



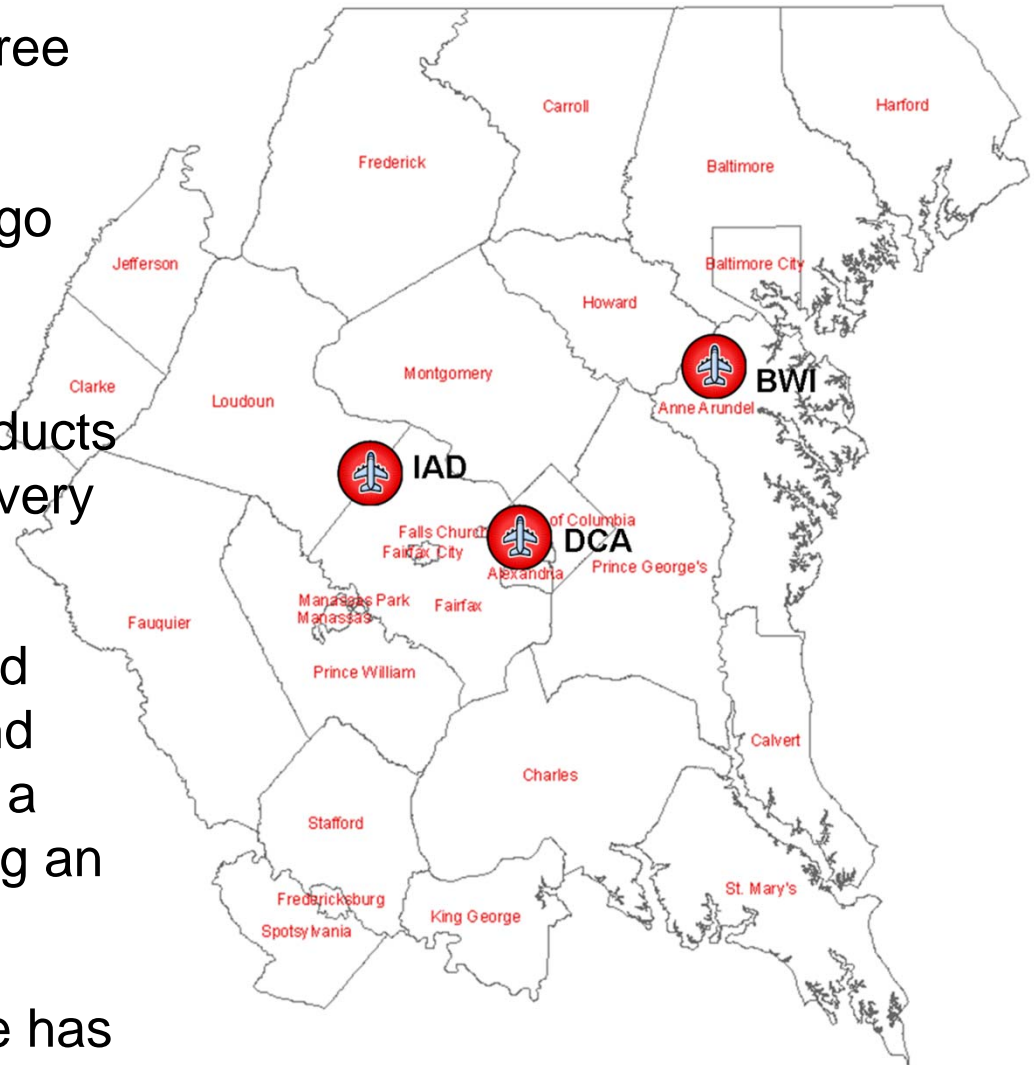
# Findings from the 2013 Regional Air Passenger Survey

TPB Travel Forecasting Subcommittee  
September 19, 2014

Richard I. Roisman, AICP  
Senior Transportation Planner  
Continuous Airport System Planning (CASP) Program Manager

# Having Three Commercial Airports is a Key Regional Asset

- ▶ Historically, three airports with three distinct markets
- ▶ Serve air passengers and air cargo
- ▶ Multimodal ground access
- ▶ COG (with MWAA and BWI) conducts regional air passenger surveys every two years
- ▶ COG also prepares airport ground access forecasts, monitors ground access travel time, and prepares a regional air system plan (including an air cargo element)
- ▶ Aviation Technical Subcommittee has oversight of the CASP Work Program

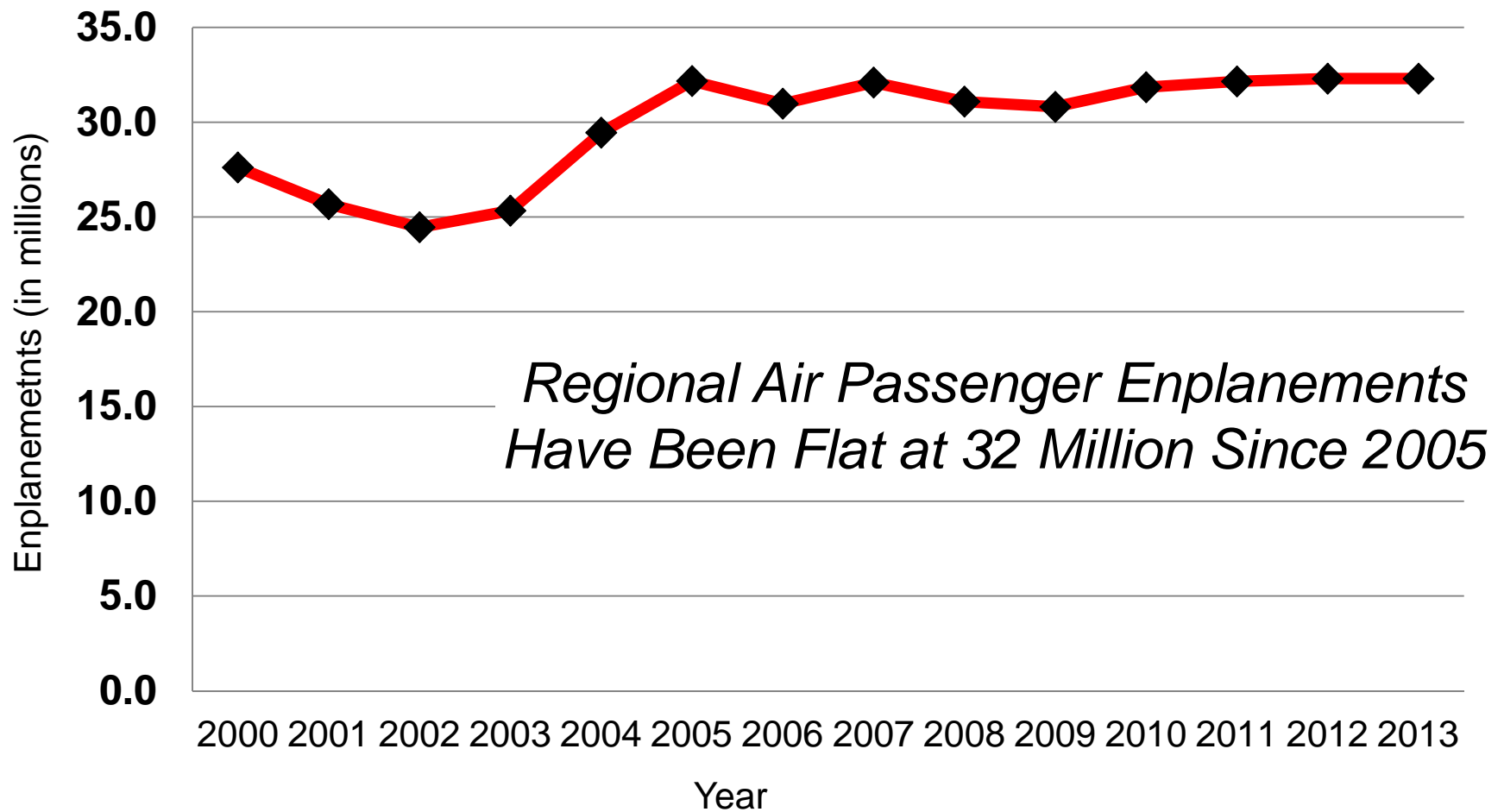


# Air Passenger Survey Background

- ▶ A random sample of approximately 673 flights (592 domestic and 81 international)
- ▶ Survey started on Wednesday, October 9<sup>th</sup>, and ended on Tuesday, October 22<sup>nd</sup> 2013

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%
<b>Total</b>	<b>673</b>	<b>69,060</b>	<b>24,742</b>	<b>36%</b>

