FAA Regional Air Service Demand Study

Task C — Forecast of Origin and Destination
May 2007

Port Authority of New York & New Jersey

JFK –
John F. Kennedy
International Airport

LGA –
LaGuardia Airport

EWR –
Newark Liberty
International Airport

New York State Department of Transportation

SWF –
Stewart International
Airport

HPN –
Westchester County
Airport

ISP –
Long Island
MacArthur Airport

Delaware Valley Regional Planning Commission

ABE –
Lehigh Valley
International Airport

ACY –
Atlantic City
International Airport

TTN –
Trenton Mercer
Airport

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FAA Regional Air Service Demand Study

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TABLE OF CONTENTS

APPENDIX D:
Forecast Enplanements by Airport

APPENDIX E:
Airport Service Measures Used for Level 5 Tests

EXHIBITS

LIST OF TABLES

INTRODUCTION/
EXECUTIVE SUMMARY

ANALYSIS GOALS

The goal of Task C is to provide an understanding of how the region's commercial airports will be used by its passengers in the future. The principal product of this task is a forecast of regional passenger originations for all nine airports, by county of origin of departing passengers, covering a 20-year planning study horizon consisting of 10 years on an annual basis, plus the years 2015, 2020, and 2025. The work in this task builds on the results of products developed in Tasks A and B of this study, including the Woods and Poole regional demographic projections.

The objective of this task is to project usage of the region's airports as the distribution of population, employment, per capita income and other demographic factors change in the future. Past trends of unequal growth throughout the region, as well as changes in the nature of economic activity are expected to continue, and the forecasts of aviation activity at the region's airports need to reflect these changes.

In addition, this task included the development, and demonstrates the utility of a model that in future study phases can be refined and used to test changes to airport capacity, usage policy, or market incentives.

ANALYSIS OF EXISTING AIR PASSENGER DEMAND

Task C is essentially a cross-sectional air passenger demand analysis that takes advantage of the richness of the air passenger and trip data from the 2005 air passenger survey (Task A), and the socio-economic data developed in Task B.

Based on the survey data collected in Task A and the socioeconomic data collected in Task B, an analysis of air passenger characteristics and their correlation with socioeconomic and demographic (SED) variables was made to estimate the regional geographic distribution of domestic and international O&D passengers. Based on the Woods and Poole forecasts of these SED data, forecasts of future air passenger origins were made.

Important market segments for analysis of ground access air passenger demand were formulated and applied in this analysis based on *residency, trip purpose,* and *type of place at the origin* of the trip to the area airport.

Four principal *dimensions* of the air passenger demand comprise the structure of the analysis and the forecasts of the trip originations:

1.   Residency
     - Resident of 54 county region or
     - Non-Resident of region
2.   Trip Purpose
     - Business, or
     - Other: Non-Business
3.   Type of Place at Origin
4.   Domestic and International

***Air Passenger Market Types*:** The first two of these *dimensions* -- residency and trip purpose – were combined to create four basic *Market Types* that are used in this analysis:

- Resident/Business
- Resident/Other
- Non-Resident/Business
- Non-Resident/Other

Trip Origins – Type of Place: The type of place at origin is also seen to be a critical dimension in terms of defining the trip; Table A summarizes 2005 Average Daily Trips by Market Type and by Type of Place at Origin which, in effect, defines the base analysis year for Task C.

Table A
AIR PASSENGER TRIPS by MARKET TYPE by TYPE OF PLACE at ORIGIN (2005 Avg Daily)

	Market Type				
Type of Place at Orgin	**1 Resident-Business**	**2 Resident-Other**	**3 Non Resident-Business**	**4 Non Resident-Other**	**Total**
1 Home	14,169	39,101	1,242	3,187	57,699
2 Business/Company/Work	2,811	2,828	5,098	425	11,162
3 Other Private Res.	287	1,852	2,798	18,176	23,113
4 Hotel/Motel	142	268	10,494	17,067	27,971
5 School/Military Base	76	258	231	638	1,203
6 Other	97	438	525	1,722	2,782
All Trips	**17,582**	**44,745**	**20,388**	**41,215**	**123,930**

Analysis Segments: The Market Types and Type of Place at Origin have a straight-forward relationship to population, employment data and hotel data, as defined in the 10 Analysis Segments indicated in Table B.

Table B
ANALYSIS SEGMENTS 1 thru 10: MARKET TYPE by TYPE OF PLACE at ORIGIN and SOCIOECOMIC BASE

Type of Place at Orgin	Socioeconomic/ Demographic Rate Base	Market Type			
		1 Resident-Business	2 Resident-Other	3 Non Resident-Business	4 Non Resident-Other
1 Home 3 Other Private Res.	1. Population	1	3	5	8
2 Business/Company/Work 5 School/Military Base 6 Other	2. Employment	2	4	6	9
4 Hotel/Motel	3. Hotels	n/a	n/a	7	10

For each of the above-indicated Analysis Segments, the rates of air travel by origin county in the base analysis year were projected into the future based on the forecasted changes in the associated socioeconomic and demographic variables: population, employment, and hotel rooms.

In addition to the socioeconomic measures, the strong effect of income on air passenger travel was accounted for, reflecting the higher rates of air travel observed in the survey for higher income persons.

FORECASTS OF AIR PASSENGER DEMAND - ORIGINATIONS

Incremental Analysis and Forecast of Originations: The forecasts were developed in a series of four stages or *Levels*, reflecting an incremental consideration of different factors and assumptions related to the projected growth in regional air passenger demand. For convenience and simplicity in terminology, these are referred to in this report as the Level 1, 2, 3 and 4 forecasts, **with the Level 4 forecasts being considered the primary finding or deliverable of Task C**.

The forecasts are county-level estimates of future of air passenger demand, developed as direct tabulations of the integrated air passenger survey data, using the four levels of expansion weighting that were developed and applied for

forecasting. A set of expansion weights for each of the forecasts years, and for each of the four levels were produced, and forecast trip rates for each level were then calculated using these weights applied to the air passenger survey.

> *Level 1*: Growth in air passenger demand based solely on the forecast socioeconomic/demographic data in each county -- Population, Employment and Hotel Rooms, to which the county-specific rates of air passenger trip making by market segment are applied.

> *Level 2*: Reflects the additional growth in air passenger demand attributable to the forecast real growth in household incomes, and the propensity of higher income households to produce more air trips as previously discussed in the analysis of the air passenger survey.

> *Level 3*: The Level 1 and 2 expansion factors reflect a condition in which the rates of air passenger trip-making, for a given demographic segment remain constant over time. For the Level 3 county origination forecasts, the forecasts from Task B for all 9 airports combined are used as a *control.*

> *Level 4*: For the Level 4 expansion weighting and forecasts, the forecast of air passenger trips for each of the airport is fully constrained to the Task B airport-specific enplanement forecasts. **The Level 4 forecasts are the primary finding or deliverable of Task C.**

County-Level Forecasts of Origins: This approach resulted in a series of incremental forecasts, summarized for all nine airports, combined by *market type* and *level* in **Table C,** and summarized by airport in **Table D**.

The Level 1 forecast shows that if rates of air passenger trip-making were to remain constant in relationship to population and employment, only a 12.4% increase in total air passenger trip would be expected.

For the Level 2 forecast, consideration is given to the forecast growth in real income for residents of the region, and the added effect of this accounts for a projected total growth of about 16 percent (15.9%). The income effect is most pronounced for business travel, where the forecast growth more than doubles.

With the Level 3 and 4 forecasts *controlled to* the Task B aviation forecasts, and showing an overall growth of 49.0%, it is clear that a substantial amount of the forecast growth, about two-thirds, is due to projections of increasing rates of air travel in the population.

Table C
SUMMARY: 2025 AVERAGE DAILY AIR PASSENGER TRIPS – FORECASTS BY LEVEL OF ANALYSIS - BY TRIP TYPE (ALL NINE AIRPORTS)

Trip Type		Forecasts				Growth over 2005			
	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 Resident-Business	17,580	19,759	22,290	28,640	28,729	12.4%	26.8%	62.9%	63.4%
2 Resident-Other	44,744	49,991	51,839	66,607	66,589	11.7%	15.9%	48.9%	48.8%
3 Non Resident-Business	20,389	23,439	23,439	30,116	30,140	15.0%	15.0%	47.7%	47.8%
4 Non Resident-Other	41,216	46,104	46,104	59,238	59,145	11.9%	11.9%	43.7%	43.5%
Total	**123,929**	**139,292**	**143,672**	**184,602**	**184,603**	**12.4%**	**15.9%**	**49.0%**	**49.0%**

Table D
SUMMARY: 2025 AVERAGE DAILY AIR PASSENGER TRIPS – FORECASTS BY LEVEL OF ANALYSIS - BY AIRPORT

Airport		Forecasts				Growth over 2005			
	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 JFK	48,660	53,384	54,551	70,092	71,068	9.7%	12.1%	44.0%	46.0%
2 LGA	33,433	36,544	37,857	48,642	44,037	9.3%	13.2%	45.5%	31.7%
3 EWR	34,564	40,732	42,348	54,412	58,774	17.8%	22.5%	57.4%	70.0%
4 SWF	546	675	701	900	873	23.5%	28.3%	64.8%	59.7%
5 ISP	2,892	3,319	3,348	4,302	4,260	14.8%	15.8%	48.8%	47.3%
6 HPN	1,278	1,465	1,519	1,952	1,801	14.6%	18.9%	52.7%	40.9%
7 ACY	1,339	1,702	1,769	2,273	1,803	27.1%	32.2%	69.8%	34.7%
8 ABE	1,143	1,384	1,477	1,898	1,877	21.0%	29.2%	66.0%	64.2%
9 TTN	74	89	101	130	110	19.9%	36.6%	75.5%	48.9%
Total	**123,929**	**139,292**	**143,672**	**184,602**	**184,603**	**12.4%**	**15.9%**	**49.0%**	**49.0%**

The final (Level 4) forecasts by county are presented in **Tables E and F,** for the average daily and annual totals, respectively. A comparison of the Level 4 forecast with the intermediate Level 3 forecast, indicates that a small "shift" in the current pattern of trips in the major airports market is expected, i.e. - some Level 3 trips (reflecting an assumption of constant 2005 rates of air passenger travel) to LGA are projected to shift, primarily to EWR, and to smaller extent to JFK. In addition, it is projected that there will be an overall trend of migration of trips from the smaller airports to the major commercial airports.

Overall, the variations between the air trip forecasts for specific airports between the Task B forecasts (Level 4) and the Task C Level 3 forecasts, reflect the current pattern of airport selection by origin county and market segment in the later case, while in the Task B methodology, tendencies in the shifting of airport preferences over time have been taken directly into account.

Table E
AVERAGE DAILY AIR PASSENGER TRIPS TO AIRPORTS – BY ORIGIN COUNTY –   FORECAST YEAR 2025 – LEVEL 4 ANALYSIS

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	29,038	19,733	8,540	2	222	23	0	0	0	**57,558**
2 QUEENS	6,553	4,024	343	1	39	7	0	0	0	**10,967**
3 BRONX	1,845	1,708	167	0	18	11	0	0	0	**3,749**
4 KINGS	6,851	3,553	715	1	78	3	0	0	0	**11,201**
5 RICHMOND	617	159	1,096	0	4	0	0	0	0	**1,876**
6 NASSAU	6,216	3,057	148	0	535	0	0	0	0	**9,956**
7 SUFFOLK	4,503	2,316	172	0	3,248	3	0	1	0	**10,243**
8 WESTCHESTER	3,350	2,428	628	18	26	726	0	0	0	**7,176**
9 ROCKLAND	489	443	984	23	7	30	0	0	0	**1,976**
10 PUTNAM	251	354	130	20	0	56	0	0	0	**811**
11 ORANGE	371	324	694	482	0	31	0	0	0	**1,902**
12 DUTCHESS	503	372	133	367	8	74	0	0	0	**1,457**
13 FAIRFIELD	3,260	2,295	512	9	12	748	0	0	0	**6,836**
14 BERGEN	1,127	990	5,152	6	8	14	3	0	0	**7,300**
15 PASSAIC	183	139	1,706	1	7	0	0	2	0	**2,038**
16 HUDSON	661	495	3,805	0	11	2	1	0	0	**4,975**
17 ESSEX	360	184	4,109	2	0	0	0	0	0	**4,655**
18 UNION	244	120	2,699	0	4	0	1	0	0	**3,068**
19 MORRIS	337	214	5,101	1	4	0	3	13	0	**5,673**
20 SOMERSET	208	62	3,155	0	0	0	4	12	1	**3,442**
21 MIDDLESEX	810	183	5,260	0	4	0	45	3	3	**6,308**
22 MONMOUTH	390	49	4,787	0	8	0	159	0	6	**5,399**
23 OCEAN	115	64	1,432	0	0	0	487	0	2	**2,100**
24 HUNTERDON	34	0	1,285	1	0	0	9	40	5	**1,374**
25 WARREN	30	11	533	0	0	0	1	69	0	**644**
26 SUSSEX	122	36	1,068	19	0	0	0	7	0	**1,252**
27 NEW HAVEN	1,342	389	105	1	0	38	0	0	0	**1,875**
28 MERCER	173	54	1,217	0	9	0	30	3	34	**1,520**
29 DELAWARE	0	0	18	9	0	2	0	0	0	**29**
30 SULLIVAN	62	10	50	78	8	4	0	3	0	**215**
31 ULSTER	164	63	69	220	0	8	0	0	0	**524**
32 ATLANTIC	27	37	354	0	0	0	532	1	0	**951**
33 BURLINGTON	51	11	334	0	0	0	151	0	6	**553**
34 CAMDEN	80	0	84	0	0	0	61	0	0	**225**
35 CAPE MAY	0	0	88	0	0	0	176	0	0	**264**
36 CUMBERLAND	0	0	127	0	0	0	41	0	0	**168**
37 GLOUCESTER	14	0	43	0	0	0	55	0	0	**112**
38 SALEM	0	0	0	0	0	0	5	0	0	**5**
39 LITCHFIELD	202	99	74	4	0	24	0	0	0	**403**
40 BERKS	39	0	12	0	0	0	4	141	0	**196**
41 BUCKS	142	11	301	0	0	0	14	107	46	**621**
42 CARBON	0	8	0	0	0	0	0	36	0	**44**
43 COLUMBIA	0	0	0	0	0	0	0	8	0	**8**
44 LACKAWANNA	0	26	53	0	0	0	0	21	0	**100**
45 LEHIGH	30	0	357	0	0	0	0	569	0	**956**
46 LUZERNE	13	0	19	0	0	0	0	36	0	**68**
47 MONROE	0	18	334	0	0	0	0	190	0	**542**
48 MONTGOMERY	90	0	142	0	0	0	20	74	7	**333**
49 NORTHAMPTON	46	0	310	1	0	0	0	469	1	**827**
50 NORTHUMBERLAND	24	0	0	0	0	0	0	7	0	**31**
51 PIKE	38	0	198	13	0	0	0	15	0	**264**
52 SCHUYLKILL	44	0	107	0	0	0	0	41	0	**192**
53 SUSQUEHANNA	0	0	13	1	0	0	0	5	0	**19**
54 WYOMING	19	0	10	0	0	0	0	4	0	**33**
Total Region	**71,068**	**44,039**	**58,773**	**1,280**	**4,260**	**1,804**	**1,802**	**1,877**	**111**	**185,014**

