

WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY – 2019 GEOGRAPHIC FINDINGS

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National Capital Region
Transportation Planning Board

2019 WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY GEOGRAPHIC FINDINGS

Prepared by the National Capital Region Transportation Planning Board in cooperation with the Federal Aviation Administration, March 2021.

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

CREDITS

Authors: Abdurahman Mohammed, Senior Transportation Engineer; Arianna Koudounas, Transportation Planner; Tim Canan, Planning Data and Research Program Director; Jessica Mirr, GIS Analyst; Zhuo Yang, Transportation Data Analyst.

Contributing Editors: Arianna Koudounas, Transportation Planner

Design: Arianna Koudounas, Transportation Planner

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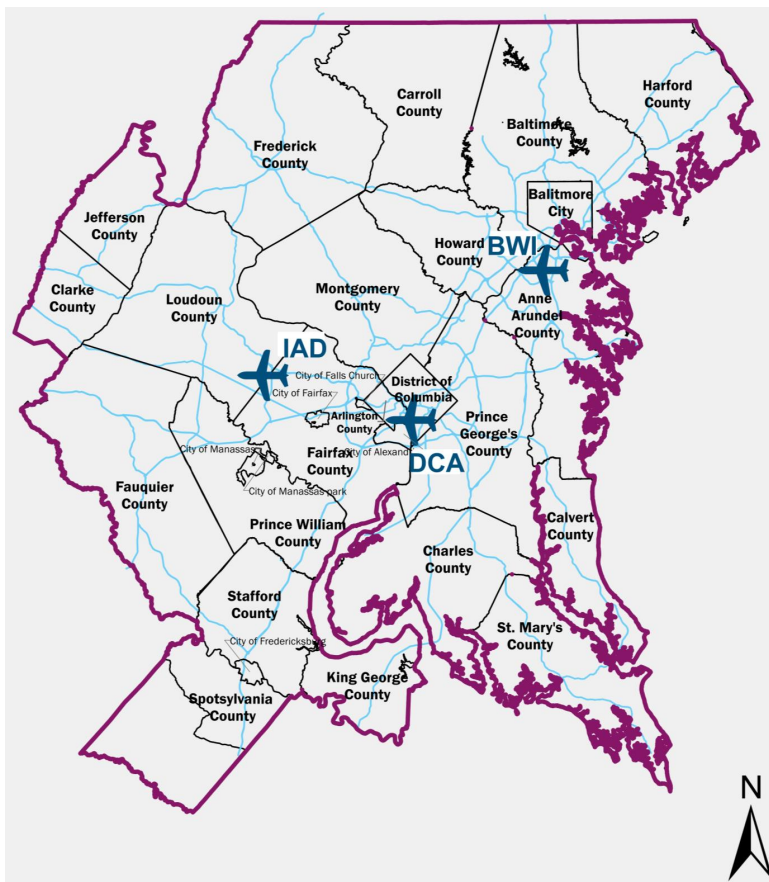
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EXECUTIVE SUMMARY

In October 2019, the Metropolitan Washington Council of Governments (MWCOCG) conducted a regional air passenger survey jointly funded by the Metropolitan Washington Airports Authority (MWA) and the Maryland Department of Transportation (MDOT) Maryland Aviation Administration (MAA) at the three major commercial airports in the Washington-Baltimore Region: Ronald Reagan Washington National Airport (DCA), Washington Dulles International Airport (IAD), and Baltimore/Washington International Thurgood Marshall Airport (BWI). Field staff collected completed surveys from 23,858 out of a total of 83,424 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 region's air systems planning and master planning processes and provide information necessary to account for airport ground access in the region's travel demand model.

The Washington-Baltimore air system planning region (ASPR) 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 ASPR consists of 25 jurisdictions, 161 Aviation Analysis Zones, and 2,604 Transportation Analysis Zones.

Figure 1: Washington-Baltimore Air System Planning Region



This report summarizes the findings regarding patterns of airport use, trip purpose, origin activity, mode of access, and household income. The report analyzes these data based on their geographic distribution. Regional percentages shown in this document are subject to a sampling error of approximately plus or minus three percentage points at the 90 percent confidence level. Percentages at each of the individual airports are subject to a sampling error of twice that amount.

Tables 1-3 in the forthcoming page contain key information on the data collected during the survey period. Table 1 provides the total number of enplaning passengers surveyed. Tables 2 and 3 illustrates the quality of the trip origin information provided, broken down by airport as well as internal and external trip originations.

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Data Collection Summary

Table 1: Trip Originations by Type and Airport

Enplanements		BWI	DCA	IAD	Total
Local origination	Number	6,797	6,128	4,913	17,838
(Came by ground transportation)	Percent	74%	92%	67%	77%
Connected from another Flight	Number	2,437	536	2,367	5,340
(Local and/or International)	Percent	26%	8%	33%	23%
TOTAL	Number	9,234	6,664	7,280	23,178
	Percent	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 2: Geocoded Records by Airport of Local Originating Trips

Geocoding		BWI	DCA	IAD	Total
Hand-Coded	Number	4,158	3,425	2,792	10,375
	Percent	61%	56%	57%	58%
Partial-Address	Number	643	1,982	776	3,401
	Percent	9%	32%	16%	19%
Allocated	Number	1,996	721	1,345	4,062
	Percent	29%	12%	27%	23%
TOTAL	Number	6,797	6,128	4,913	17,838
	Percent	100%	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 3: Geocoded Records by Internal/External Originations

Geocoding		Internal	External	Total
Hand-Coded	Number	9,410	965	10,375
	Percent	57%	72%	58%
Partial-Address	Number	3,397	4	3,401
	Percent	21%	0%	19%
Allocated	Number	3,693	369	4,062
	Percent	22%	28%	23%
TOTAL	Number	16,500	1,338	17,838
	Percent	100%	100%	100%

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Airport Use

- Approximately 30 million air passengers originated in the Washington-Baltimore region in 2019, an increase of 13 percent over the 26.7 million passenger originations in 2017.
- The total number of air passengers, including connecting passengers, increased by four percent between 2017 and 2019, from 36.4 million to 37.8 million.
- When compared with 2017, in 2019 the District of Columbia experienced a three percent decrease in originating air passengers, while the Baltimore region and Virginia suburbs of DC both experienced a 17 percent increase. Originations from the outlying areas of the air system region had a 29 percent increase. External trips originating outside of the air system region increased by 16 percent when compared with 2017.
- 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 increased from 88 to 91 percent, and IAD increased from 64 to 71 percent.
- Each airport remained dominant for its characteristic trip purpose(s): BWI for personal and vacation, DCA for business, and IAD remained dominant for international as well as school-related travel.

Airport Preference

- Across the air system region, 58 percent of passengers were satisfied with their airport choice, a decrease of five percent from 2017. The jurisdictions with the highest percentage of satisfied passengers were mainly in the Baltimore region and Virginia Suburbs of DC. The airport reporting the highest percentage of residents satisfied with their airport choice was DCA at 63 percent.

Trip Purpose

- 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.
- Vacation travel increased to 28 percent (up from 24 percent in 2017) and school-related travel increased slightly from six to seven percent. Personal or family-related travel decreased slightly from 30 to 29 percent.

Ground Trip Origin

- Seven percent of local originations left from a place of business. In 2019 the percentage of air passengers beginning their trips from a private residence decreased from 60 percent to 58 percent.
- 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

- 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.
- Regional transit use remained constant at seven 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).

Baltimore and Washington Subregional Cores

- Air passengers from the Baltimore Core accounted for five percent of the regional total and 25 percent of all passengers from the Baltimore metropolitan area.
- The Washington Core had 9.2 million air passengers in 2017, with 68 percent departing from DCA.
- Business travel was the trip purpose for 33 percent of passengers from the Baltimore Core and for 36 percent of passengers from the Washington Core.
- Both the Washington Core and the Baltimore Core had a significant percentage of passengers traveling to the airport from a hotel or motel: 43 percent from the Washington Core and 27 from the Baltimore Core.
- Places of employment or other business locations generated nine percent of passengers from both the Washington Core and the Baltimore Core.
- In the Baltimore Core, seven percent of passengers used taxicabs and 29 percent used TNCs. This figure grew to 16 percent and 36 percent, respectively, in the Washington Core.
- Seven percent of passengers from both the Washington Core and the Baltimore Core used the airport bus or limousine service.
- Public transportation use from the Washington Core accounted for 14 percent of total public transportation use to the three major airports. The percentage of originating air passengers using Metrorail to DCA from the Washington Core was 14 percent.
- Usage of public transportation for locally originating air passengers within the Washington Core was 14 percent - double the regional average of seven percent and nearly five times that of the Baltimore Core at three percent.

Flight Destination by Region

- Domestic travel accounted for 87 percent of all trips. DCA remained dominant for domestic travel, making up 41 percent of the share, while BWI and IAD accounted for 38 percent and 21 percent, respectively.
- International travel accounted for 13 percent of all trips. IAD remained dominant for international travel, making up 79 percent of the share, while BWI and DCA accounted for 15 percent and six percent, respectively. In terms of ground access trip origins, the Virginia Suburbs accounted for 38 percent of all international travel.
- The 2019 distribution of travel was generally consistent with 2017 findings. The Atlantic and Midwest regions combined received 41% of all departing passengers, the same as in 2017. Between 2017 and 2019 there were minor increases in the Atlantic and Southeast, and minor decreases in the Midwest, Pacific Northwest, Northeast, and Plains.
- BWI had the largest share of flights to the Atlantic, the Southeast, and the West. DCA had the largest share of flights to the Midwest, New England, the Northeast, the Plains and South Central. IAD only made up 21 percent of all domestic flights, but it had 53 percent of the share of flights to the Pacific Northwest and 79 percent of international flights.

I. INTRODUCTION

This report presents the geographic and temporal findings from the 2019 Washington-Baltimore Regional Air Passenger Survey, conducted concurrently at Ronald Reagan Washington National Airport (DCA), Washington Dulles International Airport (IAD), and Baltimore/Washington International Thurgood Marshall Airport (BWI). This report is the second of two technical reports resulting from the survey. The first report, the General Findings Report of the 2019 Washington-Baltimore Regional Air Passenger Survey, is publicly available and summarizes findings regarding patterns of airport enplanement share, airport choice, airport preference, air trip purpose, ground trip origin, airport mode of access, air traveler characteristics, and at-airport use of facilities - an overview of which is provided below. The 2019 Regional Air Passenger Survey was conducted by the National Capital Transportation Planning Board (TPB) of the Metropolitan Washington COG, MAA, and MWAA, as part of the TPB Continuous Airport System Planning (CASP) program. One of the goals of this program is to continue the rational development of aviation facilities and services at the three major commercial airports serving the Washington-Baltimore region. Figure 2 represents the jurisdictions that make up the Washington/Baltimore Air System Planning Region and locates the three commercial airports.¹

The 2019 air passenger survey took place during the two-week period from Wednesday, October 16th to Tuesday, October 29th. Flights requiring resurveying occurred between October 30th and November 12th. Field staff collected completed surveys from 23,858 out of a total of 83,424 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.²

The survey sample includes flights from 36 airlines, of which 24 are international and 12 are domestic carriers. The sample flights are grouped into 340 destination clusters. The survey instrument contains questions regarding the respondent's airline trip, the trip to the airport, the choice of airport, and several demographic questions, such as household size, household income, and respondent age. Appendix A contains the 2019 survey methodology and Appendix B contains the questionnaire.

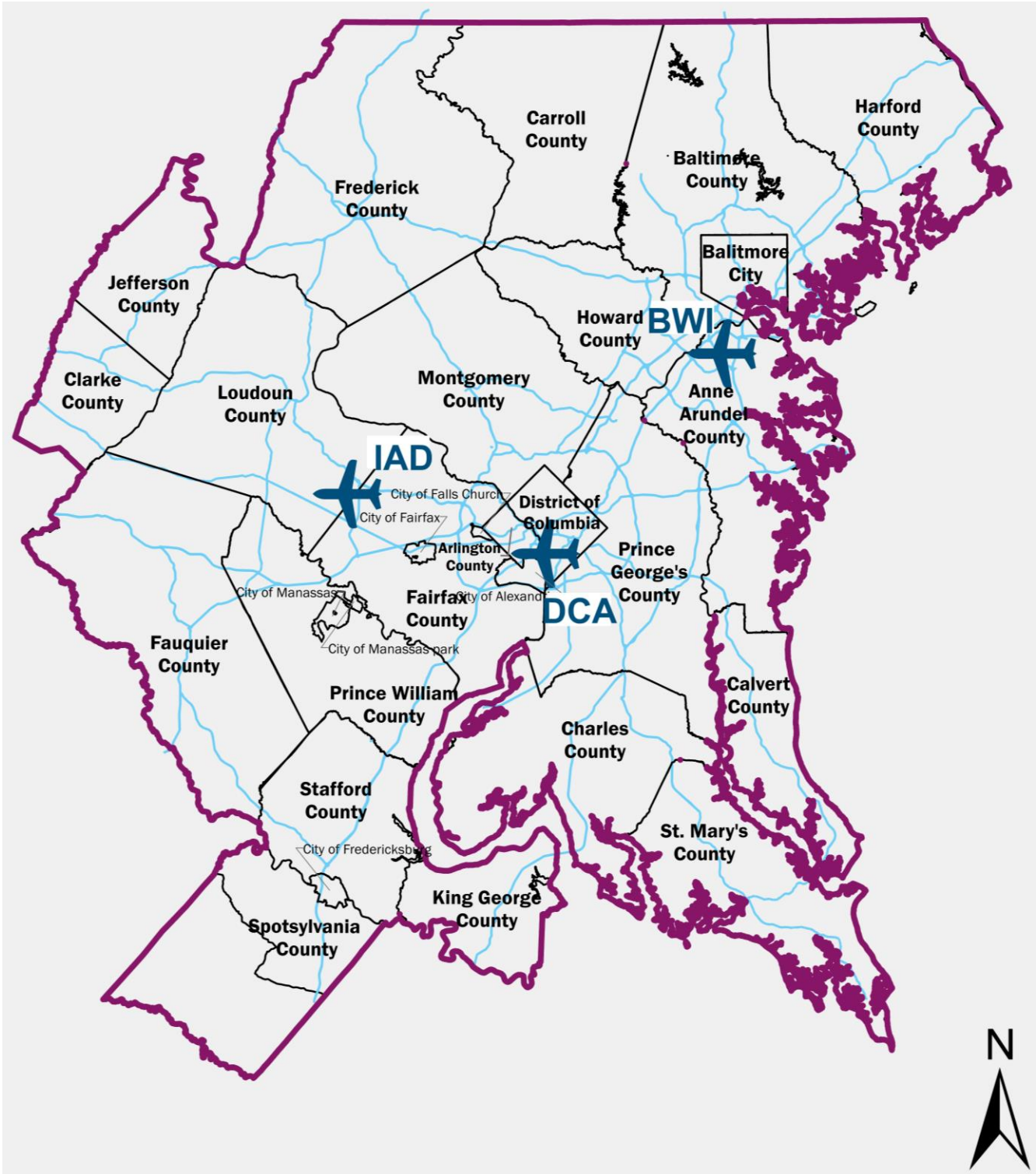
One of the objectives of the air passenger survey program is to collect data on the travel characteristics of all air passengers using the three major airports in the region. It should be noted that 60 percent of the passengers originating from the three commercial airports responding to the survey were not residents of the Washington-Baltimore region (Washington-Baltimore Air System Planning Region). The geographic findings, therefore, do not necessarily reflect characteristics of persons living in a particular jurisdiction. These findings reflect characteristics of many persons coming from outside the region who are originating their ground trip to the airport within one of the jurisdictions in the Washington/Baltimore Air System Planning Region.

The 2019 Regional Air Passenger Survey was conducted by the National Capital Transportation Planning Board (TPB) of the Metropolitan Washington COG, MAA, and MWAA, in cooperation with the airlines serving the region. The project was guided by the Aviation Technical Subcommittee of the TPB Technical Committee, composed of a broad range of Federal, State, Local, and private aviation interests.

¹ Although Figure 1 shows all of Spotsylvania County, VA, the Air System Planning Region only includes the northern portion of the county, and only that portion is shown on all other maps in this document.

² 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.

Figure 2: Washington / Baltimore Air System Planning Region



Source: Washington-Baltimore Regional Air Passenger Survey 2019

II. FINDINGS

This chapter summarizes the results of the 2019 Washington-Baltimore Regional Air Passenger Survey regarding the geographic and temporal characteristics of originating passengers using the region's three major commercial service airports. The survey data were collected over the course of a four-week period during October 2019.

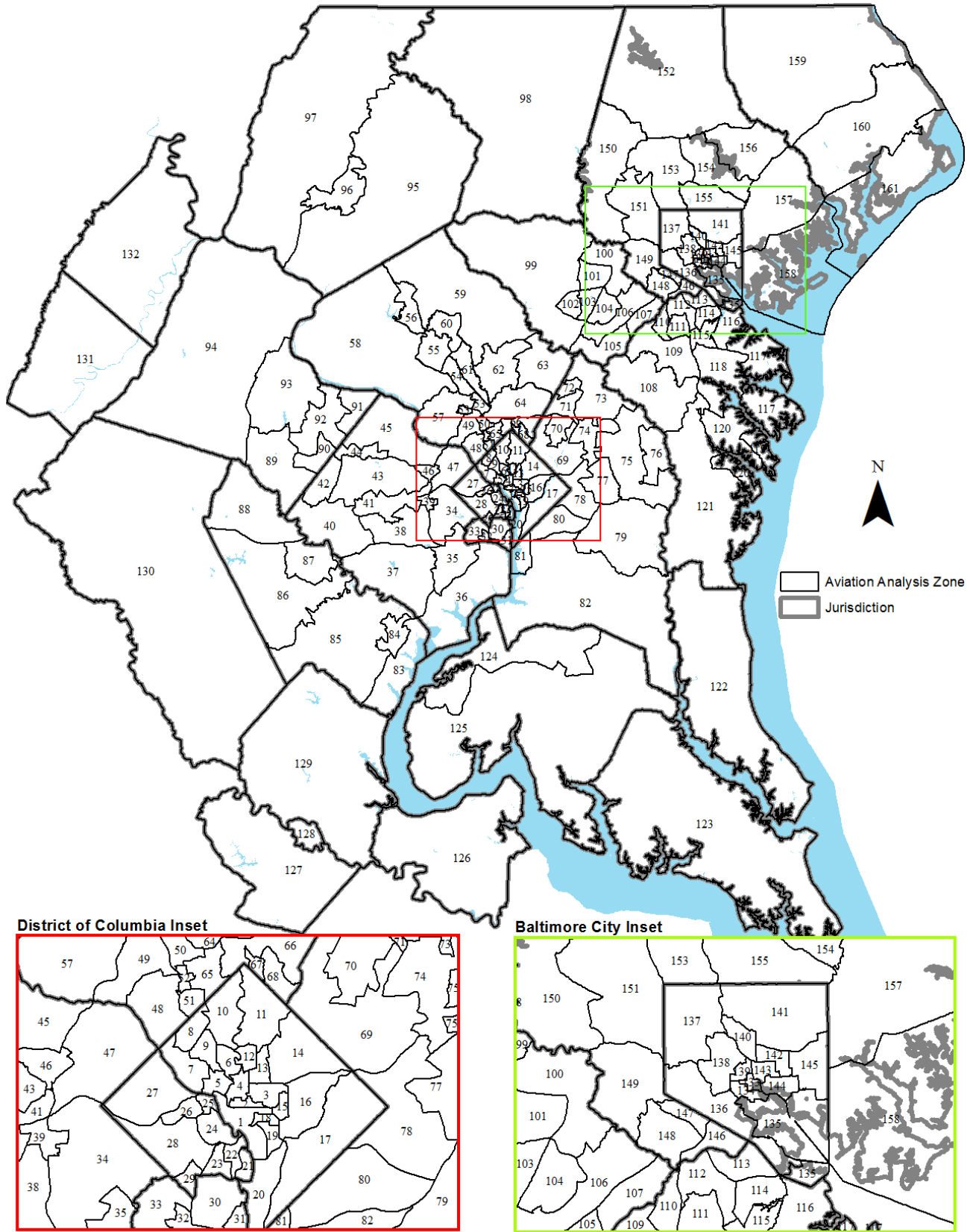
Within this report, the total number of enplanements for the region overall and for each airport are annualized numbers, based on the survey sample. This sample has been factored up to represent an estimate of annual enplanements and does not necessarily equate to the actual observed counts reported by the airports.

Expansion of the survey data to calendar year 2019 (or any other annual period) requires the assumption that the characteristics observed during the survey apply to the period to which they are being expanded. This is a judgment and not a statistical assumption. 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.

The survey results are aggregated by Aviation Analysis Zone (AAZ). These zones are composed of aggregations of smaller TPB Transportation Analysis Zones (TAZs) in the Washington and Baltimore metropolitan regions. AAZs are based on transportation geography, defined by jurisdictional boundaries, major highways, and barriers to travel, such as rivers. These are relatively fixed zones, not intended to be adjusted due to demographic changes, and thus provide a consistent geographic basis to measure changes over time. The AAZs for the Washington-Baltimore Air System Planning region are displayed in Figure 3.

There are 53 zones in the Baltimore metropolitan areas (numbers 98 through 121 and 133 through 161) and 108 zones in the Washington metropolitan area (1 through 97 and 122 through 132). A full description of the AAZ system may be found in Appendix B. In addition, there are five zones that represent external areas, areas that are outside the immediate Washington-Baltimore region.

Figure 3: Aviation Analysis Zone System



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Geographic Patterns of Airport Use

Approximately 30 million air passengers originated from the three commercial airports in the Washington-Baltimore Region in 2019, a 13 percent increase from the 26.7 million passenger originations in 2017 (See Table 4). Air passenger originations are further grouped into internal (local originating air passenger trips within the Washington-Baltimore Air System Planning Region) and external (local originating air passenger trips from areas outside the Washington-Baltimore Air System Planning Region), and are presented in

Table 5. Figures 4 and 5 illustrate the percent breakdown of annual internal originations by regional district in 2017 and 2019.

Table 4: Annual Trip Originations by Airport (000s)

Enplanement Type		BWI		DCA		IAD		Region	
		2017	2019	2017	2019	2017	2019	2017	2019
Local origination (Came by ground transportation)	Number	8,911	10,426	10,499	10,918	7,245	8,726	26,655	30,070
	Percent	67%	77%	88%	91%	64%	71%	73%	80%
Connected from another Flight (Local and/or International)	Number	4,305	3,116	1,458	1,031	4,062	3,603	9,825	7,750
	Percent	33%	23%	12%	9%	36%	29%	27%	20%
Total Enplanements	Number	13,216	13,542	11,957	11,949	11,307	12,329	36,480	37,820
	Percent	100%	100%	100%	100%	100%	100%	100%	100%
Percent of Region	Percent	36%	36%	33%	32%	31%	33%	100%	100%

Note: Numbers may not total due to rounding.

Source: Washington-Baltimore Regional Air Passenger Survey 2017 and 2019

Table 5: Annual Internal / External Trip Originations by Airport (000s)

Enplanement Type		BWI		DCA		IAD		Region	
		2017	2019	2017	2019	2017	2019	2017	2019
Within Air System Planning Region (Internal)	Number	7,723	8,999	10,281	10,761	6,730	8,071	24,734	27,831
	Percent	87%	86%	98%	99%	93%	92%	93%	93%
Outside Air System Planning Region (External)	Number	1,190	1,427	218	157	514	656	1,922	2,240
	Percent	13%	14%	2%	1%	7%	8%	7%	7%
Total Enplanements	Number	8,913	10,426	10,499	10,918	7,244	8,727	26,656	30,071
	Percent	100%	100%	100%	100%	100%	100%	100%	100%

Note: Internal originating trips are local originating trips within the Washington/Baltimore Air System Planning Area. External originating trips are trips originating from PA, DE, WV (except for Jefferson County), NJ or external VA and MD

Source: Washington-Baltimore Regional Air Passenger Survey 2017 and 2019

The geographic distribution of the air passenger originations in both 2017 and 2019 is illustrated in Table 6. Most air passengers originated in the Washington Core and inner suburbs of the metropolitan Washington area. These areas include the District of Columbia; Arlington and Fairfax counties and the City of Alexandria in Northern Virginia; and Prince George's and Montgomery counties in Maryland outside the District of Columbia. A significant number of passengers also originated from Baltimore City, as well as neighboring Anne Arundel and Baltimore counties. This geographic distribution of air passengers is very similar to the 2017 findings.

Figure 7 illustrates the distribution of 2019 passenger originations by residents and non-residents. As a region, 59 percent of departing passengers are non-residents, so there is a significant distribution of non-residents traveling from throughout the region, with a high concentration traveling from the more centralized jurisdictions. While more residents can be found traveling from the outer counties compared to non-residents, many residents also travel from the more centralized jurisdictions as well.

Table 6 shows air passenger trip originations by jurisdiction. The total number of local originating passengers increased by 13 percent between 2017 and 2019, primarily due to a 23 percent increase in those local originations traveling from the Virginia suburbs. When compared with 2017, the District of Columbia experienced a three percent decrease in originating air passengers in 2019, while the Baltimore region and Virginia suburbs each experienced a 17 percent increase. Originations from the outlying areas of the air system region had a 29 percent increase and external trips (trips originating outside of the air system region) increased by 16 percent when compared with 2017.

The service areas for each airport, defined as all zones in which the majority of all originating passengers use a specific airport, are illustrated in Figure 9.³ While the preferences in the inner jurisdictions are stable, the outer jurisdictions are somewhat less predictable. Recent years have seen improvements in geocoding of origination addresses allowing passengers to be linked to the geography more reliably, but small samples of travelers from those outer jurisdictions make continuity of preference data less reliable. Despite these challenges, residential location remains the greatest predictor of airport choice.

In 2019, BWI drew a large proportion of its locally originating passengers from the eastern half of the Washington-Baltimore air system region, as depicted in Figure 9 and Figure 10, while IAD drew a large proportion of its passengers from the western half of the region, as seen in Figure 9 and Figure 12. DCA, geographically located in the middle of and further south than the other two airports, attracted passengers from the central as well as more southern parts of the region, as shown in Figure 9 and Figure 11. These findings correlate with Table 6 in the Air Passenger Survey General Findings report. In 2019, 58 percent of departing air passengers cited proximity as the reason for airport selection. Cost of airfare was the next most chosen reason for airport selection, making up 11 percent of departing air passengers.