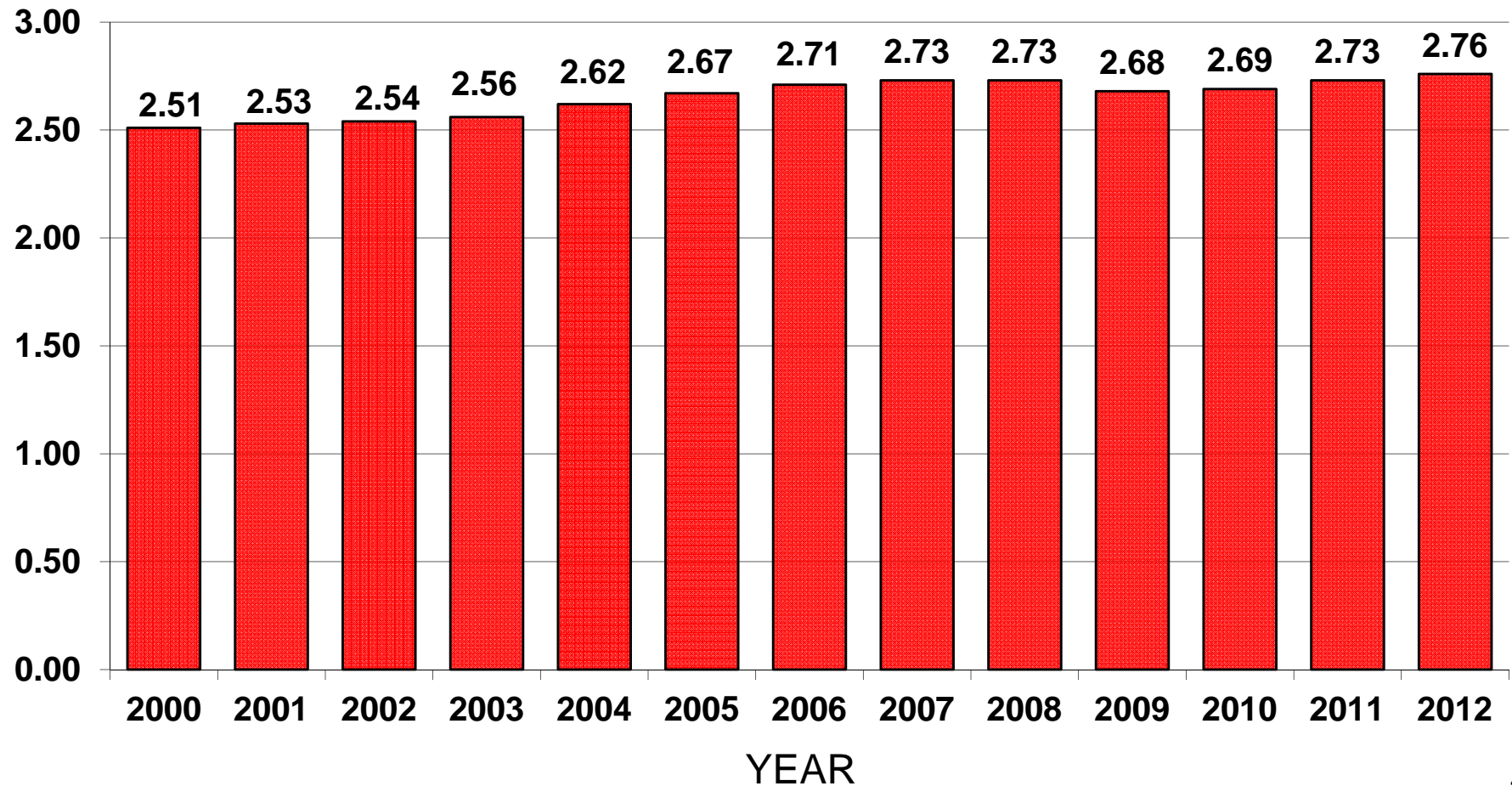
# Regional Air Passenger Enplanements Trend (2000 – 2013)



# Regional Employment 2000-2012

(Wage & Salary Employment in Millions)

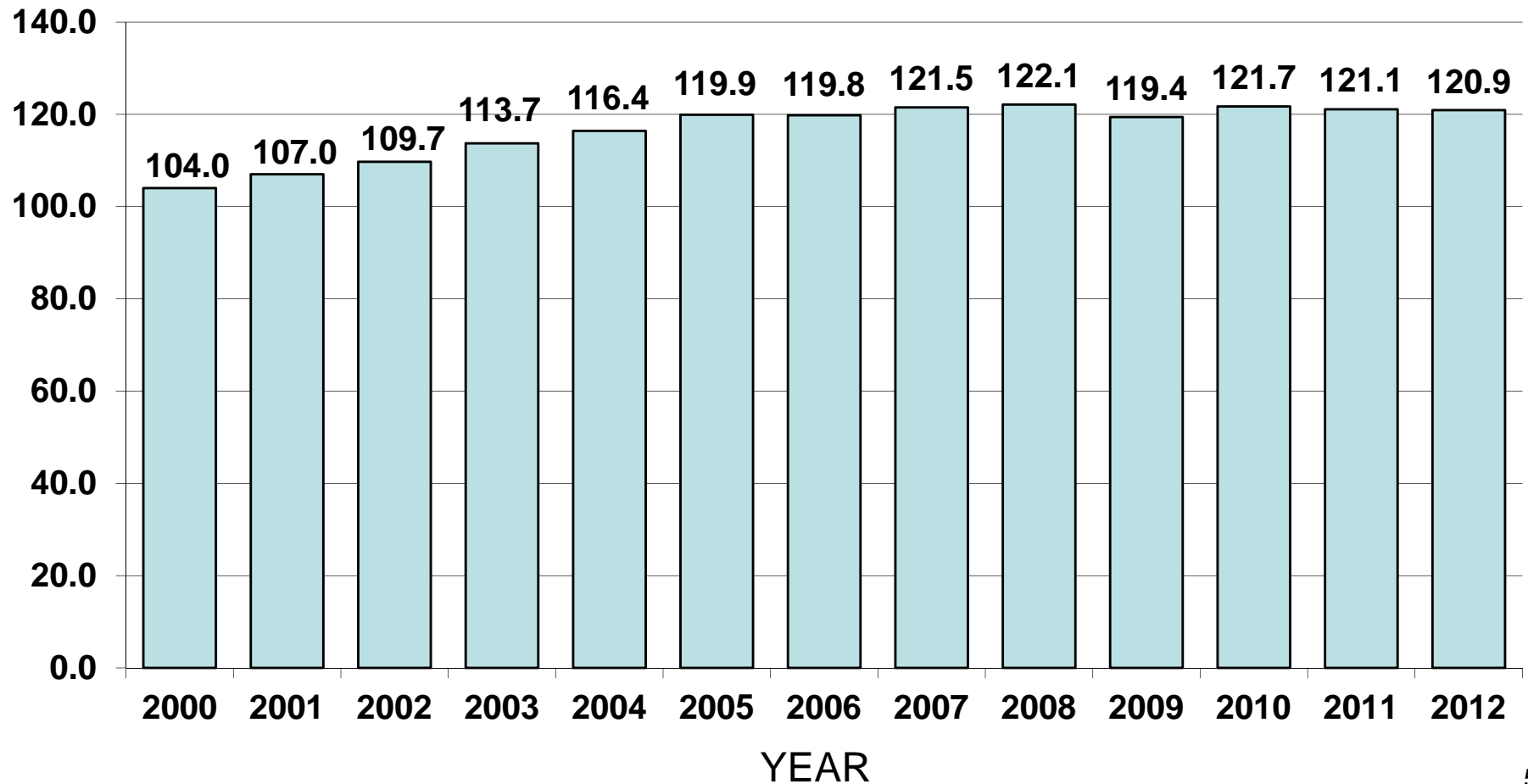
Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages



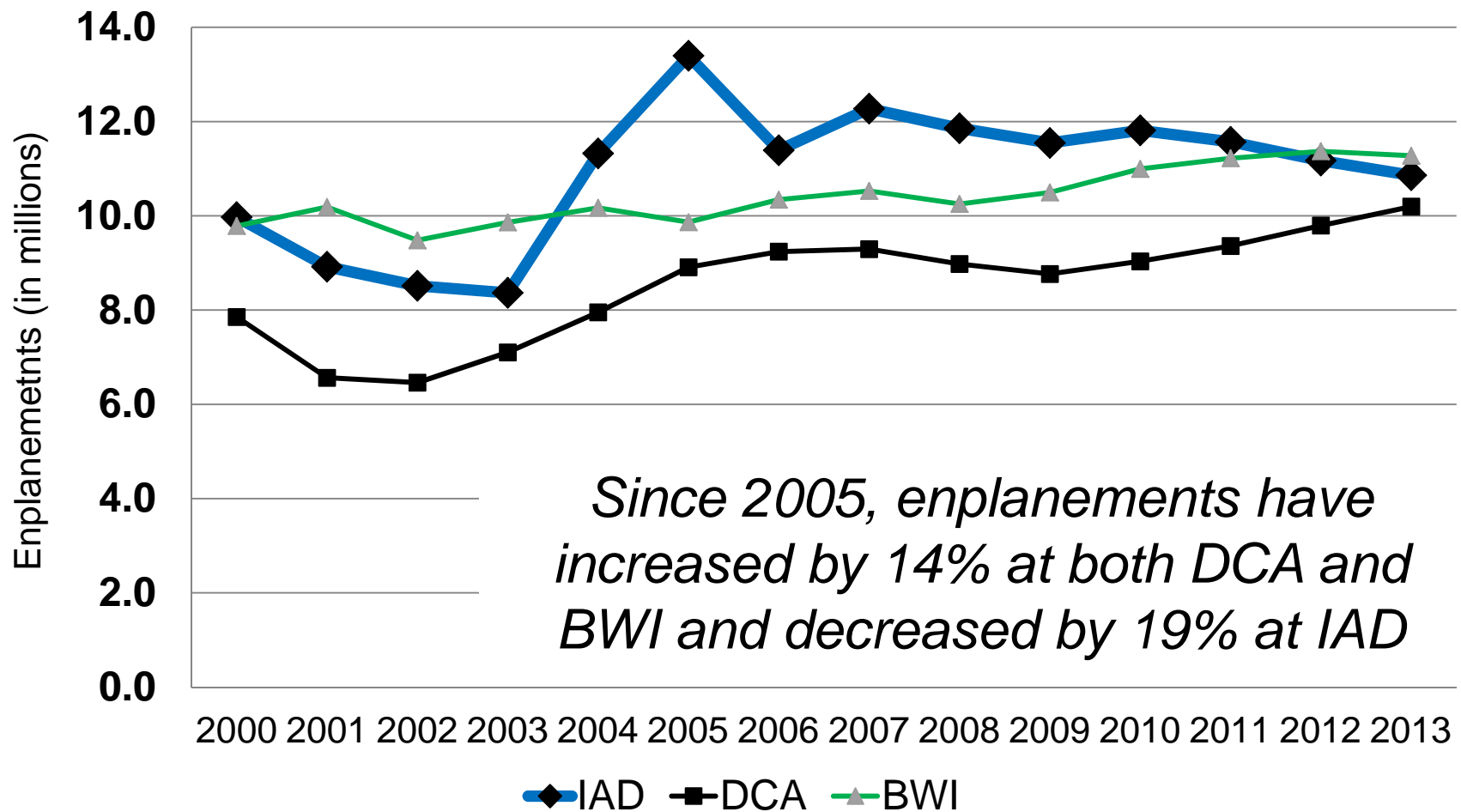
# Regional Trend 2000-2012

## Daily Vehicle-Miles of Travel

(VMT in Millions)