Table F
ANNUAL AIR PASSENGER TRIPS TO AIRPORTS – BY ORIGIN COUNTY – FORECAST YEAR 2025 – LEVEL 4 ANALYSIS

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	10,598.9	7,202.5	3,117.1	0.7	81.0	8.4	0.0	0.0	0.0	**21,008.7**
2 QUEENS	2,391.8	1,468.8	125.2	0.4	14.2	2.6	0.0	0.0	0.0	**4,003.0**
3 BRONX	673.4	623.4	61.0	0.0	6.6	4.0	0.0	0.0	0.0	**1,368.4**
4 KINGS	2,500.6	1,296.8	261.0	0.4	28.5	1.1	0.0	0.0	0.0	**4,088.4**
5 RICHMOND	225.2	58.0	400.0	0.0	1.5	0.0	0.0	0.0	0.0	**684.7**
6 NASSAU	2,268.8	1,115.8	54.0	0.0	195.3	0.0	0.0	0.0	0.0	**3,633.9**
7 SUFFOLK	1,643.6	845.3	62.8	0.0	1,185.5	1.1	0.0	0.4	0.0	**3,738.7**
8 WESTCHESTER	1,222.8	886.2	229.2	6.6	9.5	265.0	0.0	0.0	0.0	**2,619.2**
9 ROCKLAND	178.5	161.7	359.2	8.4	2.6	11.0	0.0	0.0	0.0	**721.2**
10 PUTNAM	91.6	129.2	47.5	7.3	0.0	20.4	0.0	0.0	0.0	**296.0**
11 ORANGE	135.4	118.3	253.3	175.9	0.0	11.3	0.0	0.0	0.0	**694.2**
12 DUTCHESS	183.6	135.8	48.5	134.0	2.9	27.0	0.0	0.0	0.0	**531.8**
13 FAIRFIELD	1,189.9	837.7	186.9	3.3	4.4	273.0	0.0	0.0	0.0	**2,495.1**
14 BERGEN	411.4	361.4	1,880.5	2.2	2.9	5.1	1.1	0.0	0.0	**2,664.5**
15 PASSAIC	66.8	50.7	622.7	0.4	2.6	0.0	0.0	0.7	0.0	**743.9**
16 HUDSON	241.3	180.7	1,388.8	0.0	4.0	0.7	0.4	0.0	0.0	**1,815.9**
17 ESSEX	131.4	67.2	1,499.8	0.7	0.0	0.0	0.0	0.0	0.0	**1,699.1**
18 UNION	89.1	43.8	985.1	0.0	1.5	0.0	0.4	0.0	0.0	**1,119.8**
19 MORRIS	123.0	78.1	1,861.9	0.4	1.5	0.0	1.1	4.7	0.0	**2,070.6**
20 SOMERSET	75.9	22.6	1,151.6	0.0	0.0	0.0	1.5	4.4	0.4	**1,256.3**
21 MIDDLESEX	295.7	66.8	1,919.9	0.0	1.5	0.0	16.4	1.1	1.1	**2,302.4**
22 MONMOUTH	142.4	17.9	1,747.3	0.0	2.9	0.0	58.0	0.0	2.2	**1,970.6**
23 OCEAN	42.0	23.4	522.7	0.0	0.0	0.0	177.8	0.0	0.7	**766.5**
24 HUNTERDON	12.4	0.0	469.0	0.4	0.0	0.0	3.3	14.6	1.8	**501.5**
25 WARREN	11.0	4.0	194.5	0.0	0.0	0.0	0.4	25.2	0.0	**235.1**
26 SUSSEX	44.5	13.1	389.8	6.9	0.0	0.0	0.0	2.6	0.0	**457.0**
27 NEW HAVEN	489.8	142.0	38.3	0.4	0.0	13.9	0.0	0.0	0.0	**684.4**
28 MERCER	63.1	19.7	444.2	0.0	3.3	0.0	11.0	1.1	12.4	**554.8**
29 DELAWARE	0.0	0.0	6.6	3.3	0.0	0.7	0.0	0.0	0.0	**10.6**
30 SULLIVAN	22.6	3.7	18.3	28.5	2.9	1.5	0.0	1.1	0.0	**78.5**
31 ULSTER	59.9	23.0	25.2	80.3	0.0	2.9	0.0	0.0	0.0	**191.3**
32 ATLANTIC	9.9	13.5	129.2	0.0	0.0	0.0	194.2	0.4	0.0	**347.1**
33 BURLINGTON	18.6	4.0	121.9	0.0	0.0	0.0	55.1	0.0	2.2	**201.8**
34 CAMDEN	29.2	0.0	30.7	0.0	0.0	0.0	22.3	0.0	0.0	**82.1**
35 CAPE MAY	0.0	0.0	32.1	0.0	0.0	0.0	64.2	0.0	0.0	**96.4**
36 CUMBERLAND	0.0	0.0	46.4	0.0	0.0	0.0	15.0	0.0	0.0	**61.3**
37 GLOUCESTER	5.1	0.0	15.7	0.0	0.0	0.0	20.1	0.0	0.0	**40.9**
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	**1.8**
39 LITCHFIELD	73.7	36.1	27.0	1.5	0.0	8.8	0.0	0.0	0.0	**147.1**
40 BERKS	14.2	0.0	4.4	0.0	0.0	0.0	1.5	51.5	0.0	**71.5**
41 BUCKS	51.8	4.0	109.9	0.0	0.0	0.0	5.1	39.1	16.8	**226.7**
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	13.1	0.0	**16.1**
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	**2.9**
44 LACKAWANNA	0.0	9.5	19.3	0.0	0.0	0.0	0.0	7.7	0.0	**36.5**
45 LEHIGH	11.0	0.0	130.3	0.0	0.0	0.0	0.0	207.7	0.0	**348.9**
46 LUZERNE	4.7	0.0	6.9	0.0	0.0	0.0	0.0	13.1	0.0	**24.8**
47 MONROE	0.0	6.6	121.9	0.0	0.0	0.0	0.0	69.4	0.0	**197.8**
48 MONTGOMERY	32.9	0.0	51.8	0.0	0.0	0.0	7.3	27.0	2.6	**121.5**
49 NORTHAMPTON	16.8	0.0	113.2	0.4	0.0	0.0	0.0	171.2	0.4	**301.9**
50 NORTHUMBERLAND	8.8	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	**11.3**
51 PIKE	13.9	0.0	72.3	4.7	0.0	0.0	0.0	5.5	0.0	**96.4**
52 SCHUYLKILL	16.1	0.0	39.1	0.0	0.0	0.0	0.0	15.0	0.0	**70.1**
53 SUSQUEHANNA	0.0	0.0	4.7	0.4	0.0	0.0	0.0	1.8	0.0	**6.9**
54 WYOMING	6.9	0.0	3.7	0.0	0.0	0.0	0.0	1.5	0.0	**12.0**
Total Region	**25,939.8**	**16,074.2**	**21,452.1**	**467.2**	**1,554.9**	**658.5**	**657.7**	**685.1**	**40.5**	**67,530.1**

Mode of Access and Airport Choice Modeling (Level 5): As part of the Task C ground access analysis of air passenger travel, a model that addresses the joint choice of the airport and ground access modes in the 54 county region was developed and tested in preliminary applications. This model and its forecasting capabilities supplement the four levels of air passenger trip-making forecasts, with a possible "Level 5" analysis, which is summarized in **Chapter III** of this report.

I.   ANALYSIS of EXISTING AIR PASSENGER ORIGINS

I.1   Average Daily Departing Air Passenger Trips – Survey Expansion

The Base Year for analysis and forecasting in Task C is 2005. In order to use the Air Passenger survey collected in 2005 for the work in this task, expansion weights were developed and applied to the Air Passenger survey data based on the 2005 annual enplanement data (for originating passengers) developed in Task B. As shown in **Table I-1**, because the rate of sampling varied among the nine airports, the expansion weight ranges from a low of .50 at Stewart Airport to about 10 at JFK, with an average survey expansion weight of about 6.5. This means that on average, a survey response represents not quite 7 actual average daily ground access airport trips.

The focus of the analysis in this task is the same as in the design of air passenger survey, on trips to the airport, for departing flights.

I.2 Segmentation of Air Passenger for Analysis and Forecasting

The forecast of air passenger demand by airports carried out as part of Task B was based on longitudinal or trends analysis.   While the analysis and projections of originations in this task are tied to the Task B controls, the air passenger demand analysis done in this task is essentially cross-sectional exploiting the richness of the air passenger and trip data from the 2005 survey, and their correlation to 2005 estimated socioeconomic and demographic variables.

Table I-1
Expansion of Air Passenger Survey for Daily Trips to Airports (2005 Originating Passengers Only)

Airport	Annual	Avg. Daily	Useable Valid Case	Expansion Weights
1 JFK	17,760,962	48,660	4,962	9.8066
2 LGA	12,203,167	33,433	4,210	7.9414
3 EWR	12,615,666	34,563	4,352	7.9420
4 SWF	199,425	546	1,082	0.5050
5 ISP	1,055,503	2,892	1,089	2.6555
6 HPN	466,428	1,278	1,085	1.1778
7 ACY	488,579	1,339	1,081	1.2383
8 ABE	417,301	1,143	1,174	0.9738
9 TTN	27,000	74	93	0.7954
Total: 9 Airports	**45,234,031**	**123,929**	**19,128**	**6.4789**

Note: In addition to the Base Year 2005 estimates, a full set of Task B Enplanement Forecasts for originating passengers (only) are included in **Appendix D**; connecting passengers are not included in these totals.

Four principal *dimensions* of the air passenger demand comprise the structure of the analysis and forecasts of originations.

5. Residency

    - Resident of 54 county region or

    - Non-Resident of region

6. Trip Purpose

    - Business, or

    - Other: Non-Business

7. Type of Place at Origin

8. Domestic and International

The first two of these dimensions -- residency and general trip purpose – can be combined to create four basic *Market Types* that are used in this analysis:

- Resident/Business
- Resident/Other
- Non-Resident/Business
- Non-Resident/Other

The *Type of Place at Origin* is also seen to be very important and has a straight-forward correlation to population and employment data, both for the base analysis year as well as for future years.

The distinction between domestic and international travel markets proved to be important in the modeling of airport and mode choice, discussed in Section III.

Table I-2 shows the breakdown of estimated average daily air passenger ground access trips by these two general dimensions -- *Market Type and* Type *of Place at Origin.*

- Home is the dominant origin type for trips by area residents, for both business and other trips, while

- Hotel/Motel is the origin type for the majority of non-area residents.

- Place of work is also important for both resident and non-resident business, with about 16 percent of the resident based trips, and 25 percent of the non-area resident business trips originating from these employment-based locations.

Table I-2
Air Passenger Trips by Market Type by Type of Place at Origin (2005 Average Daily)

Type of Place at Orgin	Market Type				
	1 Resident-Business	2 Resident-Other	3 Non Resident-Business	4 Non Resident-Other	Total
1 Home	14,169	39,101	1,242	3,187	57,699
2 Business/Company/Work	2,811	2,828	5,098	425	11,162
3 Other Private Res.	287	1,852	2,798	18,176	23,113
4 Hotel/Motel	142	268	10,494	17,067	27,971
5 School/Military Base	76	258	231	638	1,203
6 Other	97	438	525	1,722	2,782
All Trips	**17,582**	**44,745**	**20,388**	**41,215**	**123,930**

Percent of Market	Market Type				
Type of Place at Orgin	1 Resident-Business	2 Resident-Other	3 Non Resident-Business	4 Non Resident-Other	Total
1 Home	80.6%	87.4%	6.1%	7.7%	46.6%
2 Business/Company/Work	16.0%	6.3%	25.0%	1.0%	9.0%
3 Other Private Res.	1.6%	4.1%	13.7%	44.1%	18.7%
4 Hotel/Motel	0.8%	0.6%	51.5%	41.4%	22.6%
5 School/Military Base	0.4%	0.6%	1.1%	1.5%	1.0%
6 Other	0.6%	1.0%	2.6%	4.2%	2.2%
	100%	**100%**	**100%**	**100%**	**100%**

Percent of All	Market Type				
Type of Place at Orgin	1 Resident-Business	2 Resident-Other	3 Non Resident-Business	4 Non Resident-Other	Total
1 Home	11.4%	31.6%	1.0%	2.6%	46.6%
2 Business/Company/Work	2.3%	2.3%	4.1%	0.3%	9.0%
3 Other Private Res.	0.2%	1.5%	2.3%	14.7%	18.7%
4 Hotel/Motel	0.1%	0.2%	8.5%	13.8%	22.6%
5 School/Military Base	0.1%	0.2%	0.2%	0.5%	1.0%
6 Other	0.1%	0.4%	0.4%	1.4%	2.2%
	14.2%	**36.1%**	**16.5%**	**33.3%**	**100.0%**

Table I-3 shows the distribution of all air passenger trips (both resident and non-resident) by *Type of Place at the Origin* of the trip to the airport and by geographic sub-region.

- Manhattan, which is the origin for more than one-third of the trips (34.7%), is quite distinct from the other sub-regions in that less than one-quarter (23.2%) originate from home, and nearly one-half (47.2%) from hotels.
- The other boroughs of New York City show a pattern fairly similar to that of the other sub-regions, with about two-third of origins coming from a place of residence.

