

Washington / Baltimore Region



2011
Air Passenger
Survey



MWCOG
Aviation Technical Subcommittee
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Survey Background

- A random sample of approximately 684 flights (605 Domestic and 79 International)
 - 229 at BWI
 - 212 at DCA and
 - 243 and IAD
- Survey started on Wednesday November 2nd, and ended on Tuesday November 15th 2011
 - 35 Airlines
 - 20 International
 - 18 Domestic
 - 690 Destinations
 - 80 International
 - 610 Domestic



Sample Strata

- BWI – 95 Strata 229 Flight Sample,
216 Domestic and 13 International
- DCA – 97 Strata 212 Flight Sample
204 Domestic and 8 International
- IAD – 143 Strata 243 Flight Sample
185 Domestic 58 International



2011 Washington-Baltimore Regional Air Passenger Survey

**2011 Washington-Baltimore Regional Air Passenger Survey
Data Collection Summary**

Airport	No. of Flights Surveyed	Rev. Pass Count	Actual No. of Completed Surveys	Response Rate
BWI	229	22,933	8,766	38%
DCA	212	15,251	6,607	43%
IAD	243	21,137	8,057	38%
Total	684	59,321	23,430	39%
Mailback			133	
Grand Total			23,563	



Findings

- Annual air passenger enplanements in 2011 are now (32.1 million) 1.2 million higher than in 2009 (30.8 million)
- Both local originating and connecting enplanements have increased between 2009 and 2011
- Local originating passengers increased by 3 % while connecting passengers increased by almost 10%
- While local originating enplanements increased at IAD and DCA, a decline of 1.5% was observed at BWI



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- Regionally, IAD accounted for 79% of the local originating enplanement increase and DCA 21%
- The greatest percentage increase in connecting passengers between 2009 and 2011 was seen at BWI: 889,000, an increase of 56%
- Connecting passengers dropped by 560,000 at IAD (a 12% decline), and increased by 351,000 at DCA (44% increase)
- Connecting passengers at BWI accounted for 72% of the total regional increase



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Washington-Baltimore Regional Airports Annual Air Passengers Trip Originations (Thousands of Originations)

Enplanement Type		BWI Marshall			Dulles			Reagan National			Region		
		2007	2009	2011	2007	2009	2011	2007	2009	2011	2007	2009	2011
Local originations (came by ground transportation)	<i>Number</i>	8,795	8,898	8,756	6,495	6,898	7,496	8,341	8,051	8,211	23,631	23,847	24,463
	<i>Percent</i>	84%	85%	78%	53%	60%	65%	89%	91%	88%	74%	77%	76%
Connected from another flight	<i>Number</i>	1,657	1,579	2,468	5,768	4,644	4,078	995	797	1,148	8,420	7,020	7,694
	<i>Percent</i>	16%	15%	22%	47%	40%	35%	11%	9%	12%	26%	23%	24%
Total Enplanement	<i>Number</i>	10,452	10,477	11,224	12,263	11,542	11,574	9,336	8,848	9,359	32,051	30,867	32,157
Percent of Region		33%	34%	35%	38%	37%	36%	29%	29%	29%	100%	100%	100%

Notes:

* Totals may not add due to rounding

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



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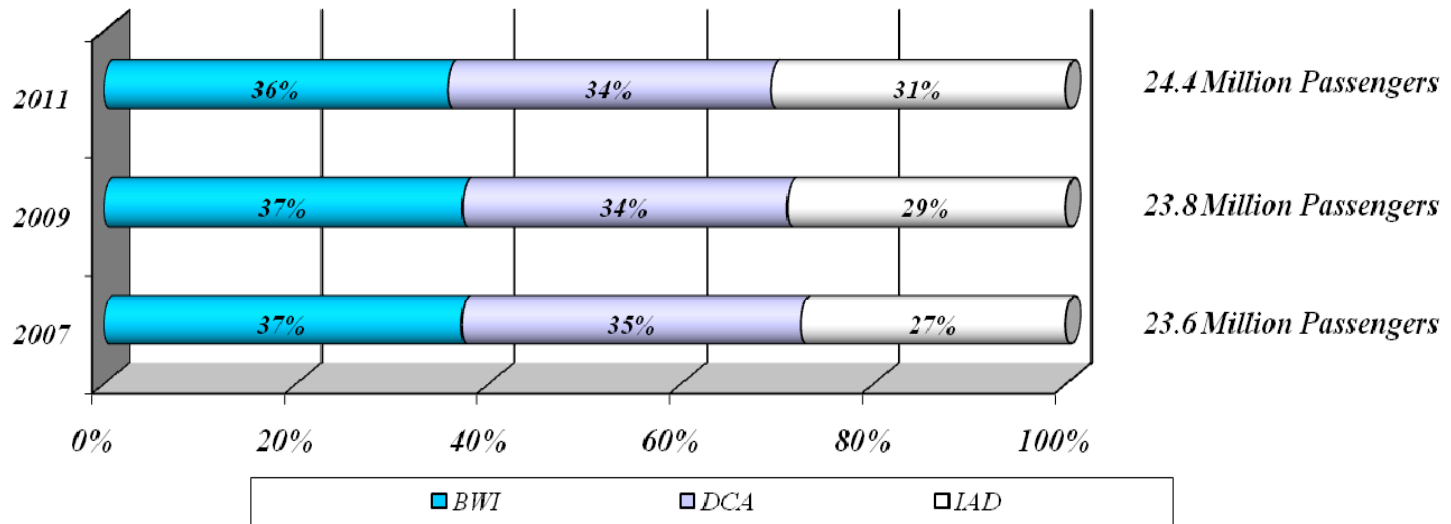
- Airport shares of locally originating air passengers
 - 36% to BWI Marshall airport – down from 37% in 2009
 - 34% to Reagan National airport – same as in 2009
 - 31% to Dulles airport – up from 29% in 2009

- Airport shares of connecting air passengers
 - 32% to BWI Marshall airport – up from 22% in 2009
 - 15% to Reagan National airport – up from 11% in 2009
 - 53% to Dulles airport – down from 66% in 2009