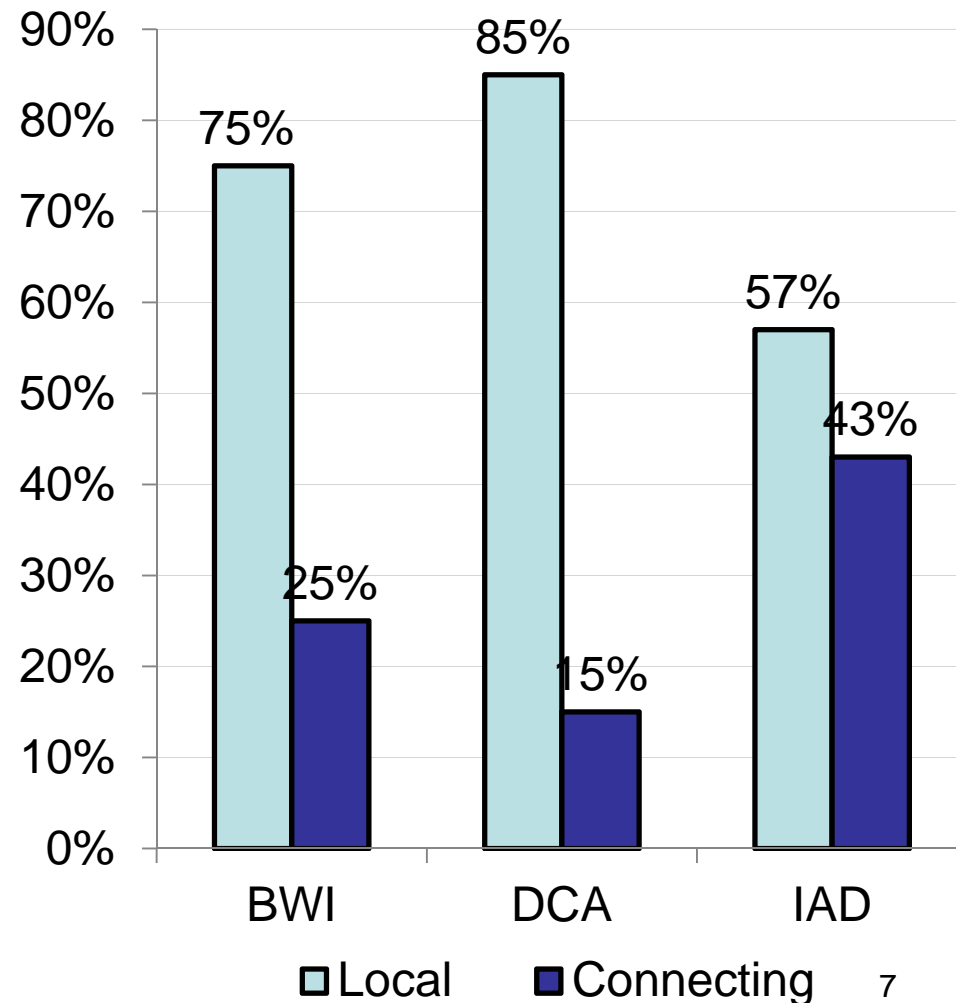


# Regional Air Passenger Enplanements Trend (2000 – 2013) by Airport



# Locally Originating vs. Connecting Passengers (2013)

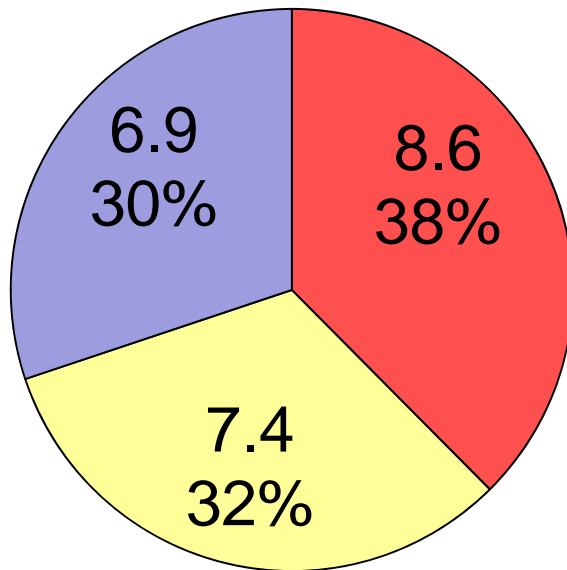
- ▶ Locally originating passengers use the regional surface transportation network to access the airport
- ▶ Connecting passengers are often flying an airline for which the airport is a hub or focus city





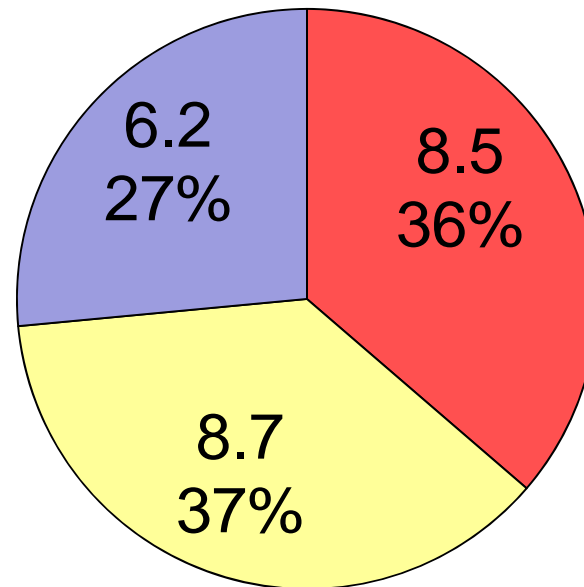
# Change in Locally Originating Passengers by Airport

2005

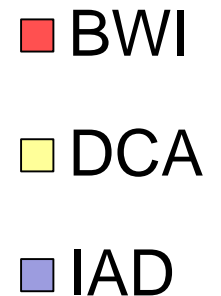


22.9 Million

2013

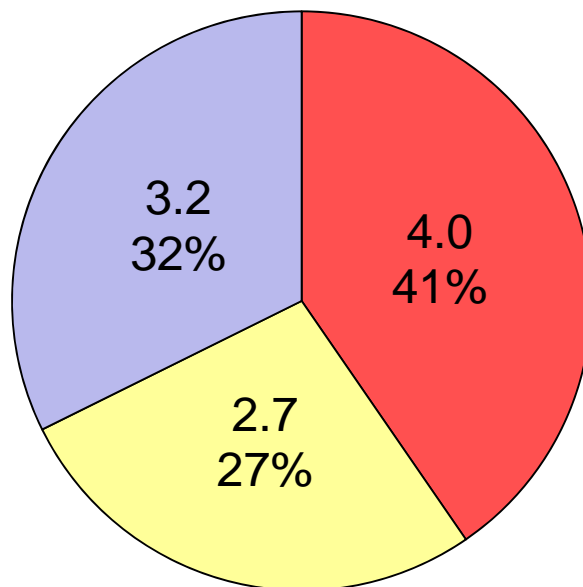


23.4 Million



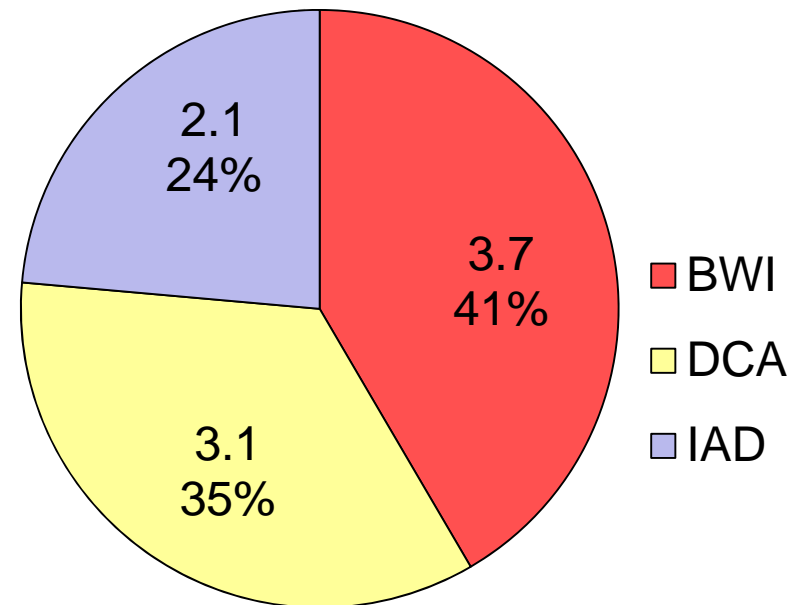
# Locally Originating Air Passengers Who Reside in the Washington- Baltimore Region, by Airport