Figure 4:
2017 Annual Internal Originations by Regional District

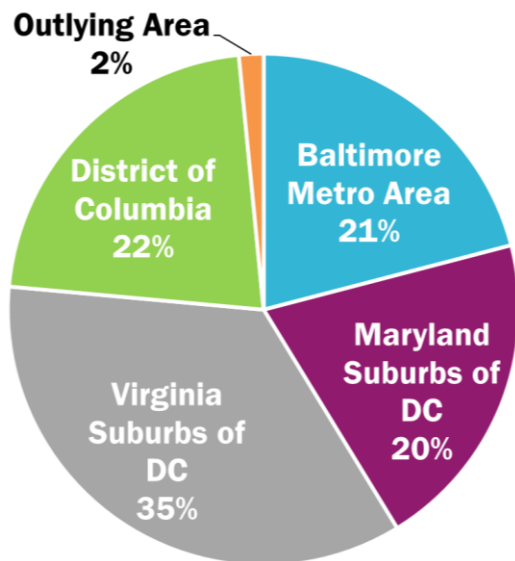
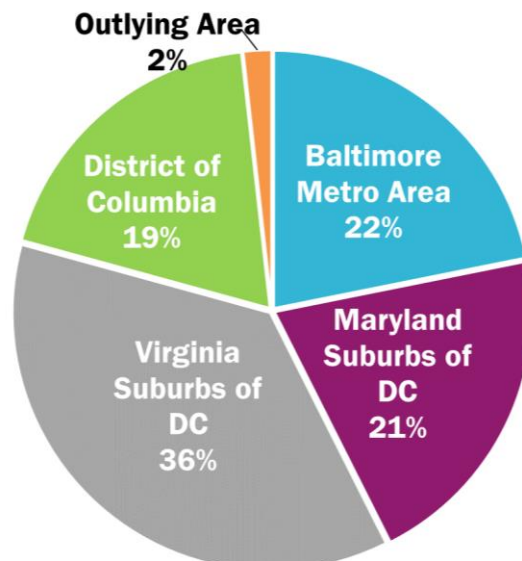


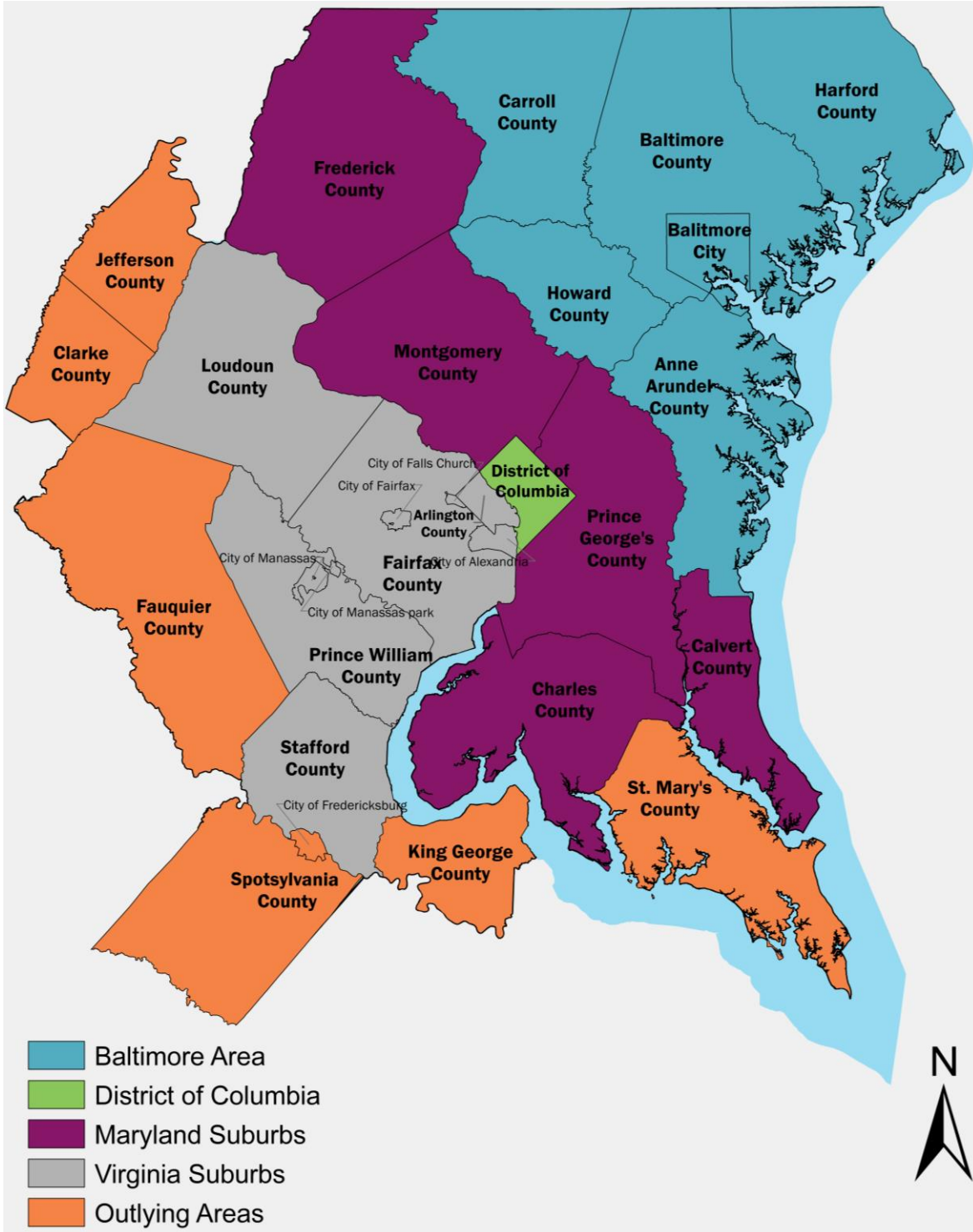
Figure 5:
2019 Annual Internal Originations by Regional District



Notes: 2017 Total: 24.7 Million 2019 Total: 27.8 Million
Source: Washington-Baltimore Regional Air Passenger Survey 2017 and 2019

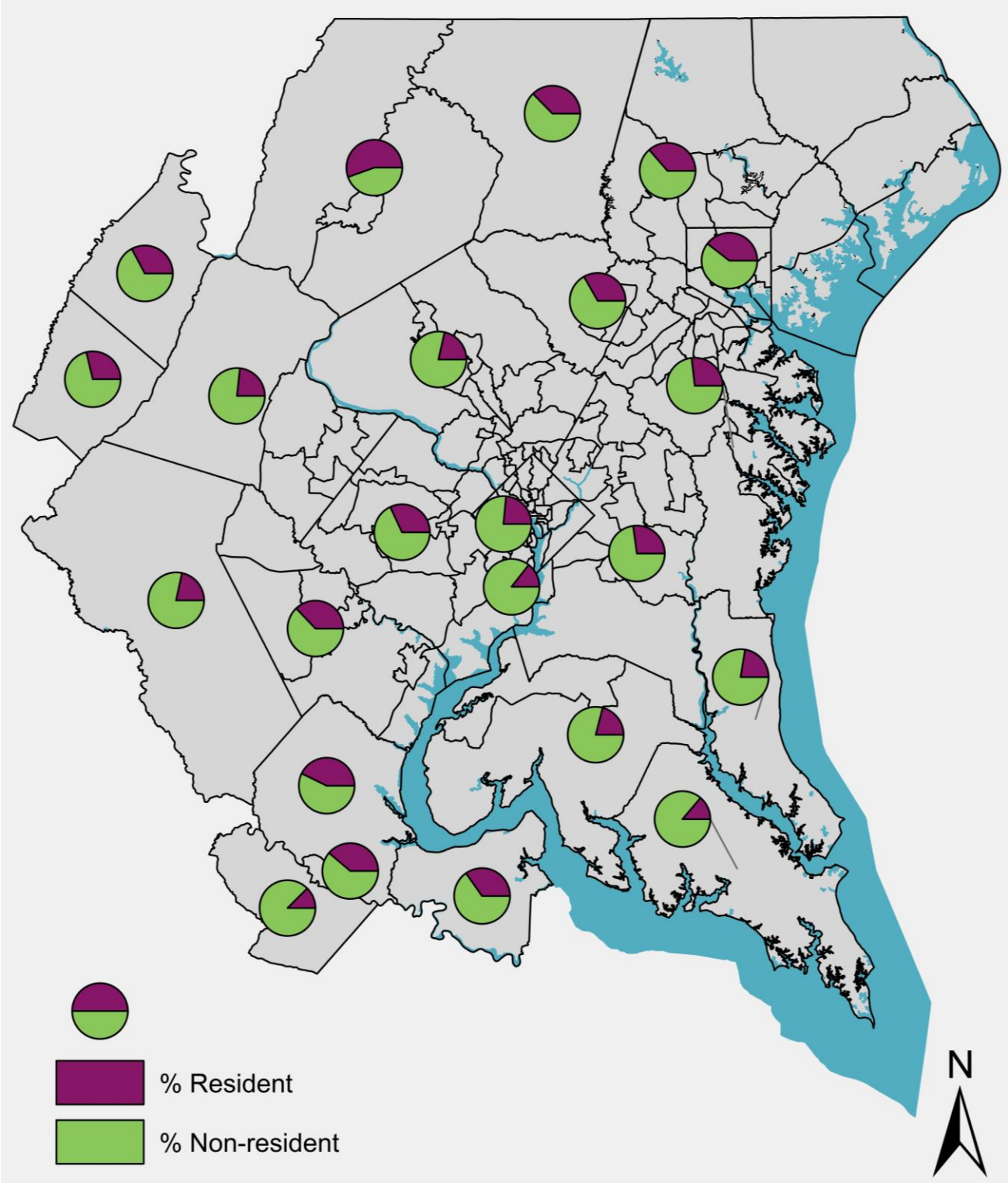
³ Majority does not mean 50% of the originations but the highest proportion of originations in that AAZ. For example, if an AAZ had 33% of its originations headed to BWI, 33% to DCA, and 34% to IAD, it would be placed in the IAD service area.

Figure 6: Washington/Baltimore Air System Planning Region Jurisdictional Subdivisions



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Figure 7: Percent Resident and Non-Resident Departing Passengers by Jurisdiction



Source: Washington-Baltimore Regional Air Passenger Survey 2019

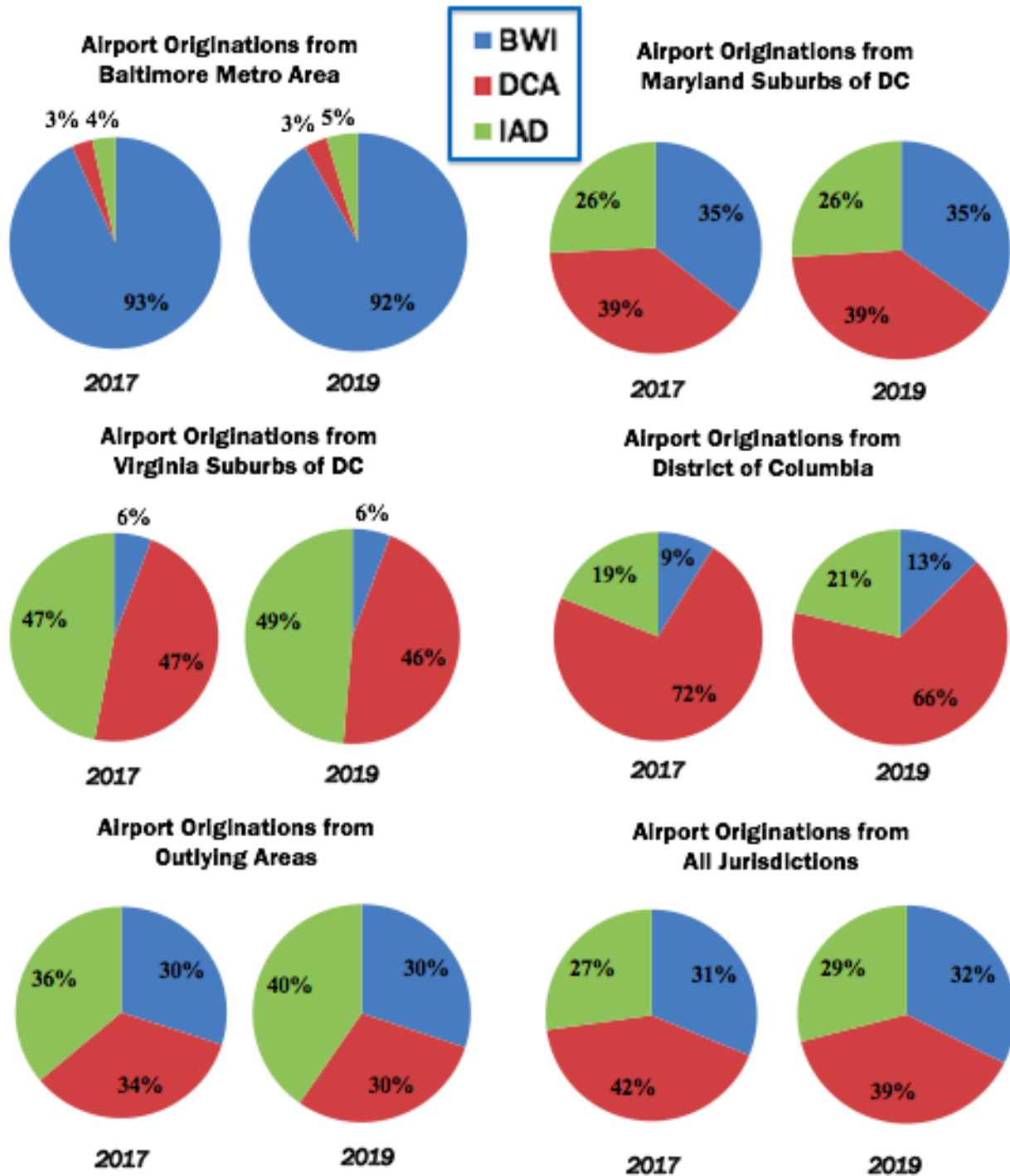
Table 6: Change in Originating Air Passengers by Jurisdiction and Airport 2017-2019

ORIGIN COUNTY	BWI AIRPORT				NATIONAL AIRPORT				DULLES AIRPORT				REGION			
	2017	2019	17-19	% Change	2017	2019	17-19	% Change	2017	2019	17-19	% Change	2017	2019	17-19	% Change
Anne Arundel Co.	1,752	1,909	157	9%	31	56	25	80%	31	84	54	177%	1,813	2,049	236	13%
Baltimore City	1,149	1,402	253	22%	27	28	1	5%	35	43	8	22%	1,210	1,473	262	22%
Baltimore Co.	725	883	159	22%	10	16	6	62%	30	36	5	18%	765	935	170	22%
Carroll Co.	287	304	17	6%	6	6	0	3%	10	25	15	157%	303	336	32	11%
Harford Co.	223	292	69	31%	1	1	0	5%	7	20	14	211%	231	314	83	36%
Howard Co.	699	798	99	14%	89	100	11	12%	69	77	8	11%	858	975	117	14%
SUBTOTAL: BALTIMORE METRO AREA	4,835	5,588	754	16%	165	208	43	26%	182	285	104	57%	5,181	6,082	900	17%
Calvert Co.	70	72	2	2%	21	30	10	48%	7	11	5	69%	97	114	16	17%
Charles Co.	143	173	31	22%	97	103	6	7%	14	20	6	41%	254	296	43	17%
Frederick Co.	217	240	23	11%	30	36	6	20%	118	182	63	54%	365	457	93	25%
Montgomery Co.	851	969	119	14%	1,011	1,211	199	20%	912	1,019	106	12%	2,774	3,199	424	15%
Prince Georges Co.	504	552	49	10%	789	884	94	12%	242	265	24	10%	1,535	1,701	166	11%
SUBTOTAL: MARYLAND SUBURBS OF DC	1,784	2,007	223	13%	1,949	2,264	315	16%	1,293	1,496	204	16%	5,025	5,767	742	15%
Alexandria	56	80	25	44%	686	623	-63	-9%	250	274	24	10%	992	978	-15	-1%
Arlington Co.	121	132	10	9%	1,627	2,093	466	29%	550	692	142	26%	2,298	2,916	618	27%
Fairfax Co.	240	265	25	11%	1,426	1,516	90	6%	2,281	2,699	418	18%	3,948	4,480	533	13%
Loudoun Co.	32	37	5	16%	46	61	15	33%	679	833	154	23%	757	932	174	23%
Prince William Co.	55	57	2	4%	200	248	48	24%	284	406	121	43%	539	711	172	32%
Stafford Co.	4	14	10	254%	122	118	-4	-3%	41	63	22	53%	167	194	27	16%
SUBTOTAL: VIRGINIA SUBURBS OF DC	508	585	77	15%	4,107	4,658	551	13%	4,086	4,967	881	22%	8,701	10,210	1,509	17%
District of Columbia	482	670	188	39%	3,929	3,485	-445	-11%	1,031	1,122	91	9%	5,442	5,277	-166	-3%
Outlying Areas	115	149	34	29%	131	147	16	12%	139	200	61	44%	385	496	111	29%
Externals	1,190	1,427	237	20%	218	157	-62	-28%	514	656	141	27%	1,922	2,239	316	16%
TOTAL	8,913	10,426	1,513	17%	10,499	10,918	419	4%	7,245	8,726	1,482	20%	26,657	30,070	3,414	13%

Note: Data for the Cities of Fairfax and Falls Church are included in the Fairfax County totals, and data for the Cities of Manassas and Manassas Park are included in the Prince William County totals. Outlying Areas include Clarke, Fauquier, King George, and Spotsylvania Counties in VA, the City of Fredericksburg VA, St. Mary's County in MD, and Jefferson County, WV. Externals include jurisdictions outside the air system planning region.

Source: 2017 and 2019 Washington-Baltimore Regional Air Passenger Surveys

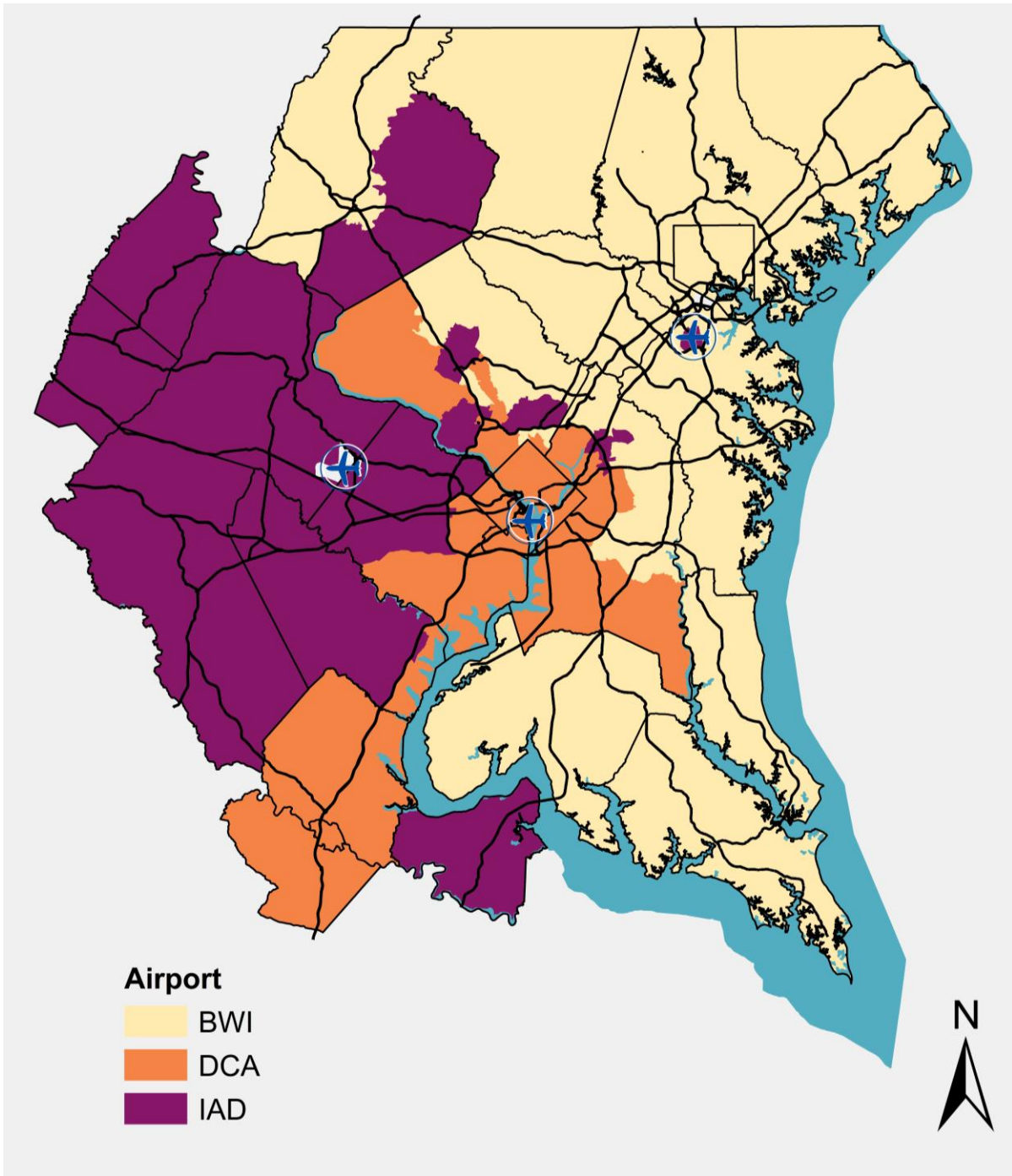
Figure 8: Originating Air Passengers by Super District and Airport, 2017 and 2019



Source: 2017 and 2019 Washington-Baltimore Regional Air Passenger Surveys

Note: A Super District is defined as a sub-region within the greater Washington Metropolitan Air Systems Region. They are: The District of Columbia, the Baltimore Metropolitan Area, the Maryland Suburbs of DC, and the Virginia Suburbs of DC. Outlying Areas are also grouped together for the purposes of this analysis.

Figure 9: Airport Service Area by AAZ



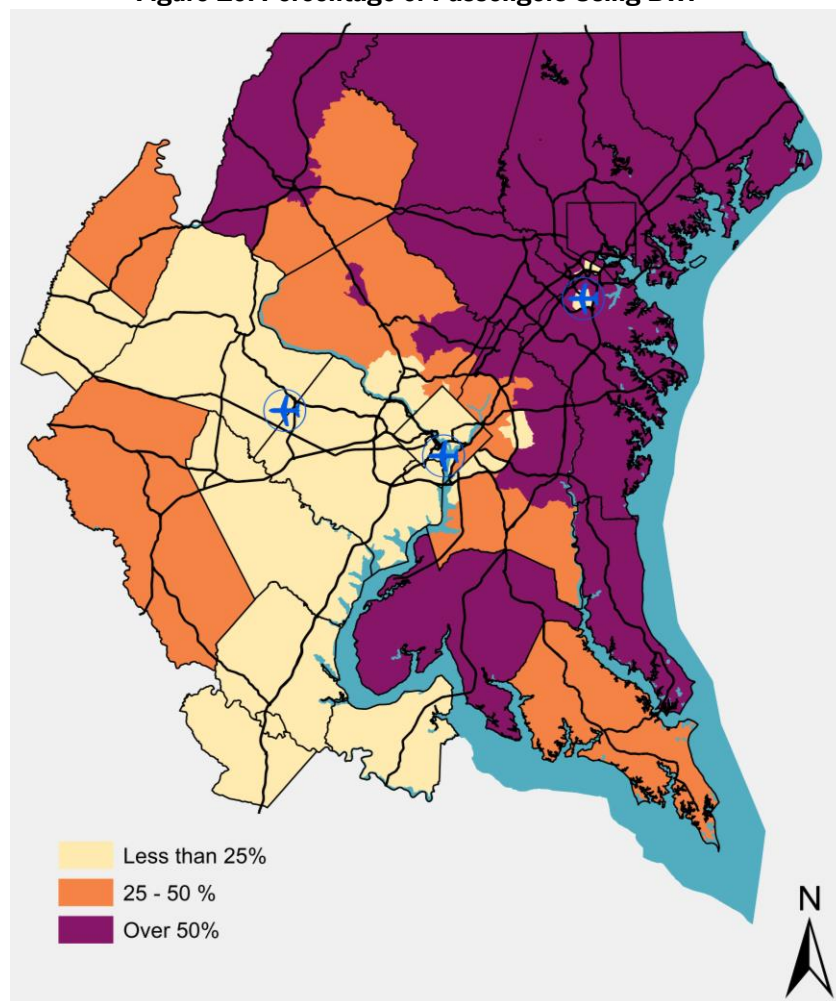
Source: Washington-Baltimore Regional Air Passenger Survey 2019

BALTIMORE/WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT (BWI)

Between 2017 and 2019, local air passenger originations at BWI increased by 17 percent. Originating passengers at BWI from the Virginia suburbs increased by 15 percent when compared with 2017, while passengers from the Maryland suburbs of DC increased by 13 percent. The percentage of passengers originating in the District of Columbia increased by 39 percent and originations to BWI from the outlying jurisdictions increased by 29 percent. Table 6 illustrates the distribution of air passenger originations for BWI in 2019. Over half of the passengers using BWI were from the Baltimore region. Originations from Anne Arundel County and Baltimore City accounted for 34 percent and 25 percent of all Baltimore region passenger originations to BWI, respectively.

The BWI service area is concentrated in the eastern half of the region. It extends to areas along the border of the District of Columbia and Prince George's County. Compared with 2017, BWI experienced a 44 percent increase in originating passengers from Alexandria, and originations from Stafford County grew up 254 percent. Figure 10 illustrates the percentage distribution of air passenger originations by AAZ to BWI for 2019.

Figure 10: Percentage of Passengers Using BWI



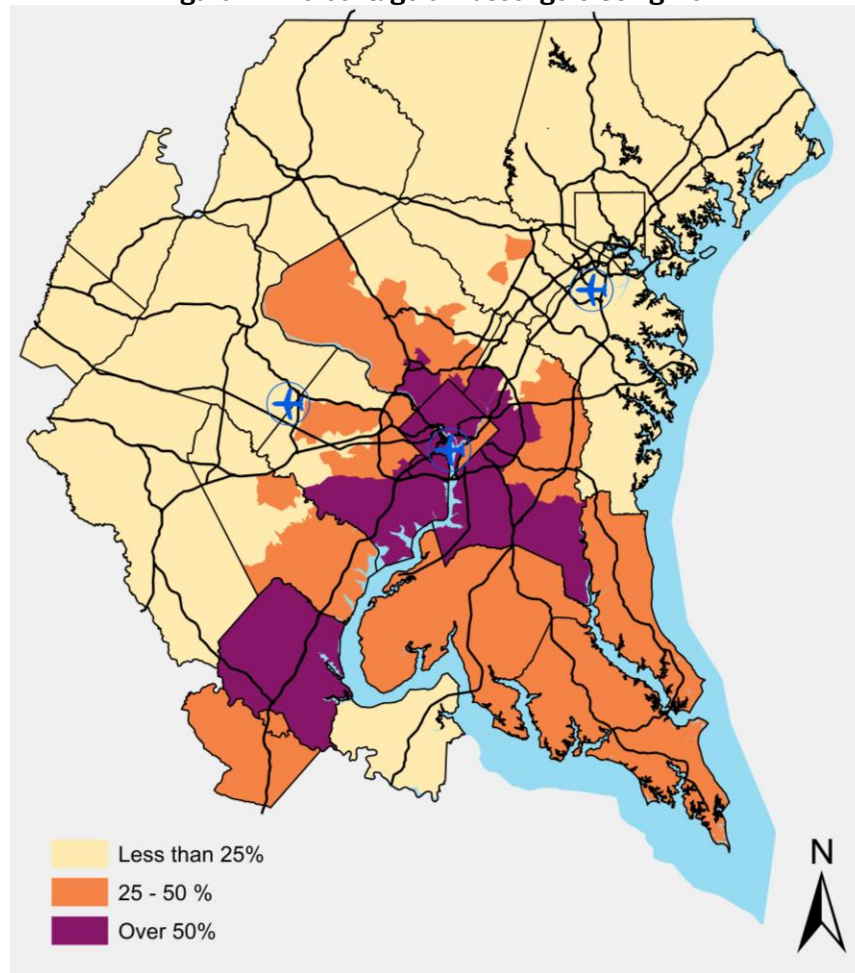
Source: Washington-Baltimore Regional Air Passenger Survey 2019

RONALD REAGAN WASHINGTON NATIONAL AIRPORT (DCA)

Annual local air passenger originations at DCA increased by four percent between 2017 and 2019. In 2019, just over 32 percent of passengers using DCA started their trip within the District of Columbia, a decrease of five percent. 72 percent of Arlington County's departing air passengers along with 64 percent from the City of Alexandria and 66 percent from the District of Columbia flew out of DCA. Table 6 illustrates the distribution of air passenger originations from DCA in 2019. In addition to the District and the inner Virginia suburbs, sections of southern Montgomery and Prince George's Counties in Maryland, and sections of Prince William and Stafford Counties in Virginia along the I-95 corridor account for significant numbers of passengers using DCA. Though the percentage of passengers departing from DCA grew substantially in Anne Arundel, Baltimore, Howard, Calvert, Charles, and Frederick Counties - the majority of originating trips from these jurisdictions were destined either to BWI or IAD.