Table I-3
Air Passenger Trips by Sub-Region by Type of Place at Origin (2005 Average Daily)

| | Sub-Region | | | | | | | | |
Type of Place at Orgin	Manhattan	Other New York City	Other New York State	New Jersey	Connect icut	Pensylv annia	Total	Area 1: BPM 28 Counties	Area 2: Remainder of 54 Co. Region
1 Home	10,027	10,781	13,928	17,313	4,018	1,630	57,697	54,979	2,718
2 Business/Company/Work	4,856	838	1,804	3,024	530	113	11,165	10,966	199
3 Other Private Res.	6,419	4,538	5,051	5,721	1,015	368	23,112	22,307	805
4 Hotel/Motel	20,301	1,304	1,606	4,096	430	237	27,974	27,346	628
5 School/Military Base	447	61	368	240	81	10	1,207	1,189	18
6 Other	986	498	499	666	99	32	2,780	2,677	103
Total	**43,036**	**18,020**	**23,256**	**31,060**	**6,173**	**2,390**	**123,935**	**119,464**	**4,471**

| | Sub-Region | | | | | | | | |
Type of Place at Origin	Manhattan	Other New York City	Other New York State	New Jersey	Connect icut	Pensylv annia	Total	Area 1: BPM 28 Counties	Area 2: Remainder of 54 Co. Region
1 Home	23.3%	59.8%	59.9%	55.7%	65.1%	68.2%	46.6%	46.0%	60.8%
2 Business/Company/Work	11.3%	4.7%	7.8%	9.7%	8.6%	4.7%	9.0%	9.2%	4.5%
3 Other Private Res.	14.9%	25.2%	21.7%	18.4%	16.4%	15.4%	18.6%	18.7%	18.0%
4 Hotel/Motel	47.2%	7.2%	6.9%	13.2%	7.0%	9.9%	22.6%	22.9%	14.0%
5 School/Military Base	1.0%	0.3%	1.6%	0.8%	1.3%	0.4%	1.0%	1.0%	0.4%
6 Other	2.3%	2.8%	2.1%	2.1%	1.6%	1.3%	2.2%	2.2%	2.3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

| | Sub-Region | | | | | | | | |
Type of Place at Origin	Manhattan	Other New York City	Other New York State	New Jersey	Connect icut	Pensylv annia	Total	Area 1: BPM 28 Counties	Area 2: Remainder of 54 Co. Region
1 Home	8.1%	8.7%	11.2%	14.0%	3.2%	1.3%	46.6%	44.4%	2.2%
2 Business/Company/Work	3.9%	0.7%	1.5%	2.4%	0.4%	0.1%	9.0%	8.8%	0.2%
3 Other Private Res.	5.2%	3.7%	4.1%	4.6%	0.8%	0.3%	18.6%	18.0%	0.6%
4 Hotel/Motel	16.4%	1.1%	1.3%	3.3%	0.3%	0.2%	22.6%	22.1%	0.5%
5 School/Military Base	0.4%	0.0%	0.3%	0.2%	0.1%	0.0%	1.0%	1.0%	0.0%
6 Other	0.8%	0.4%	0.4%	0.5%	0.1%	0.0%	2.2%	2.2%	0.1%
Total	**34.7%**	**14.5%**	**18.8%**	**25.1%**	**5.0%**	**1.9%**	**100.0%**	**96.4%**	**3.6%**

Underlying the analysis and forecasting methods developed in this task is the segmentation of the air passenger market by a classification scheme of *Market Type*. As shown in **Table I-4**, each *Market Type* segmentation is associated with both the available socioeconomic and demographic data (population, employment, and hotel rooms), and with the *Type of Place at Origins* of air trips.

Air passenger survey trips have been classified into 10 distinct *Analysis Segments* that are used for the rates analysis described in the next section:

Analysis Segments for Rates Analysis

1 – Resident / Business (1) – Population based - for Home (1), and Other Private Residences (3)

2 – Resident / Business (1) - Employment-based – for Business (2), School (5), and Other (6)

3 – Resident / Other (2) – Population-based – for Home (1) and Other Private Residences (3)

4 – Resident / Other (2)   - Employment-based – for Business (2), School (5), and Other (6)

5 – Non-Resident / Business (3) – Population-based - for Home (1), and Other Private Residences (3)

6 – Non-Resident / Business (3) - Employment-based – for Business (2), School (5), and Other (6)

7 – Non-Resident / Business (3) - Hotel-based (4) – for Hotel/Motel (4)

8 – Non-Resident / Other (4) – Population-based - for Home (1) and Other Private Residences (3)

9 – Non-Resident / Other (4) - Employment-based – for Business (2), School (5), and Other (6)

10 – Non-Resident / Other (4) - Hotel-based - for Hotel/Motel (4)

Table I-4
Analysis Segments: Market Type by Type of Place at Origin and Socioeconomic Base

Type of Place at Orgin	Socioeconomic/ Demographic Rate Base	Market Type			
		1 Resident-Business	2 Resident-Other	3 Non Resident-Business	4 Non Resident-Other
1 Home	1. Population	1	3	5	8
3 Other Private Res.					
2 Business/Company/Work	2. Employment	2	4	6	9
5 School/Military Base					
6 Other					
4 Hotel/Motel	3. Hotels	n/a	n/a	7	10

I.3   Household Income and Effect on Air Passenger Demand

In addition to considering growth and re-distribution of population, employment and hotel room, the analysis includes the effects of income on air passenger demand. As is commonly found to be a strong explanatory factor in many models of travel behavior choice, the estimation of air passenger demand needs to take into account the influence that income plays with respect to rates of trip-making.

As shown in **Table I-5**, a comparison of the income distribution of the air passengers from the survey with that of the residents of the 54 county region in the Census indicates that households with higher incomes generate substantially more air passenger trips than middle or low income households. With over half of the air trips made by persons from high income households (more than $100,000 in 2006), less than one-fifth of the regions households in the Census reported incomes greater than this (1999 dollars). Since this table is included only to illustrate the importance, pattern and general magnitude of the income effect on trip-making, no attempt to adjust these for inflation or real income growth has been done.   The influence of income is already directly captured in the survey data, and for the effect of income growth on future demand, the Woods & Poole forecasts of real income growth by county are used in a consistent manner as described in a following sub-section.

Table I-5
Household Income: Air Passenger Survey and General Population

	Household Income Segment			
	Low	**Middle**	**High**	
2006 Air Pasenger Survey	**Lt $50K**	**$50-$100K**	**Gt $100K**	
<u>Residents of Region</u>				
1 Resident-Business	14.5%	33.3%	52.2%	100%
2 Resident-Other	35.9%	35.3%	28.8%	100%
	Ratio to Census Distribution			
1 Resident-Business	0.29	1.07	2.75	1.00
2 Resident-Other	0.72	1.14	1.52	1.00
2000 Census: 54 County Region	**50.0%**	**31.0%**	**19.0%**	**100%**
<u>Visitors: Non-Residents</u>				
3 Non Resident-Business	17.8%	36.4%	45.8%	0%
4 Non Resident-Other	40.2%	35.0%	24.8%	0%
All Air Passengers	**31.0%**	**35.1%**	**33.9%**	**100%**

I.4   DATA DEVELOPMENT – Hotel Rooms

While base year and forecast year population and employment data is available from the Woods and Poole data, it was necessary to develop a data base of hotel rooms for the rates analysis of non-resident/hotel based analysis segments (33 and 34).   The best available database was purchased from Smith Travel, for those counties that account for the large majority of hotel-based air passenger origins. The estimate number of total hotel rooms for these counties is shown in **Table I-6**.

For other counties in the region, a simple regression analysis was done to estimate the number of existing hotel rooms, and to forecast hotel rooms for all 54 counties in the future. Because of its magnitude and unique character, Manhattan was excluded from the regression analysis.

As shown in **Table I-7**, the results show the employment is by far the most important correlate of the number of hotel rooms in a county. While weak, the coefficients on income, population and travel time to nearest major airport were used in the forecasting of hotel rooms for future years.

Table I-6
Hotel Rooms – Smith Travel Database (Selected NY&NJ Counties)

County		Rooms
1 NEW YORK	NY	62,276
2 QUEENS	NY	6,694
3 BRONX	NY	584
4 KINGS	NY	1,283
5 RICHMOND	NY	594
6 NASSAU	NY	5,123
7 SUFFOLK	NY	8,847
8 WESTCHESTER	NY	4,958
9 ROCKLAND	NY	1,763
10 PUTNAM	NY	144
14 BERGEN	NJ	7,018
15 PASSAIC	NJ	1,057
16 HUDSON	NJ	4,914
17 ESSEX	NJ	5,724
18 UNION	NJ	3,930
19 MORRIS	NJ	6,352
20 SOMERSET	NJ	4,511
21 MIDDLESEX	NJ	7,708
22 MONMOUTH	NJ	535
24 HUNTERDON	NJ	731
25 WARREN	NJ	171
26 SUSSEX	NJ	906
28 MERCER	NJ	3,836
Total: Smith Travel		
Database		**139,659**

A scatter-plot of the predicted versus actual hotel room county observations is provided in **Exhibit I-1**.

Table I-7
Regression Model: Estimation and Forecasting of Hotel Rooms

	Variables	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	HH Income	-0.03	0.06	-0.09	-0.49	0.63
2	Employment	17.37	3.60	1.49	4.83	0.00
3	Population	-4.13	1.47	-0.96	-2.81	0.01
4	Time to Nearest Major Airport	-9.15	10.78	-0.12	-0.85	0.41
	Constant	2111.53	2269.54		0.93	0.37

Exhibit I-1
Regression Model: Scatter-Plot – Observed and Estimated
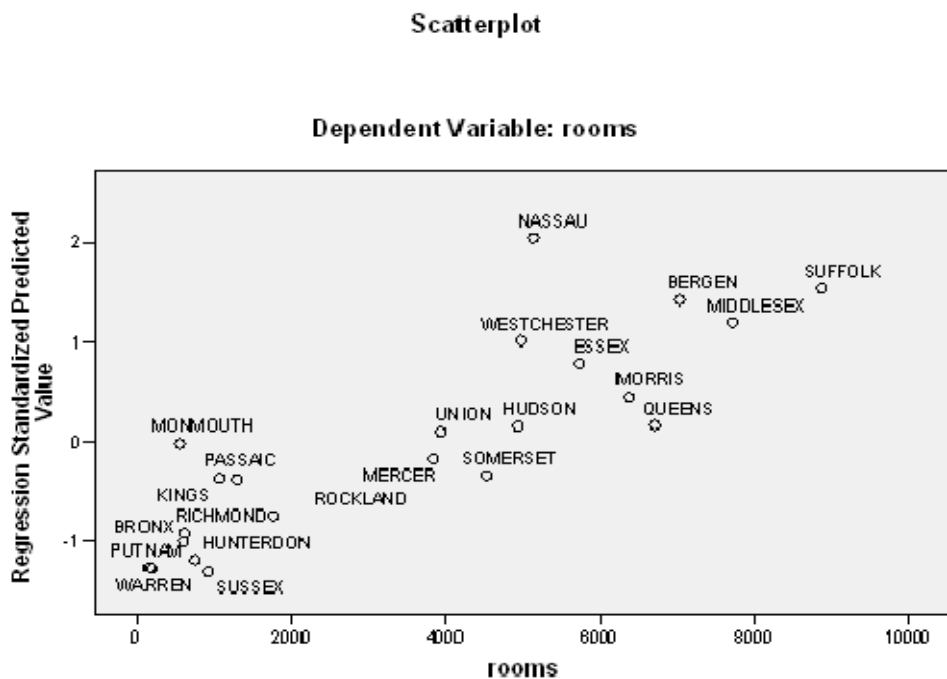
I.5   Household Income Distributions

For each county, the Woods and Poole data forecasts mean household income for each of the future horizon years. In order to make this useful for forecasting using the air passenger survey as the base, a simple household segmentation model was developed from the Census data of the 54 county region, that estimates the number of households in the low, middle, and high categories in each county, based forecast mean household income and it's ratio to the average regional value in the base year.

Table I-8 shows the segmentation model that was estimated using the Census data, while **Exhibit I-2** shows the same information in graphical form. As discussed in sub-section II-2, the forecast change in the income distribution of most counties with more households in the income categories, is reflected in the future year weighting and expansion (Level 2) of the air passenger survey in the forecasting of county air travel originations.

Table I-8
Household Income Segmentation Model – Census 2000

| Index to Base Year Income	2000 Census: Household Income Range			
	Low	Med	High	
0.55	72.0%	23.0%	5.0%	100.0%
0.60	71.0%	23.5%	5.5%	100.0%
0.65	69.0%	24.5%	6.5%	100.0%
0.70	64.0%	28.0%	8.0%	100.0%
0.75	60.0%	30.0%	10.0%	100.0%
0.80	56.0%	32.0%	12.0%	100.0%
0.85	51.0%	35.0%	14.0%	100.0%
0.90	47.0%	37.0%	16.0%	100.0%
0.95	45.0%	37.0%	18.0%	100.0%
1.00	43.0%	37.0%	20.0%	100.0%
1.05	41.5%	36.5%	22.0%	100.0%
1.10	40.0%	36.0%	24.0%	100.0%
1.15	38.5%	36.5%	25.0%	100.0%
1.20	37.0%	35.0%	28.0%	100.0%
1.25	35.5%	35.5%	29.0%	100.0%
1.30	34.0%	36.0%	30.0%	100.0%
1.35	32.5%	35.5%	32.0%	100.0%
1.40	31.0%	36.0%	33.0%	100.0%
1.45	30.0%	34.0%	36.0%	100.0%
1.50	29.5%	33.5%	37.0%	100.0%
1.55	29.0%	34.0%	37.0%	100.0%
1.60	28.5%	34.0%	37.5%	100.0%
1.65	28.0%	34.0%	38.0%	100.0%
1.70	27.5%	34.0%	38.5%	100.0%
1.75	27.0%	34.0%	39.0%	100.0%
1.80	26.5%	34.0%	39.5%	100.0%
1.85	26.0%	34.0%	40.0%	100.0%
1.90	25.5%	34.0%	40.5%	100.0%
1.95	25.0%	34.0%	41.0%	100.0%
Region Total	**50.0%**	**31.0%**	**19.0%**	**100.0%**