2005



9.9 Million  
Enplanements  
(50% of total)

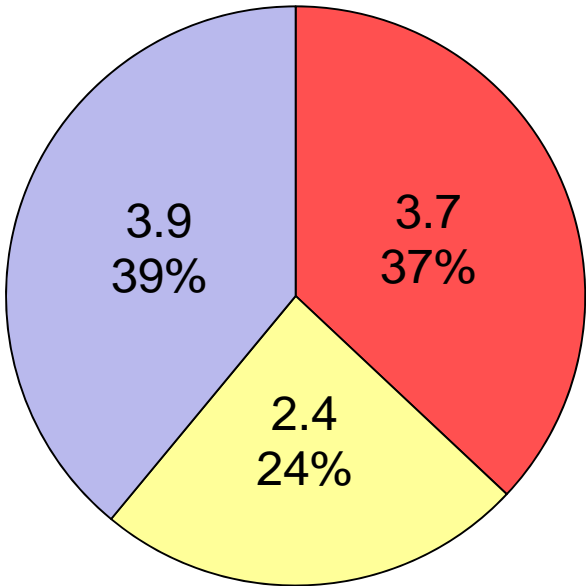
2013



8.9 Million  
Enplanements  
(42% of total)

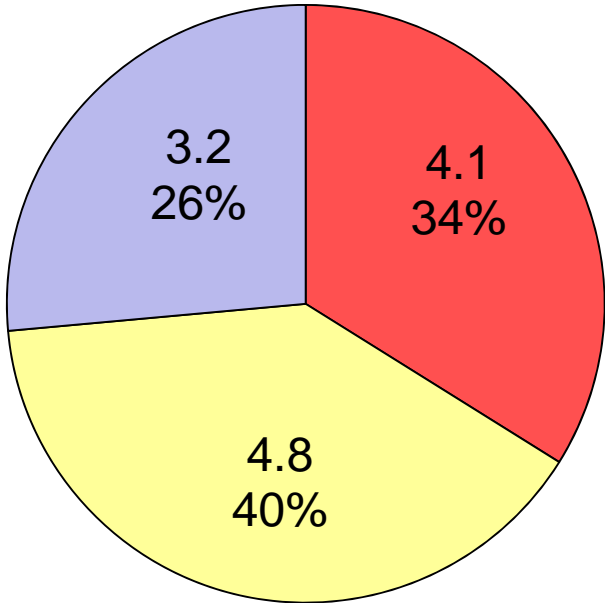
# Locally Originating Air Passengers Who Do Not Reside in the Washington-Baltimore Region, by Airport

**2005**



10.0 Million  
Enplanements  
(50% of total)

**2013**

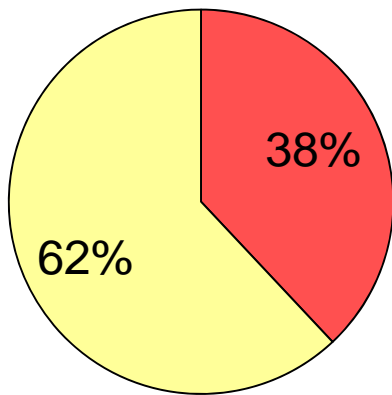


12.1 Million  
Enplanements  
(58% of total)

- BWI
- DCA
- IAD

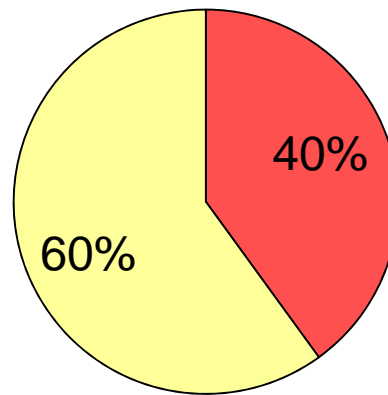
# Trip Purpose for Air Passengers Who Reside in the Washington- Baltimore Region

2005



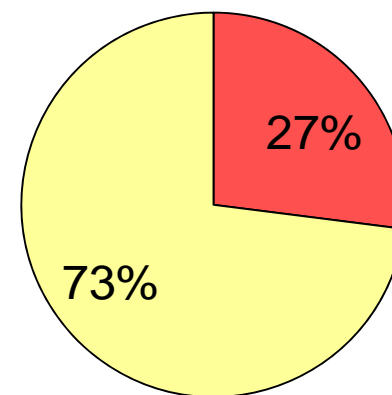
8.2 Million  
Passengers

2011



10.1 Million  
Passengers

2013



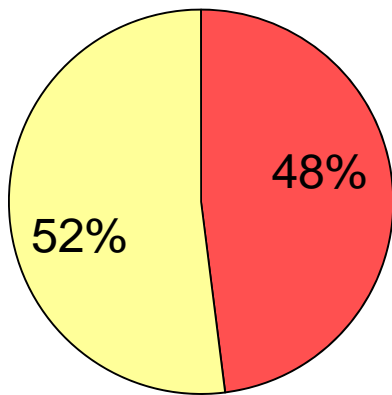
8.6 Million  
Passengers

*Federal Sequester  
Federal Shutdown*

■ Business  
■ Non-Business

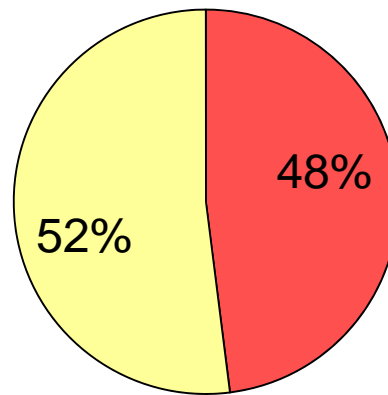
# Trip Purpose for Air Passengers Who Do Not Reside in the Washington-Baltimore Region

2005



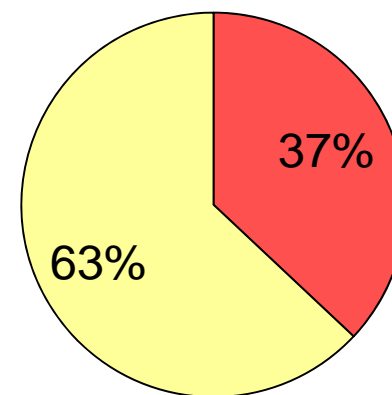
11.1 Million  
Passengers

2011



11.5 Million  
Passengers

2013



12.0 Million  
Passengers

■ Business  
■ Non-Business

# Factors Influencing Airport Choice by Trip Purpose (2013)

	<b>Business</b>	<b>Non-Business</b>	<b>All</b>
<b>Closest airport</b>	<b>59%</b>	<b>53%</b>	<b>55%</b>
Better public ground transportation	2%	3%	3%
Better access roads and parking	3%	3%	3%
More convenient flight times	9%	8%	8%
Only airport with direct flight	7%	6%	6%
<b>Less expensive airfare</b>	<b>10%</b>	<b>19%</b>	<b>16%</b>
Frequent flyer with specific airline	4%	3%	3%
Only airport serving market	3%	2%	2%
Other	3%	3%	3%

# Factors Influencing Airport Choice for Business Travelers – by Airport (2013)

	BWI	DCA	IAD	All
Closest airport	58%	70%	45%	59%
Better public ground transportation	1%	4%	1%	2%
Better access roads and parking	4%	2%	5%	3%
More convenient flight times	8%	8%	13%	9%
Only airport with direct flight	5%	4%	14%	7%
Less expensive airfare	15%	5%	10%	10%
Frequent flyer with specific airline	4%	3%	5%	4%
Only airport serving market	2%	2%	5%	3%
Other	4%	4%	3%	3%

# Factors Influencing Airport Choice for Non-Business Travelers – by Airport (2013)

	<b>BWI</b>	<b>DCA</b>	<b>IAD</b>	<b>All</b>
Closest airport	<b>55%</b>	<b>58%</b>	<b>42%</b>	53%
Better public ground transportation	1%	<b>6%</b>	1%	3%
Better access roads and parking	3%	2%	5%	3%
More convenient flight times	<b>6%</b>	<b>8%</b>	<b>12%</b>	8%
Only airport with direct flight	4%	4%	<b>12%</b>	6%
Less expensive airfare	<b>24%</b>	<b>15%</b>	<b>18%</b>	16%
Frequent flyer with specific airline	3%	2%	4%	3%
Only airport serving market	2%	1%	5%	2%
Other	2%	4%	3%	3%



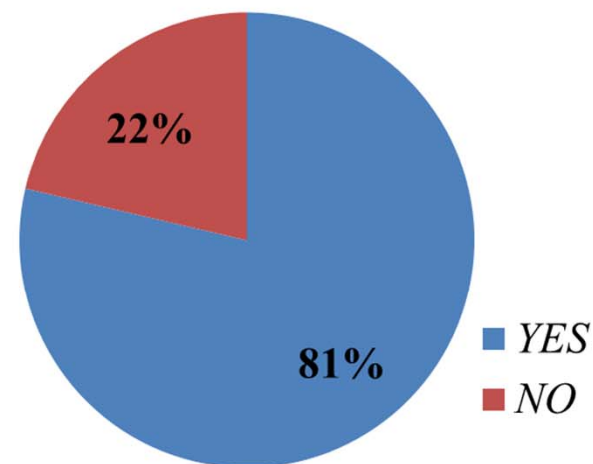
# Airport Ground Access Trip Origin (All Airports)

<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>	<b>100%</b>	<b>100%</b>	<b>100%</b>

