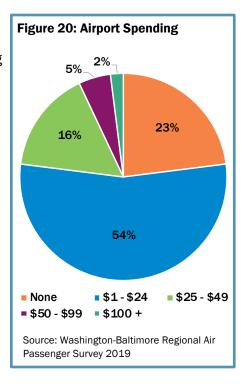
Most air passengers reported spending between \$1-\$24 on airport concessions (see Figure 20) – 84 percent of originating air passengers and 63 percent of local originating air passengers – while 23 percent of overall air passengers do not spend money at the airport. The highest household income bracket spent most in each range while the lowest income bracket spent least in each range. A greater proportion of local originating passengers spent larger sums (\$25-\$100+).

#### Income (Table 23)

The highest income bracket spent most in each range while the lowest income bracket spent least in each range. Households earning \$150-200K spent less than those earning \$50-100K and \$100-150K.

#### Time Spent at Airport (Table 24)

Approximately. 23% of overall air passengers do not spend money at the airport Most spend between \$1-\$24, with little variation based on time spent at the airport. For the last three price brackets, most spending happens with those at the airport for the least and greatest amounts of time.



#### Arrival Type (Table 25)

Overall, 19% of originating and 8% of connecting passengers do not make purchases, while 84% of connecting and 63% of local originating passengers spend \$1-\$24. A greater proportion of local originating passengers spend larger sums (\$25-\$100+).

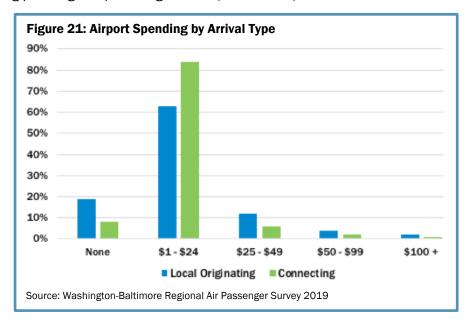


Table 23: Airport Spending by Household Income (000s)

Annual			Mo	ney Spen	nt At Airpo	ort	
Household Income		None	\$1-\$24	\$25-\$49	\$50-\$99	\$100+	Total
Less than \$25,000	Number	323	386	81	26	34	849
Less than \$25,000	Percent	7%	4%	3%	2%	7%	4%
	Number	433	810	201	78	39	1,560
\$25,000 - \$50,000	Percent	10%	8%	6%	7%	8%	8%
\$50,000 - \$100,000	Number	1,044	2,402	719	221	133	4,519
φ50,000 - φ100,000	Percent	23%	23%	22%	21%	28%	23%
\$100,000 - \$150,000	Number	931	2,437	689	247	68	4,372
\$100,000 - \$150,000	Percent	21%	24%	22%	23%	14%	22%
\$150,000 - \$200,000	Number	655	1,683	597	143	69	3,147
\$150,000 - \$200,000	Percent	15%	16%	19%	14%	14%	16%
\$200,000 and up	Number	1,083	2,650	914	335	140	5,122
\$200,000 and up	Percent	24%	26%	29%	32%	29%	26%
TOTAL	Number	4,468	10,367	3,201	1,050	482	19,569
TOTAL	Percent	100%	100%	100%	100%	100%	100%

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Non-Respondents not included

Table 24: Airport Spending by Time Spent at Airport (000s)