Exhibit I-2
Household Income Segmentation Model — Census 2000
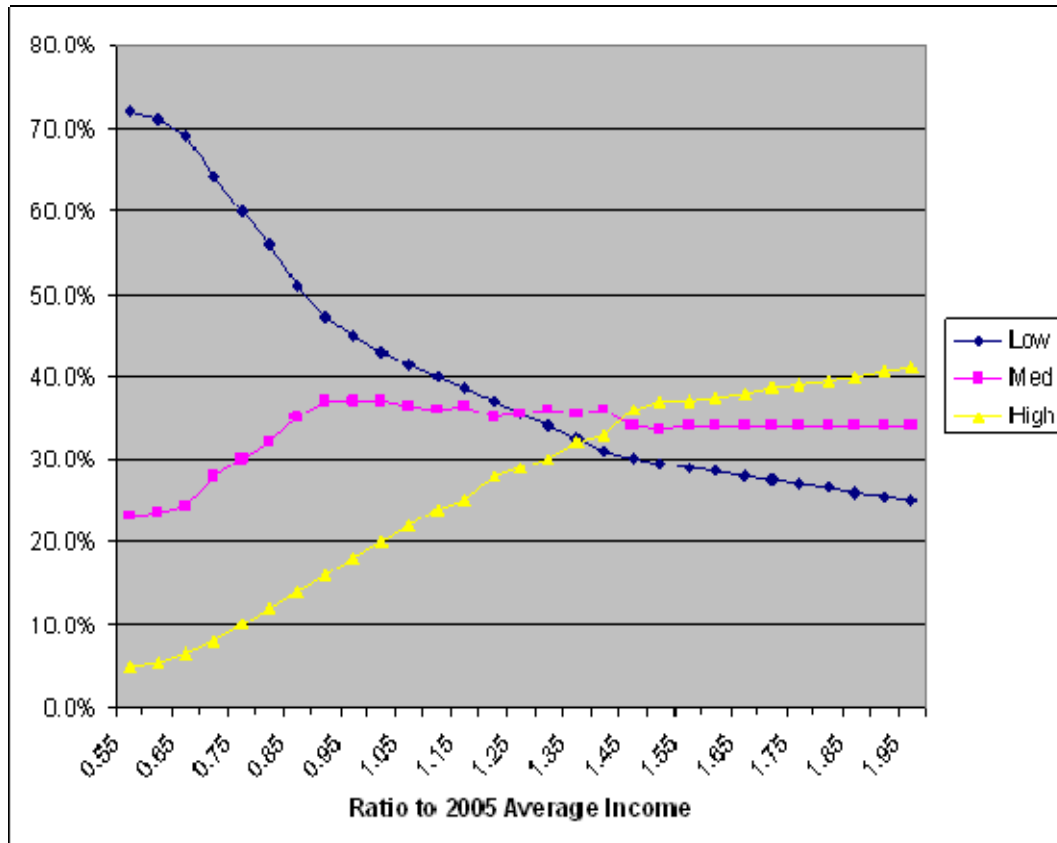
1.6   Base Year Air Passenger Trip Origination Rates

Applying the 2005 enplanement-based expansion weights (Level 1), the number of average daily passenger trips to each and all of the 9 regional airports was tabulated for each of the 54 counties using the statistical (SPSS) procedures listed in **Appendix A.**   County-level rates of origination for each of the 10 Market Types were calculated, using the Woods and Poole data for Year 2005.

The results are displayed in **Table I-9**, showing the current estimated rates of air passenger ground access trips made to the regional airports. Application of these rates to future county Woods and Poole based socioeconomic/demographic projections, without adjustment, can be termed a Level 1 forecast as discussed in **Section II.**

These rates are consistent with the county-to-airport base year estimates of average daily and total annual ground access trips shown in **Table I-10** and **Table I-11**, respectively.

Table I-9
**Air Passenger Trip Origination Rates by County and by Air Market Type –
Base Year 2005 (Level 1 Analysis)**

Origin County	State	Resident Trips				Non-Resident Trips					
		Business		Other (non-Bus.)		Business			Other (non-Bus.)		
		1 ResBs per POP	2 ResBs per EMP	3 ResOth per POP	4 ResOth per EMP	5 NonResBs per POP	6 NonResBsp er EMP	7 NonResBs per Rooms	8 NonResOth per POP	9 NonResOth per EMP	10 NonResOth per Rooms
		per 100,000				per 100,000		per 1,000	per 100,000		per 1,000
1 NEW YORK	NY	183.6	47.2	407.2	63.9	98.7	91.5	103.6	362.5	38.3	219.9
2 QUEENS	NY	33.7	16.0	153.4	23.6	12.3	21.8	54.9	64.3	23.3	76.9
3 BRONX	NY	20.2	16.8	89.2	29.5	5.4	5.7	33.6	44.8	26.0	71.2
4 KINGS	NY	35.9	8.2	141.4	25.6	11.9	14.0	78.3	64.6	29.2	150.5
5 RICHMOND	NY	27.6	6.0	98.5	19.5	5.8	24.1	26.7	53.0	12.1	26.7
6 NASSAU	NY	70.8	14.8	235.1	29.4	11.5	43.5	45.3	127.3	17.4	60.2
7 SUFFOLK	NY	54.0	16.4	203.4	21.5	8.7	40.7	30.2	111.2	18.4	26.2
8 WESTCHESTER	NY	87.1	23.7	249.6	36.1	8.1	42.6	37.7	89.0	15.4	23.5
9 ROCKLAND	NY	47.4	53.7	199.3	21.5	6.9	23.9	19.9	80.2	27.2	9.6
10 PUTNAM	NY	59.2	26.3	265.3	47.5	17.2	50.7	0.0	57.8	1.4	55.2
11 ORANGE	NY	28.8	5.7	124.6	12.6	4.8	17.2	19.1	56.0	41.3	38.5
12 DUTCHESS	NY	24.5	1.3	137.9	19.7	13.0	13.7	20.2	67.8	18.2	53.6
13 FAIRFIELD	CT	73.1	22.1	204.7	26.3	15.9	38.6	31.3	121.5	8.1	17.3
14 BERGEN	NJ	85.5	32.1	199.2	17.3	10.3	57.9	59.7	86.1	7.4	34.5
15 PASSAIC	NJ	47.9	10.6	121.9	11.4	4.8	22.3	53.5	43.6	7.0	24.3
16 HUDSON	NJ	64.4	15.7	137.2	22.7	26.8	60.7	82.8	74.4	54.6	54.4
17 ESSEX	NJ	47.6	20.8	155.3	8.6	10.9	31.5	47.5	48.5	17.7	41.9
18 UNION	NJ	67.5	24.6	171.7	20.4	6.4	44.7	36.9	52.9	10.9	18.2
19 MORRIS	NJ	108.5	46.4	224.6	21.5	29.8	80.1	42.7	94.7	14.0	23.1
20 SOMERSET	NJ	121.3	17.8	182.1	7.0	29.5	78.1	37.4	80.1	3.5	3.5
21 MIDDLESEX	NJ	73.1	18.7	159.6	18.2	17.8	55.0	34.2	74.1	6.6	18.2
22 MONMOUTH	NJ	92.4	12.0	184.4	20.3	21.1	23.9	293.5	101.6	18.5	188.6
23 OCEAN	NJ	30.2	16.7	98.6	19.0	10.3	8.5	15.3	49.4	4.3	57.5
24 HUNTERDON	NJ	151.3	63.3	191.1	31.1	6.7	12.9	66.9	75.2	0.0	10.9
25 WARREN	NJ	107.4	20.6	128.6	49.6	0.9	6.1	0.0	58.5	0.0	0.0
26 SUSSEX	NJ	100.2	33.1	195.1	0.0	15.3	13.4	0.0	86.1	26.8	17.5
27 NEW HAVEN	CT	12.0	5.9	87.6	7.3	4.5	3.9	9.7	18.7	13.5	10.0
28 MERCER	NJ	51.8	9.3	100.6	13.8	11.6	13.0	15.2	31.5	13.4	4.1
29 DELAWARE	NY	16.8	4.1	6.4	0.0	0.0	1.8	0.0	1.1	1.8	0.0
30 SULLIVAN	NY	20.5	0.0	73.3	2.9	0.7	1.4	n/a	31.1	5.7	n/a
31 ULSTER	NY	14.7	1.7	88.1	0.0	5.9	0.6	4.1	32.3	13.7	19.2
32 ATLANTIC	NJ	9.9	0.7	34.7	4.1	7.6	3.4	90.5	53.0	15.8	186.1
33 BURLINGTON	NJ	12.7	0.9	32.8	4.5	5.8	10.6	4.6	8.8	4.0	3.3
34 CAMDEN	NJ	2.3	0.0	13.8	0.5	0.2	0.0	1.3	11.3	4.7	0.0
35 CAPE MAY	NJ	2.4	0.0	39.6	4.2	12.5	17.8	n/a	61.6	32.6	n/a
36 CUMBERLAND	NJ	0.8	0.0	14.0	0.0	0.0	0.0	204.5	10.3	1.7	118.2
37 GLOUCESTER	NJ	4.3	0.0	19.3	0.0	0.0	0.0	13.1	1.8	2.1	0.0
38 SALEM	NJ	0.0	0.0	3.8	0.0	1.9	0.0	0.0	1.9	0.0	0.0
39 LITCHFIELD	CT	17.2	16.5	87.2	0.0	9.6	1.2	18.4	6.6	0.0	2.7
40 BERKS	PA	7.5	1.8	15.7	0.0	0.5	1.3	0.0	7.6	0.4	0.0
41 BUCKS	PA	15.6	0.3	26.1	2.3	2.2	0.3	2.8	13.6	0.0	0.0
42 CARBON	PA	6.4	0.0	27.6	0.0	0.0	7.9	n/a	8.0	0.0	n/a
43 COLUMBIA	PA	4.5	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 LACKAWANNA	PA	9.0	0.0	6.6	0.0	0.5	0.0	1.4	4.7	0.8	11.7
45 LEHIGH	PA	39.5	11.8	67.5	2.3	3.9	2.7	27.8	26.0	5.5	13.6
46 LUZERNE	PA	2.2	0.6	10.7	0.6	0.3	0.0	0.0	1.2	0.6	0.0
47 MONROE	PA	29.3	4.0	70.4	1.3	0.6	13.4	119.4	23.9	2.6	85.8
48 MONTGOMERY	PA	4.7	0.6	11.3	1.5	0.0	0.3	1.2	7.6	0.2	0.1
49 NORTHAMPTON	PA	41.4	3.2	84.5	2.4	1.7	10.5	36.7	11.3	18.7	33.9
50 NORTHUMBERLAI	PA	0.0	0.0	12.6	0.0	1.0	2.5	0.0	11.6	0.0	0.0
51 PIKE	PA	19.0	102.1	68.1	51.1	0.0	0.0	0.0	38.7	0.0	n/a
52 SCHUYLKILL	PA	14.6	0.0	14.6	0.0	0.7	3.1	0.0	10.0	0.0	n/a
53 SUSQUEHANNA	PA	2.3	0.0	4.6	0.0	0.0	49.9	0.0	3.5	0.0	0.0
54 WYOMING	PA	0.0	0.0	73.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table I-10
Average Daily Air Passenger Trips to Airports – by Origin County – Base Year 2005

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	21,065	16,010	5,774	1	167	19	0	0	0	43,036
2 QUEENS	4,305	2,859	206	1	27	5	0	0	0	7,403
3 BRONX	1,177	1,215	87	0	13	7	0	0	0	2,499
4 KINGS	4,266	2,422	389	1	50	1	0	0	0	7,129
5 RICHMOND	343	95	548	0	3	0	0	0	0	989
6 NASSAU	4,452	2,406	95	0	388	0	0	0	0	7,341
7 SUFFOLK	2,922	1,668	103	0	2,167	2	0	1	0	6,863
8 WESTCHESTER	2,285	1,834	389	9	19	531	0	0	0	5,067
9 ROCKLAND	314	310	572	11	5	21	0	0	0	1,233
10 PUTNAM	147	214	64	8	0	34	0	0	0	467
11 ORANGE	216	206	357	198	0	20	0	0	0	997
12 DUTCHESS	324	262	79	165	5	51	0	0	0	886
13 FAIRFIELD	2,148	1,652	310	5	8	526	0	0	0	4,649
14 BERGEN	804	723	3,232	3	5	9	2	0	0	4,778
15 PASSAIC	118	103	1,064	1	5	0	0	1	0	1,292
16 HUDSON	422	326	2,240	0	8	1	1	0	0	2,998
17 ESSEX	245	143	2,581	1	0	0	0	0	0	2,970
18 UNION	186	95	1,803	0	3	0	1	0	0	2,088
19 MORRIS	216	143	2,915	1	3	0	2	8	0	3,288
20 SOMERSET	108	40	1,604	0	0	0	2	7	1	1,762
21 MIDDLESEX	490	103	2,859	0	3	0	35	2	2	3,494
22 MONMOUTH	235	32	2,692	0	5	0	124	0	4	3,092
23 OCEAN	69	40	747	0	0	0	350	0	1	1,207
24 HUNTERDON	20	0	651	1	0	0	6	22	3	703
25 WARREN	20	8	294	0	0	0	1	44	0	367
26 SUSSEX	69	24	572	8	0	0	0	4	0	677
27 NEW HAVEN	902	278	64	1	0	25	0	0	0	1,270
28 MERCER	108	32	723	0	5	0	25	2	23	918
29 DELAWARE	0	0	8	5	0	1	0	0	0	14
30 SULLIVAN	29	8	24	35	3	2	0	1	0	102
31 ULSTER	108	40	40	89	0	6	0	0	0	283
32 ATLANTIC	20	24	175	0	0	0	375	1	0	595
33 BURLINGTON	29	8	191	0	0	0	113	0	3	344
34 CAMDEN	59	0	48	0	0	0	52	0	0	159
35 CAPE MAY	0	0	48	0	0	0	135	0	0	183
36 CUMBERLAND	0	0	32	0	0	0	32	0	0	64
37 GLOUCESTER	10	0	24	0	0	0	46	0	0	80
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	127	71	40	2	0	15	0	0	0	255
40 BERKS	29	0	8	0	0	0	2	90	0	129
41 BUCKS	78	8	183	0	0	0	11	66	31	377
42 CARBON	0	8	0	0	0	0	0	21	0	29
43 COLUMBIA	0	0	0	0	0	0	0	6	0	6
44 LACKAWANNA	0	16	24	0	0	0	0	14	0	54
45 LEHIGH	20	0	199	0	0	0	0	352	0	571
46 LUZERNE	10	0	16	0	0	0	0	22	0	48
47 MONROE	0	8	143	0	0	0	0	95	0	246
48 MONTGOMERY	59	0	79	0	0	0	16	50	5	209
49 NORTHAMPTON	29	0	167	1	0	0	0	285	1	483
50 NORTHUMBERLAND	20	0	0	0	0	0	0	5	0	25
51 PIKE	20	0	79	4	0	0	0	7	0	110
52 SCHUYLKILL	29	0	8	0	0	0	0	31	0	68
53 SUSQUEHANNA	0	0	8	1	0	0	0	4	0	13
54 WYOMING	10	0	8	0	0	0	0	3	0	21
	48,662	33,434	34,566	552	2,892	1,276	1,336	1,144	74	123,936