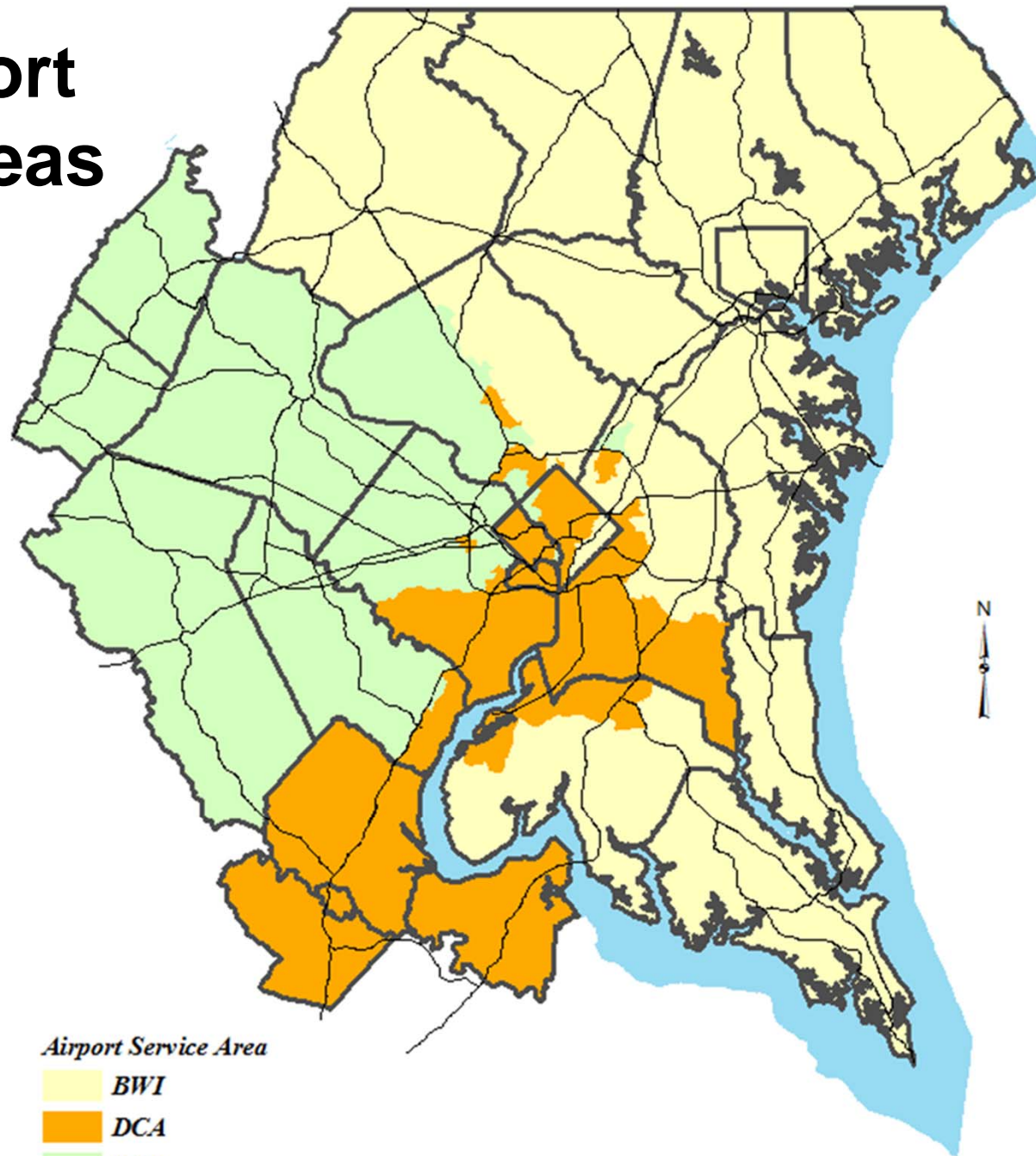
# Airport Ground Access Trip Mode of Access (2013)

<i>Travel Mode</i>	<i>BWI</i>	<i>DCA</i>	<i>IAD</i>
<i>Private Car</i>	64%	34%	50%
<i>Rental Car</i>	14%	9%	17%
<i>Taxi</i>	5%	31%	16%
<i>Rail Transit</i>	3%	15%	0%
<i>Airport Bus / Limo</i>	8%	6%	9%
<i>Hotel/Motel Bus</i>	5%	4%	4%
<i>Metrobus/MTA Bus</i>	1%	1%	2%
<i>Other</i>	1%	1%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>