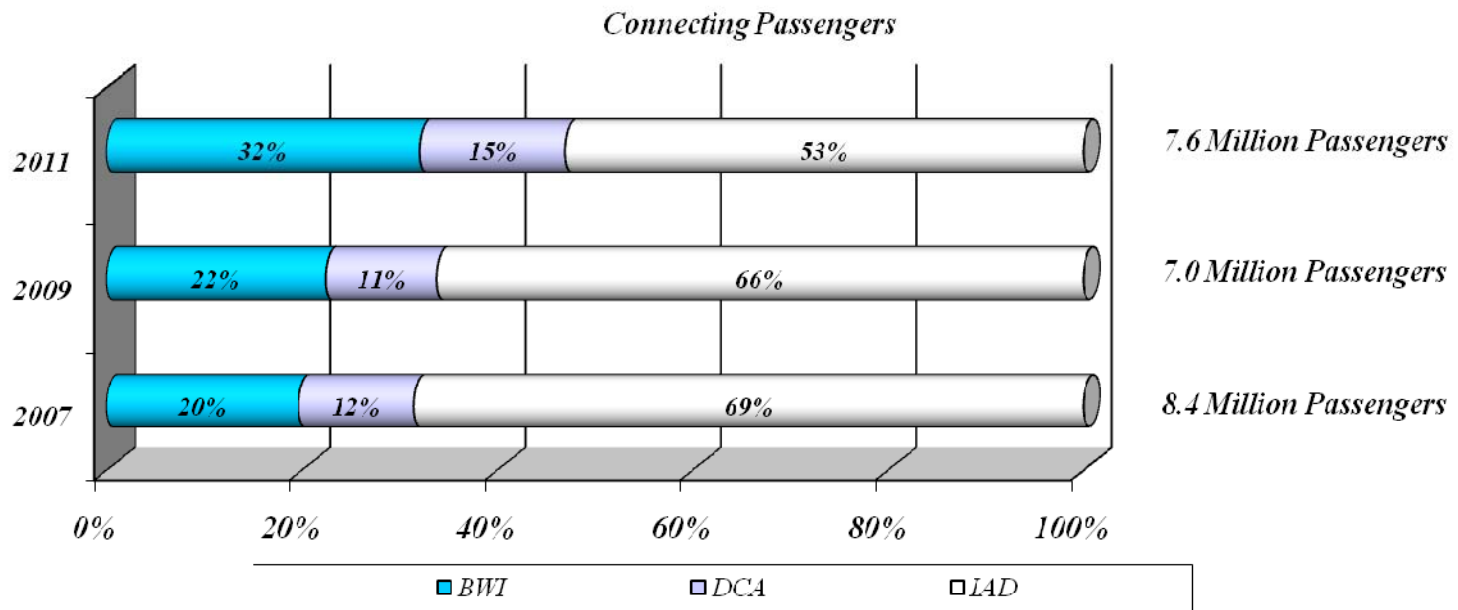


2011 Washington-Baltimore Regional Air Passenger Survey

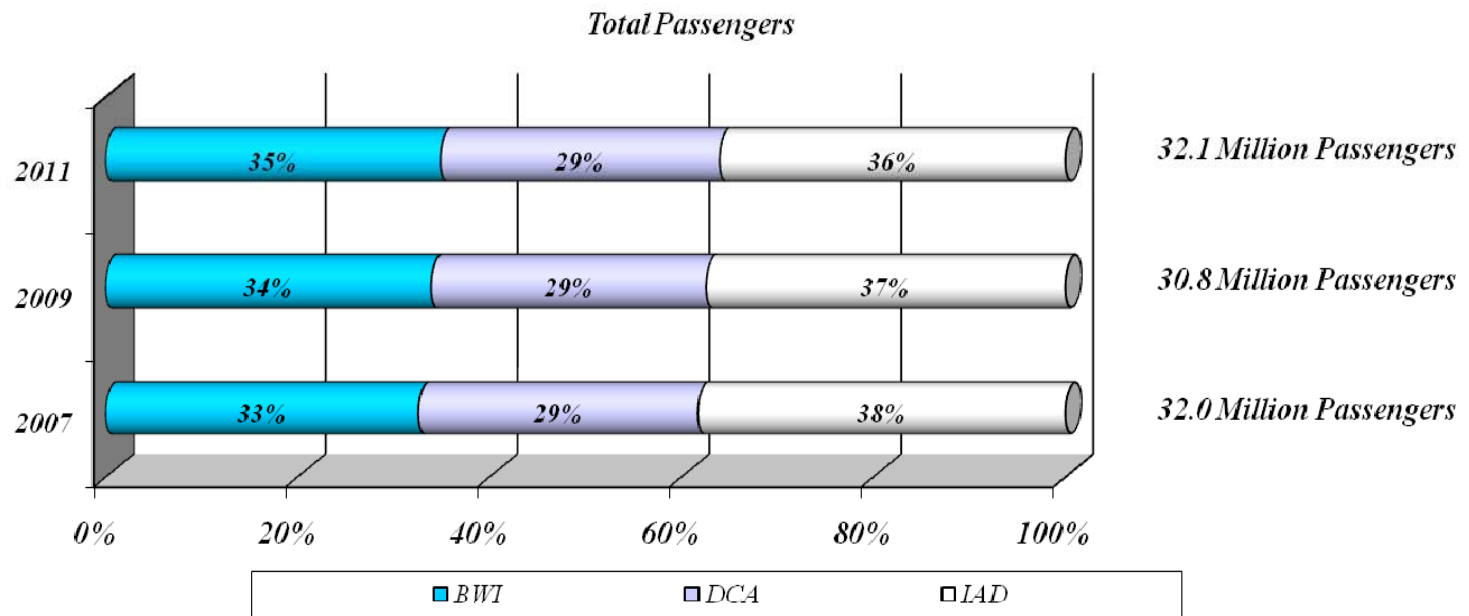
