

Washington / Baltimore Region



2013
Air Passenger
Survey



MWCOG
Aviation Technical Subcommittee
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Survey Background

- A random sample of approximately 673 flights (592 Domestic and 81 International)
 - 225 at BWI
 - 221 at DCA and
 - 227 and IAD

- Survey started on Wednesday October 9th, and ended on Tuesday October 22nd 2014
 - 36 Airlines
 - 23 International
 - 13 Domestic



Sample Strata

- BWI – 127 Strata 225 Flight Sample,
213 Domestic and 12 International
- DCA – 101 Strata 221 Flight Sample
211 Domestic and 10 International
- IAD – 132 Strata 227 Flight Sample
168 Domestic 59 International



2013 Washington-Baltimore Regional Air Passenger Survey

Table 1
2013 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	225	25,101	8,790	35%
DCA	221	17,639	6,639	38%
IAD	227	26,320	9,313	35%
Total	673	69,060	24,742	36%



2013 Washington-Baltimore Regional Air Passenger Survey

Table2
2013 Washington-Baltimore Regional Air Passenger Survey
Survey Records Response Type

Survey Response	BWI	DCA	IAD	Total
At Airport Survey Response	8,708 99.1%	6,587 99.2%	9,290 99.8%	24,585 99.4%
Web Response	28 0.3%	20 0.3%	13 0.1%	61 0.2%
Mailback Response	54 0.6%	32 0.5%	10 0.1%	96 0.4%
Total	8,790 100%	6,639 100%	9,313 100%	24,742 100%



2013 Washington-Baltimore Regional Air Passenger Survey

Table 3
2013 Regional Air Passenger Survey
Survey Flights by Destination Region by Airport

	Region	Airport			Total
		BWI	DCA	IAD	
1	Atlantic	63	62	42	167
2	Midwest	43	40	25	108
3	New England	29	28	10	67
4	New York	27	30	19	76
5	Pacific West	5	8	33	46
6	Plains	5	7	4	16
7	South Central	15	19	15	49
8	South East	9	9	4	22
9	West	17	8	16	41
10	International	12	10	59	81
Total		225	221	227	673



2013 Washington-Baltimore Regional Air Passenger Survey

Table 4
2013 Washington-Baltimore Regional Air Passenger Survey
No. of Survey Flights by Airport and Flight Hours

Survey Hours	BWI	DCA	IAD	Total
5:00 - 10:00 AM (AM Peak)	61	66	51	178
10:00 AM - 2:00 PM (Mid-Day)	64	60	38	162
2:00 PM - 6:30 PM (PM Peak)	61	56	82	199
6:30 PM - 12:00 AM (Night)	39	39	56	134
Total	225	221	227	673



Findings

- Annual air passenger enplanements in 2013 are now (32.3 million) 1.4 million higher than in 2009 (30.8 million)
- Local originating enplanements dropped by 4% from 2011 and connecting enplanements increased by 16% between 2011 and 2013
- While local originating enplanements declined at BWI and IAD, an increase of 9% was observed at DCA



2013 Washington-Baltimore Regional Air Passenger Survey

- Regionally, DCA accounted for all of the local originating enplanement increase in 2013
- The greatest percentage increase in connecting passengers between 2011 and 2013 was seen at DCA: 363,000, an increase of 32%
- Connecting passengers increased by 308,000 at BWI (12%), and increased by 568,000 at IAD (14% increase)
- Connecting passengers at IAD accounted for 46% of the total regional increase



2013 Washington-Baltimore Regional Air Passenger Survey

Table 5
Washington-Baltimore Regional Airports
Annual Air Passengers Trip Originations
(Thousands of Originations)

Enplanement Type		BWI Marshall			Dulles			Reagan National			Region		
		2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
Local originations (came by ground	<i>Number</i>	8,898	8,756	8,498	6,898	7,496	6,214	8,051	8,211	8,686	23,847	24,463	23,398
	<i>Percent</i>	85%	78%	75%	60%	65%	57%	91%	88%	85%	77%	76%	72%
transportation)	<i>Number</i>	1,579	2,468	2,776	4,644	4,078	4,646	797	1,148	1,511	7,020	7,694	8,933
	<i>Percent</i>	15%	22%	25%	40%	35%	43%	9%	12%	15%	23%	24%	28%
Total Enplanement	<i>Number</i>	10,477	11,224	11,274	11,542	11,574	10,860	8,848	9,359	10,197	30,867	32,157	32,331
Percent of Region		34%	35%	35%	37%	36%	34%	29%	29%	32%	100%	100%	100%