*Is this how you usually  
get to this airport?*



# 2011 Airport Service Areas by AAZ




*Airport Service Area*

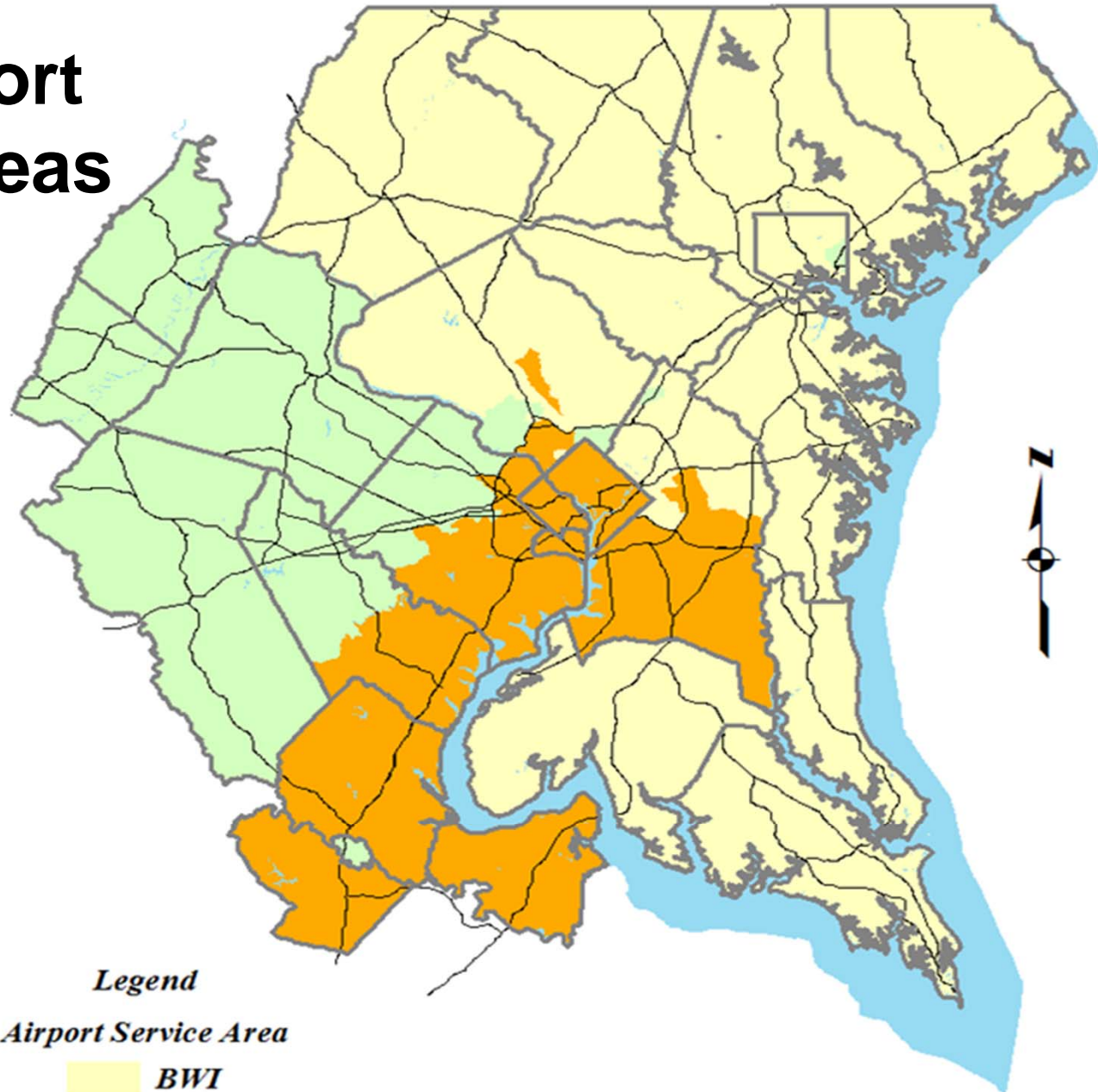
 *BWI*

 *DCA*

 *LAD*

 *Jurisdiction*

# 2013 Airport Service Areas by AAZ



## *Legend*

### *Airport Service Area*

- BWI*
- DCA*
- IAD*

*AAZ = Aviation Analysis Zone*

# Change in Originating Air Passengers by Jurisdiction 2011-2013

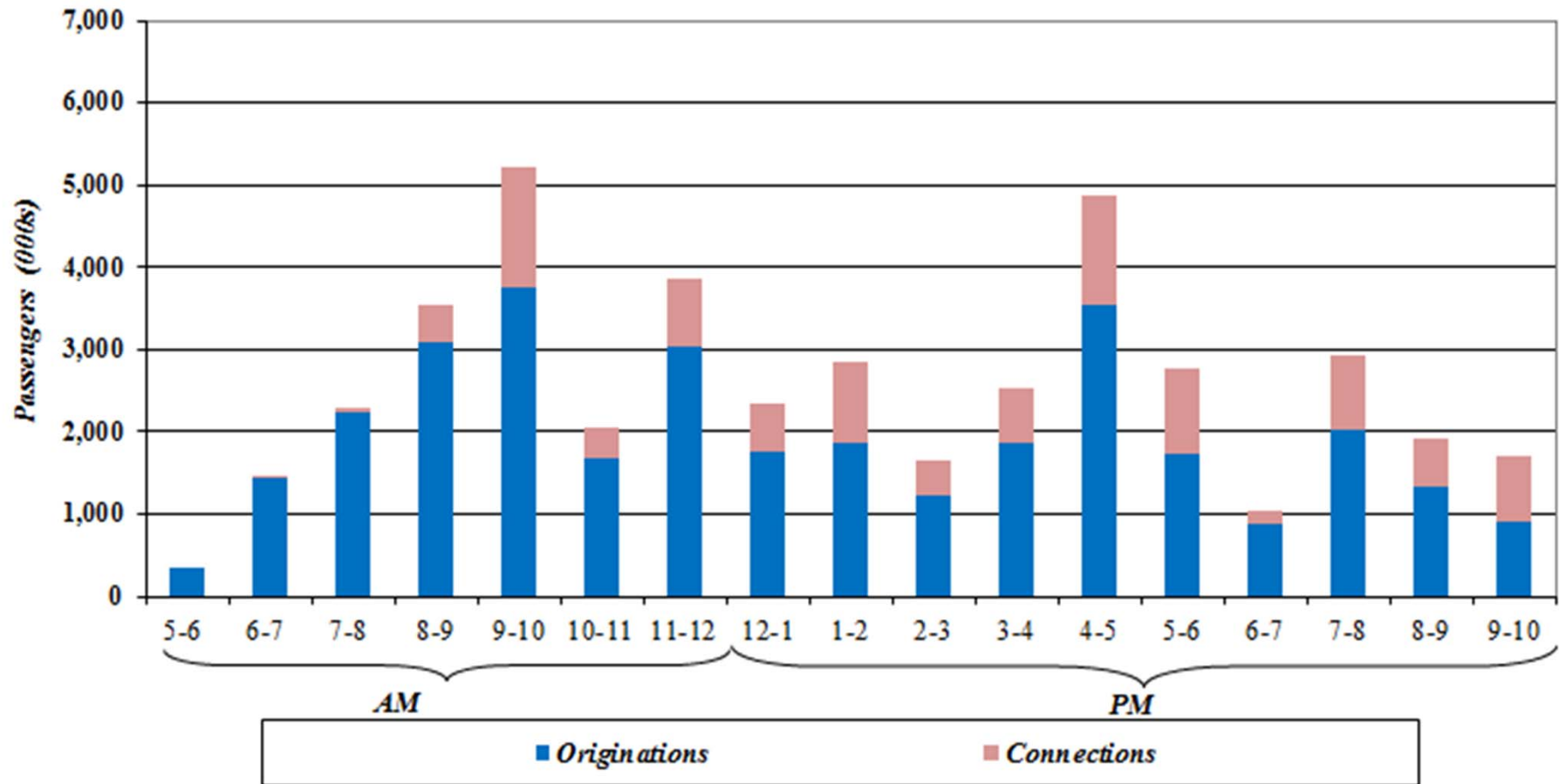
ORIGIN COUNTY	BWI AIRPORT				NATIONAL AIRPORT				DULLES AIRPORT				REGION			
	2011	2013	11-13	% Change	2011	2013	11-13	% Change	2011	2013	11-13	% Change	2011	2013	11-13	% Change
<i>Anne Arundel County</i>	1,394	1,310	-84	-6%	42	36	-6	-15%	97	58	-39	-41%	1,533	1,404	-129	-8%
<i>Baltimore City</i>	1,234	1,230	-4	0%	21	56	35	166%	48	49	1	2%	1,303	1,335	32	2%
<i>Baltimore County</i>	878	863	-15	-2%	27	4	-23	-84%	49	58	9	18%	954	925	-29	-3%
<i>Carroll County</i>	135	165	30	22%	3	11	8	261%	22	19	-3	-13%	160	195	35	22%
<i>Harford County</i>	266	179	-87	-33%	2	4	2	89%	5	20	15	294%	273	203	-70	-26%
<i>Howard County</i>	591	525	-66	-11%	15	24	9	58%	55	59	4	7%	661	608	-53	-8%
<b>SUBTOTAL BALTIMORE METRO AREA</b>	<b>4,498</b>	<b>4,273</b>	<b>-225</b>	<b>-5%</b>	<b>110</b>	<b>134</b>	<b>24</b>	<b>22%</b>	<b>276</b>	<b>262</b>	<b>-14</b>	<b>-5%</b>	<b>4,884</b>	<b>4,670</b>	<b>-214</b>	<b>-4%</b>
<i>Calvert County</i>	54	48	-6	-11%	4	37	33	823%	15	1	-14	-94%	73	86	13	18%
<i>Charles County</i>	77	75	-2	-3%	58	63	5	9%	17	20	3	15%	152	157	5	4%
<i>Frederick County</i>	230	229	-1	0%	36	33	-3	-8%	66	59	-7	-11%	332	321	-11	-3%
<i>Montgomery County</i>	892	837	-55	-6%	876	833	-43	-5%	749	670	-79	-11%	2,517	2,341	-176	-7%
<i>Prince Georges County</i>	519	537	18	3%	402	451	49	12%	174	134	-40	-23%	1,095	1,122	27	2%
<b>SUBTOTAL MARYLAND SUBURBS OF DC</b>	<b>1,772</b>	<b>1,726</b>	<b>-46</b>	<b>-3%</b>	<b>1,376</b>	<b>1,418</b>	<b>42</b>	<b>3%</b>	<b>1,021</b>	<b>883</b>	<b>-138</b>	<b>-13%</b>	<b>4,169</b>	<b>4,027</b>	<b>-142</b>	<b>-3%</b>
<i>City of Alexandria</i>	81	69	-12	-14%	539	529	-10	-2%	170	180	10	6%	790	778	-12	-2%
<i>Arlington County</i>	153	87	-66	-43%	1,468	1,317	-151	-10%	499	320	-179	-36%	2,120	1,724	-396	-19%
<i>Fairfax County</i>	287	171	-116	-41%	1,219	1,188	-31	-3%	2,252	1,624	-628	-28%	3,758	2,983	-775	-21%
<i>Loudoun County</i>	54	46	-8	-15%	75	123	48	65%	913	822	-91	-10%	1,042	991	-51	-5%
<i>Prince William County</i>	42	58	16	38%	204	238	34	16%	445	268	-177	-40%	691	563	-128	-18%
<i>Stafford County</i>	6	10	4	60%	65	60	-5	-8%	64	35	-29	-46%	135	104	-31	-23%
<b>SUBTOTAL VIRGINIA SUBURBS OF DC</b>	<b>623</b>	<b>440</b>	<b>-183</b>	<b>-29%</b>	<b>3,570</b>	<b>3,454</b>	<b>-116</b>	<b>-3%</b>	<b>4,343</b>	<b>3,249</b>	<b>-1,094</b>	<b>-25%</b>	<b>8,536</b>	<b>7,144</b>	<b>-1,392</b>	<b>-16%</b>
<i>District of Columbia</i>	<b>676</b>	<b>569</b>	<b>-107</b>	<b>-16%</b>	<b>2,900</b>	<b>3,261</b>	<b>361</b>	<b>12%</b>	<b>1,280</b>	<b>1,038</b>	<b>-242</b>	<b>-19%</b>	<b>4,856</b>	<b>4,867</b>	<b>11</b>	<b>0%</b>
<i>Outlying Areas</i>	133	148	15	11%	138	149	11	8%	187	149	-38	-20%	458	446	-12	-3%
<i>Externals</i>	1,054	1,344	290	27%	121	270	149	123%	383	633	250	65%	1,558	2,246	688	44%
<b>Total</b>	<b>8,756</b>	<b>8,500</b>	<b>-256</b>	<b>-3%</b>	<b>8,215</b>	<b>8,686</b>	<b>471</b>	<b>6%</b>	<b>7,490</b>	<b>6,214</b>	<b>-1,276</b>	<b>-17%</b>	<b>24,461</b>	<b>23,400</b>	<b>-1,061</b>	<b>-4%</b>

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: 2011 and 2013 Washington-Baltimore Regional Air Passenger Surveys

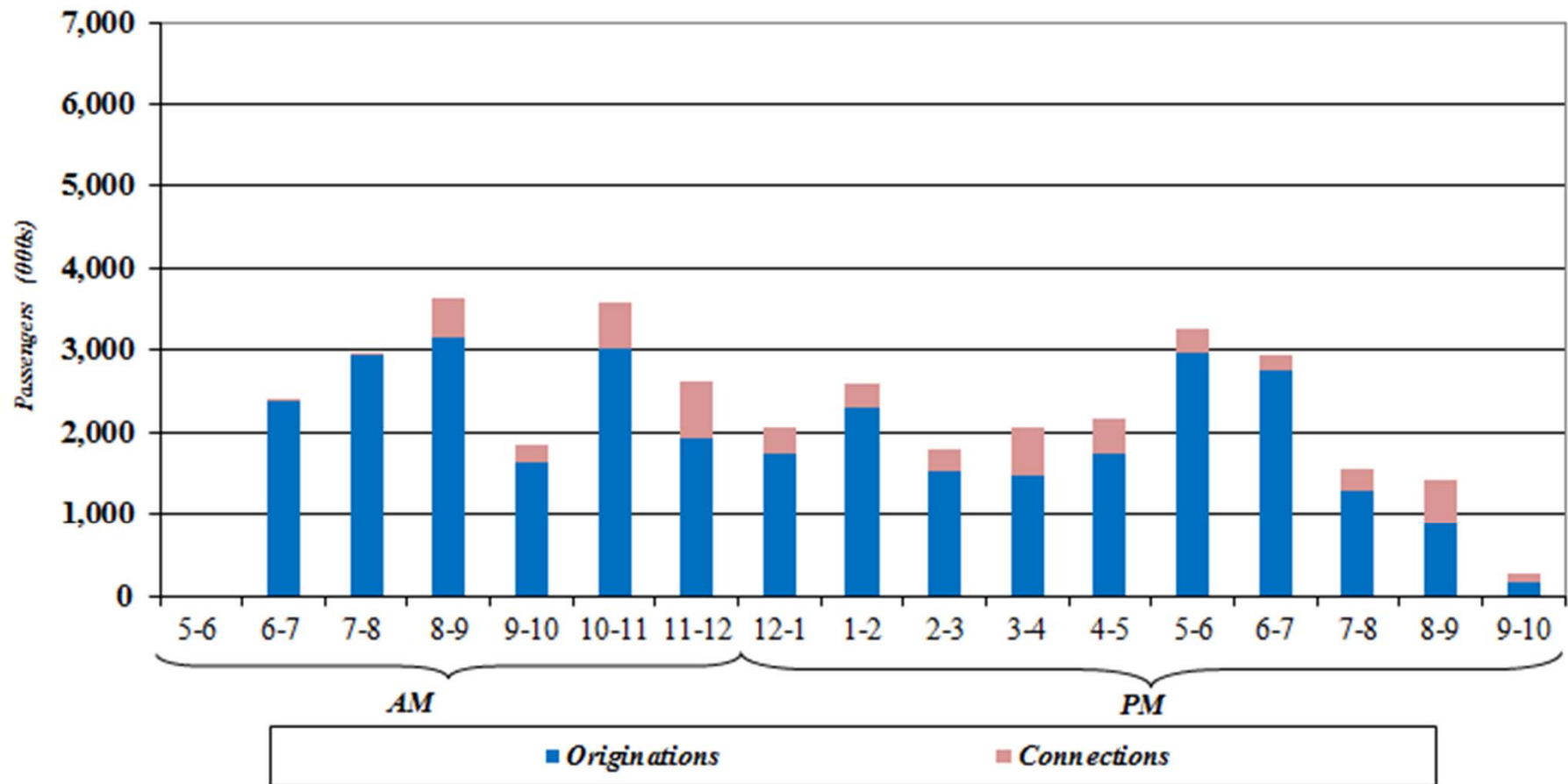
# **Diurnal Distributions of Air Passenger Activity by Airport**