Local Originating Passengers



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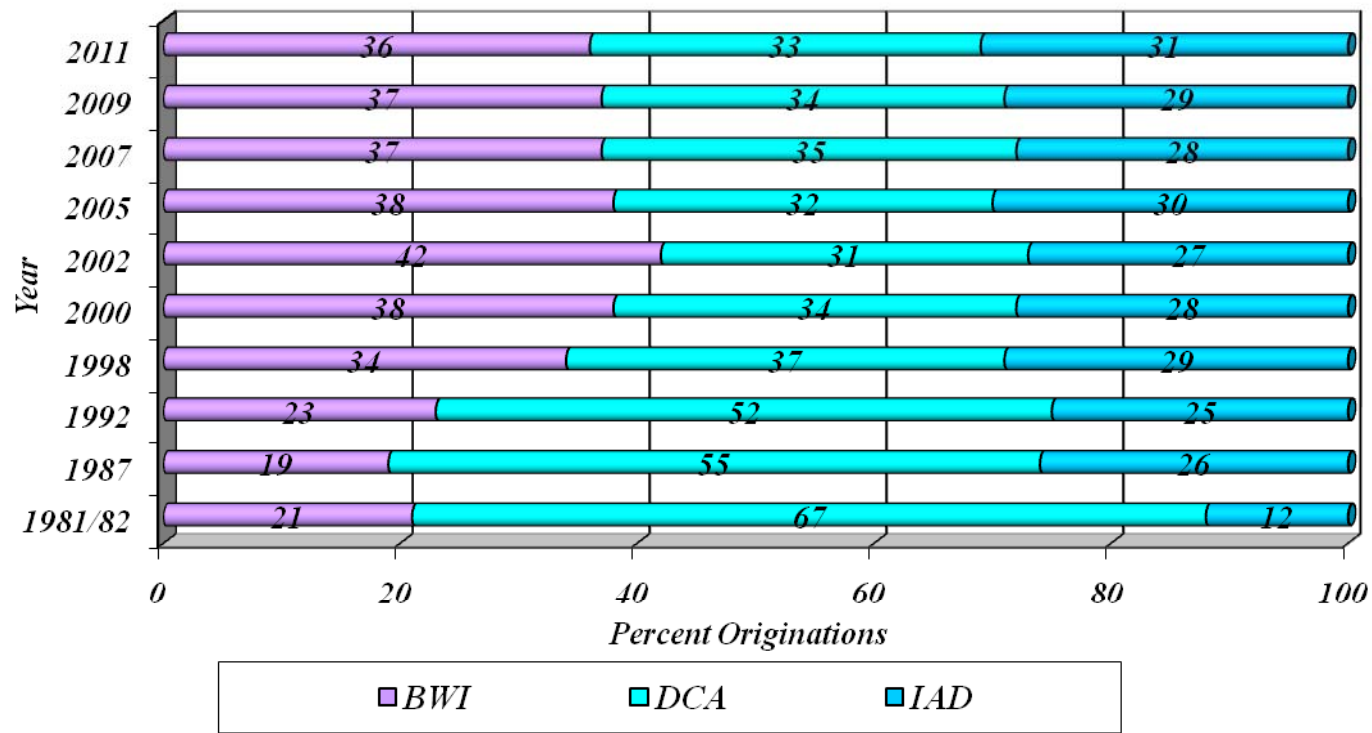