		Time Spent At Airport Before Departure							
<b>Money Spent</b>	•	0 - 15	15 - 30	30 - 45	45 - 60	60 - 90	90 - 120	120+	
at Airport		Mins	Mins	Mins	Mins	Mins	Mins	Mins	Total
None	Number	451	69	105	238	1,180	1,553	2,000	5,597
	Percent	23%	33%	37%	38%	33%	25%	18%	23%
\$1 - \$24	Number	921	97	133	339	1,953	3,577	5,884	12,905
ΨΙ-ΨΖΤ	Percent	46%	47%	47%	54%	55%	58%	53%	54%
\$25 - \$49	Number	413	20	35	37	306	769	2,151	3,730
Ψ20 - Ψ+3	Percent	21%	9%	12%	6%	9%	12%	19%	16%
\$50 - \$99	Number	120	14	7	7	49	203	788	1,188
<del></del>	Percent	6%	7%	2%	1%	1%	3%	7%	5%
\$100 or More	Number	81	7	5	4	40	69	359	565
<del>+</del> ====================================	Percent	4%	3%	2%	1%	1%	1%	3%	2%
TOTAL	Number	1,987	207	284	625	3,528	6,172	11,184	23,986
	Percent	100%	100%	100%	100%		100%	100%	100%
Non-Respondents	<b>i</b>	3,728	51	44	97	380	499	1,287	6,085
<b>Total Originations</b>		5,714	258	327	721	3,908	6,671	12,471	30,070

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 25: Airport Spending by Airport Arrival (000s)

Money Spent at Airport		Originating Passengers	Connecting Passengers	Total
None	Number	5,597	599	6,196
	Percent	19%	8%	16%
\$1 - \$24	Number	18,989	6,481	25,470
	Percent	63%	84%	67%
\$25 - \$50	Number	3,730	455	4,185
	Percent	12%	6%	11%
\$50 - \$99	Number	1,188	152	1,339
	Percent	4%	2%	4%
\$100 or More	Number	565	63	629
	Percent	2%	1%	2%
TOTAL	Number	30,070	7,750	37,820
	Percent	<b>1</b> 00%	<b>100</b> %	100%

Notes:

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Totals may not add due to rounding

<sup>\*</sup> Non-Respondents not included

# **APPENDIX A: SURVEY METHODOLOGY**

The following is a summary of the methodology used to conduct the Washington-Baltimore Regional Air Passenger Survey 2019.

# **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: Baltimore/Washington Thurgood Marshall International Airport (BWI), Ronald Reagan Washington National Airport (DCA), and Washington Dulles International Airport (IAD). It was designed to be compatible with the previous surveying efforts conducted in 1981/82, 1987, 1992, 1998, 2000, 2002, 2005, 2007, 2009, 2011, 2013 and 2015, 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).

# **Sample Selection**

For the 2019 sample selection there were 367 strata or subsets – 290 for domestic and 77 for international destinations, respectively, for all three airports combined. All flights selected for surveying were scheduled during a two-week period beginning Wednesday, October 16<sup>th</sup> and extending through Tuesday October 29<sup>th</sup>, 2019. Flights that were missed and those that required resurveying due to insufficient response rates were surveyed again during the subsequent two-week period, ending November 12<sup>th</sup>, 2019

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 the Maryland Airports Authority (MAA). 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 673 flights were drawn. The domestic flight distribution consisted of 229 at BWI, 217 at DCA, and 143 at IAD, for a total of 589 domestic flights. An additional 84 international flights were drawn and distributed among the airports as follows: 15 at BWI, 10 at DCA, and 59 at IAD.

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 2019 air passenger survey took place during the two-week period from Wednesday, October 16<sup>th</sup> to Tuesday, October 29<sup>th</sup>. Flights requiring resurveying occurred between October 30<sup>th</sup> and November 12<sup>th</sup>. Field staff collected completed surveys from 23,858 out of a total of 90,964 enplaning passengers on 673 randomly selected flights (589 domestic and 84 international), an overall response rate of 28.6 percent. All 23,858 completed survey questionnaires have been processed and tabulated.<sup>3</sup>

Survey managers were appointed for each of the airports from COG 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 2019 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 2019 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 2019, 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 biweekly passenger totals. And finally, observed annual enplanement of regional air travel was obtained from MWAA for DCA and IAD and from MAA for BWI.

<sup>3</sup> 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.

