2017 Washington-Baltimore Regional Air Passenger Survey

Staff Recommendation: Briefing on the *2017 Washington-Baltimore Air Passenger Survey.*

Issues: None

Background: Staff will brief the TPB on the key findings of the *2017 Washington-Baltimore Regional Air Passenger Survey*, a bi-annual survey conducted as part of the Continuous Airport Systems Planning (CASP) Program, which addresses ground access planning needs for the region's three large commercial airports.

**National Capital Region
Transportation Planning Board**

MEMORANDUM

TO: Transportation Planning Board
FROM: Timothy Canan, AICP, TPB Planning Data and Research Program Director
SUBJECT: 2017 Regional Air Passenger Survey
DATE: April 11, 2019

The Continuous Airport Systems Planning (CASP) Program is part of TPB's work program and provides a process that supports the planning, development and operation of airport facilities and transportation facilities that serve the airports in a systematic framework for the Washington-Baltimore region. The work of the CASP Program seeks to ensure effective and efficient accessibility of air travelers, airport personnel, and goods; and this aligns with accessibility and mobility policy goals of the TPB.

This important program has been part of TPB's work program since 1978. It is primarily funded by annual Airport Improvement Grants from the Federal Aviation Administration as well as by the Maryland Aviation Administration and the Metropolitan Washington Airports Authority, which jointly fund the bi-annual Washington-Baltimore Regional Air Passenger Survey.

The CASP Program planning cycle is a continuous two-year program featuring three key milestones:

- Washington-Baltimore Regional Air Passenger Survey
- Forecasts of future air passenger travel and ground access forecasts of these passengers to and from the region's three large commercial airports
- Revised Regional Air System Plan for Ground Access

TPB staff conducted the most recent regional air passenger survey in October 2017, gathering data from more than 22,000 departing passengers at the region's three major commercial service airports: Baltimore/Washington International Thurgood Marshall (BWI), Ronald Reagan Washington National (DCA), and Washington Dulles International (IAD). Following conclusion of the survey, TPB staff processed and analyzed the data and produced two notable reports containing the survey results and findings:

1. 2017 Washington-Baltimore Regional Air Passenger Survey: **General Findings**
2. 2017 Washington-Baltimore Regional Air Passenger Survey: **Geographic Findings**

Staff presented these reports to the Aviation Technical Subcommittee and the TPB Technical Committee. The attached article on the 2017 Washington-Baltimore Regional Air Passenger Survey was published in the March 12, 2019 edition of *TPB News* and provides some of the key findings from these reports.

GENERAL FINDINGS REPORT

The General Findings report identifies patterns of airport usage, including airport choice, airport preference, travel purpose, characteristics of ground access trips, and air traveler characteristics. The full General Findings report is accessible from the following location on the COG website:

https://www.mwcog.org/documents/2018/06/29/washington-baltimore-regional-air-passenger-survey---general-findings-report-airport-access/

GEOGRAPHIC FINDINGS REPORT

The Geographic Findings report provides a more detailed analysis of many of the elements contained in the General Findings report; however, this report provides considerably more detail on the geographic distribution of these data and provides greater insights into understanding the origins and destinations of ground access travel to and from the region's three large commercial airports. The full Geographic Findings report is accessible from the following location on the COG website:

https://www.mwcog.org/documents/2019/04/08/washington-baltimore-regional-air-passenger-survey-geographic-findings-report-airport-access/

NEXT STEPS

Staff is using data from the 2017 Washington-Baltimore Regional Air Passenger Survey to prepare the ground access forecasts, which will be incorporated into the regional travel forecasting model, which is used to support long-range planning in the region. The key findings from the air passenger survey along with background information on the CASP Program will be presented to the TPB at its April 18, 2019 meeting.

ATTACHMENT

Who's using our region's airports and how are they getting there?

Posted by **ARIANNA KOUDOUNAS** on **MARCH 12, 2019**

In 2017, fewer people traveled out of the Washington-Baltimore region's airports for vacation, compared to 2015. And, more people are getting to the region's airports using ride-hailing companies like Uber and Lyft when compared to 2015.

Last June the TPB released an initial set of findings from its most recent Washington-Baltimore Regional Air Passenger Survey (APS), conducted in October 2017. The survey gathered data from more than 22,000 departing passengers at the region's three major commercial service airports: Baltimore/Washington International Thurgood Marshall (BWI), Ronald Reagan Washington National (DCA), and Washington Dulles International (IAD).

Among the range of topics covered, the survey asked air passengers about their travel preferences and behaviors, including their purpose for traveling, how they got to the airport, and general information about themselves. Findings reveal that travelers' main travel purpose varies by airport, and that the way people get to the airport—driving, taxi, ride-hail, or transit—does as well.

MORE: Read the full 2017 Washington-Baltimore Regional Air Passenger Survey General Findings Report

**Each airport has a predominant travel purpose different from the others**

As illustrated in the figure below, according to survey respondents, most people flying out of BWI do so for personal or family-related travel, while those flying out of DCA are mostly business travelers. While IAD is primarily used for business-related travel as well, 28 percent of people surveyed said they were flying out for a vacation – the largest proportion of vacation-related travel among the three airports. School-related travel is mostly evenly distributed between the three airports. These trends can generally be explained by several factors: BWI's low-cost airline offerings; DCA's proximity to the urban core composed of the District of Columbia, Arlington, and Alexandria; and IAD's concentration of international air service, which is used for business as well as vacation purposes.

These travel purposes continue a trend among the three airports. When comparing across three survey years – 2013, 2015, and 2017 – the three airports have consistently served the respective predominant markets outlined above. Over the three survey years, 30 to 31 percent of BWI's air passengers have traveled for personal or family affairs. In this same period, DCA's percentage of air passengers traveling on business has steadily grown from 37 to 44 percent. While IAD has had the greatest airport share of vacation-related travel

between the three airports, this percentage has steadily declined over the years from 37 percent down to 28 percent. Over this same period, the percentage of air passengers traveling on business at IAD has grown from 30 to 37 percent.