2011 Washington-Baltimore Regional Air Passenger Survey



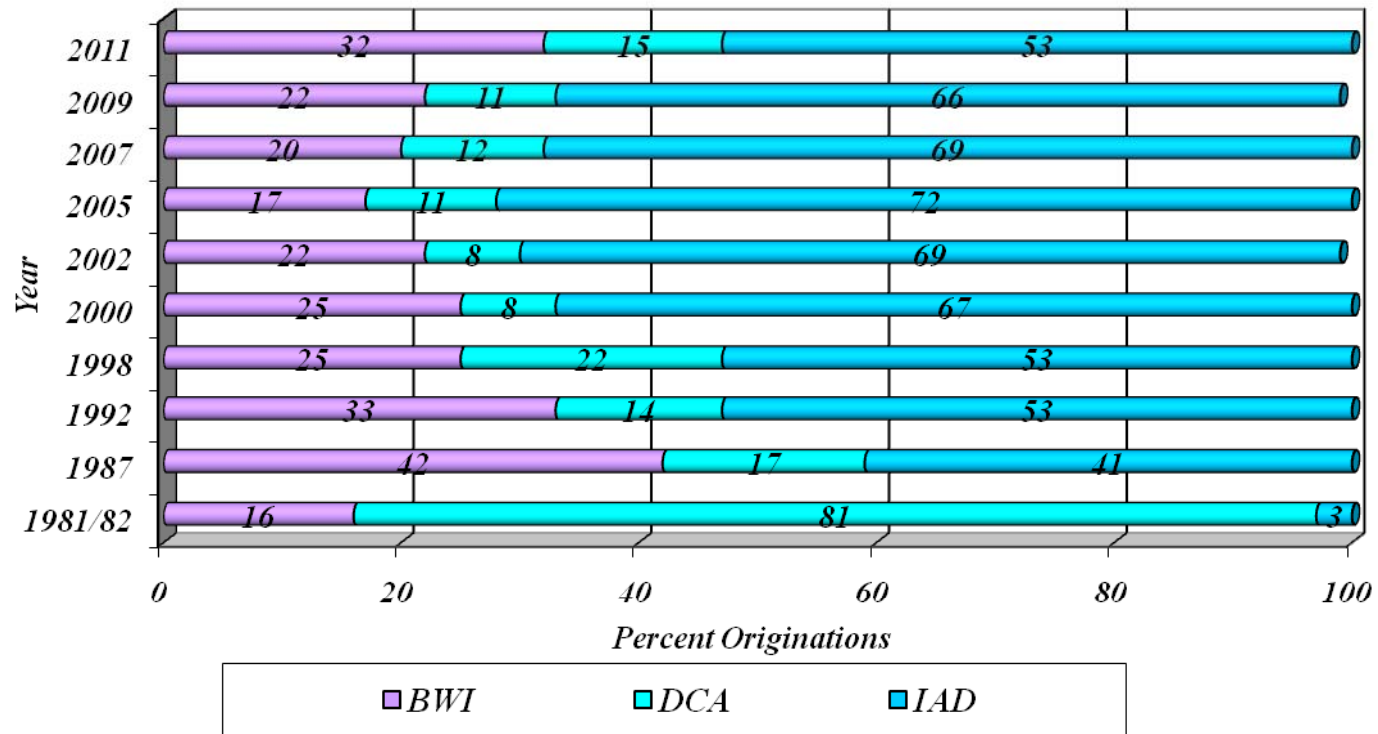
2011 Washington-Baltimore Regional Air Passenger Survey

Percent Local Originating Passengers



2011 Washington-Baltimore Regional Air Passenger Survey

Percent Connecting Passengers



2011 Washington-Baltimore Regional Air Passenger Survey

**Washington-Baltimore Regional Airports
Local Originating Air Passengers Trips by Flight Destinations
(thousands of Originations)**

<i>Enplanement Type</i>		<i>B.W.I. Marshall 2011</i>	<i>Reagan National 2011</i>	<i>Dulles 2011</i>	<i>Region 2011</i>
Domestic Destinations	<i>Number</i>	10,951	9,235	8,347	28,533
	<i>Percent</i>	98%	99%	72%	89%
International Destinations	<i>Number</i>	273	124	3,227	3,624
	<i>Percent</i>	2%	1%	28%	11%
Total Enplanements	<i>Number</i>	11,224	9,359	11,574	32,157
	<i>Percent</i>	100%	100%	100%	100%



Primary Reason for Selecting Airport

➤ Reasons for choosing an airport

Accessibility

- Closest airport
- Better ground transportation
- Better access and parking

Quality of Air Service

- More convenient flight times
- Only airport with direct non-stop flight
- Only airport serving market