#### **Level of Confidence**

For the overall region, 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 QUESTIONNAIRE**

#### Figure 22: 2019 Air Passenger Survey Instrument: BWI, DCA, IAD

4. How many people live in your household, including yourself?	2770	AIR PASSENGER SURVEY – BWI AIRPORT			
		A. ABOUT YOUR TRIP TODAY			
Person(s) (Write '1' if you live alone)	SAD	1. How did you get to Baltimore/Washington			
5. Check your age group:  □ 18 or younger □ 435-49		International Thurgood Marshall Airport for this trip? (Check ONE answer)			
□ <sub>02</sub> 19–24 □ <sub>05</sub> 50–64	2019	□ <sub>01</sub> By GROUND TRANSPORTATION			
□ <sub>03</sub> 25–34 □ <sub>06</sub> 65 or older	WASHINGTON - BALTIMORE	(e.g., car, taxi, ride-hailing, Metro, etc.)			
6. What is your household's total annual income?	REGIONAL AIR PASSENGER	If this was your selection, continue to QUESTION #2			
□ <sub>01</sub> Less than \$25,000 □ <sub>04</sub> \$100,000-\$149,999	SURVEY	use on this flight when it arrived at this airport.			
□ <sub>02</sub> \$25,000-\$49,999 □ <sub>05</sub> \$150,000-\$199,999	TO DETERMINE LOCAL AIRPORT NEEDS	☐ ☐ I made a connection at this airport from a ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
□ <sub>03</sub> \$50,000-\$99,999 □ <sub>08</sub> \$200,000 or more		DOMESTIC PLIGHT			
7. How much did you spend on airport concessions	BWI	INTERNATIONAL FLIGHT			
during your visit? (Include expenses only within	This survey concerns your trip today.	with Airlines.			
the airport terminal area such as food, souvenirs,	Please complete this form, even if you have received a form on other days.	<u>STOP</u> – That is all we need to know.			
spa visit, etc. Do not include expenses outside of the airport terminal area such as parking.)	All answers are confidential.	2. What is the final destination of your trip today?			
□ <sub>01</sub> \$0	Personal identification is not required.				
□ <sub>02</sub> \$1-\$24	Thank you for your cooperation.	City			
□ <sub>03</sub> \$25-\$49	You can take this survey online by visiting	State/Province Country			
□ <sub>04</sub> \$50-\$99 □ <sub>ns</sub> \$100 or more	Tou can take uns survey online by visiting	,			
E. PLEASE WRITE ANY COMMENTS YOU	http://gowba.info/air	<ol><li>What is the primary purpose of your trip? (Check ONE answer)</li></ol>			
WOULD LIKE TO SHARE	4.02.444	☐ Business related to the federal government (Including military)			
	or scan the QR code below.	☐   Business related to state or local government			
	同绘画	☐ <sub>∞</sub> Business that is not related to government			
	200 A	☐ <sub>04</sub> Vacation or holiday			
	<b>原統領</b>	☐ os Personal or family affairs			
	同談場	☐ ce Student or school related ☐ cc Other:			
	ID number below is required to access online survey.	B. ABOUT YOUR GROUND TRIP TO BWI MARSHALL AIRPORT:			
	This survey is being conducted by:	<ol> <li>Where did you start your ground trip to this airport (BWI)? (Check ONE answer)</li> </ol>			
	Metropolitan Washington Council of Governments Metropolitan Washington Airports Authority	Private residence			
	Maryland Aviation Administration	☐ ∞ Hotel/Motel			
Thanks for Your Help!	in cooperation with the airlines	☐ <sub>03</sub> Short term rental (e.g., Airbnb, VRBO)			
	serving the region's airports.	☐ 04 My regular place of employment			
	ID NUMBER (PASSWORD)	☐ 05 Another place of business			
		☐ ø5 Other:			