# Passenger Activity at BWI is High Through Most of the Day



Source: 2013 Washington-Baltimore Regional Air Passenger Survey

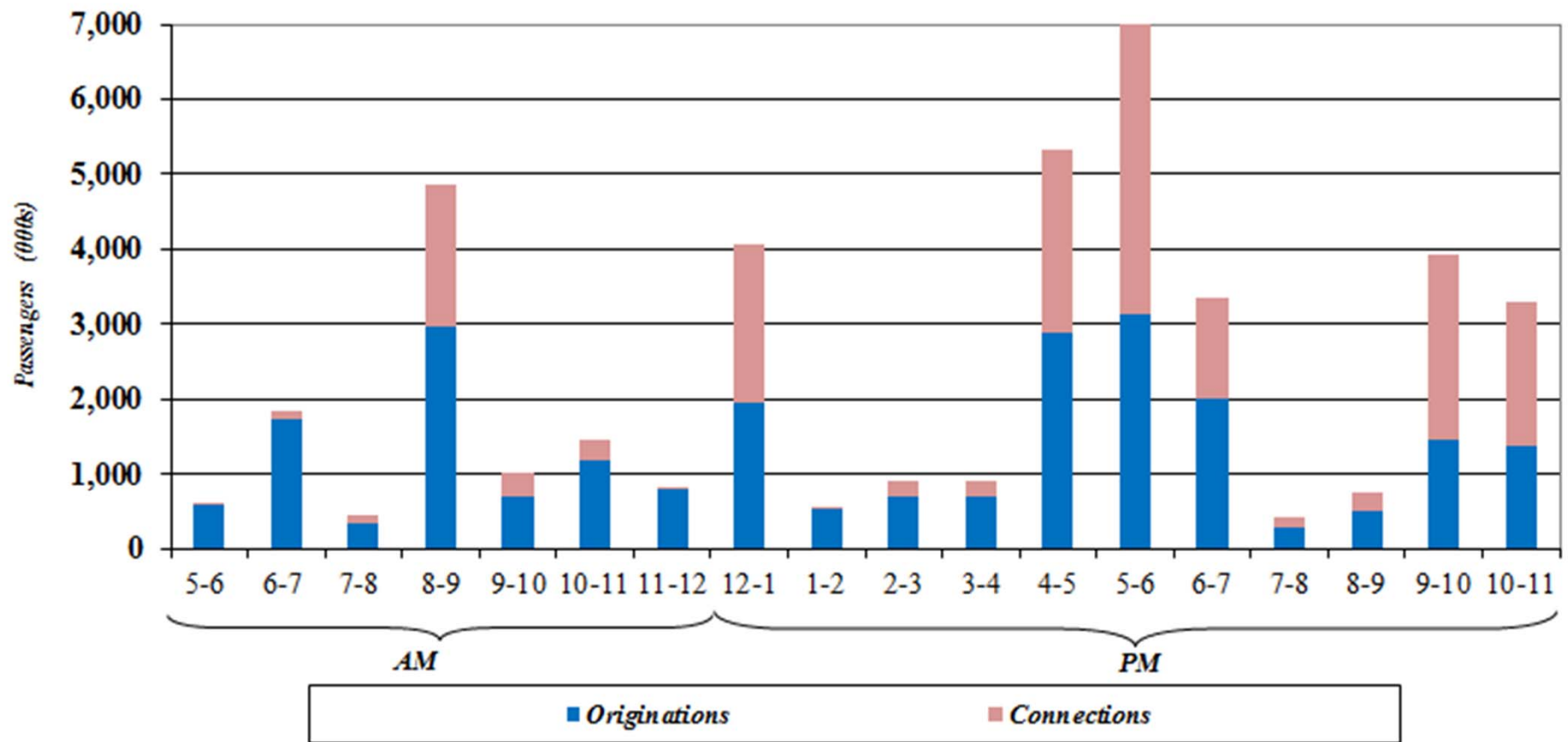
# Passenger Activity at DCA is Less Peaked Than BWI and IAD