Cost of Air Service

- Less expensive airfare
- Frequent flyer with specific airline



2011 Washington-Baltimore Regional Air Passenger Survey

- Accessibility reasons for choosing an airport overall dropped from 66% in 2009 to 61% in 2011 regionally.
- Closest Airport
 - 56% of BWI Marshall airport users – same as in 2009
 - 71% of Reagan National airport users – down from 72% in 2009
 - 42% of Dulles airport users – down from 53% in 2009
- Lowest Airfare
 - 18% of BWI Marshall airport users – down from 27% in 2009
 - 4% of Reagan National airport users – down from 7% in 2009
 - 8% of Dulles airport users – down from 16% in 2009



2011 Washington-Baltimore Regional Air Passenger Survey

<i>Primary Reason for Choosing Airport</i>	<i>B.W.I. Marshall 2011</i>	<i>Reagan National 2011</i>	<i>Dulles 2011</i>	<i>Region 2011</i>
<i>Accessibility</i>	59%	76%	44%	61%
<i>Quality of Air Service</i>	17%	15%	29%	23%
<i>Cost of Service</i>	18%	4%	16%	9%
<i>Other</i>	6%	5%	11%	7%
<i>Total</i>	100%	100%	100%	100%



Airport Preference

- Overall airport preference changed little between 2009 and 2011
 - BWI Marshall 29% - (up from 27% in 2009)
 - Reagan National 38% - (down from 39% in 2009)
 - Dulles 18% - (up from 17% in 2009)
 - No preference 15% - (down from 16% in 2009)
- Washington-Baltimore area residents expressed preference
 - 36% to Reagan National - 41% in 2009
 - 31% to BWI Marshall- same as in 2009
 - 23% to Dulles - 22% in 2009
 - 10% no preference - 7% in 2009



2011 Washington-Baltimore Regional Air Passenger Survey

**Washington-Baltimore Regional Airports
Originating Passengers Preferred Airport by Resident Status
(Thousand of Originations)**

Preferred Airport		Resident 2011	Non-Resident 2011	REGION 2011
B.W.I. MARSHALL	<i>Number</i>	3,143	3,085	6,228
	<i>Percent</i>	31%	27%	29%
DULLES	<i>Number</i>	2,311	1,656	3,967
	<i>Percent</i>	23%	14%	18%
REAGAN NATIONAL	<i>Number</i>	3,681	4,464	8,145
	<i>Percent</i>	36%	39%	38%
No Preference	<i>Number</i>	981	2,304	3,285
	<i>Percent</i>	10%	20%	15%
TOTAL	<i>Number</i>	10,116	11,509	21,625
	<i>Percent</i>	100%	100%	100%

Notes:

** Totals do not include non-respondents and resident unknown*



2011 Washington-Baltimore Regional Air Passenger Survey

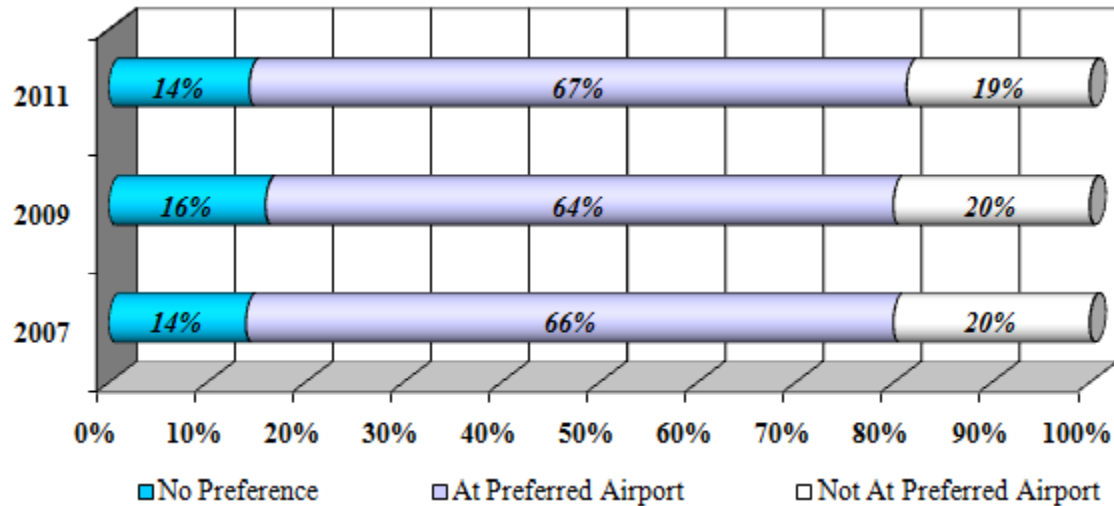
- Non-residents expressed preference
 - 39% to National – 38% in 2009
 - 27% to BWI Marshall – 26% in 2009
 - 14% to Dulles – 15% in 2009
 - 20% no preference – 22% in 2009