Compared with 2017, 2019 saw a substantial increase in passengers originating from Anne Arundel, Baltimore, Calvert, Arlington, and Loudoun Counties and a decrease in Alexandria and Stafford County, as well as the external areas. Figure 11 illustrates the percent distribution of air passenger originations by AAZ from DCA.

Figure 11: Percentage of Passengers Using DCA



Source: Washington-Baltimore Regional Air Passenger Survey 2019

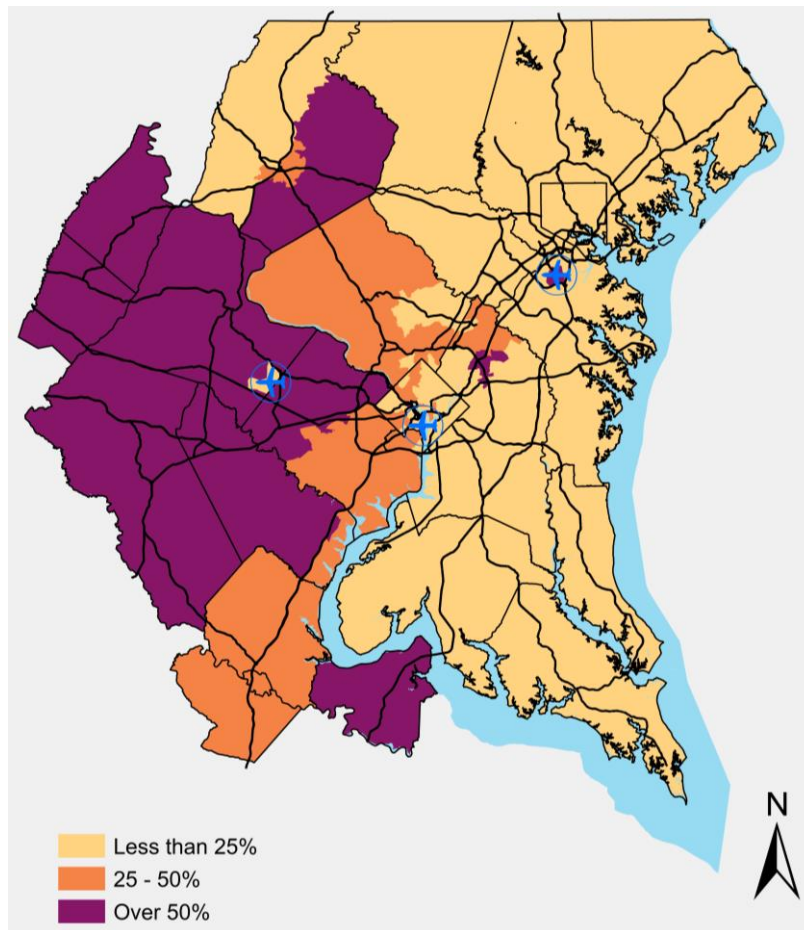
WASHINGTON DULLES INTERNATIONAL AIRPORT (IAD)

Overall local air passenger originations at IAD experienced an increase of 20 percent when compared with 2017. Originations increased from all jurisdictions, with the most notable being Harford County with 211 percent change, Anne Arundel County with 177 percent, and Carroll County with 157 percent. It should be noted, however, that the total number of originations from these jurisdictions to IAD are substantially low. As a result, even slight to modest increases in these numbers result in very high percent increases. As a result, it is important to understand that while originations from these jurisdictions registered very high percent increases to IAD, the total increase remained comparatively low. Altogether, air passenger originations increased by 57 percent from the Baltimore Metro Area. The smallest shift experienced was 10 percent growth from both Prince George's County, Maryland and Alexandria, Virginia.

According to Table 6, 70 percent of IAD passengers were from the Virginia suburbs and the District of Columbia. Originations from the Virginia suburbs to IAD increased by 22 percent when compared with 2017, while originations from the Maryland suburbs increased by 16 percent and from the District of Columbia by nine percent.

Figure 12 shows the percentage distribution of originations by AAZ to IAD for 2019.

Figure 12: Percentage of Passengers Using IAD



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Use of Preferred Airport (Survey Question C-2)

Overall, the survey indicated that passengers typically fly from their preferred airport. Figure 14 displays the percentage distribution of departing air passengers' airport preference by AAZ. Table 7 shows airport preference by jurisdiction and Figure 13 shows airport preference by AAZ. Across the region, 58 percent of passengers flew from their preferred airport, a decrease of five percent from 2017. The jurisdictions with the highest proportion of passengers departing from their preferred airport are mainly in the Baltimore region.

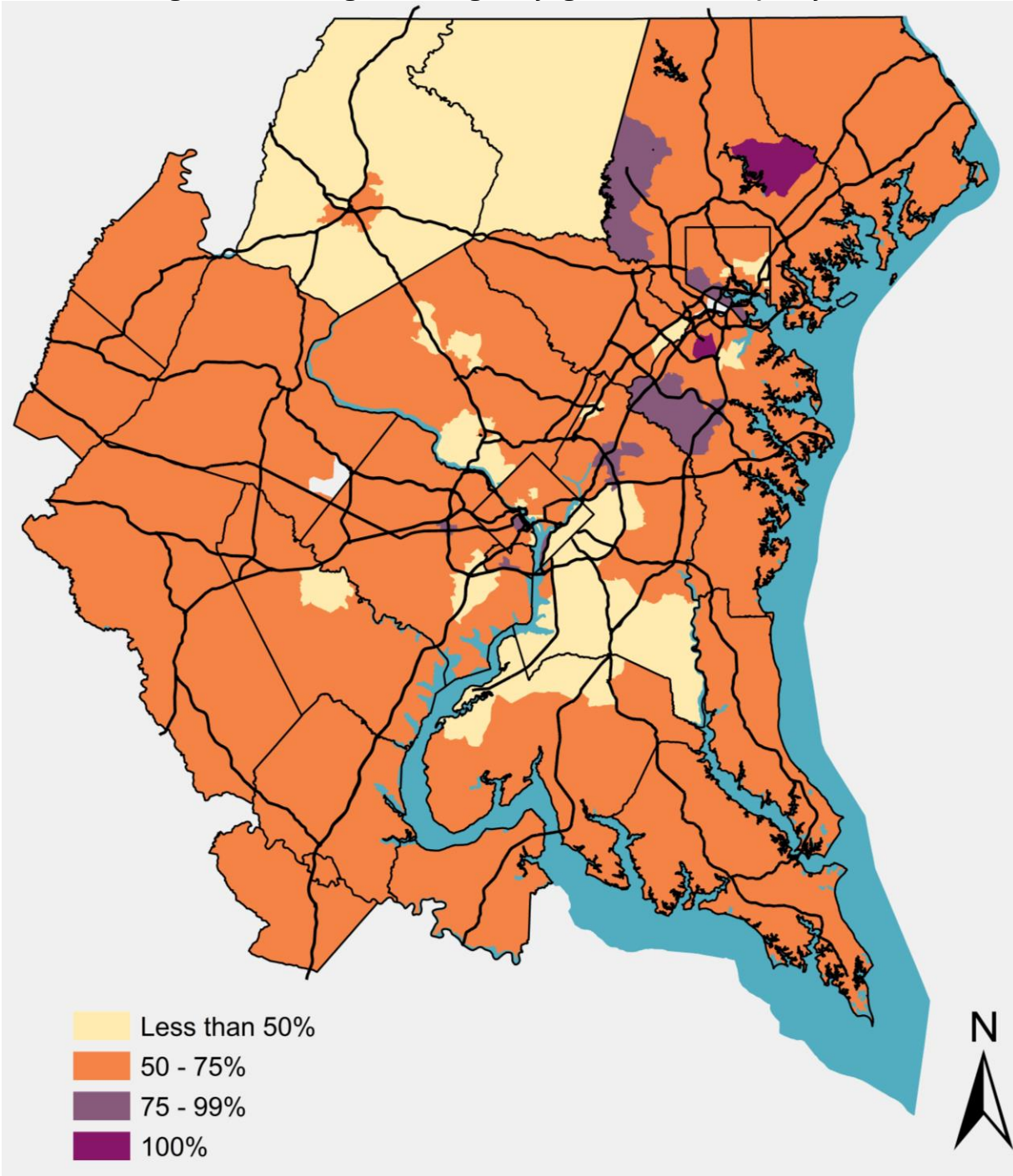
Table 7: Annual Departing Air Passengers' Satisfaction with Airport by Jurisdiction

JURISDICTION	Total Originating Trips	% Satisfied with Airport Choice	Preference by Airport		
			BWI	DCA	IAD
Anne Arundel Co.	2,049,087	61%	63%	39%	26%
Baltimore City	1,472,554	61%	62%	25%	40%
Baltimore Co.	935,360	66%	69%	37%	12%
Carroll Co.	335,682	50%	53%	43%	8%
Harford Co.	314,053	71%	75%	0%	21%
Howard Co.	974,951	58%	63%	39%	31%
Subtotal: Baltimore Metro Area	6,081,687	61%	64%	37%	26%
Calvert Co.	113,559	55%	71%	30%	19%
Charles Co.	296,479	46%	37%	63%	25%
Frederick Co.	457,452	44%	67%	35%	16%
Montgomery Co.	3,198,655	54%	58%	61%	43%
Prince Georges Co.	1,700,969	54%	63%	52%	44%
Subtotal: Maryland Suburbs of DC	5,767,114	53%	59%	57%	39%
Alexandria	977,529	64%	33%	77%	45%
Arlington Co.	2,915,857	63%	42%	67%	54%
Fairfax Co.	4,480,365	56%	29%	53%	60%
Loudoun Co.	931,619	64%	20%	17%	70%
Prince William Co.	710,838	58%	22%	58%	62%
Stafford Co.	194,101	54%	31%	51%	63%
Subtotal: Virginia Suburbs of DC	10,210,309	60%	31%	62%	60%
District of Columbia	5,276,645	58%	31%	70%	34%
Outlying Areas	495,676	58%	43%	76%	56%
TOTAL	27,831,431	58%	58%	63%	51%

Note: Fairfax City, City of Falls Church, Manassas Park and Manassas City are included in their respective county totals. Outlying Areas include Clarke, Fauquier, King George, and Spotsylvania Counties in VA, the City of Fredericksburg VA, St. Mary's County in MD, and Jefferson County, WV. Externals include jurisdictions outside the air system planning region.

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Figure 13: Percentage of Passengers Flying from Preferred Airport by AAZ



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Trip Purpose (Survey Question A-3)

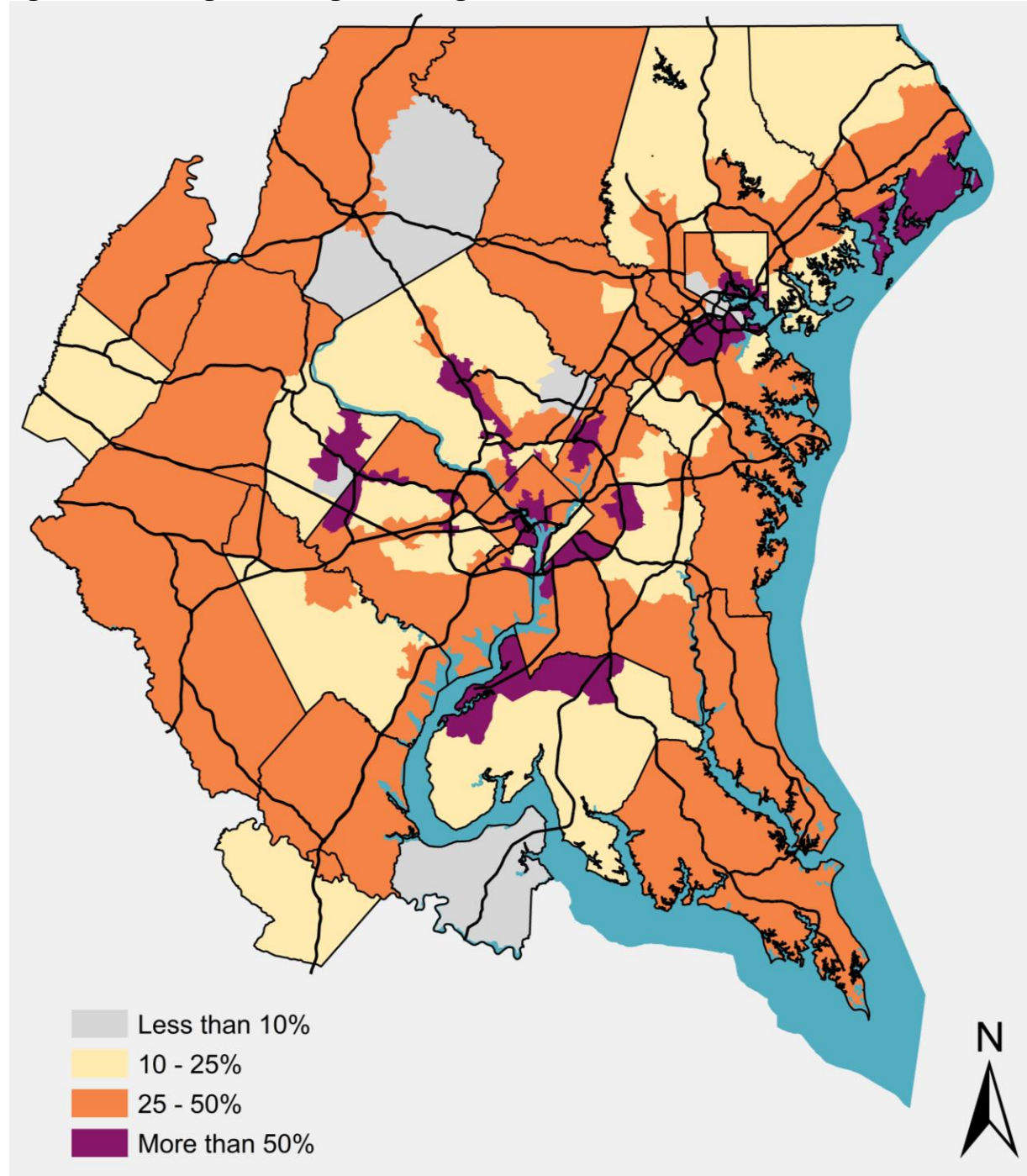
At its peak, business travel accounted for close to 50 percent of the trips made by air passengers originating in the Washington-Baltimore region, but the regional air travel market has diversified steadily over time. In 2019, the percentage of locally originating air passengers reporting that they were 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 36 percent. Vacation travel increased to 28 percent (up from 24 percent in 2017) and school-related travel increased slightly from six to seven percent. Personal or family-related travel decreased slightly from 30 to 29 percent. Those reporting “Other” as their travel purpose experienced an overall 12 percent share increase from four percent to 16 percent.

Figure 14 illustrates the percentage of passengers traveling on business from each of the aviation analysis zones (AAZ) in 2019. Business travelers may be residents or nonresidents of the region and they may leave from any location including home, a hotel or motel, or a place of business. The Washington Core accounted for 36 percent (down from 43 percent) of the total business travel, while 33 percent of business travelers came from the Baltimore Core. Other areas producing business travelers included employment centers throughout the air system region.

Portions of the region that experienced more than 60 percent business purpose originations are due to a combination of factors, including: military bases, major job centers such as the Dulles Corridor and I-270, and business centers like downtown Baltimore City and National Harbor. Areas with less than 25 percent business originations are typically outer jurisdictions with less economic activity.

The concentrations of business travel displayed in Figure 14 correspond to the percentage of passengers traveling on business at the three airports. Regionally, DCA accounted for 43 percent of all business departing passengers, while BWI had a 28 percent share and IAD a 34 percent share.

Figure 14: Percentage of Passengers Traveling on Business 2019



Source: Washington-Baltimore Regional Air Passenger Survey 2019

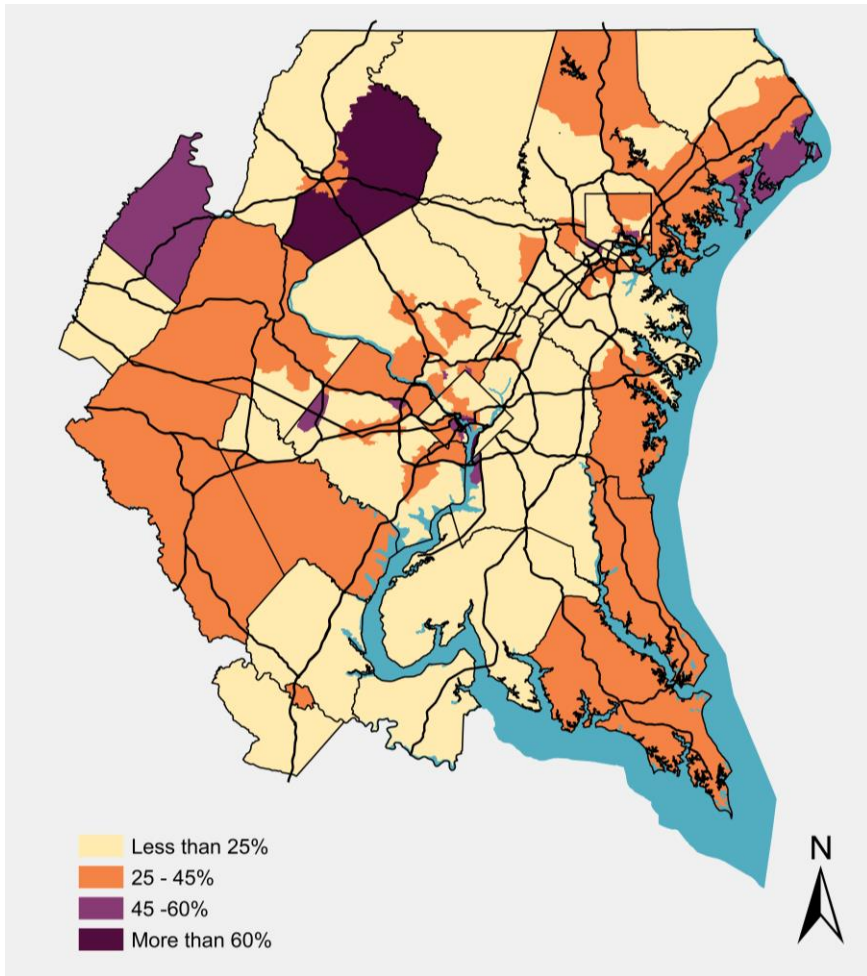
Trip Origin (Survey Question B-1)

While 35 percent of air passengers originating in the Washington-Baltimore region were traveling on business, only seven percent of the total number of passengers left from a place of business and traveled directly to the airport. As seen in Figure 15, the zonal locations of passengers leaving a place of business for the airport were somewhat scattered throughout the region but with notably high proportions in downtown Washington and Baltimore, and some regional activity centers.

While over half of all air passengers left for the airport from their home, 30 percent left from a hotel or motel. Figure 16 displays the pattern for locally originating passengers in the Washington-Baltimore region who departed for the airport from a hotel or motel. This pattern is somewhat different from those leaving a place of business. While there were still high proportions in the downtown areas, the other major area was near the airports themselves. BWI and IAD both demonstrated this trend. The pattern was more complicated near DCA due to the airport's proximity to downtown Washington, Arlington, and Alexandria, as well as the National Harbor resort in Prince George's County.

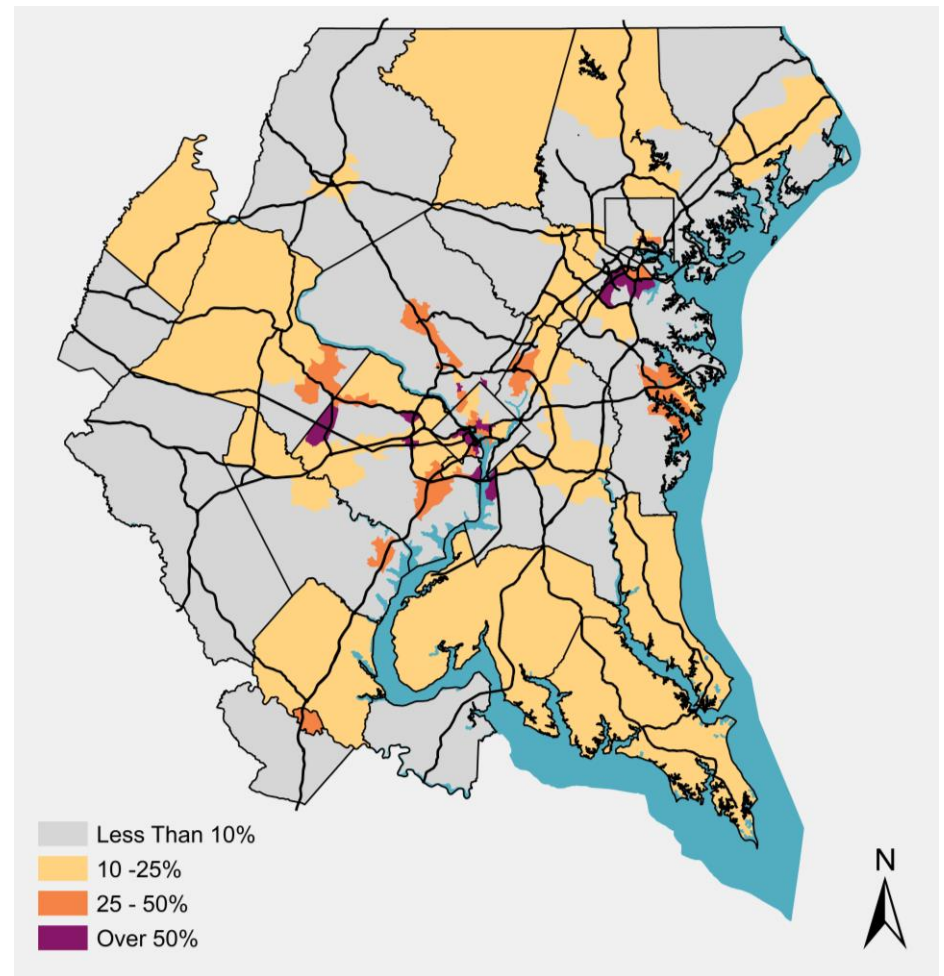
In Washington, the AAZs with concentrations of air passengers traveling from hotels surrounded the downtown area of the District along the periphery of the National Mall, which also includes areas in Crystal City (Arlington) and Alexandria. Such zones are generally close to airports and have good access to public transportation (either airport limousines or public transit services). A far more significant percentage of passengers departing from hotel/motel locations was observed at National Harbor, the I-95 corridor in Greenbelt, along the Dulles Airport Access Road/Dulles Road in Reston and Herndon, the BWI area, and the I-66 corridor in Fairfax County.

Figure 15: Percentage of Passengers Leaving from Work



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Figure 16: Percentage of Passengers Leaving from Hotel/Motel



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Mode of Access (Survey Question B-6)

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.

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).

Table 8 summarizes the results of annual originating air passengers by mode of access and airport, while Tables 9, 10, and 11 list the mode share breakdown for each airport.

- **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).

Figures 17 and 18 display the zones from which passengers used taxicabs and TNCs, respectively, to access the airports. The areas with the highest concentrations of taxicab usage are located within the District of Columbia and in downtown Baltimore, while TNCs more broadly cover the Washington Core, the Baltimore Core, and Outlying Areas, including King George County. Note: the TNC numbers for King George County are inconsistent with the jurisdictions surrounding it due to factoring.

Figures 19 and 20 illustrate the percentage of originating air passengers using public transit and airport bus/van/limousine services, respectively. Regional transit use remained constant at seven percent. While overall use of rail and bus remained the same or declined, Metrobus increased from two to three percent at IAD. The usage of the latter modes was low throughout the region, excepting parts of downtown Washington, central Baltimore City, and areas immediately surrounding BWI and IAD.

Table 8: Annual Originating Air Passenger Mode of Access by Airport (000s)

MODE	BWI		DCA		IAD		Total	
	#	%	#	%	#	%	#	%
Private Car	5,670	48%	2,418	21%	3,607	31%	11,694	38%
Rental Car	1,253	43%	845	29%	785	27%	2,883	9%
Taxi	288	12%	1,217	49%	980	39%	2,484	8%
TNC	1,273	19%	3,802	55%	1,780	26%	6,855	23%
Airport Bus or Limousine	245	39%	191	30%	193	31%	628	2%
Hotel/Motel Courtesy Bus	466	36%	495	38%	345	26%	1,307	4%
Metrorail	0	0%	1,265	99%	9	1%	1,274	4%
Amtrak/MARC (BWI)	317	100%	0	0%	0	0%	317	1%
VRE (DCA)	265	95%	15	5%	0	0%	281	1%
Light Rail (BWI)	34	100%	0	0%	0	0%	34	0%
Metrobus/MTA Bus	58	16%	62	17%	241	67%	361	1%
Walked	8	47%	4	21%	6	32%	18	0%
Biked	0	0%	3	100%	0	0%	3	0%
Other	324	47%	224	32%	145	21%	694	2%
No Response	541	35%	377	24%	635	41%	1,553	5%
TOTAL	10,743	35%	10,918	36%	8,726	29%	30,387	100%

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

Source: Washington-Baltimore Regional Air Passenger Survey 2019.

Table 9: BWI Annual Originating Air Passenger Mode of Access

JURISDICTION	Private Car	Rental Car	Taxi	TNC	Public Transport.	Airport Bus & Limo	Other	Total
District of Columbia	177,180	51,764	28,427	131,273	151,273	36,904	93,007	669,828
Montgomery County	560,328	94,111	11,850	147,784	39,542	35,189	80,486	969,290
Prince George's County	348,747	71,406	8,615	61,783	3,628	25,294	32,781	552,254
Arlington County	58,384	7,669	9,396	15,692	25,797	4,085	10,582	131,605
City of Alexandria	37,132	17,766	1,915	15,596	3,577	777	3,553	80,316
Fairfax County	134,640	31,084	3,628	36,307	22,857	6,755	30,208	265,479
Loudoun County	24,107	9,304	0	957	0	0	2,831	37,199
Prince William County	41,370	7,255	0	4,916	0	1,660	1,840	57,041
Frederick County	166,623	27,602	2,553	15,938	0	14,594	12,764	240,074
Howard County	512,375	88,536	25,924	94,246	3,586	19,454	53,747	797,868
Anne Arundel County	926,920	230,399	58,920	221,660	9,148	313,417	148,203	1,908,667
Charles County	103,008	23,001	3,106	3,362	3,616	12,275	24,908	173,276
Carroll County	216,826	42,831	2,532	13,417	734	11,509	16,423	304,272
Calvert County	60,027	5,968	0	2,340	0	0	3,574	71,909
St. Mary's County	43,411	14,690	0	0	4,648	8,915	766	72,430
Stafford County	7,318	3,776	0	1,564	0	0	957	13,615
Fauquier County	30,660	1,128	0	5,701	0	0	0	37,489
Baltimore City	520,074	124,899	97,453	406,814	40,679	96,755	115,180	1,401,854
Baltimore County	592,975	96,445	12,501	72,531	2,618	55,015	51,364	883,449
Harford County	225,726	52,236	2,883	2,733	0	1,191	7,498	292,267
Total	4,814,514	1,010,559	269,703	1,254,614	311,703	644,343	693,853	8,999,289

Note: Transportation Network Company (TNC) mode of access (Uber, Lyft, etc.) was introduced in the 2015 survey; Totals may not add due to rounding; Suppressed jurisdictions are included in the total.

Source: Washington-Baltimore Regional Air Passenger Survey 2019.