Table I-11
Total Annual Air Passenger Trips to Airports – by Origin County – Base Year 2005

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	7,688.7	5,843.7	2,107.5	0.4	61.0	6.9	0.0	0.0	0.0	**15,708.1**
2 QUEENS	1,571.3	1,043.5	75.2	0.4	9.9	1.8	0.0	0.0	0.0	**2,702.1**
3 BRONX	429.6	443.5	31.8	0.0	4.7	2.6	0.0	0.0	0.0	**912.1**
4 KINGS	1,557.1	884.0	142.0	0.4	18.3	0.4	0.0	0.0	0.0	**2,602.1**
5 RICHMOND	125.2	34.7	200.0	0.0	1.1	0.0	0.0	0.0	0.0	**361.0**
6 NASSAU	1,625.0	878.2	34.7	0.0	141.6	0.0	0.0	0.0	0.0	**2,679.5**
7 SUFFOLK	1,066.5	608.8	37.6	0.0	791.0	0.7	0.0	0.4	0.0	**2,505.0**
8 WESTCHESTER	834.0	669.4	142.0	3.3	6.9	193.8	0.0	0.0	0.0	**1,849.5**
9 ROCKLAND	114.6	113.2	208.8	4.0	1.8	7.7	0.0	0.0	0.0	**450.0**
10 PUTNAM	53.7	78.1	23.4	2.9	0.0	12.4	0.0	0.0	0.0	**170.5**
11 ORANGE	78.8	75.2	130.3	72.3	0.0	7.3	0.0	0.0	0.0	**363.9**
12 DUTCHESS	118.3	95.6	28.8	60.2	1.8	18.6	0.0	0.0	0.0	**323.4**
13 FAIRFIELD	784.0	603.0	113.2	1.8	2.9	192.0	0.0	0.0	0.0	**1,696.9**
14 BERGEN	293.5	263.9	1,179.7	1.1	1.8	3.3	0.7	0.0	0.0	**1,744.0**
15 PASSAIC	43.1	37.6	388.4	0.4	1.8	0.0	0.0	0.4	0.0	**471.6**
16 HUDSON	154.0	119.0	817.6	0.0	2.9	0.4	0.4	0.0	0.0	**1,094.3**
17 ESSEX	89.4	52.2	942.1	0.4	0.0	0.0	0.0	0.0	0.0	**1,084.1**
18 UNION	67.9	34.7	658.1	0.0	1.1	0.0	0.4	0.0	0.0	**762.1**
19 MORRIS	78.8	52.2	1,064.0	0.4	1.1	0.0	0.7	2.9	0.0	**1,200.1**
20 SOMERSET	39.4	14.6	585.5	0.0	0.0	0.0	0.7	2.6	0.4	**643.1**
21 MIDDLESEX	178.9	37.6	1,043.5	0.0	1.1	0.0	12.8	0.7	0.7	**1,275.3**
22 MONMOUTH	85.8	11.7	982.6	0.0	1.8	0.0	45.3	0.0	1.5	**1,128.6**
23 OCEAN	25.2	14.6	272.7	0.0	0.0	0.0	127.8	0.0	0.4	**440.6**
24 HUNTERDON	7.3	0.0	237.6	0.4	0.0	0.0	2.2	8.0	1.1	**256.6**
25 WARREN	7.3	2.9	107.3	0.0	0.0	0.0	0.4	16.1	0.0	**134.0**
26 SUSSEX	25.2	8.8	208.8	2.9	0.0	0.0	0.0	1.5	0.0	**247.1**
27 NEW HAVEN	329.2	101.5	23.4	0.4	0.0	9.1	0.0	0.0	0.0	**463.6**
28 MERCER	39.4	11.7	263.9	0.0	1.8	0.0	9.1	0.7	8.4	**335.1**
29 DELAWARE	0.0	0.0	2.9	1.8	0.0	0.4	0.0	0.0	0.0	**5.1**
30 SULLIVAN	10.6	2.9	8.8	12.8	1.1	0.7	0.0	0.4	0.0	**37.2**
31 ULSTER	39.4	14.6	14.6	32.5	0.0	2.2	0.0	0.0	0.0	**103.3**
32 ATLANTIC	7.3	8.8	63.9	0.0	0.0	0.0	136.9	0.4	0.0	**217.2**
33 BURLINGTON	10.6	2.9	69.7	0.0	0.0	0.0	41.2	0.0	1.1	**125.6**
34 CAMDEN	21.5	0.0	17.5	0.0	0.0	0.0	19.0	0.0	0.0	**58.0**
35 CAPE MAY	0.0	0.0	17.5	0.0	0.0	0.0	49.3	0.0	0.0	**66.8**
36 CUMBERLAND	0.0	0.0	11.7	0.0	0.0	0.0	11.7	0.0	0.0	**23.4**
37 GLOUCESTER	3.7	0.0	8.8	0.0	0.0	0.0	16.8	0.0	0.0	**29.2**
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	**1.8**
39 LITCHFIELD	46.4	25.9	14.6	0.7	0.0	5.5	0.0	0.0	0.0	**93.1**
40 BERKS	10.6	0.0	2.9	0.0	0.0	0.0	0.7	32.9	0.0	**47.1**
41 BUCKS	28.5	2.9	66.8	0.0	0.0	0.0	4.0	24.1	11.3	**137.6**
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	7.7	0.0	**10.6**
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	**2.2**
44 LACKAWANNA	0.0	5.8	8.8	0.0	0.0	0.0	0.0	5.1	0.0	**19.7**
45 LEHIGH	7.3	0.0	72.6	0.0	0.0	0.0	0.0	128.5	0.0	**208.4**
46 LUZERNE	3.7	0.0	5.8	0.0	0.0	0.0	0.0	8.0	0.0	**17.5**
47 MONROE	0.0	2.9	52.2	0.0	0.0	0.0	0.0	34.7	0.0	**89.8**
48 MONTGOMERY	21.5	0.0	28.8	0.0	0.0	0.0	5.8	18.3	1.8	**76.3**
49 NORTHAMPTON	10.6	0.0	61.0	0.4	0.0	0.0	0.0	104.0	0.4	**176.3**
50 NORTHUMBERLAND	7.3	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	**9.1**
51 PIKE	7.3	0.0	28.8	1.5	0.0	0.0	0.0	2.6	0.0	**40.2**
52 SCHUYLKILL	10.6	0.0	2.9	0.0	0.0	0.0	0.0	11.3	0.0	**24.8**
53 SUSQUEHANNA	0.0	0.0	2.9	0.4	0.0	0.0	0.0	1.5	0.0	**4.7**
54 WYOMING	3.7	0.0	2.9	0.0	0.0	0.0	0.0	1.1	0.0	**7.7**
	17,761.6	**12,203.4**	**12,616.6**	**201.5**	**1,055.6**	**465.7**	**487.6**	**417.6**	**27.0**	**45,236.6**

II.   FORECAST OF FUTURE AIR PASSENGER

II.1   Forecast Methodology

Using the approach and data described in Section I, a full set of air passenger ground access trip forecasts have been prepared and are summarized in this section of the report, focusing on Year 2025 forecasts.   Similar forecasts have been developed for each year 2006 through 2010, for the five year horizon years of 2015, 2020 as well.   Forecasts for these years are summarized and can be found in **Appendix B**.

The forecasts have been developed in a series of four stages or *levels*, reflecting an incremental consideration of different factors and assumptions or *levels* related to the projected growth in regional air passenger demand.   For convenience and simplicity in terminology, these can be referred to as Levels 1, 2, 3 and 4 forecasts, **with the Level 4 forecasts being considered the primary finding or deliverable of Task C**.

The forecasts are county-level estimates of future of air passenger demand, developed as direct tabulations of the integrated air passenger survey data using four levels of expansion weighting that we have developed and applied for forecasting.   A set of expansion weights each of the forecasts years and for each of the four levels are produced, and forecast trip rates for each level are then calculated using these weights applied to the air passenger survey. The forecast procedures, like the base year analysis procedures discussed in Section I, have been developed and implemented with using the Statistical Package for Social Sciences package (SPSS) that can be found in **Appendix A**.

II.2   Description of Forecast Levels 1-4

Level 1:   Growth in air passenger demand based solely on the forecast socioeconomic/demographic data in each county -- Population, Employment and Hotel Rooms, to which the county-specific rates of air passenger trip making by market segment (see Section 1.2) are applied.

Level 2:   Reflects the additional growth in air passenger demand attributable to the forecast real growth in household incomes, and the propensity of higher income households to produce more air trips as previously discussed in the analysis of the air passenger survey.   Using the segmentation model described in Section I.6, forecast changes in household income distribution are made and the expansion weights on low, medium and high income survey records of regional residents are adjusted accordingly for a given forecast year.   The details of the application of this segmentation model for the Year 2025, using the forecast change in mean household income in each county, can be found in **Appendix C**.

The Level 2 expansion weights that are applied to the survey data are the simple product of the Level 1 expansion factors and these weights (normalized around 1.00) reflecting the shift in income distributions from lower to higher incomes. It should be noted that lacking either the base year or forecast data to do so, the Level 2 forecasts do not include a consideration of the effect of possible income growth on <u>non-resident</u> air travel.

Level 3: The Level 1 and 2 expansion factors reflect a condition in which the rates of air passenger trip-making, for a given demographic segment remain constant over time. This reflects the cross-sectional analysis method of Task C that focuses on the current air passenger survey and regional socioeconomic/demographic data, in contrast to the time-series or longitudinal analysis done in Task B to forecast the growth in overall regional air passenger demand for the region. This trend-based analysis indicates that in fact there are increasing rates of air passenger demand that can be projected. Consequently, in the third level of county origination forecasts in Task C, the total regional origin and destination or ground access enplanements forecasts from Task B are used as a control – enplanement forecasts for all 9 airports combined. The Task B enplanement forecasts are found in **Appendix D**.

Level 4: For the Level 4 expansion weighting and forecasts, the forecast of air passenger trips for each of the airport is fully constrained to the Task B airport-specific enplanement forecasts.

II.3   Summary 2025 Forecast: Levels 1-4

The application of the methods results in a series of incremental forecasts as summarized for all nine airports, combined by *market type* and *level* in **Table II-1**.

The Level 1 forecast shows that if rates of air passenger trip-making were to remain constant in relation ship to population and employment that only a 12.4% increase in total air passenger trip would be expected.

For the Level 2 forecast, consideration is given to the forecast growth in real income for residents of the region, and the added effect of this accounts for a projected total growth of about 16 percent (15.9%).   The income effect is most pronounced for business travel, where the forecast growth more than doubles.

With the Level 3 and 4 forecasts *controlled to* the Task B aviation forecasts, and showing an overall growth of 49.0%, it is clear that a substantial amount of the forecast growth, about two-thirds, is due to projections of increasing rates of air travel in the population.

In **Table II-2** the forecasts are summarized for each of the airports. A comparison of the Level 4 forecast with the Level 3 forecast, indicates that a small "shift" in the current pattern of trips in the major airports market is expected, i.e. - some Level 3 trips (reflecting an assumption of constant 2005 rates of air passenger travel) to LGA are projected to shift, primarily to EWR, and to smaller extent to JFK. In

addition, it is projected that there will be an overall trend of migration of trips from the smaller airports to the major commercial airports. This difference in the airport forecasts between Level 3 and Level 4 air passenger trips, reflects the "inertia" of current airport choice patterns in the Level 3 assumptions, while the Level 4 reflect the Task B forecast changes.

Overall, the variations between the air trip forecasts for specific airports between the Task B forecasts (Level 4) and the Task C Level 3 forecasts, reflect the current pattern of airport selection by origin county and market segment in the later case, while in the Task B methodology, tendencies in the shifting of airport preferences over time have been taken directly into account.

Note that in Section III, a Level 5 set of forecasts are presented that reflect the test application a simple model of airport and ground access mode choice that can provide another reference for air travel growth analysis, and a tool for air passenger demand analysis with respect to airport operations, aviation service measures and pricing, as well as ground access characteristics.

Table II-1
Summary: 2025 air Passenger Trips – Forecasts by Level of Analysis – by Trip type

Trip Type	2005	Forecasts				Growth over 2005			
		Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 Resident-Business	17,580	19,759	22,290	28,640	28,729	12.4%	26.8%	62.9%	63.4%
2 Resident-Other	44,744	49,991	51,839	66,607	66,589	11.7%	15.9%	48.9%	48.8%
3 Non Resident-Business	20,389	23,439	23,439	30,116	30,140	15.0%	15.0%	47.7%	47.8%
4 Non Resident-Other	41,216	46,104	46,104	59,238	59,145	11.9%	11.9%	43.7%	43.5%
Total	**123,929**	**139,292**	**143,672**	**184,602**	**184,603**	**12.4%**	**15.9%**	**49.0%**	**49.0%**

Table II-2
Summary: 2025 air Passenger Trips – Forecasts by Level of Analysis – by Airport

Airport	2005	Forecasts				Growth over 2005			
		Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 JFK	48,660	53,384	54,551	70,092	71,068	9.7%	12.1%	44.0%	46.0%
2 LGA	33,433	36,544	37,857	48,642	44,037	9.3%	13.2%	45.5%	31.7%
3 EWR	34,564	40,732	42,348	54,412	58,774	17.8%	22.5%	57.4%	70.0%
4 SWF	546	675	701	900	873	23.5%	28.3%	64.8%	59.7%
5 ISP	2,892	3,319	3,348	4,302	4,260	14.8%	15.8%	48.8%	47.3%
6 HPN	1,278	1,465	1,519	1,952	1,801	14.6%	18.9%	52.7%	40.9%
7 ACY	1,339	1,702	1,769	2,273	1,803	27.1%	32.2%	69.8%	34.7%
8 ABE	1,143	1,384	1,477	1,898	1,877	21.0%	29.2%	66.0%	64.2%
9 TTN	74	89	101	130	110	19.9%	36.6%	75.5%	48.9%
Total	**123,929**	**139,292**	**143,672**	**184,602**	**184,603**	**12.4%**	**15.9%**	**49.0%**	**49.0%**

In **Tables II-3 through II-6,** the forecast rates of air passenger trip productions by market type and origin county are reported, for each of the four levels. While reported here at the county-level, it is important to note that for the 28 county core region that coincides with the NYMTC BPM modeling area, these rates could be applied at the zonal level to support detailed analysis of zone-to-airport ground access flows.