- Overall there was a slight increase in share of passengers flying out of their preferred airport, from 64% in 2009 to 67% in 2011



2011 Washington-Baltimore Regional Air Passenger Survey

*Satisfaction with Airport Used
(originating Passengers Only)*



Trip Purpose

Business

- Related to federal government
- Related to other government (state, local)
- Other non-government related

Non-Business

- Vacation
- Personal or family affairs
- Student or school related
- Other



2011 Washington-Baltimore Regional Air Passenger Survey

Originating Passengers Trip Purpose

Trip Purpose	2007	2009	2011
Business	41%	38%	44%
Non-Business	59%	62%	56%
Total	100%	100%	100%



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- Business related trip purpose overall increased by 6% while non-business related trips decreased by the same amount between 2009 and 2011.

Business related trips

- BWI Marshall – increased by 7%
- Reagan National – declined by 6%
- Dulles – increased by 4%

Non-Business related trips

- BWI Marshall – declined by 7%
- Reagan National – declined by 6%
- Dulles – declined by 4%



Trip Origin

Home

- Private residence

Non-Home

- Hotel / Motel
- Place of employment (work)
- Another place of business
- Other



2011 Washington-Baltimore Regional Air Passenger Survey

Passengers Ground Trip Origin to Airport

Trip Origin	2007	2009	2011
Private Residence	57%	56%	60%
Hotel / Motel	30%	29%	27%
Place of Employment	11%	10%	10%
Other	2%	4%	2%
Total	100%	99%	99%

** Totals may not add due to rounding*



Mode of Travel to Airport

- The most common mode of access to airports continued to be the automobile (private and rental car) accounting for 63% of total trips to all airports
- Metrorail usage to National remained unchanged at 16%
- Travel to BWI Marshall by private car mode share increased from 59% in 2009 to 64% in 2011 (same as in 2007)
- Travel to Dulles also show a slight increase in private car mode share from 53% in 2009 to 55% in 2011



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Passengers Ground Trip Mode to Airport - 2011

Travel Mode	BWI	DCA	IAD
Private Car	64%	35%	55%
Rental Car	14%	8%	13%
Taxi	6%	31%	17%
Rail Transit	3%	16%	0%
Airport Bus/ Van Limo	7%	5%	9%
Hotel/Motel Bus	3%	4%	3%
Metrobus/MTA Bus	1%	1%	2%
Other	1%	1%	1%
Total	100%	100%	100%



Air Traveler Characteristics

- In 2011, the majority of departing air travelers at the region's three major airports were middle-aged, affluent and non-resident
 - Non-residents departing passengers accounted for 53%, down from 61% in 2009
 - The share of Residents departing passengers increased to 47% in 2011 from 39% in 2009
 - The share of departing passengers under the age of 25 years and over the age of 65 years declined slightly between 2009 to 2011, from 20% to 17%



2011 Washington-Baltimore Regional Air Passenger Survey

Local Originating Passengers Resident Status

Resident Status	2007	2009	2011
Resident	43%	39%	47%
Non-Resident	57%	61%	53%
Total	100%	100%	100%



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Local Originating Passengers by Age Group

Age Group	2007	2009	2011
18 and Younger	2%	3%	1%
19 to 24 Years	7%	8%	6%
25 to 34 Years	19%	19%	21%
35 to 49 Years	32%	30%	31%
50 to 64 Years	31%	30%	31%
65 and Older	8%	10%	10%
Total	100%	100%	100%

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- In 2011, 49% of departing passengers household income was less than \$120,000, a decline from 53% in 2009
- In 2011, over half of departing area residents, 56% had an annual household income of over \$120,000, while almost the same amount of non-resident passengers had household income less than \$120,000.