Notes:

* Totals may not add due to rounding

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



2013 Washington-Baltimore Regional Air Passenger Survey

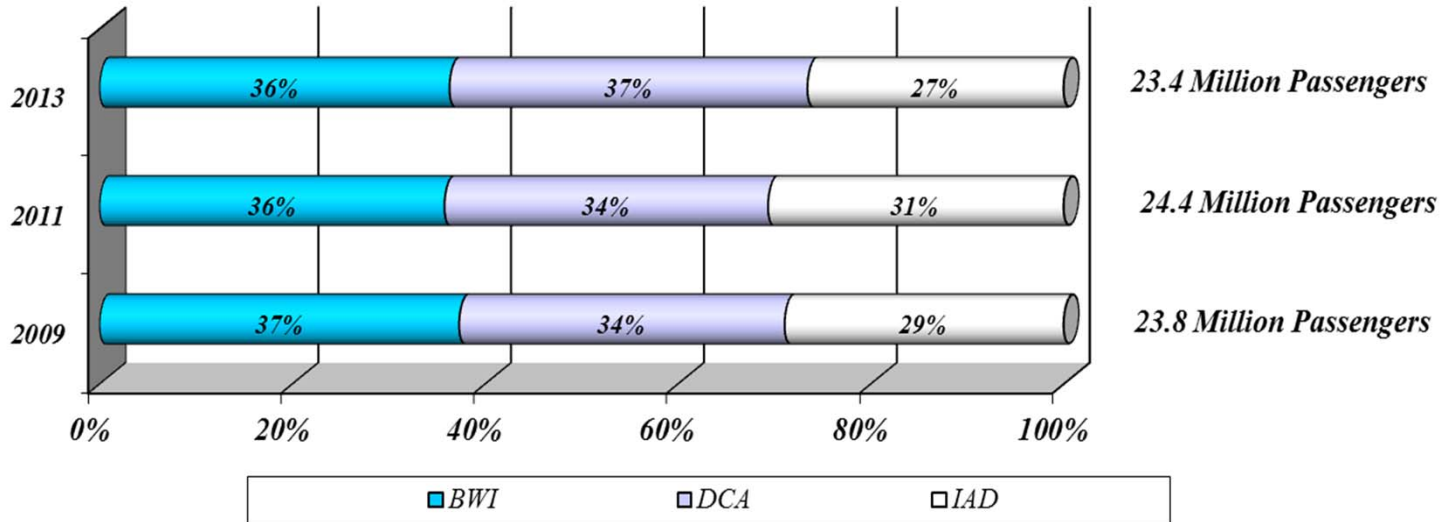
- Airport shares of locally originating air passengers
 - 36% to BWI Marshall airport – same as in 2011
 - 37% to Reagan National airport – up from 34% in 2011
 - 27% to Dulles airport – down from 31% in 2011

- Airport shares of connecting air passengers
 - 31% to BWI Marshall airport – down from 32% in 2011
 - 17% to Reagan National airport – up from 15% in 2011
 - 52% to Dulles airport – down from 53% in 2011