More people are traveling for work

Compared to 2015, in 2017 more survey respondents said they were traveling for work. Overall, the percentage of business-related travel increased during this same period from 37 percent to 38 percent, or 9.2 to 9.9 million. The percentage of vacation travelers decreased from 28 percent to 24 percent, or 6.9 to 6.3 million. Earlier surveys also showed this shift from personal to business travel.
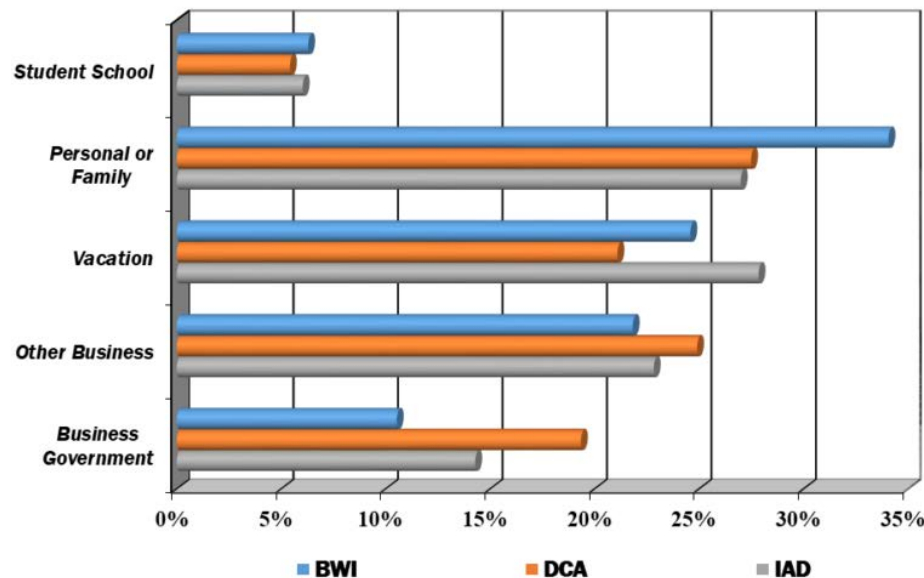
This chart shows passengers' trip purpose at the three airports. In the latest survey more people were traveling for work. (TPB)
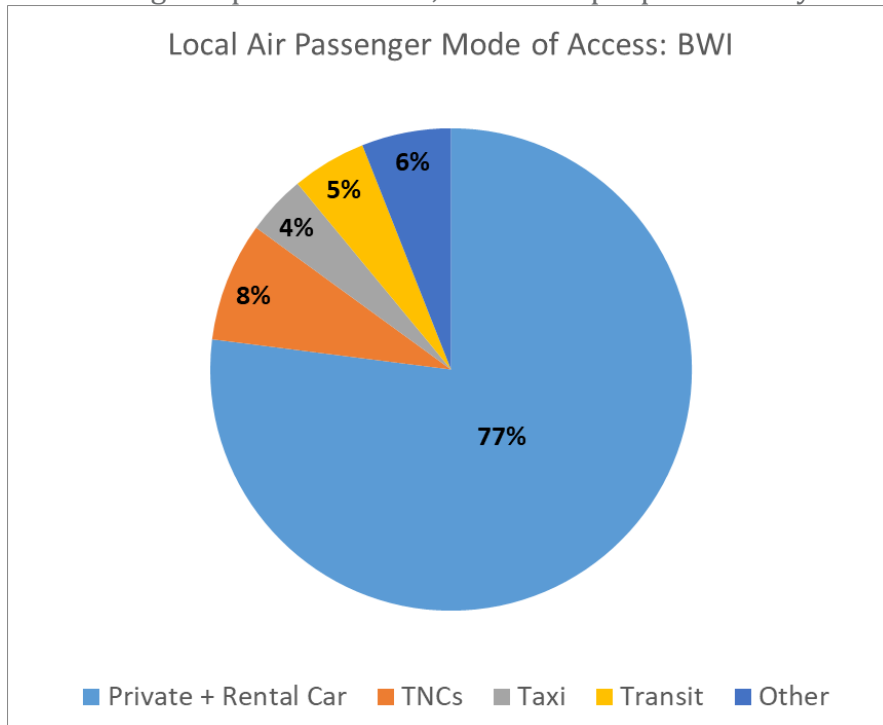
How people get to the airport depends on which airport they're using

People have many ways to get to the airports, but the one they choose often depends on which airport they are using. In the latest survey, nearly one in seven respondents said they used a ride-hailing company to get to the airport. Passengers at all three airports reported using these services, but DCA saw the biggest impact, with 21 percent of respondents reporting using a ride-hailing company. At BWI, eight percent said they used a ride-hailing company and at IAD, 13 percent did. This variation is due to several factors, including the range of transportation infrastructure that each airport is connected by, the surrounding land use, and the travel preferences of the individual air passenger. For example, DCA's proximity to the high-density, Metrorail-connected urban core demonstrates why far fewer passengers use a private vehicle to travel to the airport, when compared to BWI and IAD. Similarly, IAD has the smallest portion of transit ridership due to its current lack of rail connectivity, while BWI falls in between thanks to its connections to intercity, commuter, and light rail.