Table 10: DCA Annual Originating Air Passenger Mode of Access

JURISDICTION	Private Car	Rental Car	Taxi	TNC	Public Transport.	Airport Bus & Limo	Other	Total
District of Columbia	381,732	150,254	605,970	1,479,773	599,036	83,771	184,161	3,484,697
Montgomery County	280,628	87,311	99,088	441,951	187,133	39,365	75,168	1,210,644
Prince George's County	296,903	99,443	18,880	246,571	85,362	39,931	96,440	883,530
Arlington County	251,757	82,021	276,585	768,262	230,640	417,358	66,006	2,092,629
City of Alexandria	139,434	37,418	71,538	233,506	85,976	30,073	25,035	622,980
Fairfax County	502,273	178,150	92,687	493,855	125,097	30,673	92,991	1,515,726
Loudoun County	42,605	3,168	0	4,535	7,947	0	2,803	61,058
Prince William County	158,662	26,827	6,090	34,203	5,403	11,739	5,050	247,974
Frederick County	20,471	11,566	0	0	0	1,311	2,514	35,862
Howard County	26,974	24,734	10,977	18,645	4,049	7,873	6,810	100,062
Anne Arundel County	18,336	12,629	891	14,887	4,951	2,009	2,223	55,926
Charles County	44,876	26,227	8,785	17,108	0	1,611	4,847	103,454
Carroll County	3,694	1,224	0	0	0	0	1,514	6,432
Calvert County	6,023	0	0	11,343	3,771	2,385	6,831	30,353
St. Mary's County	41,953	12,201	3,502	0	0	0	0	57,656
Stafford County	65,203	17,593	849	14,570	0	7,594	12,093	117,902
Fauquier County	25,154	2,374	0	0	0	1,300	849	29,677
Baltimore City	7,497	4,651	7,068	4,017	0	1,955	2,782	27,970
Baltimore County	4,930	0	5,972	1,407	0	0	3,759	16,068
Harford County	1,482	0	0	0	0	0	0	1,482
Total	2,367,563	784,719	1,208,882	3,787,211	1,339,365	681,312	592,306	10,761,358

Note: Transportation Network Company (TNC) mode of access (Uber, Lyft, etc.) was introduced in the 2015 survey; Totals may not add due to rounding; Suppressed jurisdictions are included in the total.

Source: Washington-Baltimore Regional Air Passenger Survey 2019.

Table 11: IAD Annual Originating Air Passenger Mode of Access

JURISDICTION	Private Car	Rental Car	Taxi	TNC	Public Transport.	Airport Bus & Limo	Other	Total
District of Columbia	190,489	57,209	230,809	342,567	179,173	48,862	73,011	1,122,120
Montgomery County	426,175	67,985	118,304	271,009	8,942	25,030	101,276	1,018,721
Prince George's County	113,620	26,604	28,449	67,668	1,256	5,740	21,848	265,185
Arlington County	166,741	48,422	153,313	216,248	15,503	44,777	46,619	691,623
City of Alexandria	85,468	22,516	62,148	55,411	9,185	19,629	19,876	274,233
Fairfax County	1,105,608	253,778	260,351	584,356	14,389	232,821	247,857	2,699,160
Loudoun County	467,808	44,980	42,554	108,781	0	84,518	84,721	833,362
Prince William County	277,788	43,743	13,104	39,159	0	6,339	25,690	405,823
Frederick County	136,854	8,492	5,232	0	0	28,004	2,934	181,516
Howard County	43,063	5,648	5,178	4,377	906	0	17,849	77,021
Anne Arundel County	38,114	8,494	7,233	17,900	3,470	3,929	5,354	84,494
Charles County	9,011	7,412	0	0	0	2,459	867	19,749
Carroll County	16,032	0	0	1,044	1,538	0	6,364	24,978
Calvert County	2,590	7,852	855	0	0	0	0	11,297
St. Mary's County	6,701	3,833	8,658	0	0	0	0	19,192
Stafford County	45,109	9,402	1,352	1,518	0	0	5,203	62,584
Fauquier County	48,718	5,467	4,934	1,364	3,909	0	9,738	74,130
Baltimore City	23,234	1,275	1,262	9,753	472	6,224	510	42,730
Baltimore County	20,771	638	0	8,248	0	5,064	1,122	35,843
Harford County	17,314	0	0	434	0	0	2,556	20,304
Total	3,293,298	649,232	948,851	1,740,273	238,743	519,044	681,343	8,070,784

Note: Transportation Network Company (TNC) mode of access (Uber, Lyft, etc.) was introduced in the 2015 survey; Totals may not add due to rounding; Suppressed jurisdictions are included in the total.

Source: Washington-Baltimore Regional Air Passenger Survey 2019.

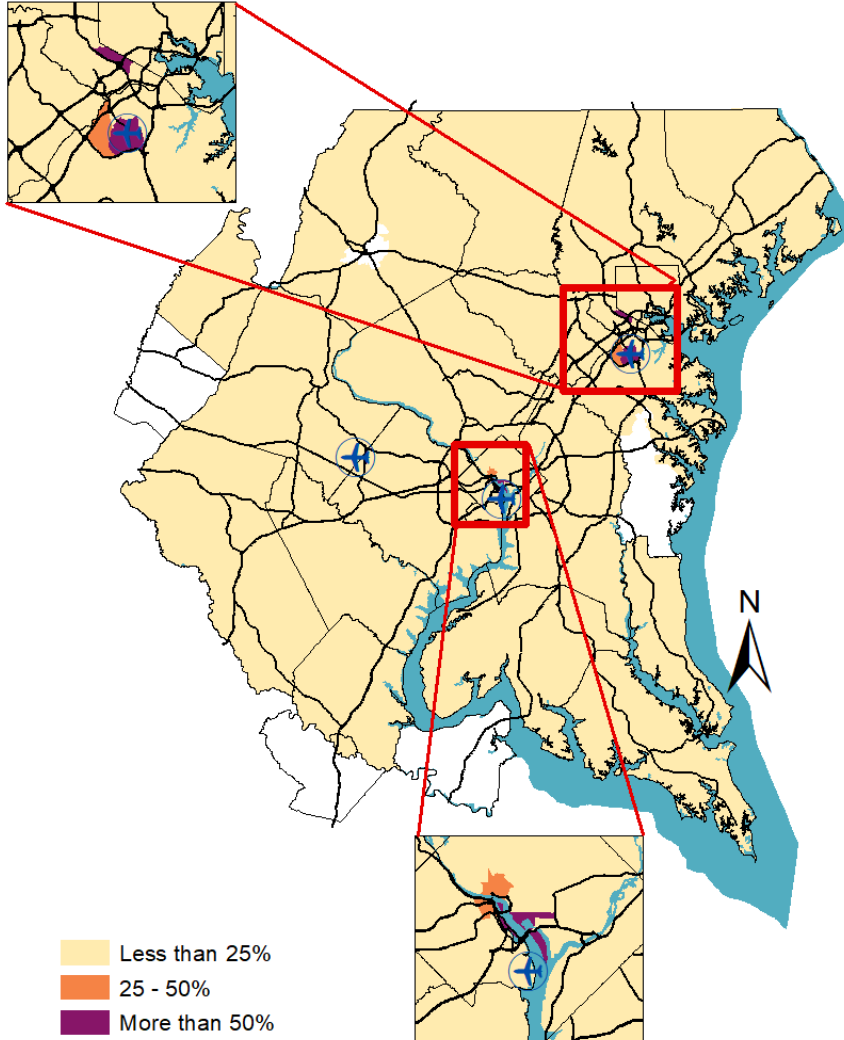
Table 12: Annual Originating Air Passenger Mode of Access Total and by Jurisdiction

JURISDICTION	Private Car	Rental Car	Taxi	TNC	Public Transport.	Airport Bus & Limo	Other	Total
District of Columbia	749,401	259,227	865,206	1,953,613	929,482	169,537	350,179	5,276,645
Montgomery County	1,267,131	249,407	229,242	860,744	235,617	99,584	256,930	3,198,655
Prince George's County	759,270	197,453	55,944	376,022	90,246	70,965	151,069	1,700,969
Arlington County	476,882	138,112	439,294	1,000,202	271,940	466,220	123,207	2,915,857
City of Alexandria	262,034	77,700	135,601	304,513	98,738	50,479	48,464	977,529
Fairfax County	1,742,521	463,012	356,666	1,114,518	162,343	270,249	371,056	4,480,365
Loudoun County	534,520	57,452	42,554	114,273	7,947	84,518	90,355	931,619
Prince William County	477,820	77,825	19,194	78,278	5,403	19,738	32,580	710,838
Frederick County	323,948	47,660	7,785	15,938	0	43,909	18,212	457,452
Howard County	582,412	118,918	42,079	117,268	8,541	27,327	78,406	974,951
Anne Arundel County	983,370	251,522	67,044	254,447	17,569	319,355	155,780	2,049,087
Charles County	156,895	56,640	11,891	20,470	3,616	16,345	30,622	296,479
Carroll County	236,552	44,055	2,532	14,461	2,272	11,509	24,301	335,682
Calvert County	68,640	13,820	855	13,683	3,771	2,385	10,405	113,559
St. Mary's County	92,065	30,724	12,160	0	4,648	8,915	766	149,278
Stafford County	117,630	30,771	2,201	17,652	0	7,594	18,253	194,101
Fauquier County	104,532	8,969	4,934	7,065	3,909	1,300	10,587	141,296
Baltimore City	550,805	130,825	105,783	420,584	41,151	104,934	118,472	1,472,554
Baltimore County	618,676	97,083	18,473	82,186	2,618	60,079	56,245	935,360
Harford County	244,522	52,236	2,883	3,167	0	1,191	10,054	314,053
Total	10,475,375	2,444,510	2,427,436	6,782,098	1,889,811	1,844,699	1,967,502	27,831,431

Note: Transportation Network Company (TNC) mode of access (Uber, Lyft, etc.) was introduced in the 2015 survey; Totals may not add due to rounding; Suppressed jurisdictions are included in the total.

Source: Washington-Baltimore Regional Air Passenger Survey 2019.

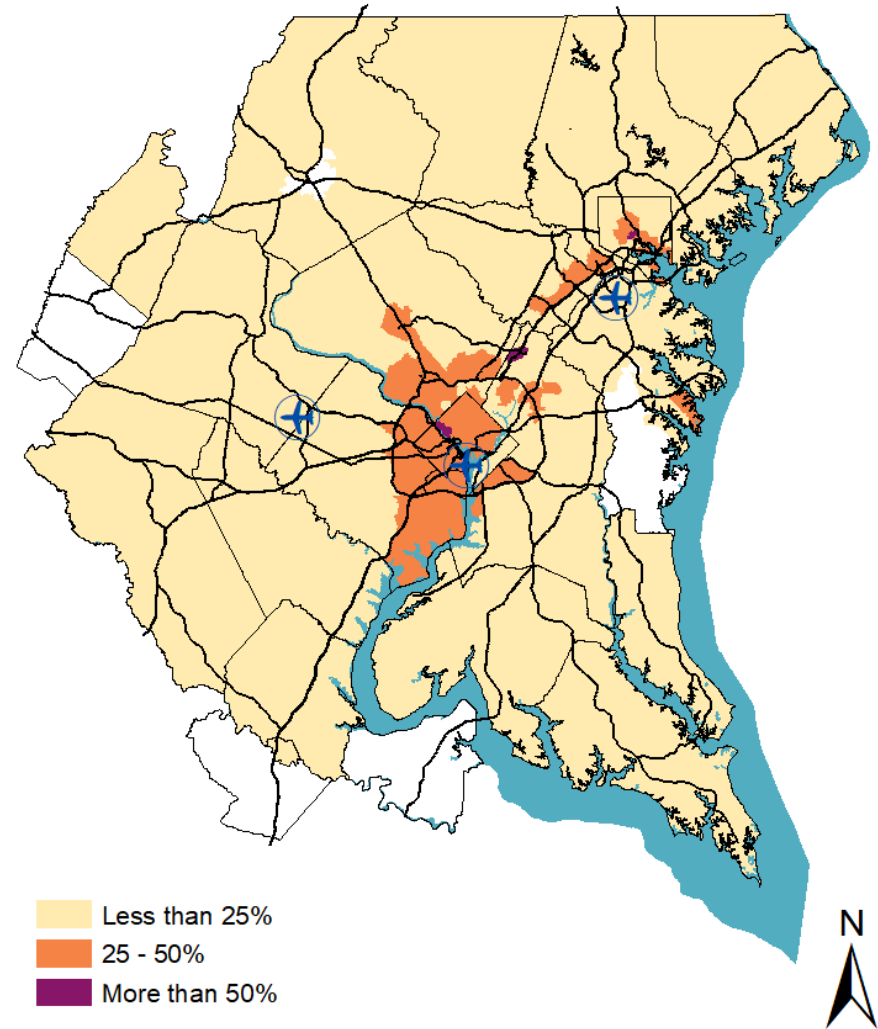
Figure 17: Percentage of Passengers Using Taxicabs



Note: Mode shares for the City of Fredericksburg, Clarke County, Jefferson County, King George County, and Spotsylvania County are suppressed due to insufficient data.

Source: Washington-Baltimore Regional Air Passenger Survey 2019

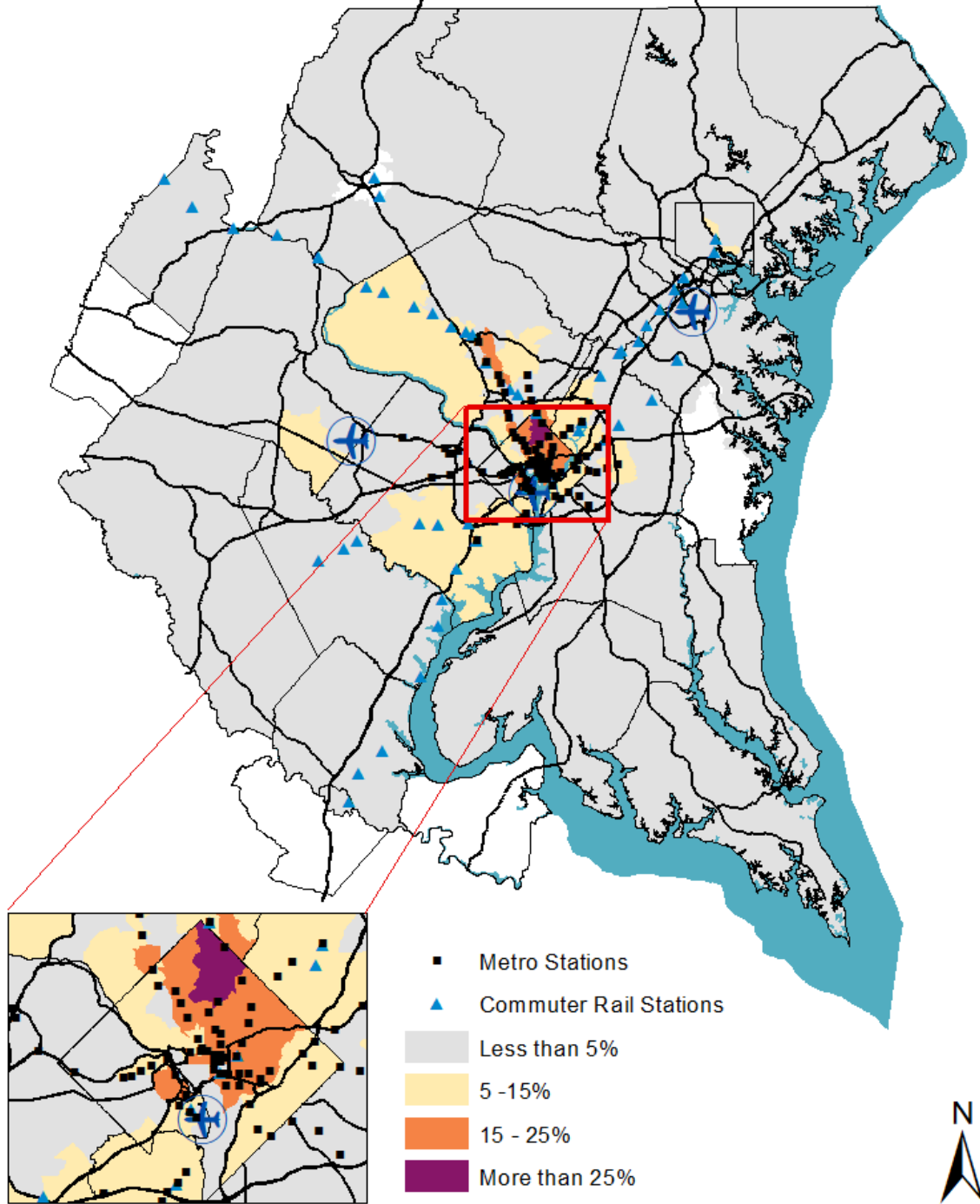
Figure 18: Percentage of Passengers Using TNCs



Note: Mode shares for the City of Fredericksburg, Clarke County, Jefferson County, King George County, and Spotsylvania County are suppressed due to insufficient data.

Source: Washington-Baltimore Regional Air Passenger Survey 2019
 Note: TNC = Transportation Network Company, such as Uber or Lyft

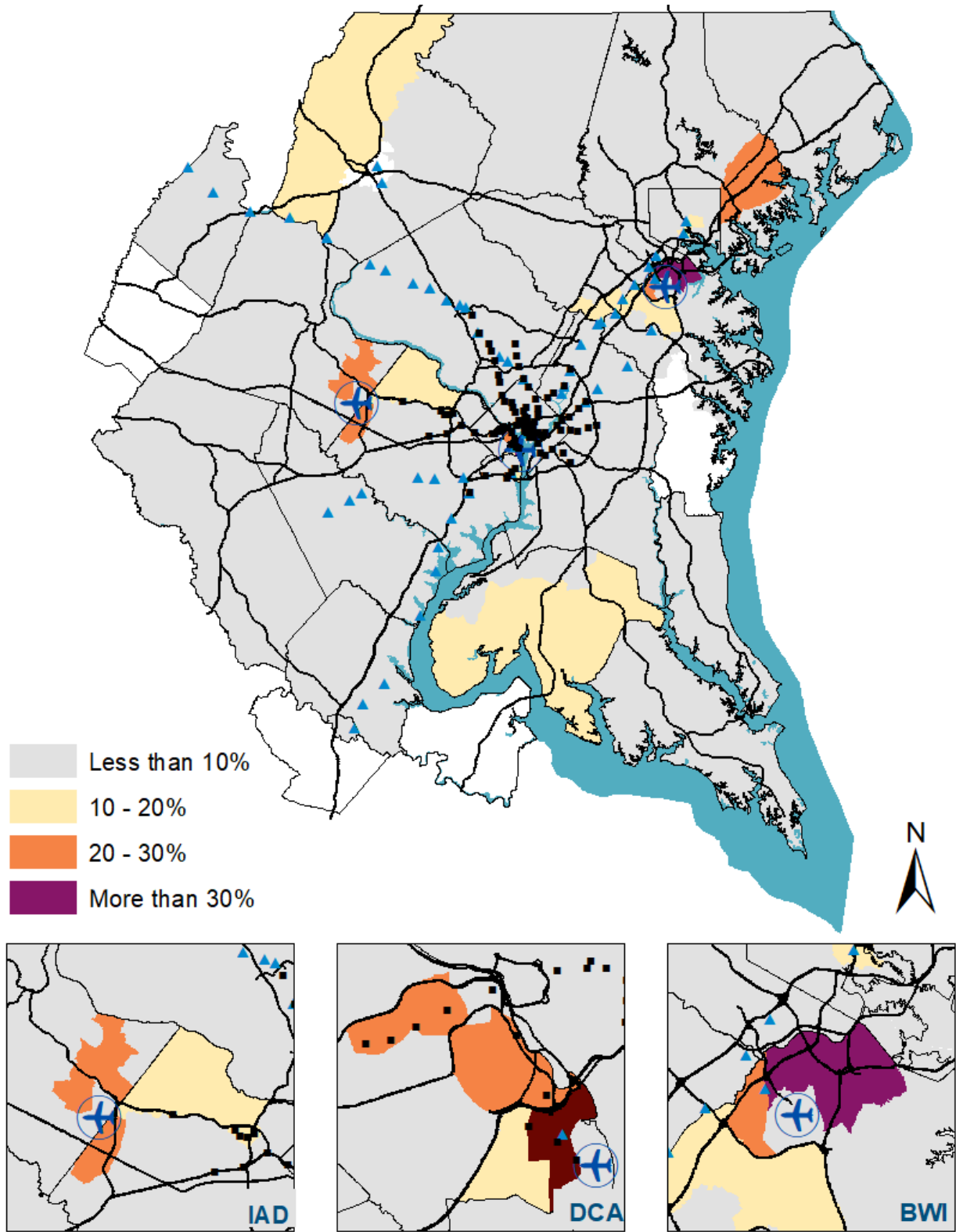
Figure 19: Percentage of Passengers Using Metrorail, Commuter Rail, Metrobus, and/or Local Bus



Note: Mode shares for the City of Fredericksburg, Clarke County, Jefferson County, King George County, and Spotsylvania County are suppressed due to insufficient data.

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Figure 20: Percentage of Passengers Using Airport Bus/Van/Limo

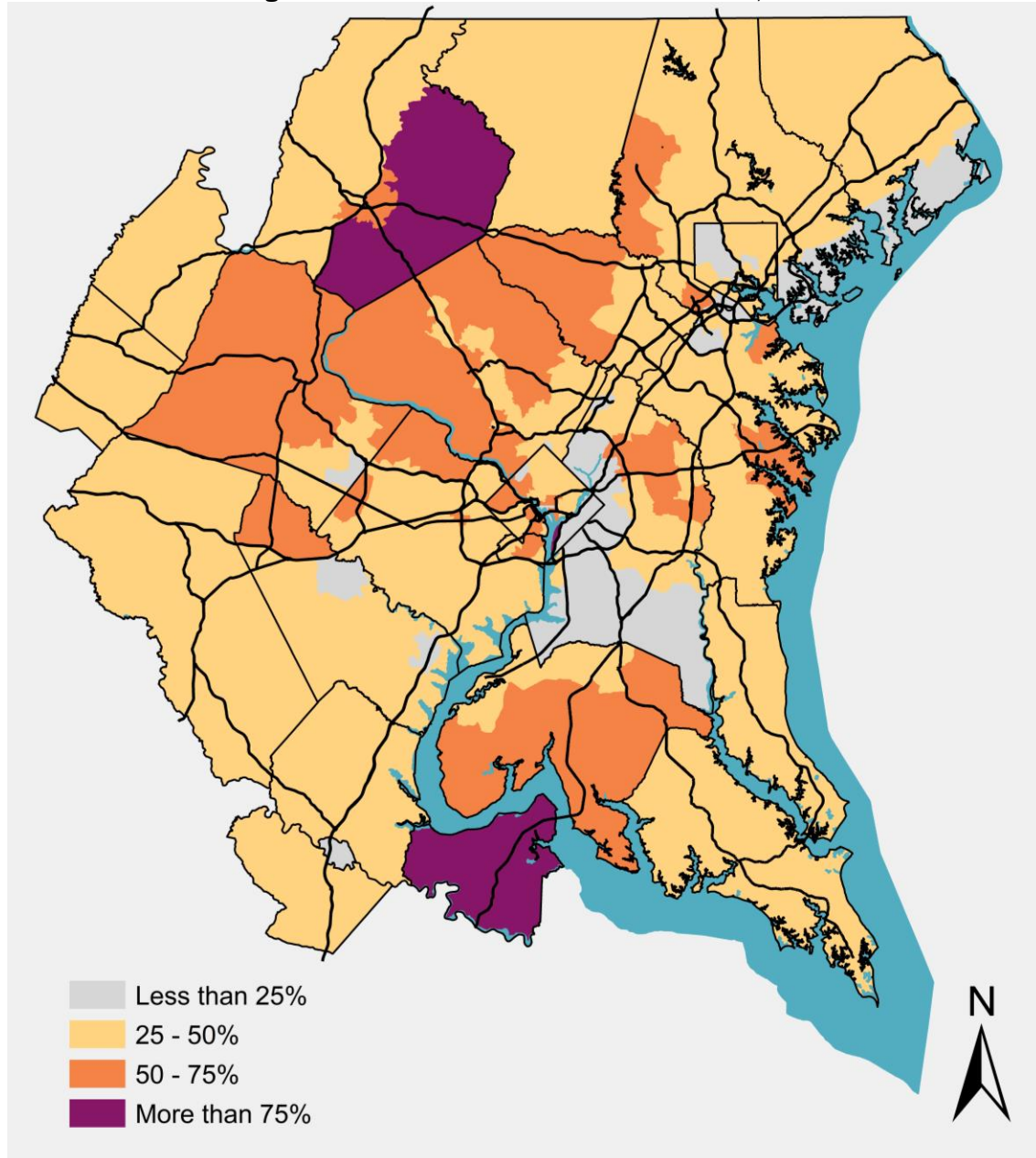


Source: Washington-Baltimore Regional Air Passenger Survey 2019

Household Income (Survey Question D-6)

Air passenger trips often correlate directly to household income levels. The Census American Community Survey one-year survey reports that the median household income for the Washington-Arlington-Alexandria District of Columbia metro area was \$105,659 in 2019. Figure 21 shows the proportion of originating air passengers with annual household incomes of \$150,000 or more for each AAZ. The areas with high concentrations of passengers reporting a household income of \$150,000 or more are widespread, with only a handful of zones in the region showing less than 25 percent of air passengers in this income range.

Figure 21: Annual Household Income Over \$150,000



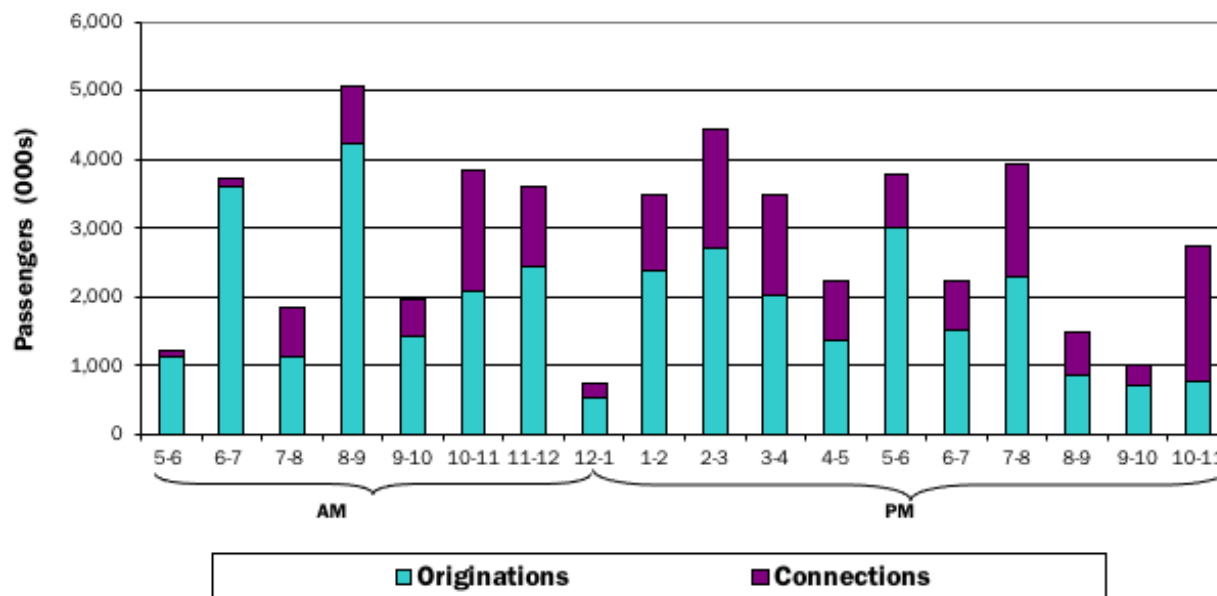
Source: Washington-Baltimore Regional Air Passenger Survey 2019

Departures by Time of Day (Survey Question B-4)

The distributions of passenger departures by time of day at the three airports in the Washington-Baltimore region are displayed in Figures 22, 23, and 24. These diurnal time distributions are indicative of the different roles played by the airports in the aviation system throughout the region.