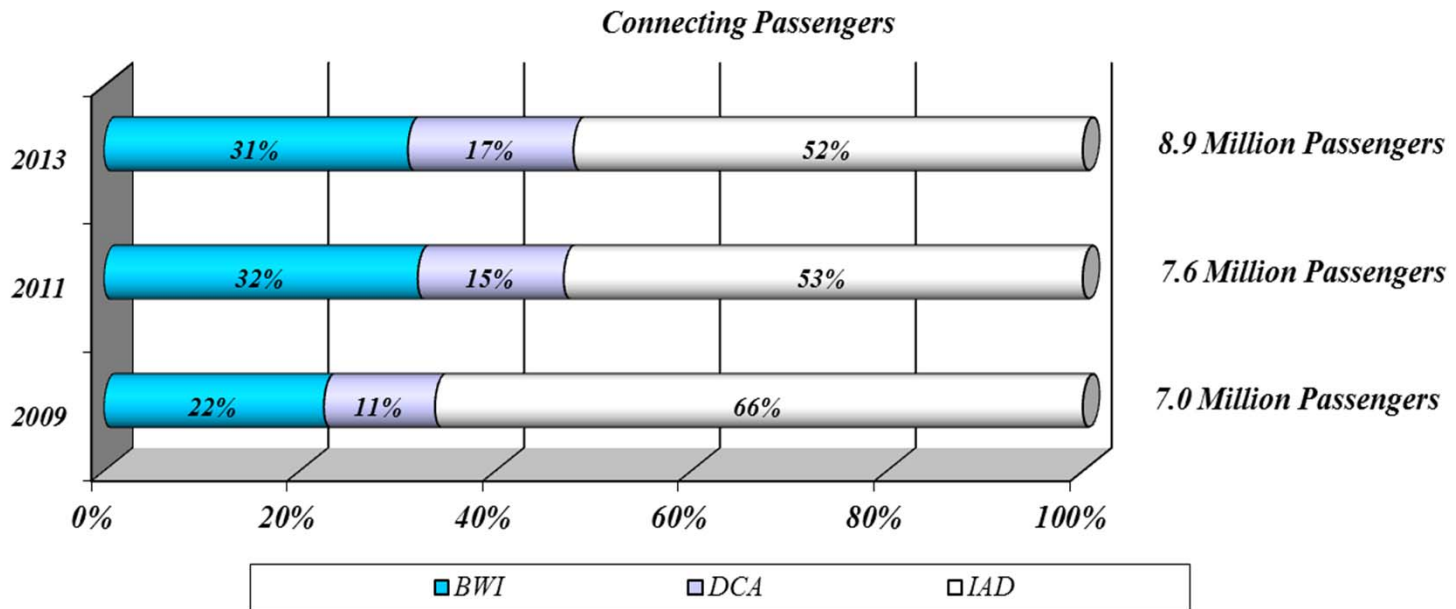


2013 Washington-Baltimore Regional Air Passenger Survey

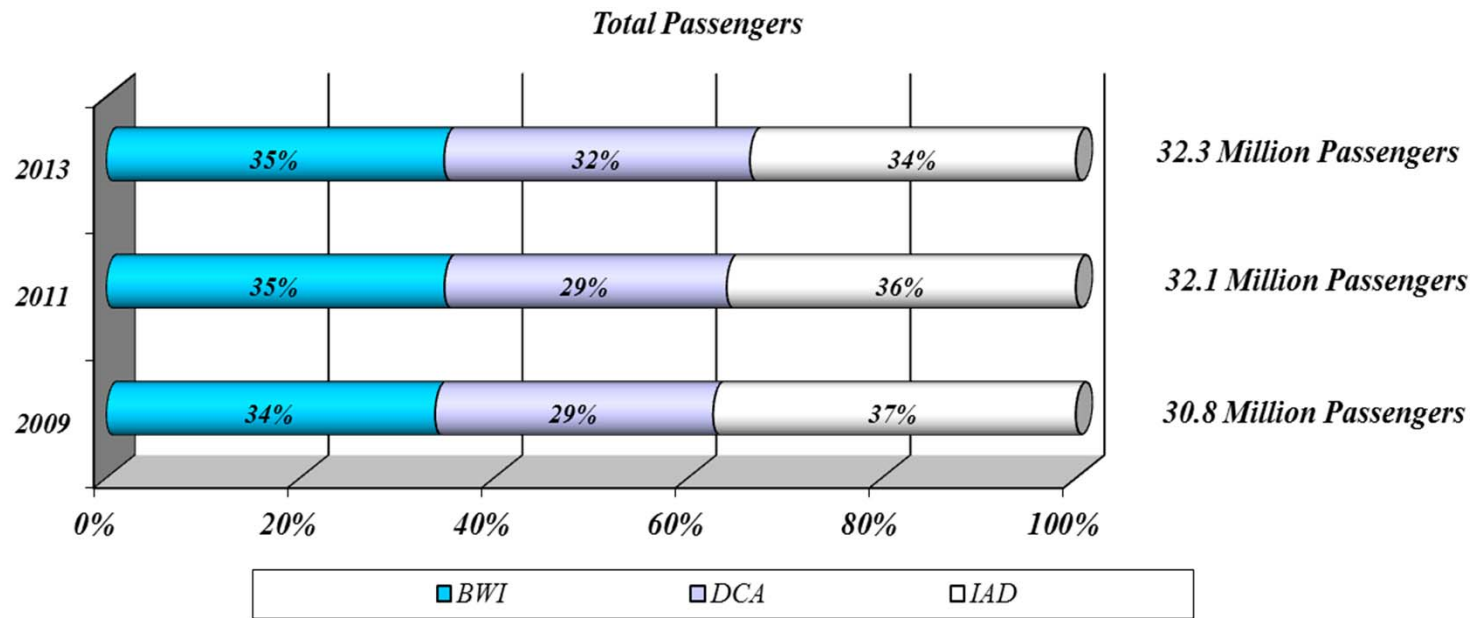
Local Originating Passengers



2013 Washington-Baltimore Regional Air Passenger Survey

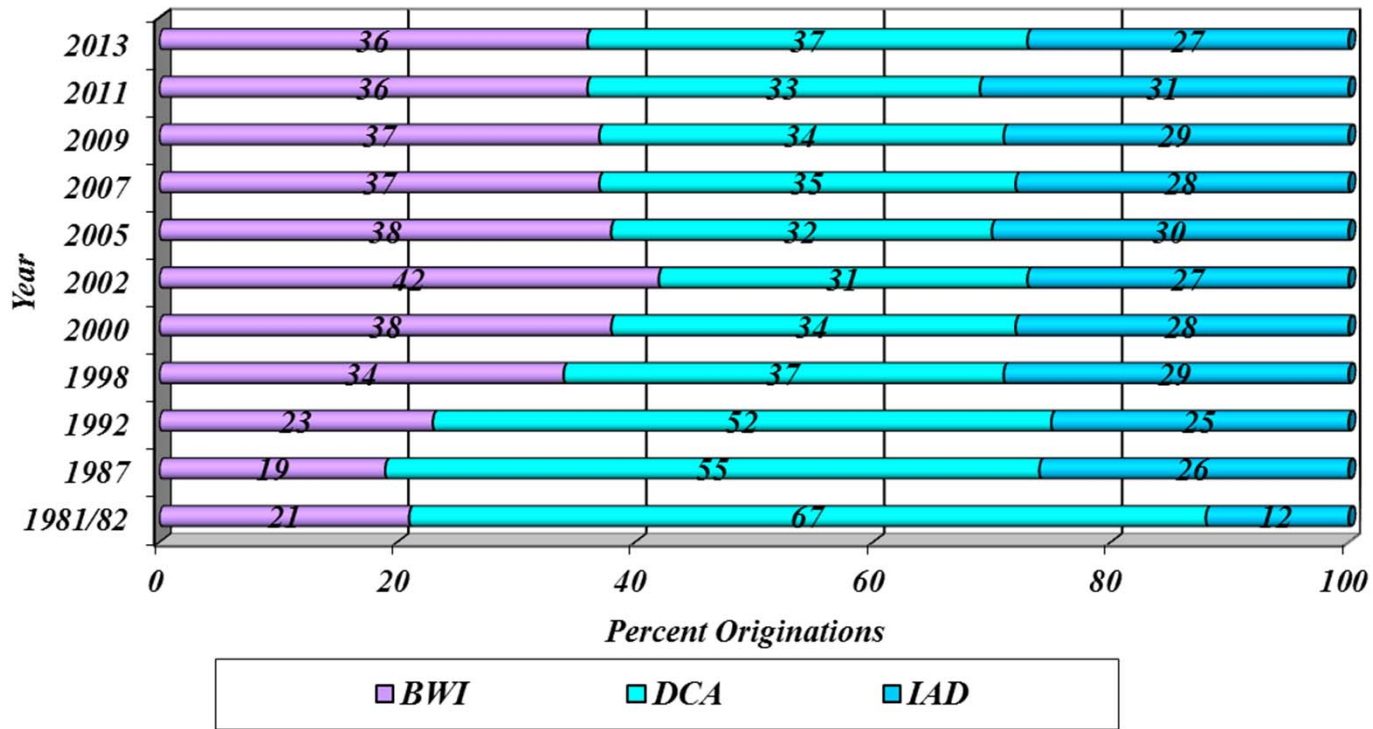


2013 Washington-Baltimore Regional Air Passenger Survey



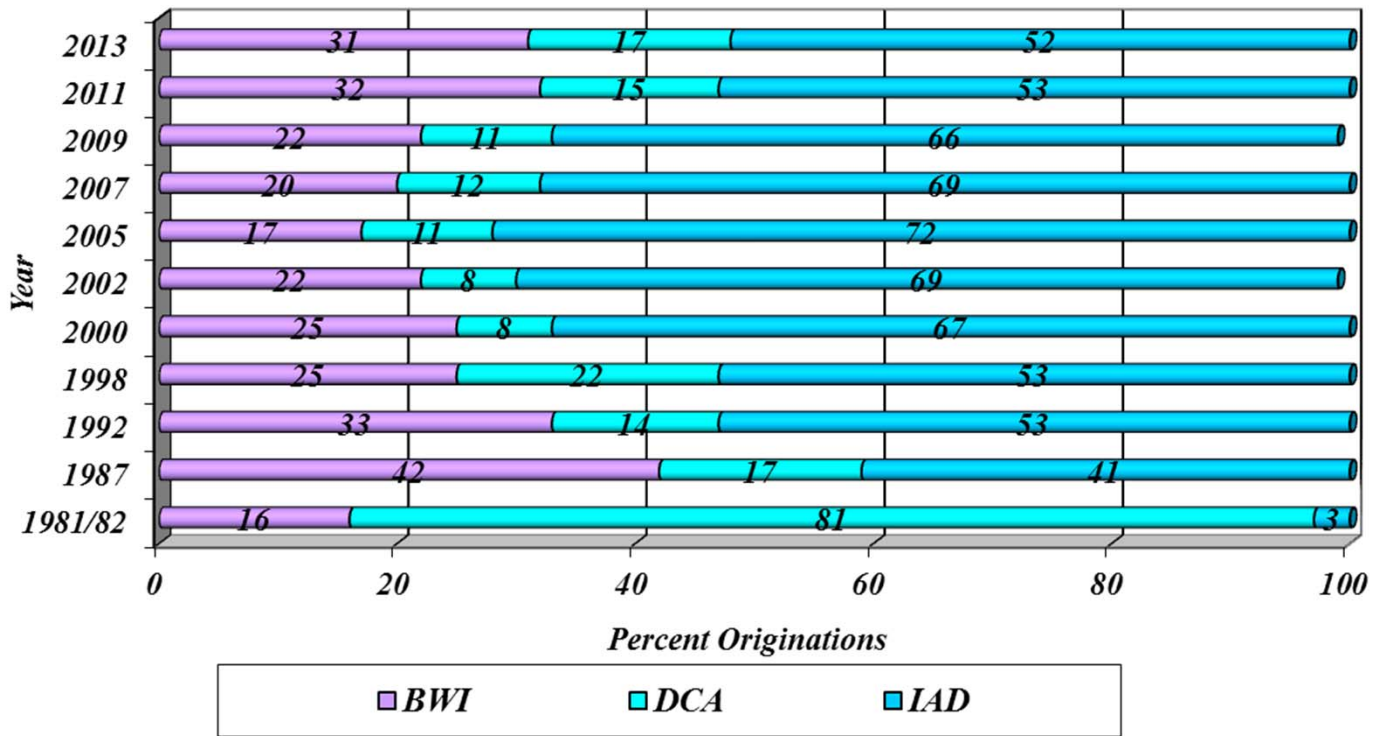
2013 Washington-Baltimore Regional Air Passenger Survey

Percent Local Originating Passengers



2013 Washington-Baltimore Regional Air Passenger Survey

Percent Connecting Passengers



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