More people are driving to BWI

At BWI, more people drove to the airport than in 2015. Overall access to BWI by automobile – meaning by private car, taxi, and ride-hailing companies combined –increased from 87 percent to 89 percent during this period. There was a four percent increase in private car use – from 59 to 63 percent during this period, showing the greatest shift in the way people said they got to the airport.
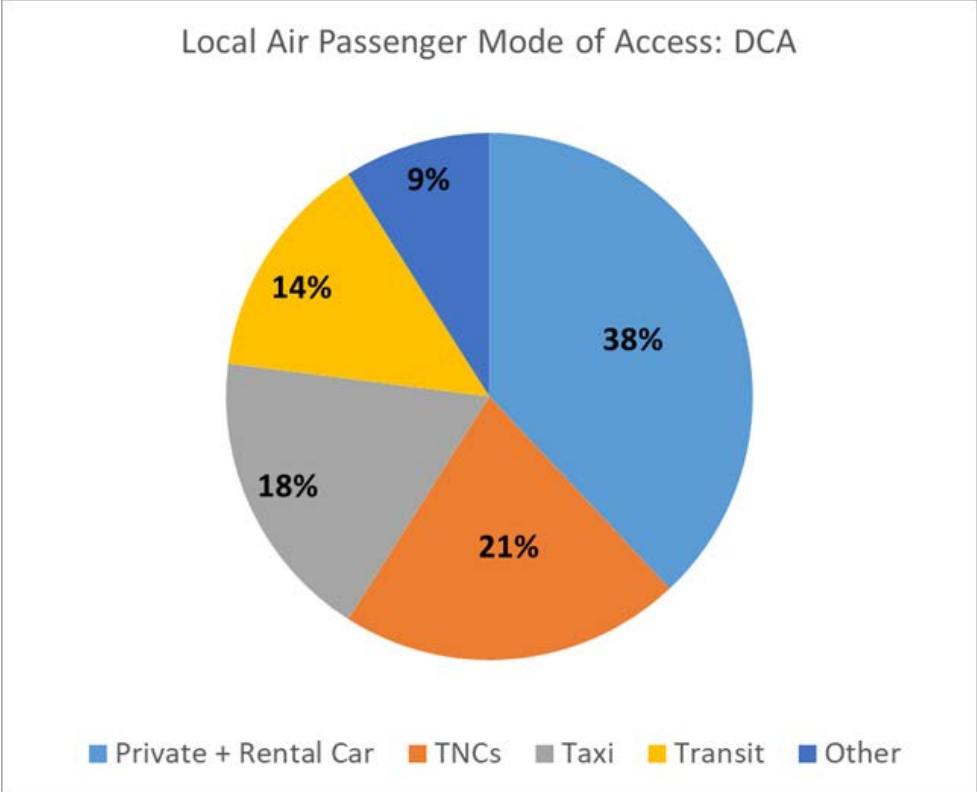
Increasingly, people travel longer distances to get to BWI than the other two airports. It is logical that more people would drive a private car to reach the airport, since transit or ride-hailing might not be as physically or financially feasible. More people also reported using ride-hailing companies in 2017, and fewer people said they used taxis or shuttle buses.

Local Air Passenger Mode of Access: BWI

6%
5%
4%
8%
77%

■ Private + Rental Car ■ TNCs ▨ Taxi ■ Transit ■ Other

More people use cars to get to BWI. This includes private or rental cars, taxis, and ride-hailing companies (TNCs). (TPB)

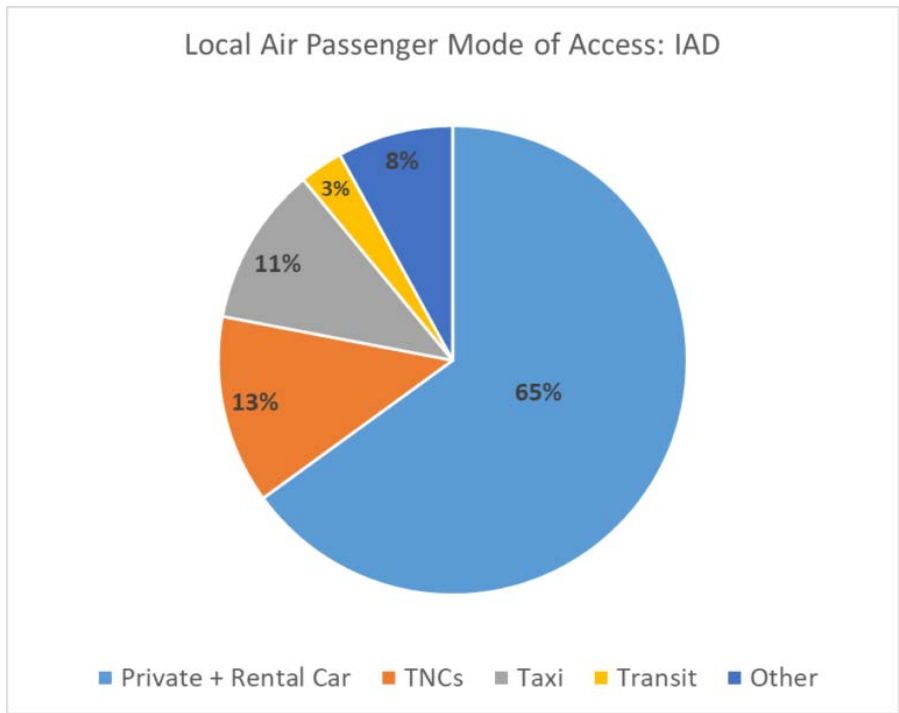**More people are using ride-hailing companies to DCA**

While overall access by automobile to DCA remained the same at 77 percent, the greatest modal shift observed from 2015 to 2017 was the seven percent decrease in people taking taxis from 25 to 18 percent, and an increase in ride-hailing use by the same margin, from 14 to 21 percent. Metrorail increased slightly from 12 to 13 percent. Since ride-hailing services are most heavily concentrated in high-density areas like the urban core, It follows that the airport closest to the urban core—DCA—would see more people using ride-hailing companies to get to the airport.