The distributions for both BWI and IAD characterize airports that are dominated by hub-style activity. While BWI displays characteristics of a hub airport with significant amounts of long-haul activity, the activity is more widely dispersed throughout the day, when compared with IAD. The peaks and valleys indicate the phenomenon of inbound flights from the airlines’ “spoke” cities, with resulting departures occurring en masse. The morning peak occurs once connections have been made and the first “bank” of flights departs. Both airports exhibited several additional peaks throughout the day as other “banks” of flights departed. The AM peak hour at BWI was 8:00-9:00 AM, during which time more than 5,000 passengers departed. The PM peak hours occurred between 1:00-6:00 PM, with nearly 3,000 departing passengers per hour, and again from 7:00-8:00 PM, with nearly 4,000 departing passengers.

Figure 22: Diurnal Passenger Distribution at BWI

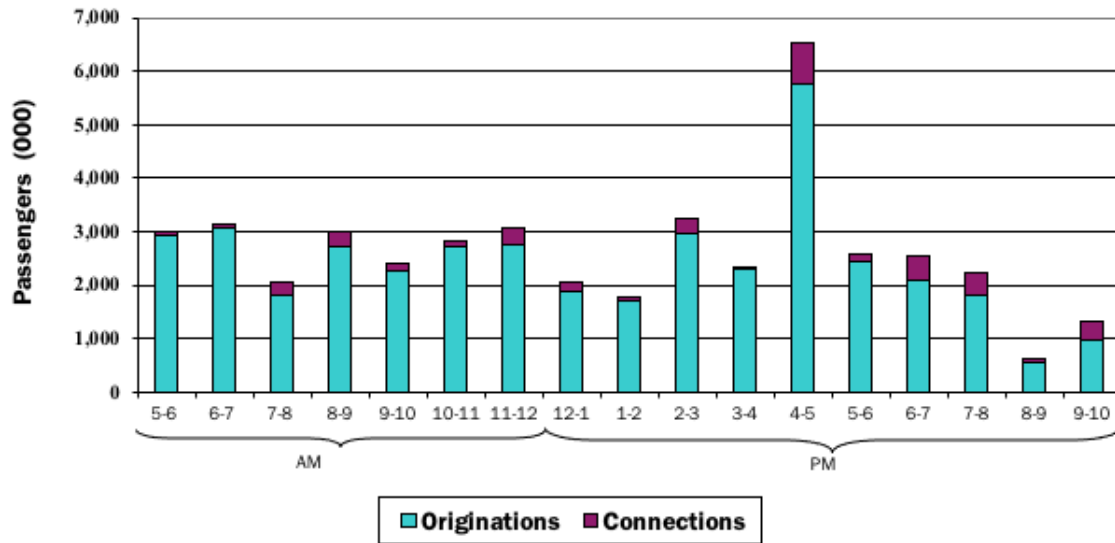


Source: Washington- Baltimore Regional Air Passenger Survey 2019

Daily activity at DCA is characteristic of a typical “origin and destination” airport – one that is used mainly by passengers beginning or ending their air trip at that airport, rather than connecting to another flight. This is indicated by the low number of connecting passengers as well as the high number of passengers departing between 5:00 AM to 12:00 PM and 4:00-5:00 PM.

The generally high number of departing passengers throughout the day reflects the “slot” and “high density” rules that are in effect at DCA. By limiting the number of operations that may be scheduled per hour, these restrictions tend to flatten out the peak hour of activity throughout the day. Over the course of 15 hours, from 5:00 AM to 8:00 PM, DCA typically handled between 2,000 and 3,000 passengers per hour, except for 4:00 – 5:00 PM at nearly 7,000 passengers. Additionally, 8:00 – 10:00 PM was a particularly quiet window, with between 500 – 1,500 departing air passengers.

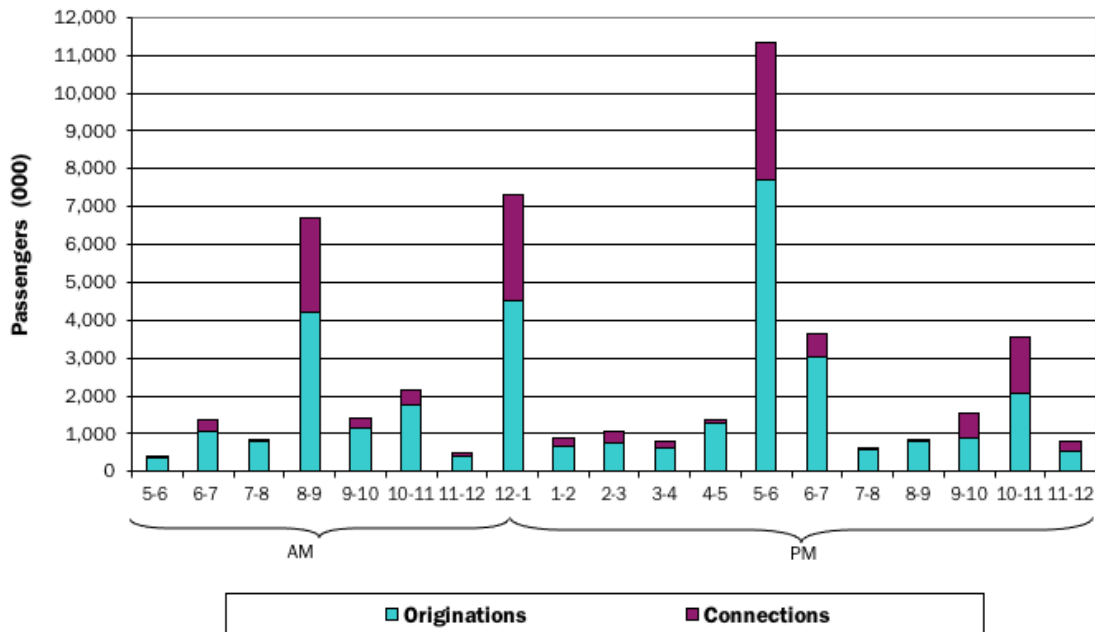
Figure 23: Diurnal Passenger Distribution at DCA



Source: Washington-Baltimore Regional Air Passenger Survey 2019

The overall peak for IAD was between 5-6 PM when over 11,000 air passengers departed. There was significant traffic between 8-9 AM and 12-1 PM as well, during which times approximately 7,000 passengers departed. Note that during the hours preceding the evening peak (between 1-4 PM), there was very little departing passenger activity at IAD, which is indicative of the high number of long-haul flights that serve IAD. These flights - typically to and from the west coast and international destinations - typically arrive in the early afternoon and depart during the late afternoon peak. This high level of activity in the late afternoon at IAD (between 5-6 PM) is characteristic of airports that handle significant amounts of long-haul activity.

Figure 24: Diurnal Passenger Distribution at IAD



Source: Washington-Baltimore Regional Air Passenger Survey 2019

Baltimore and Washington Subregional Cores

This section focuses on air passengers originating from the sub-regional cores of the Baltimore and Washington regions. The Washington Core is composed of the District of Columbia, Arlington County, and the City of Alexandria. The Baltimore Core consists of Baltimore City. Table 13 displays airport use by originating passengers from the Washington Core and Baltimore Core, as well as the remaining zones in the region. Although the number of air passengers from Baltimore City account for only five percent of the regional total, it makes up nearly 24 percent of all passengers from the Baltimore metropolitan area. 95 percent of air passenger originations from Baltimore City used BWI for their departing trips. The Washington Core generated 8.7 million air passengers in 2017, 71 percent of whom used DCA. In contrast with the Baltimore Core, more Washington Core passengers traveled to airports further from their place of origin.

Table 13: Airport Usage from Major Downtown Activity Centers (in thousands)

AIRPORT USED	Baltimore Core		Washington Core		All Other		Region	
	No.	%	No.	%	No.	%	No.	%
BWI	1,402	95%	882	10%	8,142	42%	10,426	35%
DCA	28	2%	6,200	68%	4,690	24%	10,918	36%
IAD	43	3%	2,088	23%	6,596	34%	8,726	29%
TOTAL	1,473	100%	9,170	100%	19,428	100%	30,070	100%

Note: Washington Core includes the District of Columbia, Arlington County and the City of Alexandria. Baltimore Core includes the City of Baltimore. All Other includes externals outside the Washington-Baltimore Air System Planning Region.

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Business travel was the trip purpose for 39 percent of passengers from the Baltimore Core and 43 percent of passengers from the Washington Core. Table 14 displays a breakdown of trip purpose for passengers from these centers. Business-related trips from these two downtown centers were higher than the regional average of 38 percent, primarily due to the high concentration of government (Federal, state, and local) and private sector employment that is located within the activity centers.

Table 14: Trip Purpose from Major Downtown Activity Centers (in thousands)

TRIP PURPOSE	Baltimore Core		Washington Core		All Other		Region	
	No.	%	No.	%	No.	%	No.	%
Business (Gov't)	112	8%	1,366	15%	2,076	11%	3,555	12%
Business (Non-Gov't)	372	25%	1,891	21%	3,134	16%	5,396	18%
Vacation	294	20%	2,065	23%	4,905	25%	7,265	24%
Personal	382	26%	1,812	20%	5,293	27%	7,487	25%
Student	83	6%	717	8%	882	5%	1,682	6%
Other	229	16%	1,319	14%	3,137	16%	4,685	16%
TOTAL	1,473	100%	9,170	100%	19,428	100%	30,070	100%

Note: Washington Core includes the District of Columbia, Arlington County and the City of Alexandria. Baltimore Core includes the City of Baltimore. All Other includes externals outside the Washington-Baltimore Air System Planning Region.

Source: Washington-Baltimore Regional Air Passenger Survey 2019

As reflected in Table 15 below, the Washington Core displays higher percentages of air passengers originating from a hotel/motel than the region overall, and much lower percentages leaving from a private residence; this is true for the Baltimore Core as well, but to a much lower degree. Both areas had a significant number of passengers traveling to the airport from a hotel or motel, 30 percent in the Baltimore Core and 42 percent in the Washington Core, compared with only 27 percent of passengers originating from the rest of the region. Air passengers leaving from private residences

followed the opposite pattern with 57 percent of passengers from the rest of the region leaving from a home and 56 and 40 percent of passengers leaving from the Baltimore and Washington Cores, respectively. Places of employment or other business locations generated 12 percent of the passengers from the Washington Core and 11 percent from the Baltimore Core. The regional average was 10 percent.

Table 15: Trip Origin Activity from Major Downtown Activity Centers (in thousands)

ORIGIN ACTIVITY	Baltimore Core		Washington Core		All Other		Region	
	No.	%	No.	%	No.	%	No.	%
Private Residence	706	48%	3,104	34%	11,527	59%	15,337	51%
Hotel/Motel	392	27%	3,921	43%	3,670	19%	7,982	27%
Short-Term Rental	52	4%	400	4%	226	1%	678	2%
Regular Employment	63	4%	370	4%	471	2%	903	3%
Other Business	75	5%	417	5%	563	3%	1,056	4%
Other	185	13%	957	10%	2,972	15%	4,114	14%
TOTAL	1,473	100%	9,170	100%	19,428	100%	30,070	100%

Note: Washington Core includes the District of Columbia, Arlington County and the City of Alexandria. Baltimore Core includes the City of Baltimore. All Other includes externals outside the Washington-Baltimore Air System Planning Region.
Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 16 illustrates the mode of access breakdown. The most heavily used mode of access to the airports from the Washington Core was by transportation network company (TNC), such as Uber or Lyft, and it was the second most heavily used mode from the Baltimore Core. In the Washington Core, 69 percent of total passengers used automobiles (private and rental, as well as taxicabs and TNCs) to access the airports, which differed significantly from the region overall. In the Baltimore Core, nine percent of the passengers used taxicabs, and this figure is exceeded by the 20 percent in the Washington Core. Numbers are much closer between the Baltimore Core and the Washington Core regarding TNCs; they were used by 19 percent and 22 percent of the respective populations, compared to 13 percent of the region overall.

Table 16: Mode of Access from Major Downtown Activity Centers (in thousands)

MODE OF ACCESS	Baltimore Core		Washington Core		All Other		Region	
	No.	%	No.	%	No.	%	No.	%
Private Auto	551	37%	1,488	16%	9,655	50%	11,694	39%
Rental Auto	131	9%	475	5%	2,277	12%	2,883	10%
Taxicab	106	7%	1,440	16%	938	5%	2,484	8%
TNCs	421	29%	3,258	36%	3,176	16%	6,855	23%
Public Transportation	41	3%	1,310	14%	620	3%	1,972	7%
Airport Bus/Limousine	105	7%	686	7%	1,144	6%	1,935	6%
Other	118	8%	512	6%	1,617	8%	2,247	7%
TOTAL	1,473	100%	9,170	100%	19,428	100%	30,070	100%

Note: Washington Core includes the District of Columbia, Arlington County and the City of Alexandria. Baltimore Core includes the City of Baltimore. All Other includes externals outside the Washington-Baltimore Air System Planning Region.
Source: Washington-Baltimore Regional Air Passenger Survey 2019

Flight Destination by Region

This section focuses on the distribution of flight trips by destination region. Those regions are broken down into nine domestic regions, as well as international destinations. The domestic regions are listed in Table 17 below.

Table 17: Destination Region Share

Destination Region	%
Atlantic	27%
Midwest	14%
New England	8%
Northeast	6%
Pacific Northwest	8%
Plains	3%
South Central	10%
Southeast	3%
West	7%
SUBTOTAL	86%
International	13%
TOTAL	100%

Overall, the 2019 distribution of travel was generally consistent with 2017 findings. The Atlantic and Midwest regions combined received 41 percent of all departing passengers, the same as in 2017. Between 2017 and 2019 there were minor increases in the Atlantic and Southeast, and minor decreases in the Midwest, Pacific Northwest, Northeast, and Plains. International travel accounted for 13 percent of all trips. The Virginia Suburbs accounted for 38 percent of all international travel and IAD remained dominant for international travel.

BWI had the largest share of flights to the Atlantic, the Southeast, and the West. DCA had the largest share of flights to the Midwest, New England, the Northeast, the Plains and South Central.

DCA made up the largest share of flights overall at 36 percent and domestic flights at 41 percent, but only offered six percent of the share of international flights in the region.

IAD only made up 21 percent of all domestic flights, but it had 53 percent of the share of flights to the Pacific Northwest and 79 percent of international flights.

Note: Numbers may not total due to rounding.

Source: 2019 Washington-Baltimore Regional Air Passenger Survey

Table 18: Annual Departing Flights by Destination Region by Airport

Destination Region	BWI		DCA		IAD		TOTAL		Airport Share of Trips to Destination Region		
	No.	% of BWI Originations	No.	% of DCA Originations	No.	% of IAD Originations	No.	% of Total Originations	BWI	DCA	IAD
Atlantic	3,549	39%	3,125	30%	1,297	18%	7,971	30%	45%	39%	16%
Midwest	1,507	17%	2,078	20%	631	9%	4,216	16%	36%	49%	15%
New England	378	4%	992	9%	444	6%	1,813	7%	21%	55%	24%
NY / Northeast	887	10%	1,310	12%	339	5%	2,536	10%	35%	52%	13%
Pacific Northwest	680	8%	463	4%	1,266	17%	2,409	9%	28%	19%	53%
Plains	339	4%	546	5%	127	2%	1,013	4%	33%	54%	13%
South Central	1,137	13%	1,358	13%	642	9%	3,137	12%	36%	43%	20%
Southeast	395	4%	304	3%	89	1%	788	3%	50%	39%	11%
West	944	11%	489	5%	709	10%	2,142	8%	44%	23%	33%
SUBTOTAL	9,816	93%	10,664	98%	5,543	64%	26,023	87%	38%	41%	21%
International	610	7%	254	2%	3,184	36%	4,047	13%	15%	6%	79%
TOTAL	10,426	100%	10,918	100%	8,726	100%	30,070	100%	35%	36%	29%

Source: 2019 Washington-Baltimore Regional Air Passenger Survey

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 16th and extending through Tuesday October 29th, 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 12th, 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 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 16th to Tuesday, October 29th. Flights requiring resurveying occurred between October 30th and November 12th. Field staff collected completed surveys from 23,858 out of a total of 83,424 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.⁴

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 bi-weekly passenger totals. And finally, observed annual enplanement of regional air travel was obtained from MWAA for DCA and IAD and from MAA for BWI.

Level of Confidence

For the 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.

⁴ 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.

APPENDIX B: QUESTIONNAIRE

Note: The following three surveys used at BWI, DCA, and IAD Airports are nearly identical, except for Mode and Parking due to the differences between the facilities at each of the three airports.

Figure 25: Washington-Baltimore Regional Air Passenger Survey – BWI

4. How many people live in your household, including yourself?
 _____ Person(s) (Write '1' if you live alone)
5. Check your age group:
₀₁ 18 or younger ₀₄ 35–49
₀₂ 19–24 ₀₅ 50–64
₀₃ 25–34 ₀₆ 65 or older
6. What is your household's total annual income?
₀₁ Less than \$25,000 ₀₄ \$100,000-\$149,999
₀₂ \$25,000-\$49,999 ₀₅ \$150,000-\$199,999
₀₃ \$50,000-\$99,999 ₀₆ \$200,000 or more
7. How much did you spend on airport concessions during your visit? (Include expenses only within the airport terminal area such as food, souvenirs, spa visit, etc. Do not include expenses outside of the airport terminal area such as parking.)
₀₁ \$0
₀₂ \$1-\$24
₀₃ \$25-\$49
₀₄ \$50-\$99
₀₅ \$100 or more

E. PLEASE WRITE ANY COMMENTS YOU WOULD LIKE TO SHARE

Thanks for Your Help!



**2019
WASHINGTON – BALTIMORE
REGIONAL AIR PASSENGER
SURVEY**

TO DETERMINE LOCAL AIRPORT NEEDS
BWI


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

All answers are confidential. Personal identification is not required. Thank you for your cooperation.

You can take this survey online by visiting

<http://gowba.info/air>

or scan the QR code below.



ID number below is required to access online survey.

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

ID NUMBER (PASSWORD)

AIR PASSENGER SURVEY – BWI AIRPORT

A. ABOUT YOUR TRIP TODAY

1. How did you get to Baltimore/Washington International Thurgood Marshall Airport for this trip? (Check ONE answer)
- ₀₁ By GROUND TRANSPORTATION (e.g., car, taxi, ride-hailing, Metro, etc.)
 If this was your selection, continue to QUESTION #2
- ₀₂ I was on this flight when it arrived at this airport.
- ₀₃ I made a connection at this airport from a DOMESTIC FLIGHT...
- ₀₄ I made a connection at this airport from an INTERNATIONAL FLIGHT...
 with _____ Airlines.
- STOP – That is all we need to know.**

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

_____ City

State/Province _____ Country _____

3. What is the primary purpose of your trip? (Check ONE answer)

- ₀₁ Business related to the federal government (Including military)
- ₀₂ Business related to state or local government
- ₀₃ Business that is not related to government
- ₀₄ Vacation or holiday
- ₀₅ Personal or family affairs
- ₀₆ Student or school related
- ₀₅ Other: _____

B. ABOUT YOUR GROUND TRIP TO BWI MARSHALL AIRPORT:

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

- ₀₁ Private residence
- ₀₂ Hotel/Motel
- ₀₃ Short term rental (e.g., Airbnb, VRBO)
- ₀₄ My regular place of employment
- ₀₅ Another place of business
- ₀₅ Other: _____

Washington-Baltimore Regional Air Passenger Survey - BWI (Continued)

2. What is the address of the place you started your trip today?

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

City	State	Zip Code
------	-------	----------

Hotel/Motel or Business Name

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

□□ : □□ AM PM

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

□□ : □□ AM PM

5. How many people who came to the airport with you are on your flight?

_____ Person(s) (Including yourself)

6. How did you travel to this airport today? (Check ONE primary mode of travel)

- ₀₁ Private Car
- ₀₂ Rented Car
- ₀₃ Taxi
- ₀₄ Ride-hailing (e.g., Uber, Lyft)
- ₀₅ Airport van/limo (e.g., SuperShuttle)
- ₀₆ Hotel/Motel courtesy bus
- ₀₈ Amtrak/MARC
- ₀₉ Light Rail
- ₁₀ Metrobus/MTA Bus/RTA Bus
- ₁₁ Walked from place where your trip started today
- ₁₂ Biked from place where your trip started today
- ₀₇ Other: _____

→ If you walked or biked to the airport, please describe your trip route, including your start and end point.

7. What was your MAIN reason for choosing your mode of GROUND transportation to this airport TODAY? (Check ONE answer)

- ₀₁ Cost
- ₀₂ Reliability
- ₀₃ Travel Time
- ₀₄ Convenience
- ₀₅ Comfort
- ₀₆ Other: _____

8. How much did you spend on all ground transportation to this airport except parking?

- ₀₁ \$0
- ₀₂ \$1-\$4
- ₀₃ \$5-\$9
- ₀₄ \$10-\$24
- ₀₅ \$25-\$49
- ₀₆ \$50-\$99
- ₀₇ \$100 or more

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)

- ₀₁ Yes ₀₂ No

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?
 - ₀₁ Yes ₀₂ No
- b. Where was that vehicle parked (after drop-off)?
 - ₀₁ It was not parked
 - ₀₂ Hourly Parking Garage
 - ₀₃ Daily Garage
 - ₀₄ Express Parking Lot
 - ₀₅ Long Term A or B
 - ₀₆ BWI Rail Station Garage
 - ₀₇ Off-Airport Private Parking
 - ₁₁ Valet Parking

C. ABOUT YOUR AIRPORT CHOICE

1. Rank the three most important reasons for choosing BWI Marshall Airport for your flight today. (Write 1 for first choice, 2 for second, etc.)

- _____ Closest airport
- _____ Easy road access
- _____ Easy access by Metrorail or public transit
- _____ 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
- _____ Other: _____

2. Rank the region's airports in your order of preference. (Write 1 for first choice, 2 for second, etc.)

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

D. ABOUT YOURSELF

1. If you live locally, how many nights will you be 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
-------------	-------	----------

Country

Turn Page →

Figure 26: Washington-Baltimore Regional Air Passenger Survey – DCA

4. How many people live in your household, including yourself?
 _____ Person(s) (Write '1' if you live alone)
5. Check your age group:
- 01 18 or younger 04 35-49
 02 19-24 05 50-64
 03 25-34 06 65 or older
6. What is your household's total annual income?
- 01 Less than \$25,000 04 \$100,000-\$149,999
 02 \$25,000-\$49,999 05 \$150,000-\$199,999
 03 \$50,000-\$99,999 06 \$200,000 or more
7. How much did you spend on airport concessions during your visit? (Include expenses only within the airport terminal area such as food, souvenirs, spa visit, etc. Do not include expenses outside of the airport terminal area such as parking.)
- 01 \$0
 02 \$1-\$24
 03 \$25-\$49
 04 \$50-\$99
 05 \$100 or more

E. PLEASE WRITE ANY COMMENTS YOU WOULD LIKE TO SHARE

Thanks for Your Help!



**2019
 WASHINGTON – BALTIMORE
 REGIONAL AIR PASSENGER
 SURVEY**

**TO DETERMINE LOCAL AIRPORT NEEDS
 DCA**

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 Metropolitan Washington Airports Authority
 Maryland Aviation Administration
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 serving the region's airports.

ID NUMBER (PASSWORD)

AIR PASSENGER SURVEY – DCA AIRPORT

A. ABOUT YOUR TRIP TODAY

1. How did you get to Ronald Reagan Washington National Airport for this trip? (Check ONE answer)
- 01 By GROUND TRANSPORTATION (e.g., car, taxi, ride-hailing, Metro, etc.)
 If this was your selection, continue to QUESTION #2
- 02 I was on this flight when it arrived at this airport.
- 03 I made a connection at this airport from a DOMESTIC FLIGHT...
- 04 I made a connection at this airport from an INTERNATIONAL FLIGHT...
 with _____ Airlines.
- STOP – That is all we need to know.**

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

_____ City

_____ State/Province _____ Country

3. What is the primary purpose of your trip? (Check ONE answer)
- 01 Business related to the federal government (Including military)
- 02 Business related to state or local government
- 03 Business that is not related to government
- 04 Vacation or holiday
- 05 Personal or family affairs
- 06 Student or school related
- 06 Other: _____

B. ABOUT YOUR GROUND TRIP TO RONALD REAGAN WASHINGTON NATIONAL AIRPORT:

1. Where did you start your ground trip to this airport (DCA)? (Check ONE answer)
- 01 Private residence
- 02 Hotel/Motel
- 03 Short term rental (e.g., Airbnb, VRBO)
- 04 My regular place of employment
- 05 Another place of business
- 06 Other: _____

Washington-Baltimore Regional Air Passenger Survey – DCA (Continued)

2. What is the address of the place you started your trip today?

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

City	State	Zip Code
------	-------	----------

Hotel/Motel or Business Name

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

: AM PM

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

: AM PM

5. How many people who came to the airport with you are on your flight?

_____ Person(s) (Including yourself)

6. How did you travel to this airport today? (Check ONE primary mode of travel)

- ₀₁ Private Car
- ₀₂ Rented Car
- ₀₃ Taxi
- ₀₄ Ride-hailing (e.g., Uber, Lyft)
- ₀₅ Airport van/limo (e.g., SuperShuttle)
- ₀₆ Hotel/Motel courtesy bus
- ₀₇ Metrorail
- ₀₈ VRE
- ₀₉ Metrobus
- ₁₀ Walked from place where your trip started today
- ₁₁ Biked from place where your trip started today
- ₁₂ Other: _____

→ If you walked or biked to the airport, please describe your trip route, including your start and end point.

7. What was your MAIN reason for choosing your mode of GROUND transportation to this airport TODAY? (Check ONE answer)

- ₀₁ Cost
- ₀₂ Reliability
- ₀₃ Travel Time
- ₀₄ Convenience
- ₀₅ Comfort
- ₀₆ Other: _____

8. How much did you spend on all ground transportation to this airport except parking?

- ₀₁ \$0
- ₀₂ \$1-\$4
- ₀₃ \$5-\$9
- ₀₄ \$10-\$24
- ₀₅ \$25-\$49
- ₀₆ \$50-\$99
- ₀₇ \$100 or more

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)

- ₀₁ Yes ₀₂ No

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?
 - ₀₁ Yes ₀₂ No
- b. Where was that vehicle parked (after drop-off)?
 - ₀₁ It was not parked
 - ₀₂ Short-term/hourly parking lot
 - ₀₃ Long-term/daily parking garage
 - ₀₄ Long-term/economy parking lot

C. ABOUT YOUR AIRPORT CHOICE

1. Rank the three most important reasons for choosing Reagan Washington National Airport for your flight today. (Write 1 for first choice, 2 for second, etc.)

- _____ Closest airport
- _____ Easy road access
- _____ Easy access by Metrorail or public transit
- _____ 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
- _____ Other: _____

2. Rank the region's airports in your order of preference. (Write 1 for first choice, 2 for second, etc.)

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

D. ABOUT YOURSELF

1. If you live locally, how many nights will you be 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
-------------	-------	----------

Country

Turn Page →

Figure 27: Washington-Baltimore Regional Air Passenger Survey – IAD

4. How many people live in your household, including yourself?

_____ Person(s) (Write '1' if you live alone)

5. Check your age group:

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

6. What is your household's total annual income?

- ₀₁ Less than \$25,000 ₀₄ \$100,000-\$149,999
₀₂ \$25,000-\$49,999 ₀₅ \$150,000-\$199,999
₀₃ \$50,000-\$99,999 ₀₆ \$200,000 or more

7. How much did you spend on airport concessions during your visit? (Include expenses only within the airport terminal area such as food, souvenirs, spa visit, etc. Do not include expenses outside of the airport terminal area such as parking.)