. What is the address of the place you started your trip today?	7. What was your MAIN reason for choosing your	C. ABOUT YOUR AIRPORT CHOICE
Street Street City Quadrant Number Name (e.g., SW, NE)	mode of GROUND transportation to this airport TODAY? (Check ONE answer) □ or Cost	<ol> <li>Rank the three most important reasons for choosing BWI Marshall Airport for your flight today. (Write 1 for first choice, 2 for second, etc.)</li> </ol>
1 1	ପ ∞ Reliability ପ m Travel Time	Closest airport
City State Zip Code	□ <sub>M</sub> Convenience	Easy road access
	☐ <sub>05</sub> Comfort	Easy access by Metrorail or public transit
Hotel/Motel or Business Name	☐ <sub>95</sub> Other:	Convenient van/limo or shuttle bus service
What time did you begin your trip to the airport	8. How much did you spend on <u>all</u> ground transportation to this airport except parking?	Good parking facilities
today? (Enter time and circle AM or PM)	□ <sub>01</sub> \$0	More convenient flight times
: AM PM	□ <sub>∞</sub> \$1-\$4	Less expensive airfare
What time did you arrive at the airport today?	☐ <sub>∞</sub> \$5-\$9	Only airport with non-stop flights
(Enter time and circle AM or PM)	□ <sub>64</sub> \$10-\$24	Only airport that serves my destination
: AM PM	□₀s\$25-\$49 □₀s\$0-\$99	Frequent flyer / airline loyalty program
How many people who came to the cirport	☐ <sub>67</sub> \$100 or more	Other:
How many people who came to the airport with you are on your flight?		2. Bank the region to sign and in command of
Person(s) (Including yourself)	<ol> <li>If you arrived in a private or rented car, taxi, or ride- hailing vehicle (e.g., Uber, Lyft) did you carpool with someone else? (Skip if does not apply)</li> </ol>	<ol><li>Rank the region's airports in your order of preference. (Write 1 for first choice, 2 for second, etc.)</li></ol>
How did you travel to this airport today? (Check ONE primary mode of travel)	□ Yes □ No	BWI Marshall
Don Private Car	10. If you arrived in a private vehicle - excluding	Washington Dulles International
□ <sub>02</sub> Rented Car	rental cars – answer below. (Skip if does not apply)	Reagan Washington National
□₀₃Taxi □₀₄Ride-hailing (e.g., Uber, Lyft)	a. Were you dropped off at the terminal curbside?	D. ABOUT YOURSELF
□ <sub>05</sub> Airport van/limo (e.g., SuperShuttle)	□ <sub>01</sub> Yes □ <sub>02</sub> No	
☐ <sub>oe</sub> Hotel/Motel courtesy bus	b. Where was that vehicle parked (after drop-off)?	If you live locally, how many nights will you be
□ <sub>08</sub> Amtrak/MARC	☐ on It was not parked	away? Night(s) (Write '0' if you will return today)
□₀Light Rail □₁₀Metrobus/MTA Bus/RTA Bus	☐ Mourly Parking Garage	
☐, Walked from place where your trip started	☐ <sub>03</sub> Daily Garage	2. If you were visiting, how many nights did you
today	☐₀ Express Parking Lot ☐₀ Long Term A or B	stay in the area?
☐ 12 Biked from place where your trip started today	☐ BWI Rail Station Garage	Night(s) (Write '0' if you arrived today)
□ <sub>95</sub> Other:	☐ or Off-Airport Private Parking	3. What is the location of your current residence?
→If you walked or biked to the airport, please describe your trip route, including your start and end point.	☐ <sub>11</sub> Valet Parking	1 1
your trip route, including your start and end point.		City/County State Zip Code
		Country
		Country Turn Page →