Table II-3
Air Passenger Trip Origination Rates by County and by Air Market Type –
Forecast Year 2025 – Level 1 Analysis

Origin County	State	Resident Trips				Non-Resident Trips					
		Business		Other (non-Bus.)		Business			Other (non-Bus.)		
		1	2	3	4	5	6	7	8	9	10
		ResBs per POP	ResBs per EMP	ResOth per POP	ResOth per EMP	NonResBs per POP	NonResBsp er EMP	NonResBs per Rooms	NonResOth per POP	NonResOth per EMP	NonResOth per Rooms
		per 100,000				per 100,000		per 1,000	per 100,000		per 1,000
1 NEW YORK	NY	183.6	47.2	407.2	63.9	98.7	91.5	103.6	362.5	38.3	219.9
2 QUEENS	NY	33.7	16.0	153.4	23.6	12.3	21.8	54.9	64.3	23.3	76.9
3 BRONX	NY	20.2	16.8	89.2	29.5	5.4	5.7	33.6	44.8	26.0	71.2
4 KINGS	NY	35.9	8.2	141.4	25.6	11.9	14.0	78.3	64.6	29.2	150.5
5 RICHMOND	NY	27.6	6.0	98.5	19.5	5.8	24.1	26.7	53.0	12.1	26.7
6 NASSAU	NY	70.8	14.8	235.1	29.4	11.5	43.5	45.3	127.3	17.4	60.2
7 SUFFOLK	NY	54.0	16.4	203.4	21.5	8.7	40.7	30.2	111.2	18.4	26.2
8 WESTCHESTER	NY	87.1	23.7	249.6	36.1	8.1	42.6	37.7	89.0	15.4	23.5
9 ROCKLAND	NY	47.4	53.7	199.3	21.5	6.9	23.9	19.9	80.2	27.2	9.6
10 PUTNAM	NY	59.2	26.3	265.3	47.5	17.2	50.7	0.0	57.8	1.4	55.2
11 ORANGE	NY	28.8	5.7	124.6	12.6	4.8	17.2	19.1	56.0	41.3	38.5
12 DUTCHESS	NY	24.5	1.3	137.9	19.7	13.0	13.7	20.2	67.8	18.2	53.6
13 FAIRFIELD	CT	73.1	22.1	204.7	26.3	15.9	38.6	31.3	121.5	8.1	17.3
14 BERGEN	NJ	85.5	32.1	199.2	17.3	10.3	57.9	59.7	86.1	7.4	34.5
15 PASSAIC	NJ	47.9	10.6	121.9	11.4	4.8	22.3	53.5	43.6	7.0	24.3
16 HUDSON	NJ	64.4	15.7	137.2	22.7	26.8	60.7	82.8	74.4	54.6	54.4
17 ESSEX	NJ	47.6	20.8	155.3	8.6	10.9	31.5	47.5	48.5	17.7	41.9
18 UNION	NJ	67.5	24.6	171.7	20.4	6.4	44.7	36.9	52.9	10.9	18.2
19 MORRIS	NJ	108.5	46.4	224.6	21.5	29.8	80.1	42.7	94.7	14.0	23.1
20 SOMERSET	NJ	121.3	17.8	182.1	7.0	29.5	78.1	37.4	80.1	3.5	3.5
21 MIDDLESEX	NJ	73.1	18.7	159.6	18.2	17.8	55.0	34.2	74.1	6.6	18.2
22 MONMOUTH	NJ	92.4	12.0	184.4	20.3	21.1	23.9	293.5	101.6	18.5	188.6
23 OCEAN	NJ	30.2	16.7	98.6	19.0	10.3	8.5	15.3	49.4	4.3	57.5
24 HUNTERDON	NJ	151.3	63.3	191.1	31.1	6.7	12.9	66.9	75.2	0.0	10.9
25 WARREN	NJ	107.4	20.6	128.6	49.6	0.9	6.1	0.0	58.5	0.0	0.0
26 SUSSEX	NJ	100.2	33.1	195.1	0.0	15.3	13.4	0.0	86.1	26.8	17.5
27 NEW HAVEN	CT	12.0	5.9	87.6	7.3	4.5	3.9	9.7	18.7	13.5	10.0
28 MERCER	NJ	51.8	9.3	100.6	13.8	11.6	13.0	15.2	31.5	13.4	4.1
29 DELAWARE	NY	16.8	4.1	6.4	0.0	0.0	1.8	0.0	1.1	1.8	0.0
30 SULLIVAN	NY	20.5	0.0	73.3	2.9	0.7	1.4	n/a	31.1	5.7	n/a
31 ULSTER	NY	14.7	1.7	88.1	0.0	5.9	0.6	4.1	32.3	13.7	19.2
32 ATLANTIC	NJ	9.9	0.7	34.7	4.1	7.6	3.4	90.5	53.0	15.8	186.1
33 BURLINGTON	NJ	12.7	0.9	32.8	4.5	5.8	10.6	4.6	8.8	4.0	3.3
34 CAMDEN	NJ	2.3	0.0	13.8	0.5	0.2	0.0	1.3	11.3	4.7	0.0
35 CAPE MAY	NJ	2.4	0.0	39.6	4.2	12.5	17.8	n/a	61.6	32.6	n/a
36 CUMBERLAND	NJ	0.8	0.0	14.0	0.0	0.0	0.0	204.5	10.3	1.7	118.2
37 GLOUCESTER	NJ	4.3	0.0	19.3	0.0	0.0	0.0	13.1	1.8	2.1	0.0
38 SALEM	NJ	0.0	0.0	3.8	0.0	1.9	0.0	0.0	1.9	0.0	0.0
39 LITCHFIELD	CT	17.2	16.5	87.2	0.0	9.6	1.2	18.4	6.6	0.0	2.7
40 BERKS	PA	7.5	1.8	15.7	0.0	0.5	1.3	0.0	7.6	0.4	0.0
41 BUCKS	PA	15.6	0.3	26.1	2.3	2.2	0.3	2.8	13.6	0.0	0.0
42 CARBON	PA	6.4	0.0	27.6	0.0	0.0	7.9	n/a	8.0	0.0	n/a
43 COLUMBIA	PA	4.5	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 LACKAWANNA	PA	9.0	0.0	6.6	0.0	0.5	0.0	1.4	4.7	0.8	11.7
45 LEHIGH	PA	39.5	11.8	67.5	2.3	3.9	2.7	27.8	26.0	5.5	13.6
46 LUZERNE	PA	2.2	0.6	10.7	0.6	0.3	0.0	0.0	1.2	0.6	0.0
47 MONROE	PA	29.3	4.0	70.4	1.3	0.6	13.4	119.4	23.9	2.6	85.8
48 MONTGOMERY	PA	4.7	0.6	11.3	1.5	0.0	0.3	1.2	7.6	0.2	0.1
49 NORTHAMPTON	PA	41.4	3.2	84.5	2.4	1.7	10.5	36.7	11.3	18.7	33.9
50 NORTHUMBERLAI	PA	0.0	0.0	12.6	0.0	1.0	2.5	0.0	11.6	0.0	0.0
51 PIKE	PA	19.0	102.1	68.1	51.1	0.0	0.0	0.0	38.7	0.0	n/a
52 SCHUYLKILL	PA	14.6	0.0	14.6	0.0	0.7	3.1	0.0	10.0	0.0	n/a
53 SUSQUEHANNA	PA	2.3	0.0	4.6	0.0	0.0	49.9	0.0	3.5	0.0	0.0
54 WYOMING	PA	0.0	0.0	73.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table II-4
Air Passenger Trip Origination Rates by County and by Air Market Type –
Forecast Year 2025 – Level 2 Analysis

		Resident Trips				Non-Resident Trips					
		Business		Other (non-Bus.)		Business			Other (non-Bus.)		
		1 ResBs per POP	2 ResBs per EMP	3 ResOth per POP	4 ResOth per EMP	5 NonResBs per POP	6 NonResBsp er EMP	7 NonResBs per Rooms	8 NonResOth per POP	9 NonResOth per EMP	10 NonResOth per Rooms
Origin County	State	*per 100,000*				*per 100,000*		*per 1,000*	*per 100,000*		*per 1,000*
1 NEW YORK	NY	203.5	56.0	422.7	69.5	99.7	96.5	110.6	366.3	40.4	234.7
2 QUEENS	NY	42.8	24.0	176.9	26.0	13.9	25.4	72.7	72.7	27.2	101.9
3 BRONX	NY	27.3	28.0	106.4	34.1	6.0	6.7	59.2	49.9	31.0	125.4
4 KINGS	NY	51.3	11.7	166.9	37.9	12.9	17.0	188.2	70.2	35.4	361.9
5 RICHMOND	NY	44.0	8.3	140.3	29.5	7.7	33.3	40.6	69.9	16.6	40.6
6 NASSAU	NY	78.9	17.6	247.3	33.6	12.0	49.1	54.8	132.8	19.7	72.8
7 SUFFOLK	NY	68.2	20.8	237.9	25.3	10.0	48.1	37.2	128.2	21.8	32.4
8 WESTCHESTER	NY	102.7	29.1	278.7	41.2	8.9	49.3	46.0	97.4	17.9	28.7
9 ROCKLAND	NY	64.7	69.6	241.3	22.5	8.2	28.6	25.2	94.5	32.5	12.1
10 PUTNAM	NY	84.0	28.5	371.5	63.4	23.7	67.1	0.0	79.6	1.8	78.6
11 ORANGE	NY	45.8	7.3	169.4	14.6	6.1	22.0	78.6	71.5	52.7	158.7
12 DUTCHESS	NY	31.1	1.8	167.6	22.3	15.3	16.0	86.6	79.8	21.2	230.2
13 FAIRFIELD	CT	88.8	31.3	238.2	32.8	17.6	47.6	49.2	133.8	10.0	27.2
14 BERGEN	NJ	99.4	41.5	218.7	20.3	10.9	68.2	75.6	91.3	8.7	43.7
15 PASSAIC	NJ	61.5	13.9	135.8	14.4	5.1	25.7	68.4	47.2	8.1	31.1
16 HUDSON	NJ	96.7	20.8	161.9	24.7	29.8	71.7	105.5	82.6	64.5	69.3
17 ESSEX	NJ	58.4	27.8	174.0	10.9	11.6	35.2	56.2	51.3	19.7	49.6
18 UNION	NJ	78.7	29.2	179.1	20.6	6.5	46.9	40.8	54.0	11.5	20.2
19 MORRIS	NJ	137.5	62.5	276.1	28.8	36.2	102.2	56.0	115.3	17.9	30.3
20 SOMERSET	NJ	174.0	26.5	256.2	10.9	40.6	112.6	54.6	110.2	5.0	5.1
21 MIDDLESEX	NJ	104.1	26.9	204.6	27.3	21.9	73.2	47.7	91.2	8.8	25.5
22 MONMOUTH	NJ	128.5	15.1	233.8	24.9	26.0	29.5	371.9	125.2	22.9	239.0
23 OCEAN	NJ	44.4	24.3	135.8	28.0	13.3	10.6	n/a	64.0	5.4	n/a
24 HUNTERDON	NJ	222.5	90.4	269.6	42.6	9.2	17.9	91.1	103.6	0.0	14.8
25 WARREN	NJ	142.3	23.8	166.0	64.1	1.1	6.9	0.0	72.5	0.0	0.0
26 SUSSEX	NJ	144.0	48.5	254.8	0.0	19.9	17.1	0.0	112.0	34.1	29.1
27 NEW HAVEN	CT	15.0	7.9	99.8	9.5	4.8	4.6	15.6	20.1	15.9	16.0
28 MERCER	NJ	68.8	10.2	121.9	19.1	13.2	15.2	18.8	36.0	15.7	5.1
29 DELAWARE	NY	27.5	4.6	7.4	0.0	0.0	2.0	0.0	1.1	2.0	0.0
30 SULLIVAN	NY	33.4	0.0	111.7	3.9	0.7	1.6	n/a	34.1	6.6	n/a
31 ULSTER	NY	18.9	2.5	111.6	0.0	7.0	0.7	n/a	38.7	16.5	n/a
32 ATLANTIC	NJ	13.5	1.3	43.0	5.8	9.1	4.2	n/a	64.0	19.4	n/a
33 BURLINGTON	NJ	16.6	1.9	41.2	5.8	7.2	14.1	10.0	10.9	5.3	7.2
34 CAMDEN	NJ	3.4	0.0	16.0	0.6	0.3	0.0	2.7	12.0	5.3	0.0
35 CAPE MAY	NJ	2.8	0.0	52.3	7.0	14.6	21.2	n/a	71.9	38.8	n/a
36 CUMBERLAND	NJ	1.1	0.0	17.0	0.0	0.0	0.0	n/a	10.9	1.8	n/a
37 GLOUCESTER	NJ	5.1	0.0	22.0	0.0	0.0	0.0	n/a	2.2	2.6	0.0
38 SALEM	NJ	0.0	0.0	3.9	0.0	2.0	0.0	0.0	2.0	0.0	0.0
39 LITCHFIELD	CT	23.1	19.5	105.6	0.0	11.1	1.4	n/a	7.7	0.0	n/a
40 BERKS	PA	10.4	2.3	17.5	0.0	0.6	1.6	0.0	8.5	0.5	0.0
41 BUCKS	PA	21.3	0.4	32.0	2.7	2.6	0.4	5.4	16.3	0.0	0.0
42 CARBON	PA	9.5	0.0	29.7	0.0	0.0	10.2	n/a	8.9	0.0	n/a
43 COLUMBIA	PA	5.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 LACKAWANNA	PA	12.8	0.0	11.0	0.0	0.5	0.0	n/a	4.6	0.9	n/a
45 LEHIGH	PA	53.8	18.6	81.1	2.8	4.5	3.4	77.3	29.6	6.9	37.9
46 LUZERNE	PA	3.0	1.4	10.5	0.9	0.3	0.0	0.0	1.2	0.7	0.0
47 MONROE	PA	47.7	6.2	109.1	1.8	0.9	18.2	n/a	34.3	3.6	n/a
48 MONTGOMERY	PA	6.4	0.9	14.0	1.7	0.0	0.3	1.7	8.5	0.2	0.2
49 NORTHAMPTON	PA	55.8	4.3	109.1	2.9	2.1	12.7	n/a	13.6	22.5	n/a
50 NORTHUMBERLAI	PA	0.0	0.0	11.7	0.0	1.0	2.7	0.0	11.4	0.0	0.0
51 PIKE	PA	42.9	209.1	107.0	55.6	0.0	0.0	0.0	57.1	0.0	n/a
52 SCHUYLKILL	PA	17.3	0.0	16.0	0.0	0.6	3.4	0.0	9.7	0.0	n/a
53 SUSQUEHANNA	PA	2.2	0.0	5.2	0.0	0.0	57.3	0.0	3.8	0.0	0.0
54 WYOMING	PA	0.0	0.0	88.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table II-5
Air Passenger Trip Origination Rates by County and by Air Market Type – Forecast Year 2025 – Level 3 Analysis