2011 Washington-Baltimore Regional Air Passenger Survey

Local Originating Passengers Household Income

Household Income	2007	2009	2011
Less than \$15,000	2%	4%	3%
\$15,000-\$24,999	2%	2%	2%
\$25,000-\$44,999	7%	6%	6%
\$45,000-\$79,999	17%	18%	17%
\$80,000-\$119,999	25%	23%	22%
\$120,000-\$159,999	16%	17%	17%
\$160,000-\$199,999	10%	10%	11%
\$200,000 and Above	20%	21%	22%
Total	100%	100%	100%

** Totals may not add due to rounding*



2011 Washington-Baltimore Regional Air Passenger Survey

- The content of air passenger survey changed in 2009 to include a question where and if passengers had made a stop for boarding pass and/or bag check at the following:
 - A. Curbside agent for boarding pass
 - B. Curbside agent for bag check
 - C. E-ticket kiosk for boarding pass
 - D. E-ticket kiosk for bag check
 - E. Ticket agent in terminal for boarding pass
 - F. Ticket agent in terminal for bag check
 - G. None of the above



2011 Washington-Baltimore Regional Air Passenger Survey

- Overall 73% of departing passengers reported to have made a stop for boarding pass and/or bag check
 - 73% at BWI Marshall
 - 72% at Dulles
 - 74% at Reagan National

- Overall 24% of departing passengers reported to have made no stop for either boarding pass and/or bag check
 - 24% at BWI Marshall
 - 23% at Dulles
 - 24% at Reagan National



2011 Washington-Baltimore Regional Air Passenger Survey

- When compared with the 2009 findings, passengers who made a stop for a boarding pass and/or bag check decreased at all three airports, which could be attributed to passengers having a boarding pass printed before arriving at the airport

- Among domestic destined departing flight passengers overall 73% stopped for boarding pass and/or bag check
 - 73% at BWI Marshall
 - 69% at Dulles
 - 74% at Reagan National



2009 Washington-Baltimore Regional Air Passenger Survey

- Among international destined flight departing passengers, overall 80% stopped for boarding pass and/or bag check
 - 84% at BWI Marshall
 - 79% at Dulles
 - 83% at Reagan National



2011 Washington-Baltimore Regional Air Passenger Survey

Passengers at Airport Boarding Pass and Bag Check	Percent Share
Only stopped at curbside for boarding pass	2%
Only stopped at curbside for bag check	3%
Only stopped at E-ticket kiosk for boarding pass	18%
Only stopped at E-ticket kiosk for bag check	6%
Only stopped at ticket agent in terminal for boarding pass	8%
Only stopped at ticket agent in terminal for bag check	8
Stopped at multiple place for boarding pass and bag check	27%
Did not stop for boarding pass or bag check	24%
None of the above	3%
Total	100%



Next Step

Geo-Coding 2011 Survey Data



Geo-Coding Process

- Adopt revised TAZ System for the MWCOG/TPB Model area
- Merge BMC/BRTB TAZ system with MWCOG/TPB to create Washington/Baltimore Air System Region TAZ boundaries
- Convert Washington/Baltimore Air System Region TAZ boundaries into "kml" file for Geo-coding
- Used Google Earth as a base to identify TAZs for each originating air passenger trip record address.



**Washington/Baltimore Air System Planning Region
Aviation Analysis Zone System**

Model Region	No. of TAZ's TAZs	No. of AAZs
MWCOG/TPB	3,669	132
BMC/BRTB	699	29
Total	4,368	161



Thank You