4. How many people live in your household,		AIR PASSENGER SURVEY – DCA AIRPORT
including yourself?		A. ABOUT YOUR TRIP TODAY
Person(s) (Write '1' if you live alone)		
5. Check your age group:	<b>161</b>	<ol> <li>How did you get to Ronald Reagan Washington National Airport for this trip? (Check ONE answer)</li> </ol>
□ on 18 or younger □ on 35–49	2010	□ <sub>∞</sub> By GROUND TRANSPORTATION
□ <sub>∞</sub> 19–24 □ <sub>∞</sub> 50–64	2019	(e.g., car, taxi, ride-hailing, Metro, etc.)
□ <sub>∞</sub> 25–34 □ <sub>∞</sub> 65 or older	WASHINGTON - BALTIMORE	If this was your selection, continue to QUESTION #2
6. What is your household's total annual income?	REGIONAL AIR PASSENGER	□ a I was on this flight when it arrived at this airport.
□ cless than \$25,000 □ s 100,000-\$149,999	SURVEY	I made a connection at this airport from a
□ ≈ \$25,000-\$49,999 □ ≈ \$150,000-\$199,999		DOMESTIC FLIGHT
□ s50,000-\$99,999 □ s200,000 or more	TO DETERMINE LOCAL AIRPORT NEEDS	☐ I made a connection at this airport from an
□ @ \$200,000 of file	DCA	INTERNATIONAL FLIGHT
7. How much did you spend on airport concessions	This survey concerns your trip today.	STOP – That is all we need to know.
during your visit? (Include expenses only within the airport terminal area such as food, souvenirs,	Please complete this form, even if you have	STOP – That is all we need to know.
spa visit, etc. Do not include expenses outside of the	received a form on other days.	2. What is the final destination of your trip today?
airport terminal area such as parking.)	All answers are confidential.	
□ or \$0	Personal identification is not required.	City
□ <sub>∞</sub> \$1-\$24	Thank you for your cooperation.	
□ <sub>∞</sub> \$25-\$49		State/Province Country
□ <sub>04</sub> \$50-\$99	You can take this survey online by visiting	3. What is the primary purpose of your trip?
☐ ∞ \$100 or more		(Check ONE answer)
E. PLEASE WRITE ANY COMMENTS YOU	http://gowba.info/air	☐ on Business related to the federal government
WOULD LIKE TO SHARE		(Including military)
THOUSE EACH TO STATE	or scan the QR code below.	□ <sub>∞</sub> Business related to state or local government
		☐ 03 Business that is not related to government
	国籍	☐ 04 Vacation or holiday
	<b>東部級</b> 面	☐ os Personal or family affairs
	PS-200	□ osStudent or school related
		□ sc Other:
	ID number below is required to access online survey.	B. ABOUT YOUR GROUND TRIP TO RONALD REAGAN WASHINGTON NATIONAL AIRPORT:
		1. Where did you start your ground trip to this airport
	This survey is being conducted by:	(DCA)? (Check ONE answer)
	Metropolitan Washington Council of Governments	☐ or Private residence
	Metropolitan Washington Council of Governments Metropolitan Washington Airports Authority Maryland Aviation Administration	☐ totel/Motel
Theological IIII	Maryland Aviation Administration in cooperation with the airlines	☐ Short term rental (e.g., Airbnb, VRBO)
Thanks for Your Help!	serving the region's airports.	☐ My regular place of employment
		☐ s Another place of business
	ID NUMBER (PASSWORD)	□ <sub>sc</sub> Other:

2.	What is the address of the place you started your trip today?	<ol> <li>What was your MAIN reason for choosing your mode of GROUND transportation to this airport TODAY? (Check ONE answer)</li> </ol>	C. ABOUT YOUR AIRPORT CHOICE  1. Rank the three most important reasons				
	Street Street City Quadrant Number Name (e.g., SW. NE)	□ or Cost □ ∞ Reliability	for choosing Reagan Washington National Airport for your flight today. (Write 1 for first choice, 2 for second, etc.)				
	Number Name (e.g., SW, NE)	☐ <sub>∞</sub> Travel Time	Closest airport				
	City State Zip Code	☐ Convenience	Easy road access				
	ony State Zip Gode	□ ∞ Comfort □ ∞ Other:	Easy access by Metrorail or public transit				
	Hotel/Motel or Business Name		Convenient van/limo or shuttle bus service				
	note/woter of business Name	8. How much did you spend on all ground	Good parking facilities				
3.	What time did you begin your trip to the airport today? (Enter time and circle AM or PM)	transportation to this airport <u>except</u> parking?	More convenient flight times				
	□□:□□ AM PM	⊔ം\$0 □∞\$1-\$4	Less expensive airfare				
		□ <sub>∞</sub> \$5-\$9	Only airport with non-stop flights				
4.	What time did you arrive at the airport today? (Enter time and circle AM or PM)	□ ω\$10-\$24	Only airport that serves my destination				
	AM PM	□ <sub>∞</sub> \$25-\$49	Frequent flyer / airline loyalty program				
	AM FM	□ <sub>∞</sub> \$50-\$99	Other:				
5.	How many people who came to the airport with you are on your flight?	□ <sub>α</sub> \$100 or more	Rank the region's airports in your order of preference. (Write 1 for first choice, 2 for second, etc.)				
_	Person(s) (Including yourself)  How did you travel to this airport today?	If you arrived in a private or rented car, taxi, or ride- hailing vehicle (e.g., Uber, Lyft) did you carpool	Reagan Washington National				
0.	(Check ONE primary mode of travel)	with someone else? (Skip if does not apply)  □ Yes □ No	BWI Marshall				
	☐ on Private Car	an res	Washington Dulles International				
	□ Rented Car	10. If you arrived in a private vehicle - excluding	D. ABOUT YOURSELF				
	□ so Taxi □ Ride-hailing (e.g., Uber, Lyft)	rental cars – answer below. (Skip if does not apply)					
	☐ ∞ Airport van/limo (e.g., SuperShuttle)	a. Were you dropped off at the terminal curbside?	1. If you live locally, how many nights will you be				
	□ <sub>∞</sub> Hotel/Motel courtesy bus □ <sub>∞</sub> Metrorail	□ <sub>ot</sub> Yes □ <sub>∞</sub> No	away?				
	□ <sub>∞</sub> VRE	b. Where was that vehicle parked (after drop-off)?	Night(s) (Write '0' if you will return today)				
	□ 10 Metrobus	☐ or It was not parked	2. If you were visiting, how many nights did you				
_	🗖 🛚 H Walked from place where your trip started today	☐ on Short-term/hourly parking lot	stay in the area?				
	☐ 12 Biked from place where your trip started today	□ o Long-term/daily parking garage					
	□ <sub>∞</sub> Other: ►If you walked or biked to the airport, please describe	☐ 10 Long-term/economy parking lot					
	your trip route, including your start and end point.		1 1				
_			City/County State Zip Code				
			Country				
			Country				