2013 Washington-Baltimore Regional Air Passenger Survey

- Accessibility reasons for choosing an airport overall increased from 61% in 2011 to 63% in 2013 regionally.
- Closest Airport
 - 58% of BWI Marshall airport users – up from 56% in 2011
 - 65% of Reagan National airport users – down from 71% in 2011
 - 46% of Dulles airport users – up from 42% in 2011
- Lowest Airfare
 - 22% of BWI Marshall airport users – up from 18% in 2011
 - 11% of Reagan National airport users – up from 4% in 2011
 - 15% of Dulles airport users – up from 8% in 2011



2013 Washington-Baltimore Regional Air Passenger Survey

Table 6

<i>Primary Reason for Choosing Airport</i>	<i>BWI Marshall</i>	<i>Reagan National</i>	<i>Dulles</i>	<i>Region</i>
<i>Accessibility</i>	63%	72%	51%	63%
<i>Quality of Air Service</i>	14%	14%	32%	20%
<i>Cost of Service</i>	22%	11%	15%	15%
<i>Other</i>	2%	3%	2%	2%
<i>Total</i>	100%	100%	100%	100%



2013 Washington-Baltimore Regional Air Passenger Survey

Table 7
1st, 2nd and/or 3rd Choice

<i>Primary Reason for Choosing Airport</i>	<i>BWI Marshall</i>	<i>Reagan National</i>	<i>Dulles</i>	<i>Region</i>
<i>Accessibility</i>	49%	56%	44%	50%
<i>Quality of Air Service</i>	31%	31%	42%	34%
<i>Cost of Service</i>	18%	11%	13%	14%
<i>Other</i>	2%	2%	2%	2%
<i>Total</i>	100%	100%	100%	100%