Local Air Passenger Mode of Access: DCA

- 9%
- 14%
- 38%
- 18%
- 21%

Private + Rental Car ■ TNCs ■ Taxi ■ Transit ■ Other

More people use ride-hailing companies, also known as Transportation Network Companies (TNCs) to get to DCA. (TPB)

Fewer people are taking vans, buses, and limos to IAD

At IAD, overall access by automobile increased from 84 percent to 89 percent. This increase was primarily due to the six percent increase in ride-hailing companies and four percent increase in private car use, while rental car and taxi use decreased by three and two percent, respectively. Sufficient information is not yet available to conclude the precise cause of this trend, but it is worth noting that other forms of transportation decreased significantly – from 14 percent to eight percent – with the greatest shift being a four percent decline in airport buses, vans, and limos.

Local Air Passenger Mode of Access: IAD

- Private + Rental Car: 65%
- TNCs: 13%
- Taxi: 11%
- Transit: 3%
- Other: 8%

Fewer people are taking vans, buses, and limos to IAD. (TPB)

In October of this year TPB will conduct its biennial air passenger survey once again. Will the region's air passengers continue to travel more frequently for business and ever increasingly with ride-hailing? Time will tell. Stay tuned for the latest in regional air passenger trends from the Washington-Baltimore Regional Air Passenger Survey on TPB's Continuous Airport System Planning website.

The TPB conducts its Regional Air Passenger Survey every two years to help airport officials, and local, state, and regional planners understand what improvements need to be made to maximize the benefit the region's airports bring to the people who live and do business here. The survey gathers data from over 22,000 departing air passengers at Baltimore/Washington International Thurgood Marshall (BWI), Ronald Reagan Washington National (DCA), and Washington Dulles International (IAD) airports.

Arianna Koudounas is a transportation planner for the TPB. She serves long-term regional transportation planning efforts, including co-managing the biennial Regional Air Passenger Survey and overseeing a multimodal range of technical studies.

AIR TRAVEL TRENDS IN THE WASHINGTON METROPOLITAN AREA

Key Findings from the 2017 Washington-Baltimore Regional Air Passenger Survey

Tim Canan, AICP
Planning Data and Research Program Director
Metropolitan Washington Council of Governments (COG)
Transportation Planning Board (TPB)

Arianna Koudounas, AICP
Transportation Planner
COG-TPB

Transportation Planning Board Meeting
April 17, 2019

Agenda Item 10

National Capital Region
Transportation Planning Board

Presentation Overview

- Continuous Airport System Planning Program (CASP)
    - TPB Policy Elements
    - Aviation Technical Subcommittee

- Washington-Baltimore Air Passenger Survey
    - Survey Instrument and Methodology
    - General Findings Report
    - Geographic Findings Report

- Next Steps

About the Continuous Airport System Planning (CASP) Program

Goal: To provide a process that supports the planning, development, and operation of airport facilities and the transportation facilities that serve the airports in a systematic framework for the Washington-Baltimore region

Origin: Conducted by TPB since 1978

Supported by:
- Federal Aviation Administration (FAA)
- Maryland Aviation Administration (MAA)
- Metropolitan Washington Airports Authority (MWAA)

About the Continuous Airport System Planning (CASP) Program - Continued

Consists of a continuous cycle:
- Regional Air Passenger Survey
- Forecasts of Future Air Passenger Air + Ground Travel
- Revised Regional Air System Plan for Ground Access

Developed, implemented, and monitored with the assistance of the Aviation Technical Subcommittee (ATS) of the TPB's Technical Committee. The subcommittee is responsible for coordinating airport system planning with the regional transportation planning process.

CASP Consistency with TPB Policy Elements

Aspirational Initiatives

The express travel network would provide several benefits for airport ground access connectivity, including reducing congestion and incentivizing travelers to either carpool or travel by transit vehicle. Expanding Metrorail capacity would increase logistical ease and comfort for those traveling by Metrorail to
and from airports.

Planning Factors

- Enhance travel and tourism
- Increase accessibility and mobility of people
- Increase accessibility and mobility of freight

Regional Transportation Priorities Plan (RTPP) Goals

- Provide a comprehensive range of transportation options
- Support inter-regional and international travel and commerce

Aviation Technical Subcommittee (ATS)

The ATS consists of representatives from:

- Maryland Aviation Administration (MAA)
- Metropolitan Washington Airports Authority (MWAA)
- District Department of Transportation (DDOT)
- Federal Aviation Administration (FAA)
- Virginia Department of Aviation (DOAV)
- Washington Airports Task Force (WATF)
- Representatives from local airports and jurisdictions

Survey Overview

- Collect information on changing travel patterns and air passenger characteristics (ie: resident status, age, income)

- Help determine airport terminal and groundside needs

- Survey every two years at region's three commercial airports

- Passengers surveyed at departure gates while waiting to board flights

- Random sample of domestic and international flights during two-week period in October

- 22,000 departing passengers surveyed from 657 flights

  - 582 domestic

  - 75 international

Survey Content: Information Gathered

- Primary mode of transportation to airport
- Reason for selecting mode of transportation
- Ground Access Origin
- Ground Access Length of Travel Time
- Airport Origin and Destination
- Reasons for Airport Selection
- Airport Preference
- Trip Purpose
- Curbside drop-off and parking
- Check-in and bag check (curbside, kiosk, ticket agent)