Turn Page →

4. How many people live in your household,		AIR PASSENGER SURVEY - IAD AIRPORT
including yourself?		
Person(s) (Write '1' if you live alone)		A. ABOUT YOUR TRIP TODAY
5. Check your age group:		How did you get to Washington Dulles International     Airport for this trip? (Check ONE answer)
□ <sub>01</sub> 18 or younger □ <sub>04</sub> 35–49	NO I DO	
□ <sub>02</sub> 19–24 □ <sub>05</sub> 50–64	2019	☐ By GROUND TRANSPORTATION  (e.g., car, taxi, ride-hailing, Metro, etc.)
□ <sub>03</sub> 25–34 □ <sub>06</sub> 65 or older	WASHINGTON - BALTIMORE	If this was your selection, <u>continue to QUESTION #2</u>
6. What is your household's total annual income?	REGIONAL AIR PASSENGER	I was on this flight when it arrived at this airport.
□ <sub>01</sub> Less than \$25,000 □ <sub>04</sub> \$100,000-\$149,999	SURVEY	Os I made a connection at this airport from a
□ <sub>∞</sub> \$25.000-\$49.999 □ <sub>∞</sub> \$150.000-\$199.999	SURVET	DOMESTIC FLIGHT
□ <sub>m</sub> \$50,000-\$99,999 □ <sub>m</sub> \$200,000 or more	TO DETERMINE LOCAL AIRPORT NEEDS	☐ I made a connection at this airport from an
<b>2</b>	IAD	INTERNATIONAL FLIGHT
7. How much did you spend on airport concessions		with Airlines.
during your visit? (Include expenses only within	This survey concerns your trip today.	STOP - That is all we need to know.
the airport terminal area such as food, souvenirs, spa visit, etc. Do not include expenses outside of the	Please complete this form, even if you have received a form on other days.	
airport terminal area such as parking.)		2. What is the final destination of your trip today?
□ <sub>0:</sub> \$0	All answers are confidential.	City
□ <sub>∞</sub> \$1-\$24	Personal identification is not required.  Thank you for your cooperation.	City
□ <sub>m</sub> \$25-\$49	Thank you for your occupation.	State/Province Country
□ <sub>∞</sub> \$50-\$99	V	State/Province Country
□ <sub>∞</sub> \$100 or more	You can take this survey online by visiting	3. What is the primary purpose of your trip?
as \$100 of filore		(Check ONE answer)
E. PLEASE WRITE ANY COMMENTS YOU	http://gowba.info/air	☐ Business related to the federal government
WOULD LIKE TO SHARE		(Including military)
	or scan the QR code below.	□ Business related to state or local government
		Business that is not related to government
	<b>同語</b>	☐ <sub>04</sub> Vacation or holiday
	<b>岩路</b> 線開	☐ os Personal or family affairs
	(###V##	☐ os Student or school related
	<b>₩33×126</b>	Other:
	E184.422	
		B. ABOUT YOUR GROUND TRIP TO WASHINGTON
	ID number below is required to access online survey.	DULLES INTERNATIONAL AIRPORT:
		<ol> <li>Where did you start your ground trip to this airport (IAD)? (Check ONE answer)</li> </ol>
	This survey is being conducted by:	Do Private residence
	Metropolitan Washington Council of Governments	□ <sub>∞</sub> Hotel/Motel
	Metropolitan Washington Airports Authority Maryland Aviation Administration	☐ 3 Short term rental (e.g., Airbnb, VRBO)
Thanks for Your Help!	in cooperation with the airlines	_
manife for roar riorp:	serving the region's airports.	□ My regular place of employment
		☐ <sub>05</sub> Another place of business
	ID NUMBER (PASSWORD)	☐ <sub>95</sub> Other:

2. What is the address of the place you started your trip today?	7. What was your MAIN reason for choosing your	C. ABOUT YOUR AIRPORT CHOICE
Street Street City Quadrant Number Name (e.g., SW, NE)	mode of GROUND transportation to this airport TODAY? (Check ONE answer) □ or Cost □ or Reliability □ or Travel Time	Rank the three most important reasons for choosing Washington Dulles International Airport for your flight today. (Write 1 for first choice, 2 for second, etc.)  Closest airport
City State Zip Code	□ <sub>∞</sub> Convenience □ <sub>∞</sub> Comfort	Easy road access
Hotel/Motel or Business Name	☐ <sub>ss</sub> Other:	Easy access by Metrorail or public transit
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	8. How much did you spend on <u>all ground</u> transportation to this airport <u>except</u> parking?  □ or \$0  □ cr \$1-\$4  □ cr \$5-\$9 □ or \$10-\$24 □ cr \$25-\$49	Convenient van/limo or shuttle bus service Good parking facilities More convenient flight times Less expensive airfare Only airport with non-stop flights Only airport that serves my destination Frequent flyer / airline loyalty program
How many people who came to the airport with you are on your flight?  Person(s) (Including yourself)	□ <sub>∞</sub> \$50-\$99 □ <sub>σr</sub> \$100 or more	Other:  2. Rank the region's airports in your order of
6. How did you travel to this airport today?  (Check ONE primary mode of travel)  □ or Private Car □ or Rented Car □ or Taxi	9. If you arrived in a private or rented car, taxi, or ride- hailing vehicle (e.g., Uber, Lyft) did you carpool with someone else? (Skip if does not apply)  □ □ Yes □ □ No	preference. (Write 1 for first choice, 2 for second, etc.)  Washington Dulles International  Reagan Washington National  BWI Marshall
□ <sub>∞</sub> Ride-hailing (e.g., Uber, Lyft) □ <sub>∞</sub> Airport van/limo (e.g., SuperShuttle) □ <sub>∞</sub> Hotel/Motel courtesy bus	10. If you arrived in a private vehicle - excluding rental cars - answer below. (Skip if does not apply) a. Were you dropped off at the terminal curbside?	D. ABOUT YOURSELF  1. If you live locally, how many nights will you be
Onnector  Onnector  Walked from place where your trip started today  Biked from place where your trip started today  Solver:  If you walked or biked to the airport, please describe your trip route, including your start and end point.	Don Yes Don No  b. Where was that vehicle parked (after drop-off)?  Don It was not parked Don Short term/hourly parking lot Don Long term/daily parking garage Don Long term/economy parking lot Don Long term/economy parking lot Don Valet parking	away? Night(s) (Write '0' if you will return today)  2. If you were visiting, how many nights did you stay in the area? Night(s) (Write '0' if you arrived today)  3. What is the location of your current residence?  City/County State Zip Code