- ₀₁ \$0
₀₂ \$1-\$24
₀₃ \$25-\$49
₀₄ \$50-\$99
₀₅ \$100 or more

E. PLEASE WRITE ANY COMMENTS YOU WOULD LIKE TO SHARE

Thanks for Your Help!



**2019
WASHINGTON – BALTIMORE
REGIONAL AIR PASSENGER
SURVEY**

**TO DETERMINE LOCAL AIRPORT NEEDS
IAD**

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

All answers are confidential. Personal identification is not required. Thank you for your cooperation.

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or scan the QR code below.



ID number below is required to access online survey.

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 Metropolitan Washington Council of Governments
 Metropolitan Washington Airports Authority
 Maryland Aviation Administration
 in cooperation with the airlines serving the region's airports.

ID NUMBER (PASSWORD)

AIR PASSENGER SURVEY – IAD AIRPORT

A. ABOUT YOUR TRIP TODAY

1. How did you get to Washington Dulles International Airport for this trip? (Check ONE answer)

- ₀₁ By GROUND TRANSPORTATION (e.g., car, taxi, ride-hailing, Metro, etc.)

If this was your selection, continue to QUESTION #2

- ₀₂ I was on this flight when it arrived at this airport.

- ₀₃ I made a connection at this airport from a DOMESTIC FLIGHT...

- ₀₄ I made a connection at this airport from an INTERNATIONAL FLIGHT...

▶ with _____ Airlines.

STOP – That is all we need to know.

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

_____ City

_____ State/Province _____ Country

3. What is the primary purpose of your trip? (Check ONE answer)

- ₀₁ Business related to the federal government (including military)
₀₂ Business related to state or local government
₀₃ Business that is not related to government
₀₄ Vacation or holiday
₀₅ Personal or family affairs
₀₆ Student or school related
₀₇ Other: _____

B. ABOUT YOUR GROUND TRIP TO WASHINGTON DULLES INTERNATIONAL AIRPORT:

1. Where did you start your ground trip to this airport (IAD)? (Check ONE answer)

- ₀₁ Private residence
₀₂ Hotel/Motel
₀₃ Short term rental (e.g., Airbnb, VRBO)
₀₄ My regular place of employment
₀₅ Another place of business
₀₆ Other: _____

Washington-Baltimore Regional Air Passenger Survey – IAD (Continued)

2. What is the address of the place you started your trip today?

Street Number	Street Name	City Quadrant (e.g., SW, NE)
City	State	Zip Code
Hotel/Motel or Business Name		

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

:

 AM PM

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

:

 AM PM

5. How many people who came to the airport with you are on your flight?

_____ Person(s) (Including yourself)

6. How did you travel to this airport today? (Check ONE primary mode of travel)

- ₀₁ Private Car
- ₀₂ Rented Car
- ₀₃ Taxi
- ₀₄ Ride-hailing (e.g., Uber, Lyft)
- ₀₅ Airport van/limo (e.g., SuperShuttle)
- ₀₆ Hotel/Motel courtesy bus
- ₀₇ Metrobus / Silver Line Express / Fairfax Connector

- ₁₁ Walked from place where your trip started today
- ₁₂ Biked from place where your trip started today
- ₁₃ Other: _____

→ If you walked or biked to the airport, please describe your trip route, including your start and end point.

7. What was your MAIN reason for choosing your mode of GROUND transportation to this airport TODAY? (Check ONE answer)

- ₀₁ Cost
- ₀₂ Reliability
- ₀₃ Travel Time
- ₀₄ Convenience
- ₀₅ Comfort
- ₀₆ Other: _____

8. How much did you spend on all ground transportation to this airport except parking?

- ₀₁ \$0
- ₀₂ \$1-\$4
- ₀₃ \$5-\$9
- ₀₄ \$10-\$24
- ₀₅ \$25-\$49
- ₀₆ \$50-\$99
- ₀₇ \$100 or more

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)

- ₀₁ Yes ₀₂ No

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?
 ₀₁ Yes ₀₂ No

b. Where was that vehicle parked (after drop-off)?

- ₀₁ It was not parked
- ₀₂ Short term/hourly parking lot
- ₀₃ Long term/daily parking garage
- ₀₄ Long term/economy parking lot
- ₀₅ Valet parking

C. ABOUT YOUR AIRPORT CHOICE

1. 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
- _____ Easy road access
- _____ Easy access by Metrorail or public transit
- _____ 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
- _____ Other: _____

2. Rank the region's airports in your order of preference. (Write 1 for first choice, 2 for second, etc.)

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

D. ABOUT YOURSELF

1. If you live locally, how many nights will you be 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: LIST OF AVIATION ANALYSIS ZONES

Table 19: Aviation Analysis Zone System

No.	Jurisdiction	No. of AAZ's	AAZ's Range	No. of TAZ's
1	District of Columbia	20	1 - 20	393
2	Arlington County	9	21 - 29	141
3	City of Alexandria	4	30 - 33	65
4	Fairfax County	14	34 - 47	549
5	Montgomery County	21	48 - 68	376
6	Prince George's County	14	69 - 82	635
7	Prince William County	6	83 - 88	376
8	Loudoun County	5	89 - 94	282
9	Frederick County	3	95 - 97	130
10	Carroll County	1	98	58
11	Howard County	9	99 - 107	68
12	Anne Arundel County	14	108 - 121	98
13	Calvert County	1	122	47
14	St. Mary's County	1	123	75
15	Charles County	2	124 - 125	113
16	King George County	1	126	25
17	Spotsylvania County	1	127	62
18	City of Fredericksburg	1	128	14
19	Stafford County	1	129	90
20	Fauquier County	1	130	50
21	Clarke County	1	131	9
22	Jefferson County	1	132	13
23	Baltimore City	13	133 - 145	217
24	Baltimore County	13	146 - 158	342
25	Harford County	3	159 - 161	140
Total Washington/Baltimore Air System Planning Area		160		4,368
26	External Maryland	1	162	NA
27	External Virginia	1	163	NA
28	External West Virginia	1	164	NA
29	Pennsylvania	1	165	NA
30	Delaware	1	166	NA
31	New Jersey	1	167	NA
32	Other	1	999	NA
Total Externals		7	NA	NA
Grand Total		167		

Source: Washington-Baltimore Region Air Passenger Survey 2019

Table 20: Aviation Analysis Zone System Names

AAZ	Jurisdiction	Place Name
1	District of Columbia	The Mall
2		The White House, Federal Triangle, Foggy Bottom
3		Franklin Square, Mt. Vernon, Gallery Place
4		Dupont Circle, Adams Morgan
5		Georgetown
6		Cleveland Park
7		Foxhall, Sutton Place, Cathedral Heights, Senate Heights, Glover Park, Foxhall Village, Canal View
8		Tenleytown, American University
9		Westover Place, Embassy Park, Wesley Heights, McLean Gardens
10		Chevy Chase, Friendship Heights, Western Rock Creek Park
11		Colonial Village, Rock Creek Gardens, Shepherd Park, Walter Reed, Takoma, Petworth, Hampshire Knolls, Crestwood, Eastern Rock Creek Park
12		Mount Pleasant, North Adams Morgan
13		Shaw, Howard University
14		Riggs Park, Michigan Park, Catholic University, Brookland, Fort Lincoln, Langdon, Brentwood, Edgewood, Eckington, Washington Hospital Center
15	The Capitol	
16	National Arboretum, Gallaudet University, Trinidad, Lincoln Park, Eastern Market, Capitol South, Navy Yard, Stadium Armory	
17	Anacostia, Benning, Fort Dupont, Capitol View, Deanwood, Capitol Heights	
18	L'Enfant Plaza, Federal Center SW, Waterfront	
19	Buzzard Point	
20	Joint Base Anacostia Bolling (JBAB)	
21	Arlington County, VA	Ronald Reagan Washington National Airport
22		Pentagon City, Crystal City
23		The Ridge, Forest Hills Commons, Avalon Bay
24		Arlington National Cemetery, The Pentagon
25		Rosslyn
26		Clarendon, Colonial Village
27		East Falls Church, North Arlington
28		Ballston, Buckingham, Glencarlyn, Barcroft
29		Shirlington
30	City of Alexandria, VA	Beverly Hills, Potomac Yards, Braddock Hgts, Timber Branch Park, Rosemont, Quaker Hill, Ivy Hill
31		Old Town, Alexandria
32		Cameron Park, Eisenhower Avenue
33		Landmark
34	Fairfax County, VA	Falls Church, Fairview Park, Annandale, Lincoln
35		Shirley/Edsall Industrial Park, Springfield, Franconia, Kingstowne, Fort Belvoir Proving Ground, Newington
36		Huntington, Rose Hill, Hybla Valley, Fort Hunt, Mount Vernon, Woodlawn, Fort Belvoir, Lorton, Mason Neck
37		Lorton
38		Ravensthorpe, Burke, Fairfax Station, Burke Center, George Mason University
39		Merrifield

Source: Washington-Baltimore Region Air Passenger Survey 2019

Table 18 Continued

AAZ	Jurisdiction	Place Name
40	Fairfax County, VA	Centerville, Sully Station, Clifton
41		Fair Oaks, Fairfax City
42		Chantilly
43		Reston, Franklin Farm, Vienna
44		Woodland Park, Dulles Technology Center
45		Herndon, Great Falls
46		Tysons Corner
47	McLean	
48	Montgomery County, MD	Glen Echo
49		Cabin John, Oakmont
50		Medical Center
51		Chevy Chase
52		Bethesda
53		Rock Spring, White Flint
54		West I-270 Rockville
55		Gaithersburg, Washington Grove
56		Germantown
57		Potomac
58		Dickerson, Barnesville, Poolesville, Dawsonville, Quince Orchard, Darnestown, North Potomac
59		Damascus, Cedar Grove, Woodfield, Clarksburg, Laytonsville, Brookeville
60		Montgomery Village
61		East I-270 Rockville
62		Aspen Hill, Layhill, Norbeck, Olney
63		Clovely, Colesville, Spencerville, Burtonsville, Fairland
64		Glenmont, White Oak, Wheaton, Four Corners, Hillandale, Forest Glen
65		North Chevy Chase
66		Forest Glen Park, North Silver Spring
67		Downtown Silver Spring
68		Takoma Park
69	Prince George's County, MD	Langley Park, Adelphi, Chillum, Hyattsville, Mount Rainer, Brentwood, Cottage City, Bladensburg, Edmonston, Berwyn Heights, Cheverly
70		College Park, University Park, University of Maryland
71		Beltsville
72		Calverton
73		Laurel, Montpelier
74		Greenbelt, Goddard Space Center, New Carrollton
75		North Bowie, Woodmore, Kettering
76		Bowie
77		Glenarden, Kentland
78		Seat Pleasant, Fairmount Heights, Capitol Heights, District Heights, Forestville
79		Andrews Air Force Base, Melwood, Woodyard, Upper Marlboro, Croom, Marlton
80		Hillcrest Heights, Morningside, Suitland, Temple Hills, Forest Heights
81		National Harbor
82		Friendly, Camp Springs, Clinton, Tantallon, Piscataway, Brandywine, Accokeek, Cedarville, Baden, Westwood, Eagle Harbor, Nottingham

Source: Washington-Baltimore Region Air Passenger Survey 2019

Table 18 Continued

AAZ	Jurisdiction	Place Name
83	Prince William County, VA	Woodbridge, Dumfries
84		Woodbridge, Potomac Mills
85		Dale City, Occoquan, Lake Ridge, Quantico Marine Corps Base
86		Nokesville, Lake Jackson, Gainesville, Haymarket
87		Manassas, Manassas Park
88		Sudley, Manassas Battle Field, Haymarket
89	Loudoun County, VA	South Riding, Arcola
90		Washington Dulles International Airport
91		Cascades, Sugarland Run, Lowes Island
92		Sterling Park, Sterling, Dulles, Ashburn
93		Leesburg, Ashburn
94		Lovettsville, Hillsboro, Round Hill, Purcellville, Hamilton, Lucketts, Bluemont, Philomont, Saint Louis, Western Loudoun
95	Frederick County, MD	Woodsboro, Libertytown, Oldfield, New Market, Urbana, Point of Rocks, Walkesville, Mount Airy
96		City of Frederick
97		Thurmont, Emmitsburg, Myersville, Middletown, Burkittsville, Brunswick
98	Carroll County, MD	Carroll County, MD
99	Howard County, MD	Lisbon, Cooksville, Glenwood, Glenelg, West Friendship, Dayton, Highland, Clarkesville
100		North Ellicott City
101		South Ellicott City
102		Village of River Hill (Columbia)
103		Village of Harpers Choice, Village of Hickory Ridge, Simpsonville, Village of Wilde Lake, Village of Dorseys Search
104		Village of Oakland Mills, Village of Owen Brown, Village of Kings Contrivance, Village of Long Reach
105		Scaggsville, Dickinson, Laurel, Savage
106		Village of Kings Contrivance, Columbia Gateway
107		Elkridge, Dorsey
108	Anne Arundel County, MD	Laurel, Odenton, Piney Orchard, Woodwardville, Gambrills, Crofton, Jessup
109		Jessup, Severn, Arundel Mills
110		Dorsey
111		Baltimore/Washington International Thurgood Marshall Airport
112		Linthicum
113		North Linthicum
114		Glen Burnie
115		Glen Burnie, Harundale
116		Harundale
117		Lake Shore, Gibson Island, Arnold, Cape Saint Claire, US Naval Station
118		Severna Park
119		Annapolis
120		Heritage Harbor, Edgewater, Woodland Beach, Mayo, Highland Beach
121		Crofton, Davidsonville, Harwood, Lothian, Bayard, Owensville, Gallesville, Shady Side, Tracys Landing, Deale, Churchton, Friendship
122	Calvert County, MD	Calvert County
123	St. Mary's County, MD	St. Mary's County

Source: Washington-Baltimore Region Air Passenger Survey 2019

Table 18 Continued

AAZ	Jurisdiction	Place Name
124	Charles County, MD	Pinefield, Waldorf, Cedarville, Indian Head, Glaymont, Marbury, Bryans Road, St. Charles
125		White Plains, Pomfret, La Plata, Doncaster, Pisgah, Ironsides, Port Tobacco, Bryantown, Hughesville, Benedict, Nanjemoy, Welcome, Bel Alton, Faulkner, Charlotte Hall, Mechanicsville, Newburg
126	King George County, VA	King George County
127	Spotsylvania County, VA	Northern Spotsylvania County
128	Fredericksburg, VA	City of Fredericksburg
129	Stafford County, VA	Stafford County
130	Fauquier County, VA	Fauquier County
131	Clarke County, VA	Clarke County
132	Jefferson County, WV	Jefferson County
133	Baltimore City, MD	Downtown Inner Harbor
134		Locust Point, Oriole Park at Camden Yards, M&T Bank Stadium
135		Canton Waterfront
136		Brooklyn, Cherry Hill, Loudon Park
137		Arlington, Pimlico, Gwynns Falls Park, Park Heights, North West Baltimore
138		Walbrook, Rosemont, Druid Hill Park
139		University of MD Baltimore-area
140		Hampden
141		Roland Park, Govans, Hamilton, Waverly, Herring Run Park, Belair-Edison
142		Collington Square
143		Mount Vernon
144		Lafayette Courts, Little Italy, Inner Harbor East, Fells Point, Washington Hill, Butchers Hill
145		East Baltimore
146	Baltimore County, MD	Halethorpe
147		North Arbutus
148		Arbutus
149		Catonsville, Westview Park, Woodlawn
150		Upperco, Boring, Reisterstown, Glyndon, Snowy
151		Garrison, Owings Mills, Pikesville, Randallstown, Woodlawn
152		Freeland, Maryland Line, Middletown, Gunpowder Falls, Butler, Belfast, Cooperstown, Dover
153		Stevenson, Brooklandville
154		Lutherville, Cockeysville, Timonium, Carney
155		Towson, Parkville
156		Long Green, Glen Park, Baldwin, Fork
157		Fullerton, Perry Hall, Bradshaw, Rosedale, Middle River, White Marsh
158		Essex, Dundalk, Sparrows Point, Edgemere, East Baltimore County
159	Harford County, MD	Norrisville, Whiteford, Cardiff, Pylesville, Broad Creek, Dublin, Jarrettsville, Forest Hill, Darlington
160		Bel Air, Churchville, Fountain Green, Creswell, Level, Aberdeen, Havre De Grace, Joppatowne
161		Aberdeen Proving Ground

Source: Washington-Baltimore Region Air Passenger Survey 2019

APPENDIX D: AIR PASSENGER ORIGINATIONS BY AAZ

Table 21: 2019 Washington-Baltimore Air Passenger Originations by AAZ

AAZ	BWI		DCA		IAD		TOTAL	AAZ	BWI		DCA		IAD		TOTAL
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	
1	618	3	18,390	97	0	0	19,008	42	0	0	17,421	12	130,948	88.3	148,369
2	19,923	10	131,241	63	57,426	27.5	208,590	43	20,488	4	177,407	32	365,047	64.8	562,942
3	203,606	14	959,836	65	303,345	20.7	1,466,787	44	15,243	2	98,775	12	690,405	85.8	804,423
4	105,551	11	663,139	67	227,109	22.8	995,800	45	26,073	8	32,123	10	255,542	81.5	313,738
5	14,488	9	91,569	56	56,588	34.8	162,645	46	18,732	6	126,855	38	191,777	56.8	337,364
6	43,766	18	167,618	69	30,721	12.7	242,105	47	11,848	4	130,075	42	170,164	54.5	312,087
7	15,393	14	59,552	55	33,168	30.7	108,113	48	13,042	12	60,436	55	37,098	33.5	110,576
8	10,893	13	55,628	68	14,897	18.3	81,418	49	14,488	11	69,472	51	51,178	37.9	135,139
9	3,574	5	40,026	60	23,352	34.9	66,951	50	16,198	18	50,390	55	25,471	27.7	92,060
10	7,786	6	80,340	63	40,374	31.4	128,500	51	20,690	22	48,652	51	26,044	27.3	95,386
11	22,436	11	148,230	73	33,216	16.3	203,881	52	30,241	13	150,020	65	48,801	21.3	229,063
12	18,137	13	90,902	65	30,431	21.8	139,470	53	14,904	11	66,973	51	50,611	38.2	132,488
13	47,883	17	177,125	63	57,424	20.3	282,432	54	84,457	36	69,971	30	77,293	33.4	231,721
14	39,336	15	187,509	72	35,373	13.5	262,218	55	89,463	35	74,110	29	94,098	36.5	257,671
15	8,148	14	33,283	58	15,515	27.2	56,947	56	50,804	50	14,222	14	36,189	35.8	101,215
16	52,662	11	345,457	73	74,914	15.8	473,033	57	40,513	22	65,463	35	80,989	43.3	186,964
17	42,138	39	43,482	40	23,368	21.4	108,988	58	69,730	32	80,453	37	69,621	31.7	219,804
18	4,447	3	125,543	78	31,763	19.6	161,753	59	93,955	48	15,044	8	85,585	44	194,583
19	5,723	7	44,942	55	30,854	37.8	81,519	60	18,222	29	16,595	27	27,445	44.1	62,263
20	3,319	13	20,943	79	2,245	8.47	26,507	61	25,486	31	35,346	42	22,618	27.1	83,450
21	0	0	0	0	2,334	100	2,334	62	66,060	57	31,981	28	17,724	15.3	115,766
22	23,085	3	705,785	91	49,036	6.3	777,906	63	62,783	76	8,002	10	11,318	13.8	82,102
23	23,842	14	130,800	79	9,974	6.06	164,616	64	123,423	34	99,960	28	137,854	38.2	361,237
24	0	0	41,908	88	5,787	12.1	47,694	65	35,818	30	70,015	58	13,910	11.6	119,742
25	10,276	3	186,852	46	210,599	51.7	407,726	66	35,220	34	33,454	33	33,501	32.8	102,174
26	15,128	3	388,853	73	131,883	24.6	535,864	67	29,496	14	113,480	54	67,016	31.9	209,992
27	13,967	4	241,430	74	73,034	22.2	328,431	68	27,648	42	34,161	52	3,781	5.76	65,590
28	37,083	7	311,055	57	196,155	36	544,292	69	99,034	31	196,291	62	21,738	6.86	317,063
29	8,222	8	85,957	80	12,811	12	106,990	70	40,242	26	95,857	62	17,354	11.3	153,453
30	33,120	14	132,164	58	63,608	27.8	228,891	71	24,098	55	7,518	17	11,919	27.4	43,535
31	19,426	5	264,414	70	94,532	25	378,371	72	8,055	100	0	0	0	0	8,055
32	5,437	7	48,546	63	23,431	30.3	77,414	73	82,049	53	13,834	9	59,853	38.4	155,737
33	22,330	8	177,873	61	92,657	31.6	292,859	74	26,677	38	8,270	12	35,227	50.2	70,175
34	20,625	9	106,708	46	104,421	45.1	231,754	75	71,922	60	30,815	26	18,032	14.9	120,769
35	50,147	17	175,570	58	76,784	25.4	302,502	76	47,615	66	20,565	29	3,718	5.17	71,899
36	28,872	6	322,758	64	155,744	30.7	507,374	77	24,530	17	116,104	79	7,170	4.85	147,803
37	11,735	4	155,677	57	106,424	38.9	273,835	78	22,807	28	57,026	69	2,691	3.26	82,525
38	32,176	17	69,810	38	83,977	45.2	185,962	79	41,109	65	17,484	28	4,289	6.82	62,883
39	5,661	17	12,072	37	14,989	45.8	32,722	80	13,115	22	34,413	59	11,016	18.8	58,543
40	668	1	10,774	10	94,622	89.2	106,065	81	8,371	4	184,315	82	33,326	14.7	226,012
41	23,209	6	79,721	22	258,283	71.5	361,214	82	49,274	26	103,505	54	39,413	20.5	192,193

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 21 Continued

AAZ	BWI		DCA		IAD		TOTAL	AAZ	BWI		DCA		IAD		TOTAL
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	
83	14,309	10	69,812	47	64,224	43.3	148,345	124	150,554	59	90,125	35	14,272	5.6	254,950
84	3,308	7	14,618	32	27,956	60.9	45,882	125	22,724	55	13,333	32	5,478	13.2	41,534
85	8,084	4	80,899	43	100,664	53.1	189,648	126	0	0	870	8	10,673	92.5	11,543
86	13,615	12	28,661	25	73,167	63.4	115,444	127	11,404	22	22,609	43	18,066	34.7	52,079
87	15,085	13	33,559	29	65,211	57.3	113,855	128	10,339	16	30,998	48	23,150	35.9	64,487
88	2,640	3	20,428	21	74,606	76.4	97,674	129	13,615	7	117,906	61	62,584	32.2	194,104
89	4,128	4	7,207	7	93,970	89.2	105,304	130	37,490	27	29,678	21	74,128	52.5	141,296
90	0	0	0	0	0	0	0	131	4,662	16	0	0	24,490	84	29,152
91	12,309	12	8,441	8	86,152	80.6	106,903	132	12,701	27	4,801	10	30,336	63.4	47,839
92	3,531	2	4,653	2	195,212	96	203,396	133	357,956	96	9,452	3	4,428	1.19	371,836
93	13,606	4	29,116	10	260,333	85.9	303,055	134	89,719	100	0	0	0	0	89,719
94	3,625	2	11,643	5	197,686	92.8	212,954	135	40,752	81	4,370	9	5,102	10.2	50,225
95	86,922	41	7,056	3	119,905	56.1	213,883	136	58,621	88	2,470	4	5,549	8.33	66,640
96	50,522	60	10,750	13	22,868	27.2	84,141	137	144,213	99	0	0	1,084	0.75	145,298
97	102,616	64	18,055	11	38,744	24.3	159,414	138	129,485	96	2,578	2	2,564	1.9	134,627
98	304,268	91	6,433	2	24,978	7.44	335,679	139	44,336	91	2,224	5	2,237	4.58	48,796
99	149,026	79	19,289	10	21,090	11.1	189,405	140	58,242	100	0	0	0	0	58,242
100	96,644	77	15,585	12	12,506	10	124,736	141	168,512	88	5,542	3	17,134	8.96	191,188
101	27,137	71	11,202	29	0	0	38,338	142	29,944	91	1,332	4	1,748	5.29	33,023
102	32,755	72	12,748	28	0	0	45,503	143	93,096	97	0	0	2,627	2.74	95,723
103	52,442	79	9,258	14	4,482	6.77	66,182	144	170,531	100	0	0	255	0.15	170,786
104	100,581	85	5,800	5	11,402	9.68	117,783	145	16,432	100	0	0	0	0	16,432
105	64,477	75	8,191	10	13,257	15.4	85,925	146	0	0	0	0	0	0	0
106	121,874	87	13,585	10	3,929	2.82	139,389	147	10,009	100	0	0	0	0	10,009
107	152,912	91	4,404	3	10,358	6.18	167,673	148	26,340	89	0	0	3,185	10.8	29,525
108	135,174	93	978	1	8,770	6.05	144,922	149	73,120	85	8,013	9	4,938	5.74	86,071
109	176,774	93	2,684	1	11,010	5.78	190,469	150	64,804	93	3,470	5	1,722	2.46	69,996
110	35,606	91	0	0	3,559	9.09	39,165	151	123,322	95	0	0	6,138	4.74	129,459
111	0	0	0	0	2,182	100	2,182	152	59,027	95	0	0	2,985	4.81	62,012
112	496,581	99	3,737	1	0	0	500,318	153	78,676	100	0	0	0	0	78,676
113	13,019	86	0	0	2,159	14.2	15,178	154	80,302	97	0	0	2,271	2.75	82,573
114	13,308	82	2,835	18	0	0	16,143	155	126,956	96	1,407	1	3,572	2.71	131,934
115	186,965	98	1,764	1	2,254	1.18	190,982	156	31,072	100	0	0	0	0	31,072
116	42,771	93	891	2	2,454	5.32	46,116	157	145,596	97	3,179	2	1,735	1.15	150,509
117	248,380	93	5,735	2	12,881	4.82	266,996	158	64,210	87	0	0	9,298	12.6	73,508
118	175,589	98	1,396	1	2,592	1.44	179,577	159	92,719	100	0	0	0	0	92,719
119	108,483	75	14,574	10	22,126	15.2	145,183	160	191,234	90	1,482	1	20,304	9.53	213,020
120	205,112	88	15,808	7	11,178	4.82	232,098	161	8,318	100	0	0	0	0	8,318
121	70,885	89	5,521	7	3,329	4.18	79,735								
122	71,908	63	30,355	27	11,295	9.95	113,558								
123	72,432	49	57,654	39	19,191	12.9	149,277	TOTAL	8,999,195	32	10,761,499	39	8,070,675	29	27,831,365