Source: 2013 Washington-Baltimore Regional Air Passenger Survey

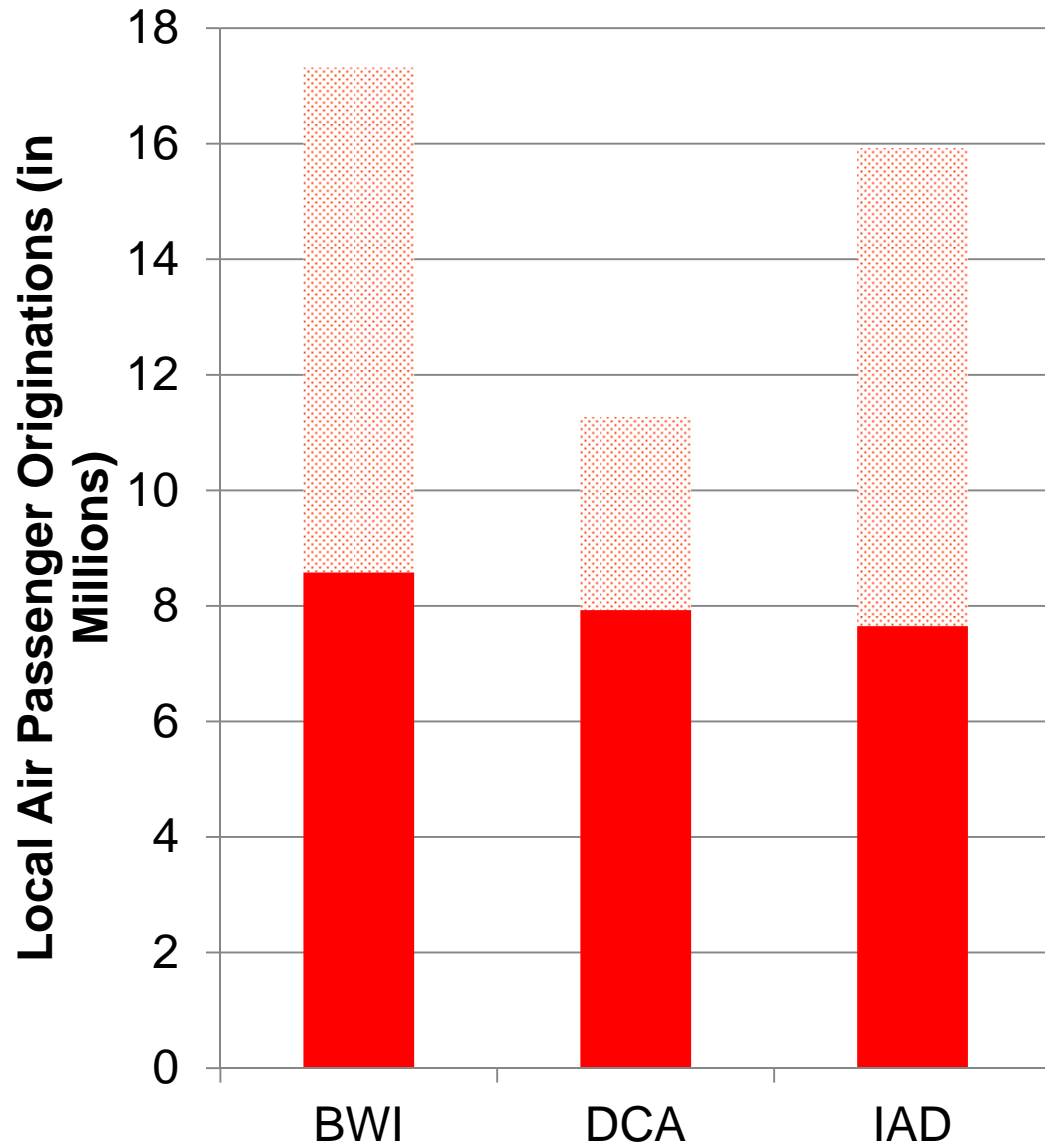


# Passenger Activity at IAD is Representative of a Long-Haul Airport



Source: 2013 Washington-Baltimore Regional Air Passenger Survey

# Historic and Forecast Growth in Local Air Passenger Originations\*



Percent Change

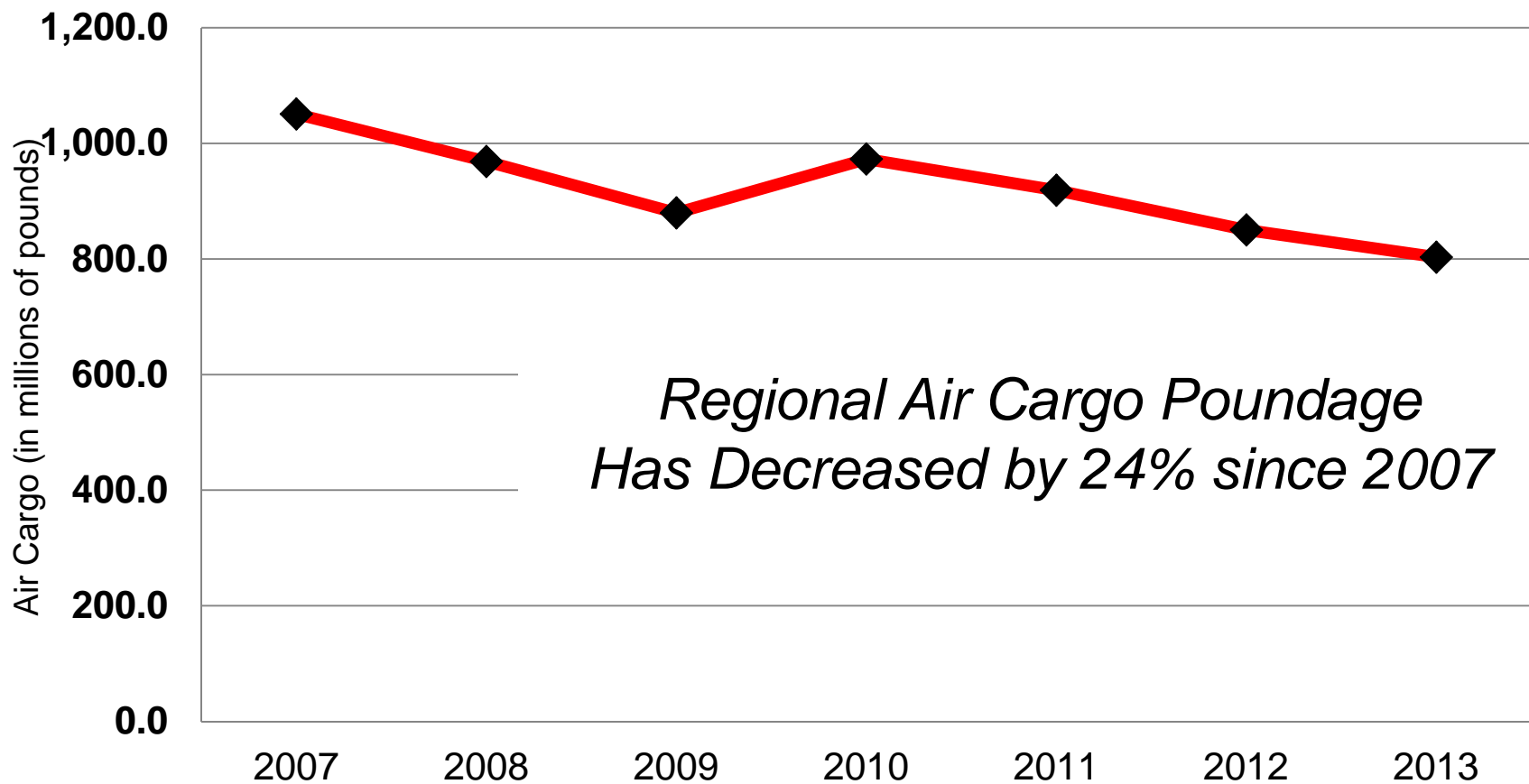
Airport	1980-2010	2010-2040
BWI	399%	102%
DCA	26%	42%
IAD	507%	108%

■ FAA Forecast Growth  
2010-2040  
■ 2010

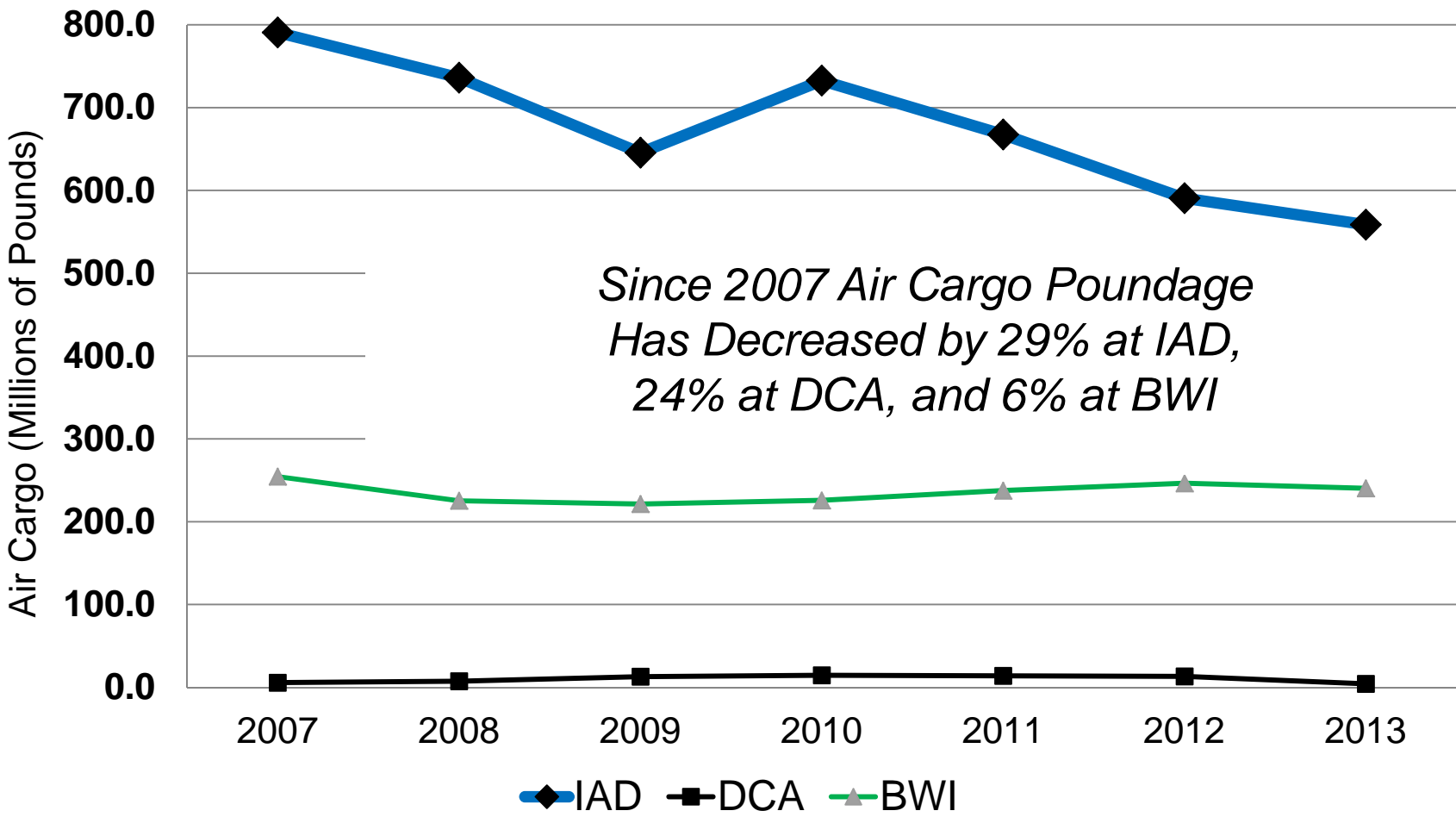
\*Excludes connecting passengers and ground access trips originating outside the air systems region

Source: FAA TAF (2013)  
COG/TPB Ground Access  
Forecast Update

# Regional Air Cargo Trends (2007 – 2013)



# Regional Air Cargo Trends (2007 – 2013) by Airport



# Air Cargo Forecasts

- ▶ Industry forecasts show between 2% and 8% annual growth in air cargo for the next two decades
  - ▶ Asian markets forecast for most growth
- ▶ Currently, growth in air cargo is slow, and load factors are below 50%
- ▶ Update of the Air Cargo Element of the Regional Airport System Plan (just begun) will examine the forecasts in greater detail

# Our Region's Airports: Challenges and Opportunities

1. Impact of Federal government reductions
2. Capacity limits at DCA
3. New service from Low Cost Carriers into DCA and IAD
4. Air cargo growth initiatives at IAD
5. ICC (MD 200) improves access for BWI
6. Weekend MARC service improves access for BWI
7. Silver Line improves access for IAD
8. IAD Western Access

# Our Airports' Importance to Our Region's Economy

## Economic Impact of BWI

- ▶ \$5.6B in business revenue
- ▶ \$3.6B in personal income
- ▶ \$2.0B in local purchases
- ▶ \$721M in state/local/aviation taxes
- ▶ 93,791 jobs

## Economic Impact of DCA+IAD

- ▶ \$19.8B in business revenue
- ▶ \$14.6B labor income
- ▶ \$3.1B in state/local/aviation taxes
- ▶ 371,000 total jobs

*Sources: The Regional and Local Economic Impacts of the Baltimore/Washington Thurgood Marshall Airport, July 2011; MWAA 2012 Economic Impact Study, May 2014*

# Summary

- ▶ Regional air passenger enplanements have been flat since 2005, but traffic has been shifting between BWI, DCA, and IAD
- ▶ Regional air cargo volumes have been decreasing since 2007
- ▶ Forecasts indicate future regional growth in both air passengers and air cargo
- ▶ Maintaining and improving our airports and ground access connections to our airports is crucial to the region's future economic growth and prosperity
- ▶ The impact of future reductions in the Federal workforce is the biggest challenge to air passenger growth



# Next Steps

- ▶ Publish final survey report and survey data files next week
- ▶ Preparation of Ground Access Forecasts based on 2013 survey data and FAA horizon year data
- ▶ Transmit forecasts to Models Development Team for preparation of airport trip tables model input
- ▶ Update of Air Cargo Element
- ▶ Regional Airports Forum September 26<sup>th</sup> at noon in Board Room
- ▶ Presentation of survey findings to Technical Committee and TPB on October 3<sup>rd</sup> and October 15<sup>th</sup>
- ▶ Presentation on regional airports infrastructure to COG Board on October 8<sup>th</sup>

**Thank you for your interest  
and time**