Airport Preference

- Overall airport preference changed little between 2009 and 2011
 - BWI Marshall 29% - (up from 28% in 2011)
 - Reagan National 36% - (down from 38% in 2011)
 - Dulles 18% - (down from 20% in 2011)
 - No preference 17% - (up from 14% in 2011)
- Washington-Baltimore area residents expressed preference
 - 38% to Reagan National - 36% in 2011
 - 36% to BWI Marshall - 31% in 2011
 - 19% to Dulles - 23% in 2011
 - 7% no preference - 10% in 2011



2013 Washington-Baltimore Regional Air Passenger Survey

Table 8
Washington-Baltimore Regional Airports
Originating Passengers Preferred Airport by Resident Status
(Thousand of Originations)

Preferred Airport		Resident 2013	Non-Resident 2013	REGION 2013
B.W.I. MARSHALL	<i>Number</i>	2,959	3,176	6,135
	<i>Percent</i>	25%	36%	30%
DULLES	<i>Number</i>	1,859	1,645	3,504
	<i>Percent</i>	16%	19%	17%
REAGAN NATIONAL	<i>Number</i>	4,181	3,330	7,511
	<i>Percent</i>	35%	38%	37%
No Preference	<i>Number</i>	2,809	602	3,411
	<i>Percent</i>	24%	7%	17%
TOTAL	<i>Number</i>	11,808	8,753	20,561
	<i>Percent</i>	100%	100%	100%

Notes:

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



2013 Washington-Baltimore Regional Air Passenger Survey

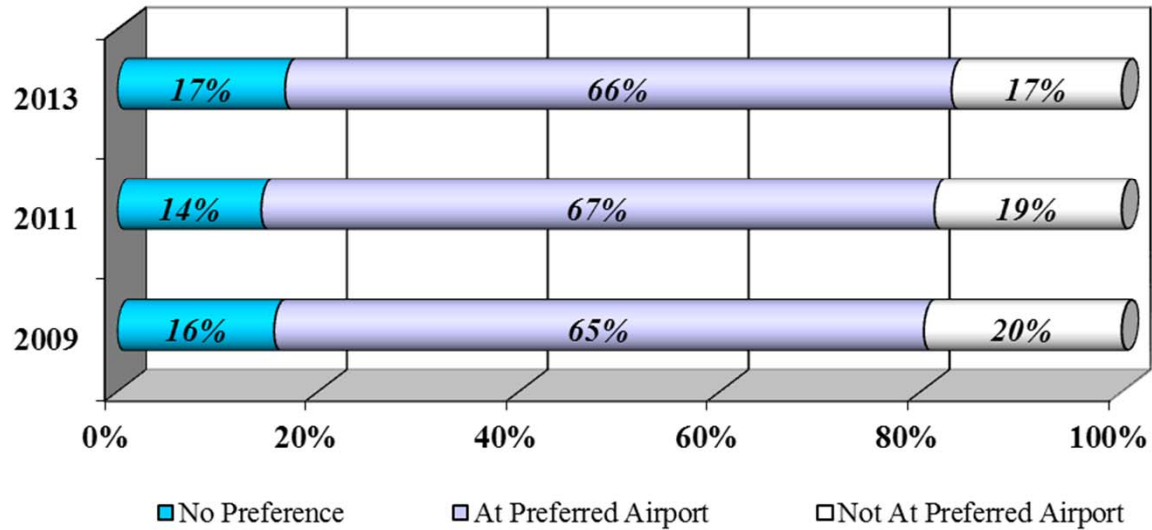
- Non-residents expressed preference
 - 35% to National – 39% in 2011
 - 25% to BWI Marshall – 27% in 2011
 - 16% to Dulles – 14% in 2011
 - 24% no preference – 20% in 2011

- Overall there was a slight increase in share of passengers flying out of their preferred airport, from 67% in 2011 to 66% in 2013



2013 Washington-Baltimore Regional Air Passenger Survey

*Satisfaction with Airport Used
(originating Passengers Only)*



Trip Purpose

Business

- Related to government
(includes Federal, State and local)
- Other non-government related

Non-Business

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



Table 9
Originating Passengers Trip Purpose

<i>Trip Purpose</i>	<i>2009</i>	<i>2011</i>	<i>2013</i>
<i>Business</i>	38%	44%	33%
<i>Non-Business</i>	62%	56%	67%
<i>Total</i>	100%	100%	100%



2013 Washington-Baltimore Regional Air Passenger Survey

- Business related trip purpose overall dropped by 30% while non-business related trips decreased by 6% between 2011 and 2013.