Source: Washington-Baltimore Regional Air Passenger Survey 2019

APPENDIX E: AIR PASSENGER ORIGINATIONS HOME AND NON-HOME BY AAZ

Table 22: 2019 Air Passenger Originations Home and Non-Home by AAZ

AAZ	Home		Non-Home		TOTAL	AAZ	Home		Non-Home		TOTAL
	No.	%	No.	%			No.	%	No.	%	
1	618	3	18,390	97	19,008	42	23,860	16	124,516	84	148,376
2	39,238	19	169,350	81	208,588	43	423,145	75	139,802	25	562,947
3	153,629	10	1,313,149	90	1,466,778	44	305,262	38	499,168	62	804,430
4	175,810	18	819,987	82	995,797	45	232,764	74	80,967	26	313,731
5	43,821	27	118,823	73	162,644	46	41,479	12	295,891	88	337,370
6	78,889	33	163,219	67	242,108	47	196,330	63	115,756	37	312,086
7	80,022	74	28,090	26	108,112	48	75,346	68	35,229	32	110,575
8	35,628	44	45,788	56	81,416	49	106,062	78	29,079	22	135,141
9	41,506	62	25,443	38	66,949	50	35,724	39	56,333	61	92,057
10	79,311	62	49,194	38	128,505	51	43,033	45	52,355	55	95,388
11	128,282	63	75,600	37	203,882	52	24,505	11	204,556	89	229,061
12	104,451	75	35,018	25	139,469	53	50,058	38	82,434	62	132,492
13	138,676	49	143,754	51	282,430	54	85,583	37	146,134	63	231,717
14	183,845	70	78,371	30	262,216	55	96,315	37	161,355	63	257,670
15	15,789	28	41,155	72	56,944	56	54,580	54	46,636	46	101,216
16	241,234	51	231,810	49	473,044	57	145,698	78	41,268	22	186,966
17	86,160	79	22,823	21	108,983	58	167,317	76	52,492	24	219,809
18	17,924	11	143,826	89	161,750	59	163,233	84	31,350	16	194,583
19	26,577	33	54,940	67	81,517	60	50,791	82	11,473	18	62,264
20	8,638	33	17,867	67	26,505	61	60,771	73	22,681	27	83,452
21	0	0	2,335	100	2,335	62	95,413	82	20,350	18	115,763
22	81,364	10	696,541	90	777,905	63	75,336	92	6,766	8	82,102
23	70,650	43	93,966	57	164,616	64	269,476	75	91,764	25	361,240
24	7,496	16	40,197	84	47,693	65	91,177	76	28,571	24	119,748
25	39,273	10	368,453	90	407,726	66	83,511	82	18,661	18	102,172
26	101,454	19	434,413	81	535,867	67	38,452	18	171,540	82	209,992
27	233,546	71	94,887	29	328,433	68	41,972	64	23,616	36	65,588
28	316,995	58	227,297	42	544,292	69	183,067	58	133,991	42	317,058
29	58,318	55	48,672	45	106,990	70	51,439	34	102,009	66	153,448
30	187,855	82	41,040	18	228,895	71	18,190	42	25,346	58	43,536
31	91,407	24	286,955	76	378,362	72	5,822	72	2,234	28	8,056
32	33,779	44	43,635	56	77,414	73	98,389	63	57,345	37	155,734
33	202,175	69	90,683	31	292,858	74	44,471	63	25,703	37	70,174
34	181,151	78	50,605	22	231,756	75	92,457	77	28,306	23	120,763
35	152,539	50	149,960	50	302,499	76	50,149	70	21,753	30	71,902
36	296,963	59	210,413	41	507,376	77	55,834	38	91,970	62	147,804
37	190,362	70	83,469	30	273,831	78	55,031	67	27,492	33	82,523
38	159,363	86	26,596	14	185,959	79	47,649	76	15,232	24	62,881
39	8,673	27	24,051	73	32,724	80	27,850	48	30,695	52	58,545
40	66,774	63	39,291	37	106,065	81	9,435	4	216,578	96	226,013
41	263,514	73	97,701	27	361,215	82	134,844	70	57,347	30	192,191

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 22 Continued

AAZ	Home		Non-Home		TOTAL	AAZ	Home		Non-Home		TOTAL
	No.	%	No.	%			No.	%	No.	%	
83	103,718	70	44,625	30	148,343	124	115,728	45	139,220	55	254,948
84	29,204	64	16,678	36	45,882	125	33,060	80	8,471	20	41,531
85	164,835	87	24,810	13	189,645	126	11,543	100	0	0	11,543
86	102,945	89	12,493	11	115,438	127	41,474	80	10,603	20	52,077
87	68,292	60	45,563	40	113,855	128	38,032	59	26,454	41	64,486
88	71,357	73	26,318	27	97,675	129	128,968	66	65,133	34	194,101
89	91,240	87	14,065	13	105,305	130	94,230	67	47,066	33	141,296
90	0	0	0	0	0	131	22,126	76	7,027	24	29,153
91	82,707	77	24,196	23	106,903	132	30,238	63	17,605	37	47,843
92	87,453	43	115,947	57	203,400	133	37,821	10	334,016	90	371,837
93	247,802	82	55,254	18	303,056	134	34,692	39	55,028	61	89,720
94	144,519	68	68,436	32	212,955	135	15,091	30	35,136	70	50,227
95	203,283	95	10,604	5	213,887	136	61,968	93	4,672	7	66,640
96	48,224	57	35,921	43	84,145	137	106,398	73	38,900	27	145,298
97	103,091	65	56,329	35	159,420	138	95,799	71	38,831	29	134,630
98	216,759	65	118,923	35	335,682	139	23,054	47	25,741	53	48,795
99	134,832	71	54,575	29	189,407	140	35,752	61	22,488	39	58,240
100	82,530	66	42,207	34	124,737	141	144,870	76	46,326	24	191,196
101	31,387	82	6,951	18	38,338	142	24,328	74	8,694	26	33,022
102	27,385	60	18,119	40	45,504	143	39,357	41	56,372	59	95,729
103	43,024	65	23,157	35	66,181	144	74,434	44	96,353	56	170,787
104	75,971	64	41,816	36	117,787	145	12,400	75	4,033	25	16,433
105	55,727	65	30,201	35	85,928	146	0	0	0	0	0
106	97,966	70	41,425	30	139,391	147	6,233	62	3,777	38	10,010
107	91,084	54	76,594	46	167,678	148	22,014	75	7,513	25	29,527
108	118,923	82	26,006	18	144,929	149	56,715	66	29,356	34	86,071
109	114,085	60	76,387	40	190,472	150	60,668	87	9,326	13	69,994
110	7,712	20	31,454	80	39,166	151	95,760	74	33,705	26	129,465
111	0	0	2,182	100	2,182	152	46,946	76	15,065	24	62,011
112	24,334	5	475,985	95	500,319	153	65,061	83	13,618	17	78,679
113	2,713	18	12,465	82	15,178	154	46,203	56	36,374	44	82,577
114	5,697	35	10,445	65	16,142	155	79,463	60	52,471	40	131,934
115	108,354	57	82,632	43	190,986	156	27,340	88	3,733	12	31,073
116	37,866	82	8,250	18	46,116	157	82,733	55	67,779	45	150,512
117	174,138	65	92,860	35	266,998	158	61,613	84	11,894	16	73,507
118	126,572	70	53,003	30	179,575	159	80,116	86	12,604	14	92,720
119	80,311	55	64,872	45	145,183	160	148,046	70	64,968	30	213,014
120	117,533	51	114,569	49	232,102	161	3,968	48	4,351	52	8,319
121	50,505	63	29,234	37	79,739						
122	73,858	65	39,701	35	113,559						
123	103,607	69	45,671	31	149,278	TOTAL	14,031,304	50	13,800,127	50	27,831,431

Source: Washington-Baltimore Regional Air Passenger Survey 2019

APPENDIX F: AIR PASSENGER ORIGINATIONS WORK AND NON-WORK PURPOSE BY AAZ

Table 23: Air Passenger Originations Work and Non-Work Purpose by AAZ

AAZ	Work		Non-Work		TOTAL	AAZ	Work		Non-Work		TOTAL
	No.	%	No.	%			No.	%	No.	%	
1	12,698	67	6,310	33	19,008	42	76,576	52	71,800	48	148,376
2	98,633	47	109,955	53	208,588	43	108,144	19	454,803	81	562,947
3	607,856	41	858,922	59	1,466,778	44	306,805	38	497,625	62	804,430
4	438,285	44	557,512	56	995,797	45	89,015	28	224,716	72	313,731
5	58,711	36	103,933	64	162,644	46	159,865	47	177,505	53	337,370
6	76,989	32	165,119	68	242,108	47	107,994	35	204,092	65	312,086
7	23,495	22	84,617	78	108,112	48	32,303	29	78,272	71	110,575
8	24,625	30	56,791	70	81,416	49	26,792	20	108,349	80	135,141
9	22,331	33	44,618	67	66,949	50	36,824	40	55,233	60	92,057
10	30,947	24	97,558	76	128,505	51	16,882	18	78,506	82	95,388
11	40,948	20	162,934	80	203,882	52	107,697	47	121,364	53	229,061
12	40,676	29	98,793	71	139,469	53	58,044	44	74,448	56	132,492
13	60,291	21	222,139	79	282,430	54	102,547	44	129,170	56	231,717
14	45,375	17	216,841	83	262,216	55	83,298	32	174,372	68	257,670
15	16,729	29	40,215	71	56,944	56	20,669	20	80,547	80	101,216
16	111,889	24	361,155	76	473,044	57	54,148	29	132,818	71	186,966
17	19,482	18	89,501	82	108,983	58	44,289	20	175,520	80	219,809
18	87,819	54	73,931	46	161,750	59	35,573	18	159,010	82	194,583
19	21,880	27	59,637	73	81,517	60	13,977	22	48,287	78	62,264
20	18,934	71	7,571	29	26,505	61	18,347	22	65,105	78	83,452
21	0	0	2,335	100	2,335	62	32,278	28	83,485	72	115,763
22	350,357	45	427,548	55	777,905	63	13,339	16	68,763	84	82,102
23	58,511	36	106,105	64	164,616	64	70,576	20	290,664	80	361,240
24	25,318	53	22,375	47	47,693	65	21,933	18	97,815	82	119,748
25	178,126	44	229,600	56	407,726	66	27,847	27	74,325	73	102,172
26	203,454	38	332,413	62	535,867	67	99,806	48	110,186	52	209,992
27	69,914	21	258,519	79	328,433	68	17,491	27	48,097	73	65,588
28	146,070	27	398,222	73	544,292	69	46,315	15	270,743	85	317,058
29	38,645	36	68,345	64	106,990	70	32,328	21	121,120	79	153,448
30	65,044	28	163,851	72	228,895	71	11,535	26	32,001	74	43,536
31	149,423	39	228,939	61	378,362	72	607	8	7,449	92	8,056
32	28,820	37	48,594	63	77,414	73	28,693	18	127,041	82	155,734
33	85,018	29	207,840	71	292,858	74	12,524	18	57,650	82	70,174
34	51,948	22	179,808	78	231,756	75	18,083	15	102,680	85	120,763
35	80,614	27	221,885	73	302,499	76	13,246	18	58,656	82	71,902
36	100,421	20	406,955	80	507,376	77	35,512	24	112,292	76	147,804
37	62,121	23	211,710	77	273,831	78	8,743	11	73,780	89	82,523
38	35,703	19	150,256	81	185,959	79	15,027	24	47,854	76	62,881
39	11,759	36	20,965	64	32,724	80	12,696	22	45,849	78	58,545
40	21,714	20	84,351	80	106,065	81	101,900	45	124,113	55	226,013
41	120,955	33	240,260	67	361,215	82	31,612	16	160,579	84	192,191

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 23 Continued

AAZ	Work		Non-Work		TOTAL	AAZ	Work		Non-Work		TOTAL
	No.	%	No.	%			No.	%	No.	%	
83	54,001	36	94,342	64	148,343	124	57,219	22	197,729	78	254,948
84	14,518	32	31,364	68	45,882	125	8,061	19	33,470	81	41,531
85	52,834	28	136,811	72	189,645	126	0	0	11,543	100	11,543
86	29,745	26	85,693	74	115,438	127	9,064	17	43,013	83	52,077
87	38,330	34	75,525	66	113,855	128	18,376	28	46,110	72	64,486
88	14,262	15	83,413	85	97,675	129	37,195	19	156,906	81	194,101
89	23,379	22	81,926	78	105,305	130	48,577	34	92,719	66	141,296
90	0	0	0	0	0	131	3,771	13	25,382	87	29,153
91	21,585	20	85,318	80	106,903	132	21,711	45	26,132	55	47,843
92	74,896	37	128,504	63	203,400	133	181,526	49	190,311	51	371,837
93	82,278	27	220,778	73	303,056	134	20,551	23	69,169	77	89,720
94	84,839	40	128,116	60	212,955	135	15,990	32	34,237	68	50,227
95	129,905	61	83,982	39	213,887	136	12,626	19	54,014	81	66,640
96	30,420	36	53,725	64	84,145	137	17,964	12	127,334	88	145,298
97	38,278	24	121,142	76	159,420	138	28,805	21	105,825	79	134,630
98	69,820	21	265,862	79	335,682	139	18,135	37	30,660	63	48,795
99	47,074	25	142,333	75	189,407	140	21,093	36	37,147	64	58,240
100	28,630	23	96,107	77	124,737	141	52,712	28	138,484	72	191,196
101	15,295	40	23,043	60	38,338	142	6,563	20	26,459	80	33,022
102	10,447	23	35,057	77	45,504	143	30,532	32	65,197	68	95,729
103	24,591	37	41,590	63	66,181	144	77,835	46	92,952	54	170,787
104	20,603	17	97,184	83	117,787	145	0	0	16,433	100	16,433
105	18,271	21	67,657	79	85,928	146	0	0	0	0	0
106	25,626	18	113,765	82	139,391	147	4,733	47	5,277	53	10,010
107	30,060	18	137,618	82	167,678	148	6,281	21	23,246	79	29,527
108	23,527	16	121,402	84	144,929	149	24,694	29	61,377	71	86,071
109	41,393	22	149,079	78	190,472	150	14,773	21	55,221	79	69,994
110	14,741	38	24,425	62	39,166	151	25,699	20	103,766	80	129,465
111	0	0	2,182	100	2,182	152	18,520	30	43,491	70	62,011
112	224,556	45	275,763	55	500,319	153	12,234	16	66,445	84	78,679
113	6,371	42	8,807	58	15,178	154	23,433	28	59,144	72	82,577
114	0	0	16,142	100	16,142	155	29,852	23	102,082	77	131,934
115	18,443	10	172,543	90	190,986	156	4,298	14	26,775	86	31,073
116	6,457	14	39,659	86	46,116	157	50,236	33	100,276	67	150,512
117	38,325	14	228,673	86	266,998	158	20,189	27	53,318	73	73,507
118	35,987	20	143,588	80	179,575	159	16,761	18	75,959	82	92,720
119	24,476	17	120,707	83	145,183	160	67,626	32	145,388	68	213,014
120	63,290	27	168,812	73	232,102	161	4,745	57	3,574	43	8,319
121	22,543	28	57,196	72	79,739						
122	29,173	26	84,386	74	113,559						
123	43,354	29	105,924	71	149,278						
						TOTAL	8,479,111	30	19,352,320	70	27,831,431

Source: Washington-Baltimore Regional Air Passenger Survey 2019

APPENDIX G: AIR PASSENGER ORIGINATIONS AIRPORT ACCESS MODE BY AAZ

Table 24: Air Passenger Originations Airport Access Mode by AAZ

AAZ	Private Car		Rental Car		Taxi		TNCs		Public Transport.		Airport/Hotel Bus/Limo		Other		TOTAL
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1	0	0	838	4	10,097	53	7,455	39	618	3	0	0	0	0	19,008
2	11,722	6	11,844	6	45,193	22	95,143	46	36,383	17	4,566	2	3,737	2	208,588
3	113,707	8	89,138	6	342,513	23	474,498	32	260,381	18	83,639	6	102,902	7	1,466,778
4	98,744	10	76,616	8	217,758	22	367,078	37	118,639	12	29,587	3	87,375	9	995,797
5	15,047	9	8,745	5	43,796	27	48,053	30	18,132	11	5,804	4	23,067	14	162,644
6	21,752	9	13,030	5	40,014	17	93,317	39	57,180	24	2,191	1	14,624	6	242,108
7	33,205	31	0	0	3,978	4	59,685	55	7,377	7	0	0	3,867	4	108,112
8	15,654	19	9,286	11	12,657	16	35,530	44	4,929	6	0	0	3,360	4	81,416
9	16,781	25	5,750	9	16,561	25	19,638	29	2,674	4	3,402	5	2,143	3	66,949
10	27,826	22	1,332	1	9,969	8	45,168	35	20,038	16	1,042	1	23,130	18	128,505
11	55,146	27	0	0	15,322	8	62,302	31	56,431	28	0	0	14,681	7	203,882
12	34,169	24	1,927	1	7,906	6	59,050	42	33,376	24	590	0	2,451	2	139,469
13	51,546	18	6,285	2	13,479	5	106,958	38	68,613	24	4,324	2	31,225	11	282,430
14	89,169	34	11,695	4	8,703	3	90,074	34	53,308	20	6,947	3	2,320	1	262,216
15	13,923	24	1,385	2	2,140	4	27,307	48	12,189	21	0	0	0	0	56,944
16	61,367	13	12,910	3	23,997	5	224,390	47	116,349	25	19,774	4	14,257	3	473,044
17	54,551	50	1,492	1	4,003	4	21,441	20	11,860	11	3,808	3	11,828	11	108,983
18	8,355	5	4,211	3	30,310	19	76,644	47	37,766	23	3,863	2	601	0	161,750
19	6,486	8	956	1	16,810	21	35,415	43	16,893	21	0	0	4,957	6	81,517
20	20,251	76	1,787	7	0	0	4,467	17	0	0	0	0	0	0	26,505
21	0	0	0	0	0	0	2,335	100	0	0	0	0	0	0	2,335
22	57,412	7	32,074	4	91,055	12	214,429	28	113,070	15	245,648	32	24,217	3	777,905
23	32,328	20	4,388	3	22,887	14	61,869	38	14,299	9	25,686	16	3,159	2	164,616
24	1,708	4	2,429	5	4,135	9	17,735	37	7,165	15	11,568	24	2,953	6	47,693
25	46,170	11	21,291	5	127,799	31	139,594	34	36,961	9	24,041	6	11,870	3	407,726
26	55,712	10	30,197	6	64,370	12	192,491	36	57,915	11	120,012	22	15,170	3	535,867
27	100,733	31	12,332	4	55,704	17	130,671	40	12,979	4	3,373	1	12,641	4	328,433
28	161,071	30	34,157	6	58,186	11	191,520	35	25,958	5	34,474	6	38,926	7	544,292
29	21,748	20	1,244	1	15,158	14	49,558	46	9,995	9	1,418	1	7,869	7	106,990
30	79,673	35	6,052	3	34,466	15	83,580	37	18,825	8	3,084	1	3,215	1	228,895
31	60,271	16	40,033	11	49,658	13	123,400	33	53,472	14	41,774	11	9,754	3	378,362
32	23,410	30	9,038	12	7,508	10	23,562	30	8,375	11	2,610	3	2,911	4	77,414
33	98,680	34	22,577	8	43,969	15	73,971	25	18,066	6	3,011	1	32,584	11	292,858
34	102,216	44	11,806	5	25,558	11	71,929	31	2,384	1	2,707	1	15,156	7	231,756
35	125,223	41	23,153	8	16,160	5	84,953	28	22,769	8	8,763	3	21,478	7	302,499
36	212,746	42	45,888	9	38,413	8	128,500	25	25,601	5	25,575	5	30,653	6	507,376
37	123,823	45	34,875	13	26,591	10	35,933	13	28,204	10	4,730	2	19,675	7	273,831
38	102,749	55	14,177	8	18,175	10	26,995	15	11,177	6	0	0	12,686	7	185,959
39	5,302	16	11,264	34	0	0	12,486	38	862	3	0	0	2,810	9	32,724
40	48,267	46	0	0	13,052	12	20,383	19	1,117	1	5,420	5	17,826	17	106,065
41	174,836	48	25,461	7	30,821	9	72,163	20	10,647	3	17,495	5	29,792	8	361,215

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 24 Continued

AAZ	Private Car		Rental Car		Taxi		TNCs		Public Transport.		Airport/Hotel Bus/Limo		Other		TOTAL
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
42	17,999	12	52,661	35	8,370	6	35,228	24	0	0	33,276	22	842	1	148,376
43	277,539	49	56,964	10	30,133	5	111,176	20	16,128	3	4,774	1	66,233	12	562,947
44	230,270	29	103,007	13	73,697	9	199,984	25	17,681	2	89,531	11	90,260	11	804,430
45	158,081	50	10,762	3	23,988	8	66,829	21	5,833	2	35,389	11	12,849	4	313,731
46	61,386	18	59,154	18	39,150	12	110,943	33	14,802	4	42,002	12	9,933	3	337,370
47	102,084	33	13,840	4	12,558	4	137,016	44	5,138	2	587	0	40,863	13	312,086
48	51,011	46	2,781	3	6,460	6	32,969	30	10,566	10	1,514	1	5,274	5	110,575
49	61,363	45	2,814	2	7,465	6	53,559	40	4,909	4	0	0	5,031	4	135,141
50	28,459	31	7,927	9	0	0	33,956	37	10,395	11	7,179	8	4,141	4	92,057
51	25,836	27	14,733	15	6,723	7	17,767	19	20,301	21	1,847	2	8,181	9	95,388
52	37,995	17	25,739	11	11,922	5	82,452	36	27,226	12	16,266	7	27,461	12	229,061
53	24,284	18	19,320	15	19,351	15	47,525	36	6,462	5	6,851	5	8,699	7	132,492
54	62,919	27	35,409	15	5,616	2	93,762	40	8,851	4	4,879	2	20,281	9	231,717
55	68,188	26	39,003	15	10,651	4	69,329	27	20,679	8	6,801	3	43,019	17	257,670
56	47,379	47	10,300	10	14,461	14	4,218	4	0	0	4,665	5	20,193	20	101,216
57	82,792	44	6,705	4	6,067	3	65,019	35	11,429	6	3,760	2	11,194	6	186,966
58	143,361	65	2,113	1	3,931	2	34,007	15	20,779	9	2,220	1	13,398	6	219,809
59	95,191	49	18,599	10	30,346	16	36,319	19	4,503	2	1,637	1	7,988	4	194,583
60	31,325	50	1,300	2	7,806	13	13,332	21	1,332	2	5,384	9	1,785	3	62,264
61	42,041	50	851	1	1,914	2	12,583	15	13,386	16	6,712	8	5,965	7	83,452
62	57,938	50	2,729	2	8,996	8	17,729	15	13,837	12	787	1	13,747	12	115,763
63	53,999	66	2,659	3	6,604	8	10,337	13	451	1	8,052	10	0	0	82,102
64	183,618	51	5,974	2	17,371	5	95,608	26	16,570	5	9,481	3	32,618	9	361,240
65	64,912	54	4,368	4	3,543	3	35,845	30	4,435	4	0	0	6,645	6	119,748
66	44,741	44	10,411	10	5,166	5	18,938	19	12,565	12	4,808	5	5,543	5	102,172
67	28,872	14	35,672	17	50,323	24	64,997	31	11,896	6	4,731	2	13,501	6	209,992
68	24,260	37	0	0	2,599	4	20,493	31	13,960	21	2,010	3	2,266	3	65,588
69	116,643	37	25,633	8	3,259	1	67,804	21	32,903	10	13,703	4	57,113	18	317,058
70	59,909	39	15,019	10	1,862	1	40,722	27	16,113	11	15,184	10	4,639	3	153,448
71	24,581	56	7,359	17	2,168	5	4,854	11	2,427	6	0	0	2,147	5	43,536
72	1,025	13	2,160	27	0	0	4,871	60	0	0	0	0	0	0	8,056
73	82,278	53	24,845	16	10,176	7	16,781	11	3,405	2	5,329	3	12,920	8	155,734
74	25,381	36	5,561	8	3,415	5	32,700	47	0	0	0	0	3,117	4	70,174
75	80,703	67	2,894	2	5,800	5	19,196	16	4,221	3	2,588	2	5,361	4	120,763
76	42,210	59	7,890	11	0	0	14,190	20	2,880	4	0	0	4,732	7	71,902
77	62,958	43	28,074	19	7,045	5	10,965	7	12,710	9	10,257	7	15,795	11	147,804
78	52,231	63	9,365	11	2,191	3	7,540	9	3,845	5	537	1	6,814	8	82,523
79	45,640	73	6,305	10	0	0	3,339	5	0	0	1,729	3	5,868	9	62,881
80	24,663	42	7,510	13	4,243	7	15,950	27	1,547	3	2,021	3	2,611	4	58,545
81	28,644	13	39,889	18	14,868	7	105,867	47	9,959	4	11,265	5	15,521	7	226,013
82	119,051	62	14,949	8	2,844	1	31,243	16	2,083	1	8,352	4	13,669	7	192,191

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 24 Continued

AAZ	Private Car		Rental Car		Taxi		TNCs		Public Transport.		Airport/Hotel Bus/Limo		Other		TOTAL
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
83	94,415	64	22,336	15	8,410	6	12,551	8	0	0	4,215	3	6,416	4	148,343
84	30,607	67	5,231	11	0	0	8,302	18	913	2	829	2	0	0	45,882
85	121,782	64	11,453	6	2,961	2	23,847	13	3,641	2	10,308	5	15,653	8	189,645
86	95,269	83	3,474	3	2,207	2	10,206	9	0	0	0	0	4,282	4	115,438
87	71,069	62	19,803	17	944	1	17,257	15	0	0	0	0	4,782	4	113,855
88	64,678	66	15,528	16	4,672	5	6,115	6	849	1	4,386	4	1,447	1	97,675
89	78,044	74	2,063	2	4,091	4	9,143	9	5,649	5	0	0	6,315	6	105,305
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	79,360	74	0	0	5,287	5	1,162	1	0	0	8,059	8	13,035	12	106,903
92	64,399	32	18,359	9	12,038	6	33,651	17	2,068	1	59,310	29	13,575	7	203,400
93	184,925	61	27,895	9	18,121	6	66,405	22	1,203	0	0	0	4,507	1	303,056
94	127,792	60	9,135	4	3,017	1	3,912	2	0	0	17,149	8	51,950	24	212,955
95	186,479	87	7,747	4	2,553	1	3,875	2	0	0	10,330	5	2,903	1	213,887
96	48,370	57	21,699	26	0	0	4,255	5	0	0	5,575	7	4,246	5	84,145
97	89,099	56	18,214	11	5,232	3	7,808	5	0	0	28,004	18	11,063	7	159,420
98	236,552	70	44,055	13	2,532	1	14,461	4	3,251	1	11,509	3	23,322	7	335,682
99	141,681	75	20,016	11	0	0	15,111	8	0	0	0	0	12,599	7	189,407
100	78,098	63	11,221	9	5,574	4	12,542	10	3,591	3	0	0	13,711	11	124,737
101	23,198	61	10,353	27	0	0	1,595	4	0	0	0	0	3,192	8	38,338
102	26,134	57	5,981	13	5,142	11	2,851	6	0	0	0	0	5,396	12	45,504
103	31,345	47	11,619	18	13,081	20	10,136	15	0	0	0	0	0	0	66,181
104	72,365	61	17,170	15	0	0	7,799	7	0	0	6,179	5	14,274	12	117,787
105	48,749	57	485	1	2,856	3	15,408	18	1,364	2	9,702	11	7,364	9	85,928
106	69,152	50	9,465	7	14,554	10	38,430	28	0	0	0	0	7,790	6	139,391
107	91,690	55	32,608	19	872	1	13,396	8	3,586	2	11,446	7	14,080	8	167,678
108	114,898	79	6,892	5	1,778	1	12,901	9	0	0	3,929	3	4,531	3	144,929
109	95,568	50	23,150	12	6,277	3	22,768	12	3,003	2	21,992	12	17,714	9	190,472
110	5,096	13	4,414	11	10,647	27	6,018	15	0	0	10,491	27	2,500	6	39,166
111	0	0	0	0	2,182	100	0	0	0	0	0	0	0	0	2,182
112	67,022	13	94,310	19	26,845	5	58,319	12	7,031	1	214,924	43	31,868	6	500,319
113	8,053	53	0	0	1,489	10	0	0	0	0	5,636	37	0	0	15,178
114	4,803	30	2,585	16	1,649	10	0	0	0	0	7,105	44	0	0	16,142
115	118,295	62	4,765	2	5,085	3	15,194	8	521	0	14,555	8	32,571	17	190,986
116	20,992	46	9,910	21	891	2	7,596	16	0	0	0	0	6,727	15	46,116
117	178,175	67	23,485	9	6,027	2	17,745	7	0	0	15,471	6	26,095	10	266,998
118	132,069	74	13,916	8	2,085	1	16,569	9	0	0	10,415	6	4,521	3	179,575
119	69,174	48	16,614	11	0	0	47,830	33	3,470	2	668	0	7,427	5	145,183
120	121,006	52	50,077	22	0	0	42,455	18	3,544	2	5,904	3	9,116	4	232,102
121	48,219	60	1,404	2	2,089	3	7,052	9	0	0	8,265	10	12,710	16	79,739
122	68,640	60	13,820	12	855	1	13,683	12	3,771	3	2,385	2	10,405	9	113,559
123	92,065	62	30,724	21	12,160	8	0	0	4,648	3	8,915	6	766	1	149,278