		Resident Trips				Non-Resident Trips					
		Business		Other (non-Bus.)		Business			Other (non-Bus.)		
		1	2	3	4	5	6	7	8	9	10
Origin County	State	ResBs per POP	ResBs per EMP	ResOth per POP	ResOth per EMP	NonResBs per POP	NonResBsp er EMP	NonResBs per Rooms	NonResOth per POP	NonResOth per EMP	NonResOth per Rooms
		per 100,000				per 100,000		per 1,000	per 100,000		per 1,000
1 NEW YORK	NY	262.1	72.1	544.4	89.5	128.4	124.3	142.5	471.6	52.1	302.3
2 QUEENS	NY	55.1	31.0	227.8	33.5	17.9	32.7	93.6	93.6	35.0	131.2
3 BRONX	NY	35.1	36.0	137.0	43.9	7.7	8.7	76.2	64.2	39.9	161.5
4 KINGS	NY	66.1	15.1	214.9	48.8	16.6	21.8	242.4	90.3	45.6	466.1
5 RICHMOND	NY	56.7	10.7	180.6	38.0	9.9	42.8	52.3	90.0	21.4	52.3
6 NASSAU	NY	101.6	22.7	318.5	43.2	15.5	63.2	70.6	171.0	25.3	93.8
7 SUFFOLK	NY	87.8	26.8	306.4	32.6	12.9	61.9	48.0	165.1	28.0	41.7
8 WESTCHESTER	NY	132.2	37.5	358.9	53.1	11.4	63.5	59.3	125.4	23.0	37.0
9 ROCKLAND	NY	83.3	89.6	310.7	28.9	10.5	36.8	32.5	121.6	41.9	15.6
10 PUTNAM	NY	108.2	36.6	478.4	81.6	30.5	86.3	0.0	102.5	2.3	101.2
11 ORANGE	NY	59.0	9.4	218.2	18.8	7.9	28.3	101.2	92.1	67.9	204.3
12 DUTCHESS	NY	40.1	2.3	215.9	28.8	19.7	20.6	111.5	102.8	27.3	296.4
13 FAIRFIELD	CT	114.3	40.3	306.8	42.2	22.6	61.3	63.4	172.3	12.9	35.1
14 BERGEN	NJ	128.1	53.4	281.6	26.1	14.1	87.9	97.3	117.6	11.3	56.2
15 PASSAIC	NJ	79.1	18.0	174.8	18.5	6.6	33.1	88.1	60.8	10.5	40.0
16 HUDSON	NJ	124.5	26.8	208.5	31.9	38.4	92.3	135.9	106.4	83.0	89.2
17 ESSEX	NJ	75.2	35.8	224.1	14.0	14.9	45.3	72.3	66.1	25.4	63.9
18 UNION	NJ	101.3	37.7	230.7	26.5	8.4	60.4	52.6	69.5	14.8	26.0
19 MORRIS	NJ	177.0	80.5	355.6	37.0	46.7	131.6	72.2	148.5	23.0	39.1
20 SOMERSET	NJ	224.1	34.1	329.9	14.0	52.2	144.9	70.3	141.9	6.5	6.6
21 MIDDLESEX	NJ	134.0	34.7	263.5	35.1	28.2	94.3	61.4	117.4	11.3	32.8
22 MONMOUTH	NJ	165.5	19.5	301.1	32.1	33.5	37.9	478.9	161.3	29.4	307.7
23 OCEAN	NJ	57.2	31.3	174.9	36.1	17.1	13.6	n/a	82.5	6.9	n/a
24 HUNTERDON	NJ	286.5	116.4	347.2	54.9	11.9	23.1	117.3	133.4	0.0	19.1
25 WARREN	NJ	183.2	30.6	213.8	82.6	1.4	8.9	0.0	93.4	0.0	0.0
26 SUSSEX	NJ	185.4	62.5	328.1	0.0	25.7	22.0	0.0	144.2	43.9	37.4
27 NEW HAVEN	CT	19.3	10.2	128.6	12.2	6.2	5.9	20.0	25.9	20.4	20.6
28 MERCER	NJ	88.6	13.2	157.0	24.6	17.0	19.6	24.2	46.3	20.2	6.6
29 DELAWARE	NY	35.4	5.9	9.6	0.0	0.0	2.5	0.0	1.4	2.5	0.0
30 SULLIVAN	NY	43.1	0.0	143.9	5.0	0.9	2.1	n/a	44.0	8.5	n/a
31 ULSTER	NY	24.4	3.2	143.7	0.0	9.1	0.9	n/a	49.9	21.3	n/a
32 ATLANTIC	NJ	17.4	1.7	55.3	7.4	11.8	5.4	n/a	82.5	25.0	n/a
33 BURLINGTON	NJ	21.4	2.5	53.0	7.4	9.2	18.1	12.9	14.0	6.8	9.3
34 CAMDEN	NJ	4.3	0.0	20.6	0.7	0.3	0.0	3.4	15.5	6.9	0.0
35 CAPE MAY	NJ	3.6	0.0	67.4	9.1	18.7	27.3	n/a	92.6	49.9	n/a
36 CUMBERLAND	NJ	1.4	0.0	21.8	0.0	0.0	0.0	n/a	14.0	2.4	n/a
37 GLOUCESTER	NJ	6.6	0.0	28.3	0.0	0.0	0.0	n/a	2.8	3.4	0.0
38 SALEM	NJ	0.0	0.0	5.0	0.0	2.6	0.0	0.0	2.6	0.0	0.0
39 LITCHFIELD	CT	29.8	25.2	136.0	0.0	14.4	1.9	n/a	10.0	0.0	n/a
40 BERKS	PA	13.4	3.0	22.5	0.0	0.7	2.0	0.0	10.9	0.7	0.0
41 BUCKS	PA	27.4	0.5	41.2	3.5	3.4	0.5	6.9	21.0	0.0	0.0
42 CARBON	PA	12.2	0.0	38.2	0.0	0.0	13.2	n/a	11.5	0.0	n/a
43 COLUMBIA	PA	6.6	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 LACKAWANNA	PA	16.4	0.0	14.1	0.0	0.6	0.0	n/a	6.0	1.2	n/a
45 LEHIGH	PA	69.2	24.0	104.4	3.6	5.7	4.4	99.6	38.2	8.8	48.8
46 LUZERNE	PA	3.8	1.8	13.6	1.1	0.4	0.0	0.0	1.6	0.8	0.0
47 MONROE	PA	61.4	7.9	140.5	2.3	1.1	23.5	n/a	44.1	4.6	n/a
48 MONTGOMERY	PA	8.2	1.1	18.0	2.2	0.0	0.4	2.2	11.0	0.2	0.3
49 NORTHAMPTON	PA	71.9	5.6	140.4	3.7	2.7	16.4	n/a	17.6	29.0	n/a
50 NORTHUMBERLAI	PA	0.0	0.0	15.0	0.0	1.3	3.5	0.0	14.7	0.0	0.0
51 PIKE	PA	55.3	269.3	137.8	71.5	0.0	0.0	0.0	73.5	0.0	n/a
52 SCHUYLKILL	PA	22.3	0.0	20.5	0.0	0.8	4.3	0.0	12.4	0.0	n/a
53 SUSQUEHANNA	PA	2.9	0.0	6.8	0.0	0.0	73.8	0.0	4.9	0.0	0.0
54 WYOMING	PA	0.0	0.0	113.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table II-6
Air Passenger Trip Origination Rates by County and by Air Market Type – Forecast Year 2025 – Level 4 Analysis

Origin County	State	Resident Trips Business		Other (non-Bus.)		Non-Resident Trips Business			Other (non-Bus.)		
		1 ResBs per POP	2 ResBs per EMP	3 ResOth per POP	4 ResOth per EMP	5 NonResBs per POP	6 NonResBsper EMP	7 NonResBs per Rooms	8 NonResOth per POP	9 NonResOth per EMP	10 NonResOth per Rooms
		per 100,000				per 100,000		per 1,000	per 100,000		per 1,000
1 NEW YORK	NY	252.9	70.0	529.3	87.0	125.3	120.1	139.0	463.9	51.0	300.2
2 QUEENS	NY	52.7	29.4	221.8	32.5	17.3	31.2	90.6	91.4	33.7	127.9
3 BRONX	NY	33.3	33.9	132.5	43.3	7.4	8.4	77.1	61.1	38.2	155.4
4 KINGS	NY	63.8	15.2	211.3	48.4	16.1	22.0	236.9	88.2	44.5	450.1
5 RICHMOND	NY	59.4	11.5	186.2	40.2	10.2	46.2	56.4	92.7	23.1	56.4
6 NASSAU	NY	97.9	22.5	310.1	42.1	15.1	61.0	67.3	169.1	24.8	92.2
7 SUFFOLK	NY	83.8	26.6	300.0	32.2	12.8	60.6	46.8	162.9	27.9	40.9
8 WESTCHESTER	NY	125.4	36.6	350.5	51.9	10.7	61.7	56.3	121.9	22.6	35.2
9 ROCKLAND	NY	84.8	85.6	315.0	28.7	10.2	39.0	33.7	127.9	41.0	15.9
10 PUTNAM	NY	103.0	37.1	461.8	85.6	29.4	82.9	0.0	99.7	3.3	109.0
11 ORANGE	NY	64.0	10.7	234.9	21.0	8.2	31.2	116.8	105.3	70.1	222.2
12 DUTCHESS	NY	44.3	3.3	222.0	29.2	20.7	24.7	131.4	111.0	28.8	302.7
13 FAIRFIELD	CT	109.5	38.1	298.2	42.1	21.4	59.2	60.2	167.6	12.3	33.3
14 BERGEN	NJ	134.0	57.2	288.4	28.1	14.5	92.4	101.5	123.2	11.9	58.4
15 PASSAIC	NJ	84.5	19.4	183.7	19.6	7.1	34.6	94.8	64.1	11.3	42.1
16 HUDSON	NJ	129.5	26.9	218.6	33.6	40.2	98.5	144.8	110.9	88.3	91.9
17 ESSEX	NJ	79.8	38.6	238.8	15.1	16.1	48.6	77.4	70.3	26.8	66.8
18 UNION	NJ	107.5	40.0	244.3	28.0	8.8	65.0	56.4	74.4	15.9	28.0
19 MORRIS	NJ	190.0	86.0	376.2	39.0	49.4	140.9	77.7	158.6	24.4	41.4
20 SOMERSET	NJ	239.6	35.6	352.0	15.1	56.3	155.5	75.4	151.4	7.0	7.1
21 MIDDLESEX	NJ	142.9	37.4	278.2	36.6	29.9	101.4	65.5	123.6	12.0	34.6
22 MONMOUTH	NJ	177.6	20.9	316.5	33.9	36.0	40.6	512.3	170.0	30.6	326.4
23 OCEAN	NJ	60.0	33.2	168.7	35.7	17.2	14.4	n/a	79.7	5.5	n/a
24 HUNTERDON	NJ	307.3	125.1	369.7	59.2	12.7	24.5	125.6	143.2	0.0	20.5
25 WARREN	NJ	196.2	32.4	223.9	89.0	1.4	8.7	0.0	99.4	0.0	0.0
26 SUSSEX	NJ	200.2	63.2	350.9	0.0	27.7	23.7	0.0	152.1	47.4	40.3
27 NEW HAVEN	CT	18.2	10.5	127.2	12.3	6.2	5.7	19.7	25.9	20.2	21.0
28 MERCER	NJ	91.4	14.2	163.4	25.8	18.0	20.9	25.7	49.5	21.7	7.1
29 DELAWARE	NY	38.1	5.5	13.6	0.0	0.0	3.6	0.0	2.0	3.6	0.0
30 SULLIVAN	NY	46.5	0.0	157.5	7.1	1.3	3.0	n/a	54.9	12.1	n/a
31 ULSTER	NY	28.4	4.6	158.5	0.0	9.5	1.3	n/a	58.7	25.4	n/a
32 ATLANTIC	NJ	15.1	1.3	45.8	5.9	9.8	4.3	n/a	70.6	24.5	n/a
33 BURLINGTON	NJ	21.5	2.0	49.1	7.1	9.7	18.7	12.8	13.5	6.9	10.0
34 CAMDEN	NJ	4.4	0.0	19.5	0.6	0.3	0.0	2.7	15.2	6.6	0.0
35 CAPE MAY	NJ	2.8	0.0	53.3	7.2	18.1	27.5	n/a	76.6	45.5	n/a
36 CUMBERLAND	NJ	1.1	0.0	17.3	0.0	0.0	0.0	n/a	13.2	1.9	n/a
37 GLOUCESTER	NJ	6.5	0.0	24.6	0.0	0.0	0.0	n/a	2.2	2.7	0.0
38 SALEM	NJ	0.0	0.0	4.0	0.0	2.1	0.0	0.0	2.1	0.0	0.0
39 LITCHFIELD	CT	29.2	22.7	134.5	0.0	15.1	1.7	n/a	10.1	0.0	n/a
40 BERKS	PA	13.3	2.9	22.1	0.0	0.7	2.0	0.0	11.2	0.7	0.0
41 BUCKS	PA	27.0	0.4	41.9	3.8	3.5	0.4	7.3	21.8	0.0	0.0
42 CARBON	PA	12.0	0.0	36.5	0.0	0.0	13.0	n/a	11.3	0.0	n/a
43 COLUMBIA	PA	6.5	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 LACKAWANNA	PA	15.1	0.0	14.9	0.0	0.6	0.0	n/a	6.3	1.1	n/a
45 LEHIGH	PA	69.9	24.5	107.3	3.5	5.7	4.3	102.4	38.6	9.3	50.0
46 LUZERNE	PA	3.8	1.8	14.0	1.1	0.4	0.0	0.0	1.6	0.8	0.0
47 MONROE	PA	61.2	7.8	147.0	2.3	1.1	24.9	n/a	46.0	4.6	n/a
48 MONTGOMERY	PA	8.3	1.1	18.1	2.4	0.0	0.4	2.4	11.2	0.2	0.3
49 NORTHAMPTON	PA	72.2	5.5	144.7	3.7	2.6	17.1	n/a	17.3	30.5	n/a
50 NORTHUMBERLAI	PA	0.0	0.0	15.1	0.0	1.3	3.5	0.0	14.8	0.0	0.0
51 PIKE	PA	59.7	290.3	149.5	77.1	0.0	0.0	0.0	76.5	0.0	n/a
52 SCHUYLKILL	PA	22.3	0.0	20.5	0.0	0.8	4.3	0.0	12.5	0.0	n/a
53 SUSQUEHANNA	PA	2.8	0.0	6.7	0.0	0.0	79.5	0.0	5.6	0.0	0.0
54 WYOMING	PA	0.0	0.0	116.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table II-7
Average Daily Air Passenger Trips to Airports – by Origin County – Forecast Year 2025 – Level 4 Analysis