Business related trips

- BWI Marshall - declined by 26%
- Reagan National - declined by 27%
- Dulles - declined by 40%

Non-Business related trips

- BWI Marshall - increased by 8%
- Reagan National - increased by 36%
- Dulles - declined by 1%



Trip Origin

Home

- Private residence

Non-Home

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



2013 Washington-Baltimore Regional Air Passenger Survey

Table 10
Passengers Ground Trip Origin to Airport

<i>Trip Origin</i>	<i>2009</i>	<i>2011</i>	<i>2013</i>
<i>Private Residence</i>	56%	60%	60%
<i>Hotel / Motel</i>	29%	27%	30%
<i>Place of Employment</i>	10%	11%	9%
<i>Other</i>	4%	2%	2%
<i>Total</i>	100%	100%	100%

** 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 62% of total trips to all airports
- Metrorail usage to National remained almost unchanged at 15%
- Travel to BWI Marshall by private car mode share unchanged at 64% in 2013
- Travel to Dulles show a decline in private car mode share from 55% in 2011 to 50% in 2013



2013 Washington-Baltimore Regional Air Passenger Survey

Table 11
Passengers Ground Trip Mode to Airport
2013

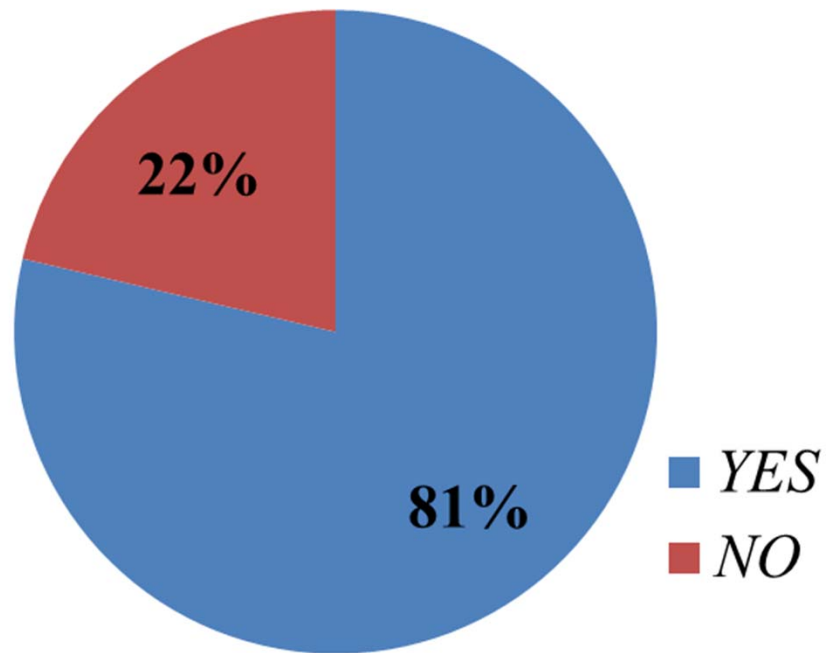
<i>Travel Mode</i>	<i>BWI</i>	<i>DCA</i>	<i>IAD</i>
<i>Private Car</i>	64%	53%	55%
<i>Rental Car</i>	14%	15%	13%
<i>Taxi</i>	5%	14%	17%
<i>Rail Transit</i>	3%	1%	0%
<i>Airport Bus / Limo</i>	8%	10%	9%
<i>Hotel/Motel Bus</i>	5%	3%	3%
<i>Metrobus/MTA Bus</i>	1%	0%	2%
<i>Other</i>	1%	3%	1%
Total	100%	100%	100%