Key Findings

- **Taxis & TNCs Reversed Share of Use:** By 5%, respectively
  Note: TNCs= Transportation Network Companies i.e.: Uber, Lyft, Via
- Main reason for choosing primary means of transportation was Ease of Use (46.6%)
- Response Rate Decline: 27.4% in 2017, down from 31% in 2015
- **Dominant Travel Purpose by Airport**
  - Business: DCA
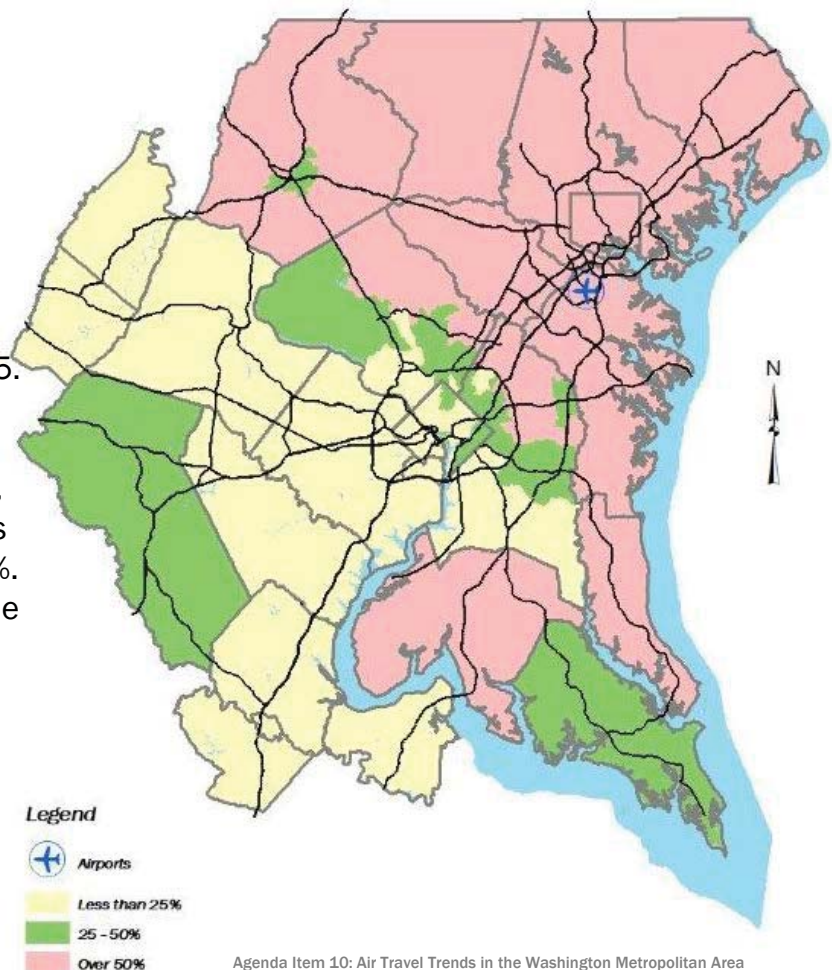 - Families: BWI
  - Vacation: IAD

Key Findings Continued

- Annual air passenger enplanements in 2017 were 2.4 million higher (36.5 million) than in 2015 (34.1 million)

- Local origin enplanements increased at all airports :

  - BWI: +5%

  - DCA: +1.3%

  - IAD: +10%

- Connections increased at BWI and DCA, declined at IAD:

  - BWI: + 25%

  - DCA: + 29%

  - IAD: -1.4%

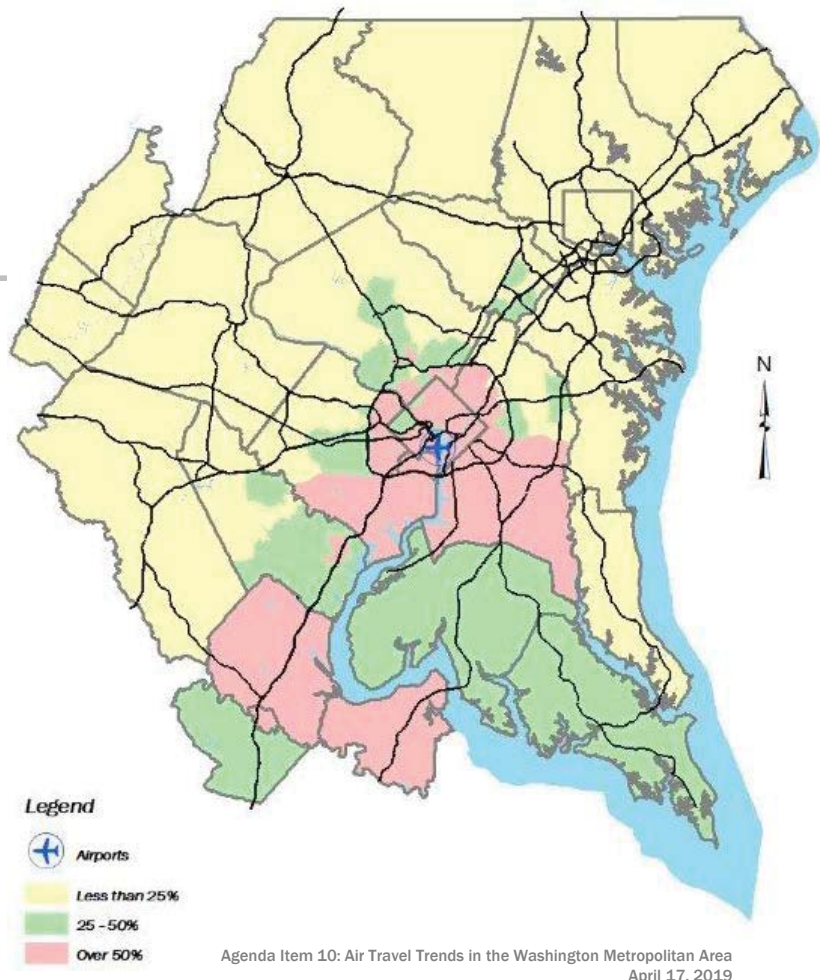National Capital Region
Transportation Planning Board

Percentage of Passengers Using BWI

Local originations at BWI increased by 5% from 2015. Passengers traveling to BWI from the Virginia suburbs increased by 24%, from the Maryland suburbs by 16%, and from DC by 2%. Originations to BWI from the outlying jurisdictions dropped by 5%.

Legend

- Airports
- Less than 25%
- 25 - 50%
- Over 50%

National Capital Region
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Percentage of Passengers Using DCA

Local originations at DCA increased by 1% from 2015. 71% of the Washington Core flew out of DCA. Portions of Montgomery, Prince George's, Prince William, and Stafford Counties along the I-95 corridor account for significant numbers of passengers using DCA.