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 24 Continued

AAZ	Private Car		Rental Car		Taxi		TNCs		Public Transport.		Airport/Hotel Bus/Limo		Other		TOTAL
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
124	126,856	50	56,640	22	10,591	4	19,170	8	3,616	1	10,092	4	27,983	11	254,948
125	30,039	72	0	0	1,300	3	1,300	3	0	0	6,253	15	2,639	6	41,531
126	3,099	27	0	0	0	0	8,444	73	0	0	0	0	0	0	11,543
127	35,580	68	3,828	7	5,115	10	1,997	4	0	0	3,114	6	2,443	5	52,077
128	34,996	54	22,978	36	0	0	1,719	3	0	0	1,182	2	3,611	6	64,486
129	117,630	61	30,771	16	2,201	1	17,652	9	0	0	7,594	4	18,253	9	194,101
130	104,532	74	8,969	6	4,934	3	7,065	5	3,909	3	1,300	1	10,587	7	141,296
131	24,975	86	0	0	0	0	0	0	0	0	0	0	4,178	14	29,153
132	27,099	57	14,293	30	0	0	854	2	0	0	4,270	9	1,327	3	47,843
133	51,505	14	52,469	14	60,754	16	115,989	31	8,350	2	53,559	14	29,211	8	371,837
134	38,267	43	18,169	20	2,181	2	16,996	19	0	0	10,393	12	3,714	4	89,720
135	22,814	45	153	0	5,492	11	14,090	28	2,095	4	2,966	6	2,617	5	50,227
136	43,861	66	0	0	0	0	12,798	19	0	0	2,546	4	7,435	11	66,640
137	62,247	43	3,043	2	2,671	2	29,934	21	1,393	1	5,692	4	40,318	28	145,298
138	66,153	49	0	0	14,238	11	42,865	32	957	1	0	0	10,417	8	134,630
139	17,686	36	1,352	3	2,989	6	25,492	52	1,276	3	0	0	0	0	48,795
140	14,171	24	13,765	24	1,308	2	21,029	36	4,042	7	0	0	3,925	7	58,240
141	117,635	62	11,511	6	2,354	1	35,880	19	4,366	2	10,214	5	9,236	5	191,196
142	17,093	52	1,171	4	4,861	15	3,840	12	0	0	4,224	13	1,833	6	33,022
143	27,367	29	10,619	11	3,478	4	35,351	37	3,734	4	12,095	13	3,085	3	95,729
144	59,153	35	18,573	11	5,457	3	65,485	38	14,938	9	3,245	2	3,936	2	170,787
145	12,853	78	0	0	0	0	835	5	0	0	0	0	2,745	17	16,433
146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	3,191	32	0	0	6,149	61	670	7	0	0	0	0	0	0	10,010
148	10,183	34	6,638	22	0	0	9,833	33	0	0	0	0	2,873	10	29,527
149	59,759	69	3,914	5	6,844	8	11,203	13	0	0	851	1	3,500	4	86,071
150	54,645	78	3,383	5	0	0	4,212	6	0	0	0	0	7,754	11	69,994
151	79,250	61	16,373	13	1,617	1	16,087	12	618	0	2,361	2	13,159	10	129,465
152	44,608	72	8,394	14	0	0	1,712	3	0	0	982	2	6,315	10	62,011
153	59,958	76	1,000	1	3,245	4	8,384	11	0	0	4,623	6	1,469	2	78,679
154	60,799	74	11,767	14	0	0	5,531	7	0	0	0	0	4,480	5	82,577
155	79,044	60	19,659	15	618	0	14,540	11	2,000	2	10,861	8	5,212	4	131,934
156	29,615	95	0	0	0	0	1,458	5	0	0	0	0	0	0	31,073
157	77,255	51	23,434	16	0	0	1,787	1	0	0	39,074	26	8,962	6	150,512
158	60,369	82	2,521	3	0	0	6,769	9	0	0	1,327	2	2,521	3	73,507
159	79,339	86	10,201	11	1,617	2	521	1	0	0	0	0	1,042	1	92,720
160	161,215	76	37,684	18	1,266	1	2,646	1	0	0	1,191	1	9,012	4	213,014
161	3,968	48	4,351	52	0	0	0	0	0	0	0	0	0	0	8,319
TOTAL	10,475,375	38	2,444,510	9	2,427,436	9	6,782,098	24	1,902,581	7	1,844,699	7	1,954,732	7	27,831,431

Source: Washington-Baltimore Regional Air Passenger Survey 2019

APPENDIX H: WALK-BIKE-OTHER-UNKNOWN ACCESS MODE BY JURISDICTION

Table 25: Walk-Bike-Other-Unknown Access Mode by Jurisdiction

	Walk #	Walk %	Bike #	Bike %	Other #	Other %	Unknown #	Unknown %	Total
District of Columbia	3654	0.07%	0		183394	3.48%	163131	3.09%	5276645
Montgomery Co.	0		0		91332	2.86%	165598	5.18%	3198655
Prince Georges Co.	762	0.04%	0		25464	1.50%	124843	7.34%	1700969
Arlington Co.	3083	0.11%	3319	0.11%	29649	1.02%	87156	2.99%	2915857
Alexandria	0		0		19593	2.00%	28871	2.95%	977529
Fairfax Co.	0		0		49562	1.11%	321494	7.18%	4480365
Loudoun Co.	973	0.10%	0		49225	5.28%	40157	4.31%	931619
Prince William Co.	0		0		4327	0.61%	28253	3.97%	710838
Frederick Co.	0		0		7112	1.55%	11100	2.43%	457452
Howard Co.	0		0		14300	1.47%	64106	6.58%	974951
Anne Arundel Co.	0		0		28499	1.39%	127281	6.21%	2049087
Charles Co.	0		0		0		30622	10.33%	296479
Carroll Co.	979	0.29%	0		3577	1.07%	19745	5.88%	335682
Calvert Co.	0		0		0		10405	9.16%	113559
St. Mary's Co.	0		0		0		766	0.51%	149278
King George Co.	0		0		0		0		11543
City of Fredericksburg	0		0		430	0.67%	3181	4.93%	64486
Stafford Co.	0		0		0		18253	9.40%	194101
Spotsylvania Co.	0		0		0		2443	4.69%	52077
Fauquier Co.	0		0		0		10587	7.49%	141296
Clarke Co.	0		0		0		4178	14.33%	29153
Jefferson Co.	0		0		0		1327	2.77%	47843
Baltimore City	0		0		62054	4.21%	56418	3.83%	1472554
Baltimore Co.	0		0		14684	1.57%	41561	4.44%	935360
Harford Co.	0		0		4234	1.35%	5820	1.85%	314053
REGIONAL SUBTOTAL	9,451	0.03%	3,319	0.01%	587,436	2.11%	1,367,296	4.91%	27,831,431
Outer Maryland	7393	1.43%	0		71001	13.75%	31176	6.04%	516407
Outer Virginia	0		0		19531	2.81%	68506	9.85%	695559
Outer Delaware	0		0		5369	2.27%	14134	5.98%	236287
Outer Pennsylvania	0		0		10573	1.58%	43263	6.48%	667370
Outer W. Virginia	1091	0.89%	0		0		28577	23.20%	123198
OUTER SUBTOTAL	8,484	2.32%			106,474	20.41%	185,656	51.55%	2,238,821
OVERALL TOTAL	17,935	2.35%			693,910	22.52%	1,395,873	56.46%	30,070,252

Source: Washington-Baltimore Regional Air Passenger Survey 2019

APPENDIX I: AIR PASSENGER ORIGINATIONS RESIDENT AND NON-RESIDENT STATUS BY AAZ

Table 26: Air Passengers' Resident/Non-Resident Status by AAZ

AAZ	Resident		Non-Resident		TOTAL	AAZ	Resident		Non-Resident		TOTAL
	No.	%	No.	%			No.	%	No.	%	
1	618	3	18,390	0	19,008	42	18,678	13	129,698	0	148,376
2	33,994	16	174,594	0	208,588	43	157,117	28	405,830	0	562,947
3	138,287	9	1,328,491	0	1,466,778	44	59,658	7	744,772	0	804,430
4	139,542	14	856,255	0	995,797	45	111,671	36	202,060	0	313,731
5	26,134	16	136,510	0	162,644	46	20,768	6	316,602	0	337,370
6	59,593	25	182,515	0	242,108	47	77,093	25	234,993	0	312,086
7	51,676	48	56,436	0	108,112	48	36,305	33	74,270	0	110,575
8	21,018	26	60,398	0	81,416	49	57,879	43	77,262	0	135,141
9	25,402	38	41,547	0	66,949	50	19,697	21	72,360	0	92,057
10	55,296	43	73,209	0	128,505	51	25,698	27	69,690	0	95,388
11	74,827	37	129,055	0	203,882	52	13,145	6	215,916	0	229,061
12	52,232	37	87,237	0	139,469	53	20,087	15	112,405	0	132,492
13	86,628	31	195,802	0	282,430	54	40,751	18	190,966	0	231,717
14	111,550	43	150,666	0	262,216	55	39,685	15	217,985	0	257,670
15	14,141	25	42,803	0	56,944	56	19,225	19	81,991	0	101,216
16	131,896	28	341,148	0	473,044	57	67,731	36	119,235	0	186,966
17	45,685	42	63,298	0	108,983	58	82,438	38	137,371	0	219,809
18	17,297	11	144,453	0	161,750	59	65,455	34	129,128	0	194,583
19	25,721	32	55,796	0	81,517	60	17,412	28	44,852	0	62,264
20	21,168	80	5,337	0	26,505	61	36,328	44	47,124	0	83,452
21	0	0	2,335	0	2,335	62	55,023	48	60,740	0	115,763
22	58,378	8	719,527	0	777,905	63	33,589	41	48,513	0	82,102
23	42,304	26	122,312	0	164,616	64	130,609	36	230,631	0	361,240
24	4,789	10	42,904	0	47,693	65	23,512	20	96,236	0	119,748
25	20,087	5	387,639	0	407,726	66	38,712	38	63,460	0	102,172
26	52,590	10	483,277	0	535,867	67	17,786	8	192,206	0	209,992
27	95,123	29	233,310	0	328,433	68	24,684	38	40,904	0	65,588
28	119,171	22	425,121	0	544,292	69	66,831	21	250,227	0	317,058
29	27,928	26	79,062	0	106,990	70	35,678	23	117,770	0	153,448
30	104,022	45	124,873	0	228,895	71	8,856	20	34,680	0	43,536
31	70,516	19	307,846	0	378,362	72	3,013	37	5,043	0	8,056
32	9,841	13	67,573	0	77,414	73	34,905	22	120,829	0	155,734
33	127,484	44	165,374	0	292,858	74	36,356	52	33,818	0	70,174
34	107,804	47	123,952	0	231,756	75	39,511	33	81,252	0	120,763
35	76,560	25	225,939	0	302,499	76	34,797	48	37,105	0	71,902
36	98,050	19	409,326	0	507,376	77	14,277	10	133,527	0	147,804
37	78,360	29	195,471	0	273,831	78	10,750	13	71,773	0	82,523
38	65,683	35	120,276	0	185,959	79	28,550	45	34,331	0	62,881
39	4,020	12	28,704	0	32,724	80	16,835	29	41,710	0	58,545
40	42,388	40	63,677	0	106,065	81	7,495	3	218,518	0	226,013
41	122,205	34	239,010	0	361,215	82	63,786	33	128,405	0	192,191

Source: Washington-Baltimore Regional Air Passenger Survey 2019

Table 25 Continued

AAZ	Resident		Non-Resident		TOTAL	AAZ	Resident		Non-Resident		TOTAL
	No.	%	No.	%			No.	%	No.	%	
83	60,849	41	87,494	0	296,686	124	46,258	18	208,690	0	254,948
84	15,658	34	30,224	0	91,764	125	15,994	39	25,537	0	41,531
85	98,784	52	90,861	0	379,290	126	1,594	14	9,949	0	11,543
86	42,528	37	72,910	0	230,876	127	22,279	43	29,798	0	52,077
87	35,697	31	78,158	0	227,710	128	22,425	35	42,061	0	64,486
88	42,801	44	54,874	0	195,350	129	75,246	39	118,855	0	194,101
89	35,940	34	69,365	0	210,610	130	17,634	12	123,662	0	141,296
90	0	0	0	0	0	131	6,300	22	22,853	0	29,153
91	49,983	47	56,920	0	213,806	132	13,718	29	34,125	0	47,843
92	39,797	20	163,603	0	406,800	133	42,467	11	329,370	0	371,837
93	150,695	50	152,361	0	606,112	134	15,757	18	73,963	0	89,720
94	69,316	33	143,639	0	425,910	135	10,035	20	40,192	0	50,227
95	150,185	70	63,702	0	427,774	136	39,376	59	27,264	0	66,640
96	30,319	36	53,826	0	168,290	137	67,436	46	77,862	0	145,298
97	73,160	46	86,260	0	318,840	138	66,847	50	67,783	0	134,630
98	82,562	25	253,120	0	671,364	139	21,622	44	27,173	0	48,795
99	63,505	34	125,902	0	378,814	140	27,580	47	30,660	0	58,240
100	46,148	37	78,589	0	249,474	141	99,481	52	91,715	0	191,196
101	14,019	37	24,319	0	76,676	142	8,400	25	24,622	0	33,022
102	15,724	35	29,780	0	91,008	143	30,338	32	65,391	0	95,729
103	27,606	42	38,575	0	132,362	144	47,414	28	123,373	0	170,787
104	39,058	33	78,729	0	235,574	145	6,517	40	9,916	0	16,433
105	36,893	43	49,035	0	171,856	146	0	0	0	0	0
106	46,733	34	92,658	0	278,782	147	4,457	45	5,553	0	10,010
107	34,183	20	133,495	0	335,356	148	11,717	40	17,810	0	29,527
108	60,097	41	84,832	0	289,858	149	26,124	30	59,947	0	86,071
109	52,740	28	137,732	0	380,944	150	36,503	52	33,491	0	69,994
110	6,840	17	32,326	0	78,332	151	60,361	47	69,104	0	129,465
111	0	0	2,182	0	4,364	152	25,715	41	36,296	0	62,011
112	29,105	6	471,214	0	1,000,638	153	33,054	42	45,625	0	78,679
113	6,648	44	8,530	0	30,356	154	21,916	27	60,661	0	82,577
114	4,835	30	11,307	0	32,284	155	39,574	30	92,360	0	131,934
115	32,503	17	158,483	0	381,972	156	16,946	55	14,127	0	31,073
116	25,706	56	20,410	0	92,232	157	46,092	31	104,420	0	150,512
117	119,509	45	147,489	0	533,996	158	47,450	65	26,057	0	73,507
118	63,089	35	116,486	0	359,150	159	38,184	41	54,536	0	92,720
119	54,846	38	90,337	0	290,366	160	76,140	36	136,874	0	213,014
120	69,350	30	162,752	0	464,204	161	0	0	8,319	0	8,319
121	23,348	29	56,391	0	159,478						
122	42,380	37	71,179	0	227,118						
123	33,434	22	115,844	0	298,556	TOTAL	7,287,908	26	20,543,523	0	27,831,431

Source: Washington-Baltimore Regional Air Passenger Survey 2019

APPENDIX J: AIR PASSENGER ORIGINATIONS BY JURISDICTION

Table 27: Originating Passengers by Jurisdiction

JURISDICTION	AIRPORT			TOTAL
	BWI	DCA	IAD	
District of Columbia	669,828	3,484,697	1,122,120	5,276,645
Montgomery County	969,290	1,210,644	1,018,721	3,198,655
Prince George's County	552,254	883,530	265,185	1,700,969
Arlington County	131,605	2,092,629	691,623	2,915,857
City of Alexandria	80,316	622,980	274,233	977,529
Fairfax County	265,479	1,515,726	2,699,160	4,480,365
Loudoun County	37,199	61,058	833,362	931,619
Prince William County	57,041	247,974	405,823	710,838
Frederick County	240,074	35,862	181,516	457,452
Howard County	797,868	100,062	77,021	974,951
Anne Arundel County	1,908,667	55,926	84,494	2,049,087
Charles County	173,276	103,454	19,749	296,479
Carroll County	304,272	6,432	24,978	335,682
Calvert County	71,909	30,353	11,297	113,559
St. Mary's County	72,430	57,656	19,192	149,278
King George County	0	870	10,673	11,543
City of Fredericksburg	10,339	30,997	23,150	64,486
Stafford County	13,615	117,902	62,584	194,101
Spotsylvania County	11,403	22,608	18,066	52,077
Fauquier County	37,489	29,677	74,130	141,296
Clarke County	4,663	0	24,490	29,153
Jefferson County	12,702	4,801	30,340	47,843
Baltimore City	1,401,854	27,970	42,730	1,472,554
Baltimore County	883,449	16,068	35,843	935,360
Harford County	292,267	1,482	20,304	314,053
TOTAL	8,999,289	10,761,358	8,070,784	27,831,431

Source: Washington-Baltimore Region Air Passenger Survey 2019

Note: Data for the Cities of Fairfax and Falls Church are included in the Fairfax County totals, and data for the Cities of Manassas and Manassas Park are included in the Prince William County totals.

Table 28: Air Passenger Originations Home and Non-Home by Jurisdiction

JURISDICTION	BWI		DCA		IAD		TOTAL		
	Home	Non-Home	Home	Non-Home	Home	Non-Home	Home	Non-Home	Total
District of Columbia	226,253	443,575	1,101,657	2,383,040	352,138	769,982	1,680,048	3,596,597	5,276,645
Montgomery County	672,884	296,406	522,721	687,923	663,907	354,814	1,859,512	1,339,143	3,198,655
Prince George's County	361,405	190,849	342,604	540,926	165,459	99,726	869,468	831,501	1,700,969
Arlington County	60,613	70,992	593,114	1,499,515	255,369	436,254	909,096	2,006,761	2,915,857
City of Alexandria	51,504	28,812	326,836	296,144	136,876	137,357	515,216	462,313	977,529
Fairfax County	143,978	121,501	781,877	733,849	1,616,324	1,082,836	2,542,179	1,938,186	4,480,365
Loudoun County	28,549	8,650	45,377	15,681	579,795	253,567	653,721	277,898	931,619
Prince William County	39,371	17,670	193,287	54,687	307,693	98,130	540,351	170,487	710,838
Frederick County	181,635	58,439	19,943	15,919	153,020	28,496	354,598	102,854	457,452
Howard County	558,514	239,354	35,211	64,851	46,181	30,840	639,906	335,045	974,951
Anne Arundel County	880,445	1,028,222	26,446	29,480	61,852	22,642	968,743	1,080,344	2,049,087
Charles County	86,511	86,765	46,125	57,329	16,152	3,597	148,788	147,691	296,479
Carroll County	197,079	107,193	3,694	2,738	15,986	8,992	216,759	118,923	335,682
Calvert County	56,899	15,010	6,517	23,836	10,442	855	73,858	39,701	113,559
St. Mary's County	41,656	30,774	42,759	14,897	19,192	0	103,607	45,671	149,278
King George County	0	0	870	0	10,673	0	11,543	0	11,543
City of Fredericksburg	8,957	1,382	27,216	3,781	1,859	21,291	38,032	26,454	64,486
Stafford County	10,318	3,297	71,033	46,869	47,617	14,967	128,968	65,133	194,101
Spotsylvania County	7,733	3,670	22,608	0	11,133	6,933	41,474	10,603	52,077
Fauquier County	25,682	11,807	22,565	7,112	45,983	28,147	94,230	47,066	141,296
Clarke County	4,663	0	0	0	17,463	7,027	22,126	7,027	29,153
Jefferson County	7,447	5,255	2,932	1,869	19,859	10,481	30,238	17,605	47,843
Baltimore City	668,797	733,057	15,317	12,653	21,850	20,880	705,964	766,590	1,472,554
Baltimore County	615,620	267,829	6,025	10,043	29,104	6,739	650,749	284,611	935,360
Harford County	218,804	73,463	1,482	0	11,844	8,460	232,130	81,923	314,053
TOTAL	5,155,317	3,843,972	4,258,216	6,503,142	4,617,771	3,453,013	14,031,304	13,800,127	27,831,431

Source: Washington-Baltimore Region Air Passenger Survey 2019

Note: Data for the Cities of Fairfax and Falls Church are included in the Fairfax County totals, and data for the Cities of Manassas and Manassas Park are included in the Prince William County totals.

Table 29: Air Passenger Originations Work and Non-Work by Jurisdiction

JURISDICTION	BWI		DCA		IAD		TOTAL		
	Work	Non-Work	Work	Non-Work	Work	Non-Work	Work	Non-Work	Total
District of Columbia	125,851	543,977	1,346,192	2,138,505	386,550	735,570	1,858,593	3,418,052	5,276,645
Montgomery County	205,869	763,421	463,360	747,284	267,642	751,079	936,871	2,261,784	3,198,655
Prince George's County	98,683	453,571	211,842	671,688	56,085	209,100	366,610	1,334,359	1,700,969
Arlington County	19,413	112,192	797,392	1,295,237	253,590	438,033	1,070,395	1,845,462	2,915,857
City of Alexandria	24,810	55,506	209,690	413,290	93,805	180,428	328,305	649,224	977,529
Fairfax County	55,829	209,650	416,701	1,099,025	861,104	1,838,056	1,333,634	3,146,731	4,480,365
Loudoun County	5,340	31,859	10,935	50,123	270,702	562,660	286,977	644,642	931,619
Prince William County	9,722	47,319	64,512	183,462	129,456	276,367	203,690	507,148	710,838
Frederick County	69,244	170,830	13,565	22,297	115,794	65,722	198,603	258,849	457,452
Howard County	167,528	630,340	30,288	69,774	22,781	54,240	220,597	754,354	974,951
Anne Arundel County	485,271	1,423,396	20,643	35,283	14,195	70,299	520,109	1,528,978	2,049,087
Charles County	39,495	133,781	25,346	78,108	439	19,310	65,280	231,199	296,479
Carroll County	64,715	239,557	2,738	3,694	2,367	22,611	69,820	265,862	335,682
Calvert County	18,871	53,038	7,712	22,641	2,590	8,707	29,173	84,386	113,559
St. Mary's County	15,571	56,859	22,362	35,294	5,421	13,771	43,354	105,924	149,278
King George County	0	0	0	870	0	10,673	0	11,543	11,543
City of Fredericksburg	2,627	7,712	7,197	23,800	8,552	14,598	18,376	46,110	64,486
Stafford County	0	13,615	18,737	99,165	18,458	44,126	37,195	156,906	194,101
Spotsylvania County	554	10,849	3,447	19,161	5,063	13,003	9,064	43,013	52,077
Fauquier County	4,564	32,925	14,661	15,016	29,352	44,778	48,577	92,719	141,296
Clarke County	0	4,663	0	0	3,771	20,719	3,771	25,382	29,153
Jefferson County	5,053	7,649	494	4,307	16,164	14,176	21,711	26,132	47,843
Baltimore City	463,587	938,267	11,836	16,134	8,909	33,821	484,332	988,222	1,472,554
Baltimore County	221,893	661,556	1,407	14,661	11,642	24,201	234,942	700,418	935,360
Harford County	85,460	206,807	0	1,482	3,672	16,632	89,132	224,921	314,053
TOTAL	2,189,950	6,809,339	3,701,057	7,060,301	2,588,104	5,482,680	8,479,111	19,352,320	27,831,431

Source: Washington-Baltimore Region Air Passenger Survey 2019

Note: Data for the Cities of Fairfax and Falls Church are included in the Fairfax County totals, and data for the Cities of Manassas and Manassas Park are included in the Prince William County totals.

Table 30: Air Passengers Resident/Non-Resident by Jurisdiction

JURISDICTION	BWI		DCA		IAD		TOTAL		
	Resident	Non-Res	Resident	Non-Res	Resident	Non-Res	Resident	Non-Res	Total
District of Columbia	168,632	501,196	768,371	2,716,326	195,702	926,418	1,132,705	4,143,940	5,276,645
Montgomery County	350,567	618,723	258,944	951,700	257,527	761,194	867,038	2,331,617	3,198,655
Prince George's County	210,523	341,731	116,500	767,030	73,330	191,855	400,353	1,300,616	1,700,969
Arlington County	32,595	99,010	292,498	1,800,131	95,277	596,346	420,370	2,495,487	2,915,857
City of Alexandria	16,974	63,342	222,712	400,268	72,177	202,056	311,863	665,666	977,529
Fairfax County	64,343	201,136	405,013	1,110,713	570,699	2,128,461	1,040,055	3,440,310	4,480,365
Loudoun County	9,468	27,731	36,784	24,274	299,479	533,883	345,731	585,888	931,619
Prince William County	23,180	33,861	131,967	116,007	141,170	264,653	296,317	414,521	710,838
Frederick County	99,477	140,597	13,167	22,695	141,020	40,496	253,664	203,788	457,452
Howard County	290,695	507,173	9,360	90,702	23,814	53,207	323,869	651,082	974,951
Ann Arundel County	506,020	1,402,647	17,553	38,373	25,043	59,451	548,616	1,500,471	2,049,087
Charles County	30,933	142,343	31,319	72,135	0	19,749	62,252	234,227	296,479
Carroll County	79,260	225,012	0	6,432	3,302	21,676	82,562	253,120	335,682
Calvert County	38,368	33,541	1,932	28,421	2,080	9,217	42,380	71,179	113,559
St. Mary's County	11,520	60,910	12,104	45,552	9,810	9,382	33,434	115,844	149,278
King George County	0	0	870	0	724	9,949	1,594	9,949	11,543
City of Fredericksburg	1,745	8,594	20,374	10,623	306	22,844	22,425	42,061	64,486
Stafford County	5,223	8,392	38,878	79,024	31,145	31,439	75,246	118,855	194,101
Spotsylvania County	1,841	9,562	15,800	6,808	4,638	13,428	22,279	29,798	52,077
Fauquier County	2,266	35,223	0	29,677	15,368	58,762	17,634	123,662	141,296
Clarke County	0	4,663	0	0	6,300	18,190	6,300	22,853	29,153
Jefferson County	2,617	10,085	0	4,801	11,101	19,239	13,718	34,125	47,843
Baltimore City	456,826	945,028	9,034	18,936	17,410	25,320	483,270	989,284	1,472,554
Baltimore County	348,331	535,118	3,759	12,309	17,819	18,024	369,909	565,451	935,360
Harford County	110,737	181,530	1,482	0	2,105	18,199	114,324	199,729	314,053
TOTAL	2,862,141	6,137,148	2,408,421	8,352,937	2,017,346	6,053,438	7,287,908	20,543,523	27,831,431

Source: Washington-Baltimore Region Air Passenger Survey 2019

Note: Data for the Cities of Fairfax and Falls Church are included in the Fairfax County totals, and data for the Cities of Manassas and Manassas Park are included in the Prince William County totals.