Turn Page →

# **APPENDIX C: SURVEY PROCEDURES MANUAL**



# 2019 Washington-Baltimore Regional Air Passenger Survey



# **SURVEY PROCEDURES MANUAL**



**OCTOBER 2019** 

Metropolitan Washington Council of Governments



### **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 information required for the survey.	only i	n act	ivities	s or d	iscussions	that are	directly r	related t	o the wo	k of obt	aining the

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 that the surveys done in the past.

# MAKE SURE YOU HAVE THE FOLLOWING



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

(Valid for Flights between October 6, 2019, and October 19, 2019)

#### LADIES AND GENTLEMEN,

THE PASSENGERS ON <u>United Airlines</u>, Flight Number <u>4933</u> TO <u>Newark NJ</u> 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.

<u>United Airlines</u> AND WASHINGTON DULLES INTERNATIONAL AIRPORT WOULD LIKE TO THANK YOU FOR YOUR COOPERATION."

WED 10/09/2019

# 2019 WASHINGTON / BALTIMORE REGIONAL AIR PASSENGER SURVEY FLIGHT RECORD

SAMPLE: **I100919UA4933** 

AIRPORT: I	<u>AD</u>	]	DESTINATI	ON CITY:	<u>Newark</u>	: <i>NJ</i>				
DAY: <u>V</u>	<u>VED</u>	(	CARRIER:		United	<u>Airlines</u>				
DATE: <u>1</u>	0/9/2019	1	FLIGHT #:		<u>4933</u>					
DEPARTURE TIME: $\underline{6:59:00 \text{ AM}}$										
AIRCRAFT: 3	<u>321</u> N	IO. SEATS:	<u> 187</u>	OAG COI	DE:	<u>UA</u>				
QUESTIONN	AIRES:									
IN PAC	CKET:	BEGINNING	# <b><u>I4000</u></b>	<u>l</u> end	ING#	<u>1040187</u>				
ADDIT	IONAL:	BEGINNING	ì#		ENDING#_					
ADDITIONAL: BEGINNING # ENDING#										
No	O. OF NON-M	AILBACK F	ORMS DIST	RIBUTED:						
NO. OF MAILBACKS DISTRIBUTED:										
TOTAL NO. OF FORMS DISTRIBUTED:										
NO. OF COMPLETED QUESTIONNAIRES;										
NO. OF REVENUE PASSENGERS:										
RESPONSE RA	ATE:		-	SUCCESS	FUL FLIGH	IT?				
RESURVEY D	DATE #1:			RESURVI	EY DATE #2	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.
- 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 checkedin. 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 of 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.