Legend

✈ Airports

Less than 25%

25 – 50%

Over 50%

National Capital Region
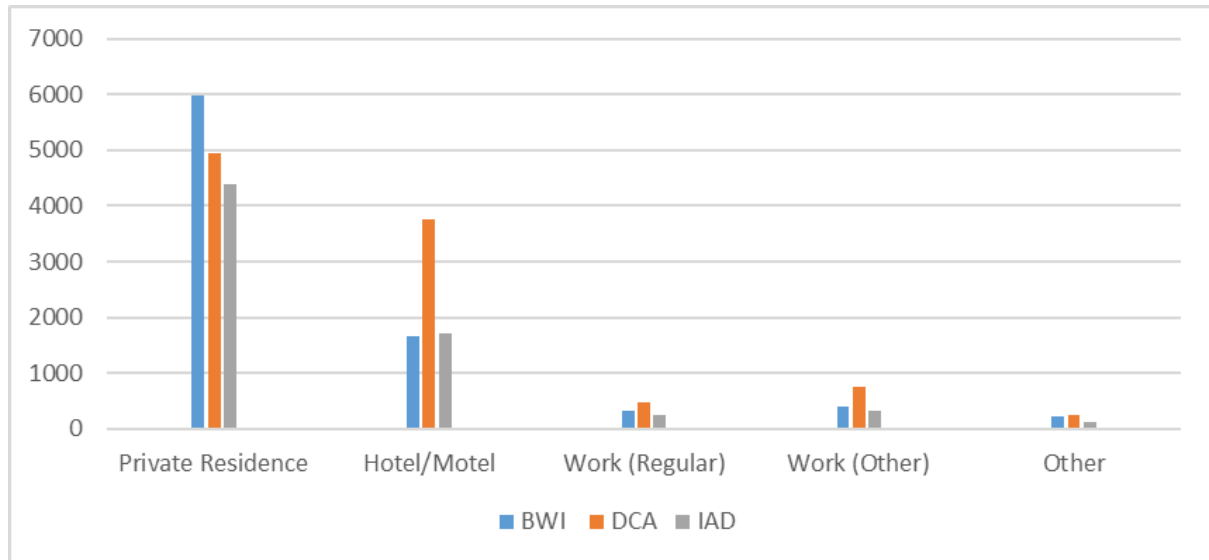**Transportation Planning Board**

Percentage of Passengers Using IAD

Local originations at IAD increased by 10% from 2015. 71% of IAD passengers were from the Virginia Suburbs and DC. Originations from the Maryland suburbs and the Baltimore metropolitan area increased by 59 percent and decreased by 12 percent, respectively.

Legend

✈ Airports

0 – 24

25 – 49

50 – 100

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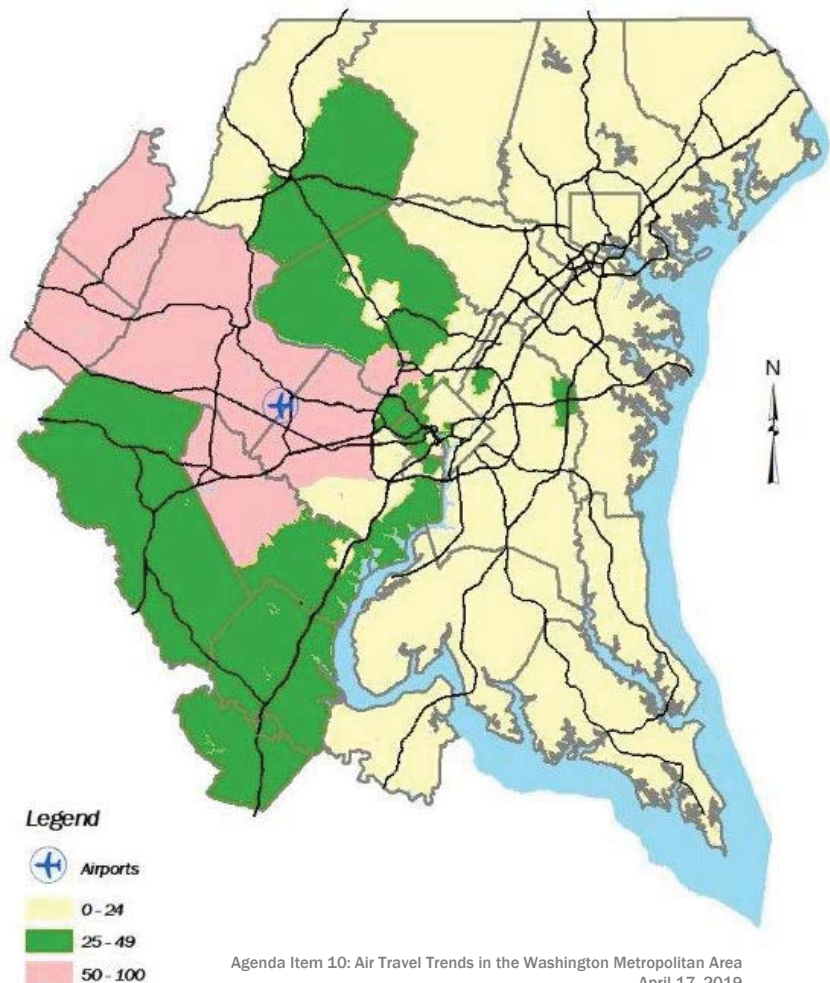
Ground Trip Origin: By Airport


Note: Numbers provided are in thousands

Mode of Access

- The most common mode of access to airport continued to be the automobile, accounting for 84% of total trips to all airport