2013 Washington-Baltimore Regional Air Passenger Survey

Survey question B-8

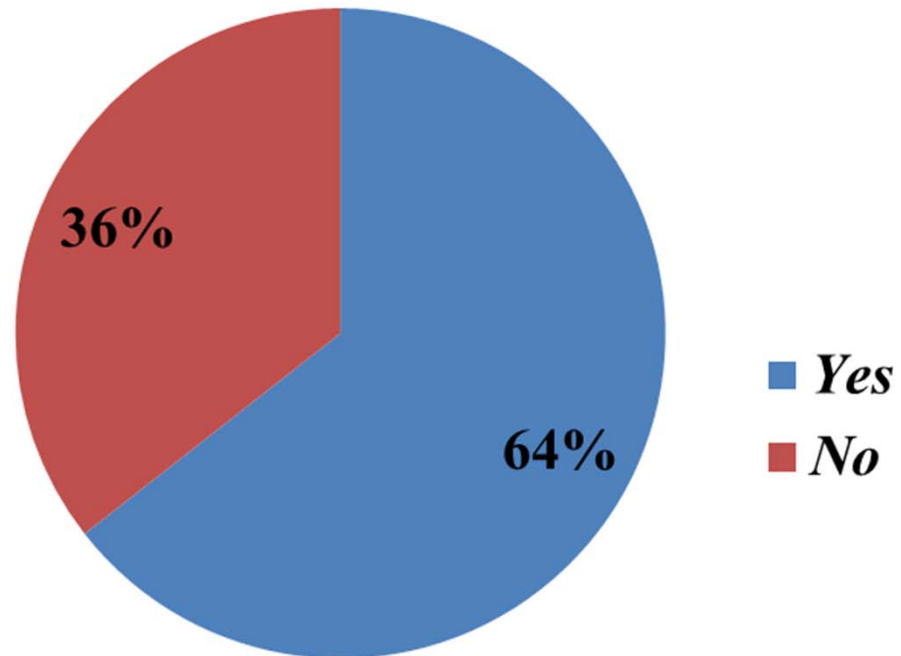
Is this how you usually get to this airport?



2013 Washington-Baltimore Regional Air Passenger Survey

Survey question B-9d

Is this where you usually park your vehicle at this airport?



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 58%, up from 53% in 2011
 - The share of Residents departing passengers dropped to 42% in 2013 from 47% in 2011
 - The share of departing passengers under the age of 25 years and over the age of 65 years uincreased slightly between 2011 to 2013, from 10% to 13%



*Table 12
Local Originating Passengers
Resident Status
2013*

<i>Resident Status</i>	<i>2009</i>	<i>2011</i>	<i>2013</i>
<i>Resident</i>	39%	47%	42%
<i>Non-Resident</i>	61%	53%	58%
<i>Total</i>	100%	100%	100%



2013 Washington-Baltimore Regional Air Passenger Survey

Table 13
Local Originating Passengers
Age Group
2013

Age Group	2009	2011	2013
18 or Younger	3%	1%	2%
19 to 24 Years	8%	6%	6%
25 to 34 Years	19%	21%	19%
35 to 49 Years	30%	31%	28%
50 to 64 Years	30%	31%	32%
65 or Older	10%	10%	13%
TOTAL	100%	100%	100%



2013 Washington-Baltimore Regional Air Passenger Survey

- In 2011, 51% of departing passengers' household income was less than \$120,000, an increase from 49% in 2010
- In 2011, over half of departing area residents, 58% 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.



2013 Washington-Baltimore Regional Air Passenger Survey

Table 14
Local Originating Passengers
Household Income
2013

<i>Household Income</i>	<i>2009</i>	<i>2011</i>	<i>2013</i>
<i>Less than \$15,000</i>	4%	3%	4%
<i>\$15,000 - \$24,999</i>	2%	2%	3%
<i>\$25,000 - \$44,999</i>	6%	6%	6%
<i>\$45,000 - \$79,000</i>	18%	17%	16%
<i>\$80,000 - \$119,000</i>	23%	22%	22%
<i>\$120,000 - \$159,000</i>	17%	17%	16%
<i>\$160,000 - \$199,999</i>	10%	11%	11%
<i>\$200,000 and Above</i>	20%	22%	23%
TOTAL	100%	100%	100%



2013 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



2013 Washington-Baltimore Regional Air Passenger Survey

- Overall 74% of departing passengers reported to have made a stop for boarding pass and/or bag check
 - 75% at BWI Marshall
 - 76% at Dulles
 - 72% 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
 - 213% at Dulles
 - 27% at Reagan National



2013 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
 - 74% at BWI Marshall
 - 72% at Dulles
 - 73% at Reagan National



2013 Washington-Baltimore Regional Air Passenger Survey

- Among international destined flight departing passengers, overall 83% stopped for boarding pass and/or bag check
 - 93% at BWI Marshall
 - 79% at Dulles
 - 82% at Reagan National



2013 Washington-Baltimore Regional Air Passenger Survey

<i>Passengers at Airport Boarding Pass and Bag Check</i>	<i>Percent Share</i>
Only stopped at curbside for boarding pass	2%
Only stopped at curbside for bag check	4%
Only stopped at E-ticket kiosk for boarding pass	15%
Only stopped at E-ticket kiosk for bag check	4%
Only stopped at ticket agent in terminal for boarding pass	7%
Only stopped at ticket agent in terminal for bag check	9%
Stopped at multiple place for boarding pass and bag check	30%
Did not stop for boarding pass or bag check	23%
None of the above	2%
Total	100%



Next Step

Geo-Coding 2013 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