- Metrorail usage at DCA increased to 13% from 12% in 2015

- 14% of the region's air passengers accessed the airport by TNC

  - 21% to DCA - almost double IAD and triple BWI

  - TNC users to DCA accounted for 60% of the regional total

  - The decline in taxicab and rental car trips to DCA could be attributed to TNCs
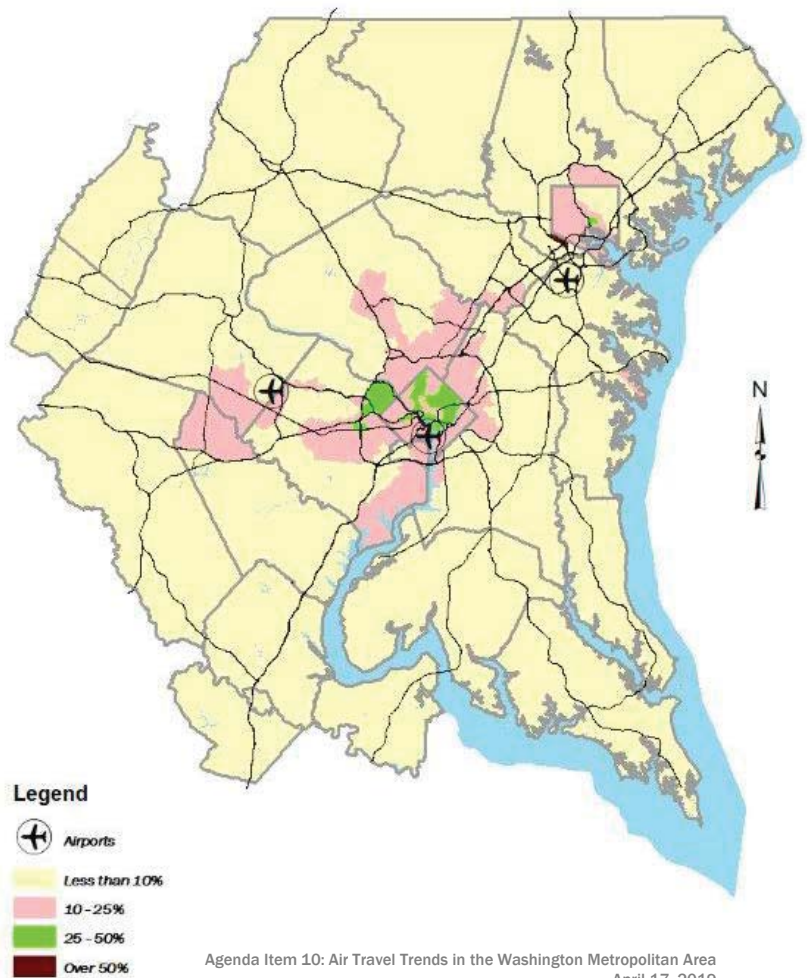
Mode of Access: 2013, 2015, 2017
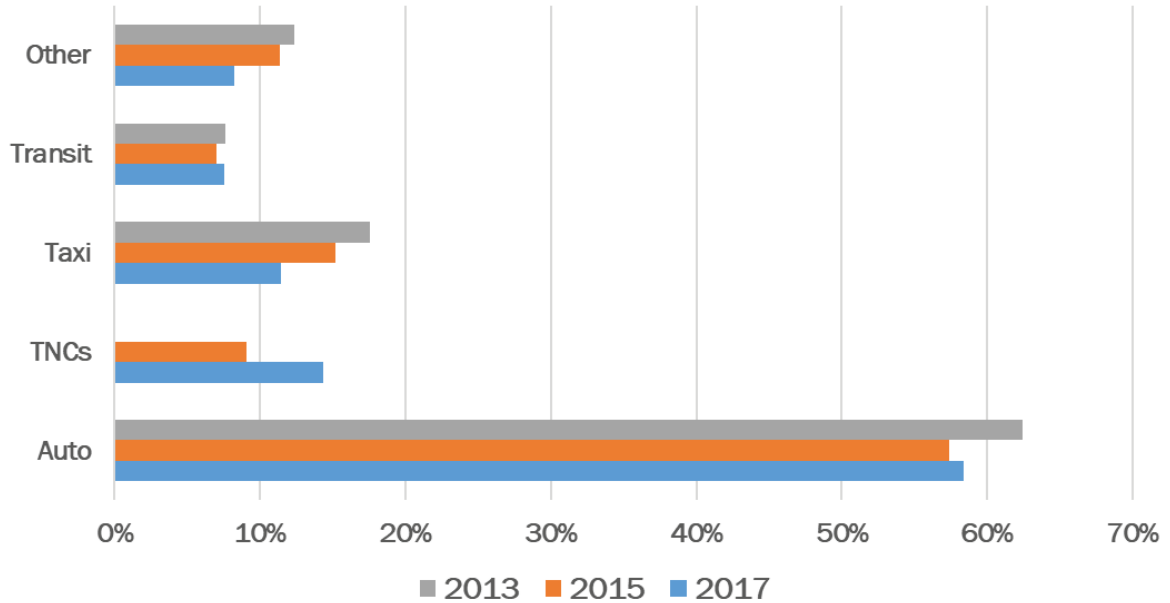
Percentage of Passengers Using Taxicabs

11% of the region's passengers traveled by taxicab –down from 16% in 2015. The areas with the highest concentrations of taxicab usage are located within the Washington Core (20%) and the Baltimore Core (9%).
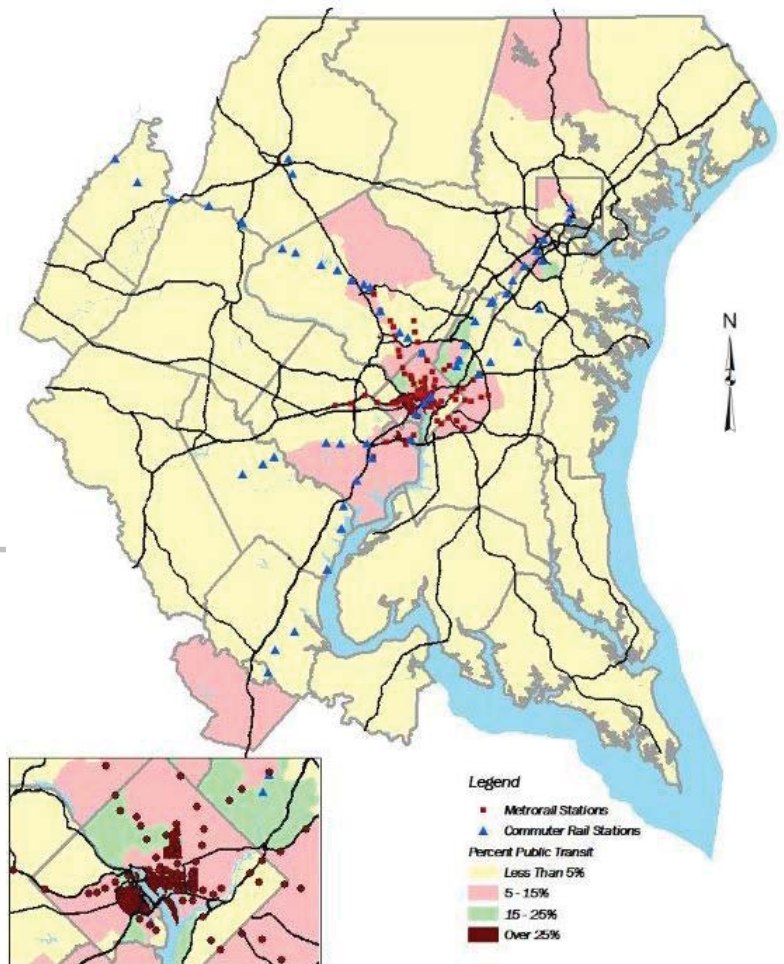

Legend

✈ Airports

Less than 25%
25 - 50%
Over 50%

Percentage of Passengers Using TNCs

14% of the region's passengers traveled by TNC –up from 9% in 2015. 19% of the Baltimore Core and 22% Washington Core travel by TNC, respectively.

Legend

✈ Airports

Less than 10%

10 - 25%

25 - 50%

Over 50%

National Capital Region
Transportation Planning Board

Agenda Item 10: Air Travel Trends in the Washington Metropolitan Area
April 17, 2019

# Percentage of Passengers Using Metrorail, Commuter Rail, Metrobus, and/or Local Bus

Public transportation carried 9% of the region's passengers. Usage of public transportation within the Washington Core was double the regional average and triple that of the Baltimore Core.

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Legend

■ Metrorail Stations

▲ Commuter Rail Stations

Percent Public Transit

Less Than 5%

5 - 15%

15 - 25%

Over 25%

Air Traveler Characteristics

- In 2017, the majority of departing air travelers at the region's three major airports were middle-aged, affluent and non-resident

- Non-resident local originating air passengers accounted for 60%

- The share of resident departing passengers increased to 40% in 2017 from 35% in 2015

- The share of departing passengers under the age of 25 years and over the age of 65 years remained unchanged at 23% when compared with 2015 findings

Trip Purpose
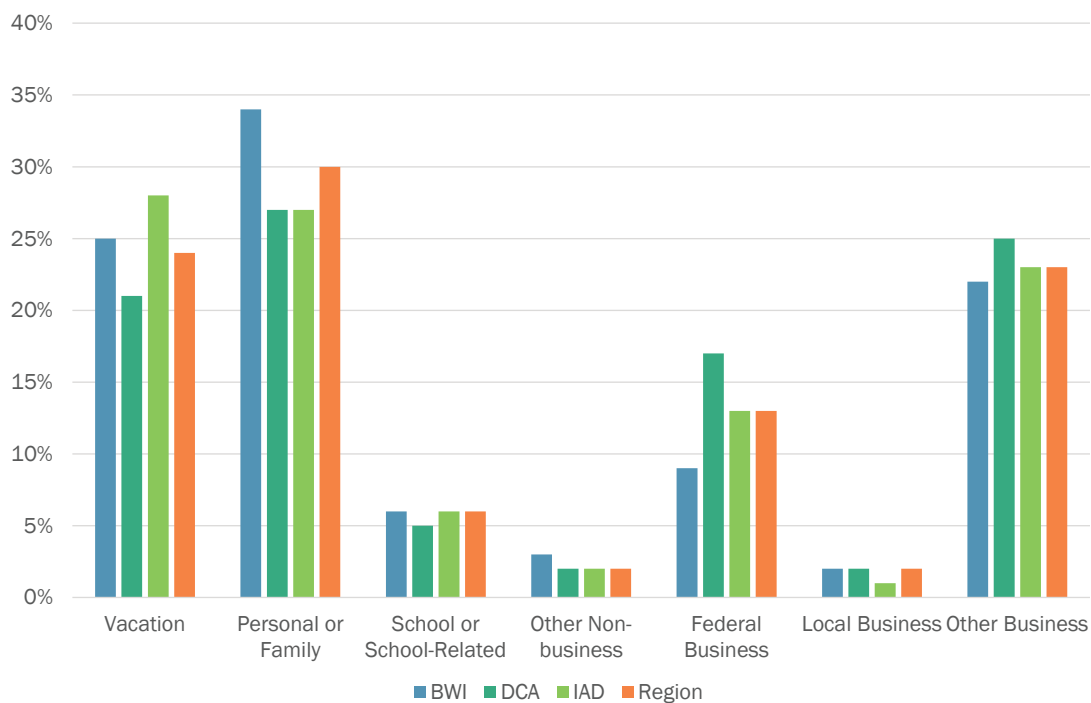
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transportation/planning-areas/airports/casp/

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Agenda Item 10: Air Travel Trends in the Washington Metropolitan Area
April 17, 2019