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	29,038	19,733	8,540	2	222	23	0	0	0	**57,558**
2 QUEENS	6,553	4,024	343	1	39	7	0	0	0	**10,967**
3 BRONX	1,845	1,708	167	0	18	11	0	0	0	**3,749**
4 KINGS	6,851	3,553	715	1	78	3	0	0	0	**11,201**
5 RICHMOND	617	159	1,096	0	4	0	0	0	0	**1,876**
6 NASSAU	6,216	3,057	148	0	535	0	0	0	0	**9,956**
7 SUFFOLK	4,503	2,316	172	0	3,248	3	0	1	0	**10,243**
8 WESTCHESTER	3,350	2,428	628	18	26	726	0	0	0	**7,176**
9 ROCKLAND	489	443	984	23	7	30	0	0	0	**1,976**
10 PUTNAM	251	354	130	20	0	56	0	0	0	**811**
11 ORANGE	371	324	694	482	0	31	0	0	0	**1,902**
12 DUTCHESS	503	372	133	367	8	74	0	0	0	**1,457**
13 FAIRFIELD	3,260	2,295	512	9	12	748	0	0	0	**6,836**
14 BERGEN	1,127	990	5,152	6	8	14	3	0	0	**7,300**
15 PASSAIC	183	139	1,706	1	7	0	0	2	0	**2,038**
16 HUDSON	661	495	3,805	0	11	2	1	0	0	**4,975**
17 ESSEX	360	184	4,109	2	0	0	0	0	0	**4,655**
18 UNION	244	120	2,699	0	4	0	1	0	0	**3,068**
19 MORRIS	337	214	5,101	1	4	0	3	13	0	**5,673**
20 SOMERSET	208	62	3,155	0	0	0	4	12	1	**3,442**
21 MIDDLESEX	810	183	5,260	0	4	0	45	3	3	**6,308**
22 MONMOUTH	390	49	4,787	0	8	0	159	0	6	**5,399**
23 OCEAN	115	64	1,432	0	0	0	487	0	2	**2,100**
24 HUNTERDON	34	0	1,285	1	0	0	9	40	5	**1,374**
25 WARREN	30	11	533	0	0	0	1	69	0	**644**
26 SUSSEX	122	36	1,068	19	0	0	0	7	0	**1,252**
27 NEW HAVEN	1,342	389	105	1	0	38	0	0	0	**1,875**
28 MERCER	173	54	1,217	0	9	0	30	3	34	**1,520**
29 DELAWARE	0	0	18	9	0	2	0	0	0	**29**
30 SULLIVAN	62	10	50	78	8	4	0	3	0	**215**
31 ULSTER	164	63	69	220	0	8	0	0	0	**524**
32 ATLANTIC	27	37	354	0	0	0	532	1	0	**951**
33 BURLINGTON	51	11	334	0	0	0	151	0	6	**553**
34 CAMDEN	80	0	84	0	0	0	61	0	0	**225**
35 CAPE MAY	0	0	88	0	0	0	176	0	0	**264**
36 CUMBERLAND	0	0	127	0	0	0	41	0	0	**168**
37 GLOUCESTER	14	0	43	0	0	0	55	0	0	**112**
38 SALEM	0	0	0	0	0	0	5	0	0	**5**
39 LITCHFIELD	202	99	74	4	0	24	0	0	0	**403**
40 BERKS	39	0	12	0	0	0	4	141	0	**196**
41 BUCKS	142	11	301	0	0	0	14	107	46	**621**
42 CARBON	0	8	0	0	0	0	0	36	0	**44**
43 COLUMBIA	0	0	0	0	0	0	0	8	0	**8**
44 LACKAWANNA	0	26	53	0	0	0	0	21	0	**100**
45 LEHIGH	30	0	357	0	0	0	0	569	0	**956**
46 LUZERNE	13	0	19	0	0	0	0	36	0	**68**
47 MONROE	0	18	334	0	0	0	0	190	0	**542**
48 MONTGOMERY	90	0	142	0	0	0	20	74	7	**333**
49 NORTHAMPTON	46	0	310	1	0	0	0	469	1	**827**
50 NORTHUMBERLAND	24	0	0	0	0	0	0	7	0	**31**
51 PIKE	38	0	198	13	0	0	0	15	0	**264**
52 SCHUYLKILL	44	0	107	0	0	0	0	41	0	**192**
53 SUSQUEHANNA	0	0	13	1	0	0	0	5	0	**19**
54 WYOMING	19	0	10	0	0	0	0	4	0	**33**
Total Region	**71,068**	**44,039**	**58,773**	**1,280**	**4,260**	**1,804**	**1,802**	**1,877**	**111**	**185,014**

Table II-8
Annual Air Passenger Trips to Airports – by Origin County – Forecast Year 2025 – Level 4 Analysis

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	10,598.9	7,202.5	3,117.1	0.7	81.0	8.4	0.0	0.0	0.0	21,008.7
2 QUEENS	2,391.8	1,468.8	125.2	0.4	14.2	2.6	0.0	0.0	0.0	4,003.0
3 BRONX	673.4	623.4	61.0	0.0	6.6	4.0	0.0	0.0	0.0	1,368.4
4 KINGS	2,500.6	1,296.8	261.0	0.4	28.5	1.1	0.0	0.0	0.0	4,088.4
5 RICHMOND	225.2	58.0	400.0	0.0	1.5	0.0	0.0	0.0	0.0	684.7
6 NASSAU	2,268.8	1,115.8	54.0	0.0	195.3	0.0	0.0	0.0	0.0	3,633.9
7 SUFFOLK	1,643.6	845.3	62.8	0.0	1,185.5	1.1	0.0	0.4	0.0	3,738.7
8 WESTCHESTER	1,222.8	886.2	229.2	6.6	9.5	265.0	0.0	0.0	0.0	2,619.2
9 ROCKLAND	178.5	161.7	359.2	8.4	2.6	11.0	0.0	0.0	0.0	721.2
10 PUTNAM	91.6	129.2	47.5	7.3	0.0	20.4	0.0	0.0	0.0	296.0
11 ORANGE	135.4	118.3	253.3	175.9	0.0	11.3	0.0	0.0	0.0	694.2
12 DUTCHESS	183.6	135.8	48.5	134.0	2.9	27.0	0.0	0.0	0.0	531.8
13 FAIRFIELD	1,189.9	837.7	186.9	3.3	4.4	273.0	0.0	0.0	0.0	2,495.1
14 BERGEN	411.4	361.4	1,880.5	2.2	2.9	5.1	1.1	0.0	0.0	2,664.5
15 PASSAIC	66.8	50.7	622.7	0.4	2.6	0.0	0.0	0.7	0.0	743.9
16 HUDSON	241.3	180.7	1,388.8	0.0	4.0	0.7	0.4	0.0	0.0	1,815.9
17 ESSEX	131.4	67.2	1,499.8	0.7	0.0	0.0	0.0	0.0	0.0	1,699.1
18 UNION	89.1	43.8	985.1	0.0	1.5	0.0	0.4	0.0	0.0	1,119.8
19 MORRIS	123.0	78.1	1,861.9	0.4	1.5	0.0	1.1	4.7	0.0	2,070.6
20 SOMERSET	75.9	22.6	1,151.6	0.0	0.0	0.0	1.5	4.4	0.4	1,256.3
21 MIDDLESEX	295.7	66.8	1,919.9	0.0	1.5	0.0	16.4	1.1	1.1	2,302.4
22 MONMOUTH	142.4	17.9	1,747.3	0.0	2.9	0.0	58.0	0.0	2.2	1,970.6
23 OCEAN	42.0	23.4	522.7	0.0	0.0	0.0	177.8	0.0	0.7	766.5
24 HUNTERDON	12.4	0.0	469.0	0.4	0.0	0.0	3.3	14.6	1.8	501.5
25 WARREN	11.0	4.0	194.5	0.0	0.0	0.0	0.4	25.2	0.0	235.1
26 SUSSEX	44.5	13.1	389.8	6.9	0.0	0.0	0.0	2.6	0.0	457.0
27 NEW HAVEN	489.8	142.0	38.3	0.4	0.0	13.9	0.0	0.0	0.0	684.4
28 MERCER	63.1	19.7	444.2	0.0	3.3	0.0	11.0	1.1	12.4	554.8
29 DELAWARE	0.0	0.0	6.6	3.3	0.0	0.7	0.0	0.0	0.0	10.6
30 SULLIVAN	22.6	3.7	18.3	28.5	2.9	1.5	0.0	1.1	0.0	78.5
31 ULSTER	59.9	23.0	25.2	80.3	0.0	2.9	0.0	0.0	0.0	191.3
32 ATLANTIC	9.9	13.5	129.2	0.0	0.0	0.0	194.2	0.4	0.0	347.1
33 BURLINGTON	18.6	4.0	121.9	0.0	0.0	0.0	55.1	0.0	2.2	201.8
34 CAMDEN	29.2	0.0	30.7	0.0	0.0	0.0	22.3	0.0	0.0	82.1
35 CAPE MAY	0.0	0.0	32.1	0.0	0.0	0.0	64.2	0.0	0.0	96.4
36 CUMBERLAND	0.0	0.0	46.4	0.0	0.0	0.0	15.0	0.0	0.0	61.3
37 GLOUCESTER	5.1	0.0	15.7	0.0	0.0	0.0	20.1	0.0	0.0	40.9
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8
39 LITCHFIELD	73.7	36.1	27.0	1.5	0.0	8.8	0.0	0.0	0.0	147.1
40 BERKS	14.2	0.0	4.4	0.0	0.0	0.0	1.5	51.5	0.0	71.5
41 BUCKS	51.8	4.0	109.9	0.0	0.0	0.0	5.1	39.1	16.8	226.7
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	13.1	0.0	16.1
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	2.9
44 LACKAWANNA	0.0	9.5	19.3	0.0	0.0	0.0	0.0	7.7	0.0	36.5
45 LEHIGH	11.0	0.0	130.3	0.0	0.0	0.0	0.0	207.7	0.0	348.9
46 LUZERNE	4.7	0.0	6.9	0.0	0.0	0.0	0.0	13.1	0.0	24.8
47 MONROE	0.0	6.6	121.9	0.0	0.0	0.0	0.0	69.4	0.0	197.8
48 MONTGOMERY	32.9	0.0	51.8	0.0	0.0	0.0	7.3	27.0	2.6	121.5
49 NORTHAMPTON	16.8	0.0	113.2	0.4	0.0	0.0	0.0	171.2	0.4	301.9
50 NORTHUMBERLAND	8.8	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	11.3
51 PIKE	13.9	0.0	72.3	4.7	0.0	0.0	0.0	5.5	0.0	96.4
52 SCHUYLKILL	16.1	0.0	39.1	0.0	0.0	0.0	0.0	15.0	0.0	70.1
53 SUSQUEHANNA	0.0	0.0	4.7	0.4	0.0	0.0	0.0	1.8	0.0	6.9
54 WYOMING	6.9	0.0	3.7	0.0	0.0	0.0	0.0	1.5	0.0	12.0
Total Region	**25,939.8**	**16,074.2**	**21,452.1**	**467.2**	**1,554.9**	**658.5**	**657.7**	**685.1**	**40.5**	**67,530.1**

III.   CHOICE OF AIRPORT AND MODE OF ACCESS

III.1   Objectives of "Level 5" Analysis

In this section of the report, the development and preliminary application of a model that addresses the joint choice of the airport and ground access modes in the New York Metropolitan region is presented. This model and its forecasting capabilities supplement the four levels of air passenger trip-making forecasts reported on in Section II, with a possible *Level 5* analysis.

Both the discussion of the data development and statistical estimation of the model, as well its test application for baseline and policy forecasting, are described in this section.

This model was developed in order to illustrate the utility of the approach for a possible subsequent more intensive phase of air passenger demand analysis, and to provide an initial modeling tool for air passenger demand analysis with respect to airport operations, aviation service measures and pricing, and ground access characteristics.

III.2   Overview: Model of Joint Choice of Airport and Ground Access Mode

Unlike most US cities, air passengers flying to and from the New York region face a wide choice of airports and ground access modes, including transit options. The region has 3 major commercial airports- JFK, EWR, and LGA; and 6 smaller airports (SWF, ACY, ABE, HPN, ISP and TTN) with service to domestic[1] destinations only. There are multiple ground access options available in New York to most airports such as auto drop-off/pick-up, park at airport, taxis/limos, shared van services, rental cars, transit rail, local and chartered buses.

This makes the New York Region an ideal example for *case-studies* in air passenger preferences with respect to choice of both airport and ground access mode.

The purpose of this part of the study is to statistically analyze and estimate a model for joint choice of airport and ground transportation for different types of trips and passengers. Current practice for regional travel models is to treat airports in a simplified manner, defining them as employment centers (attracting trips to work), along with an additional *special-generator* type estimation of the non-work (air passengers) travel. Specific features of trip distribution (e.g., a large share of visitors staying in hotels) and mode choice (e.g., higher willingness to pay) are rarely analyzed or explicitly modeled.

It is known, however that the modal split for air passenger trips to/from airport is very different from the other trip purposes, characterized by a significantly higher share of pick-ups/drop-offs, taxis, and special shuttle bus services. As a result, regional models usually provide little help in analyzing policies involving changes/improvements to the airports (and their services) and/or ground access transportation. In addition, inaccuracy in modeling travel generated by airports can lead to significant distortions in general regional model results, particularly, for sub-areas adjacent to airports.

The rest of the report is organized as follows: Section III-3 discusses the model structure, and Section III-4 describes the data assembly for model estimation including data source, sample preparation and sample description. Section III-5 discusses the variables considered in model estimation, and Section III-6 presents the final empirical results for specified models. Finally, Section III-7 summarizes the major findings of this study, identifies limitations and suggests recommendations for future work.

III.3   Model Structure

For the purpose of this study, a nested logit model with airport choice at the upper level, and mode choice at the lower level, was selected as part of the statistical estimation. The nested structure shown in **Exhibit III-1** for just two airports, is in fact extended for all 9 airports.

Exhibit III-1: Structure of Joint Mode and Airport Choice Model
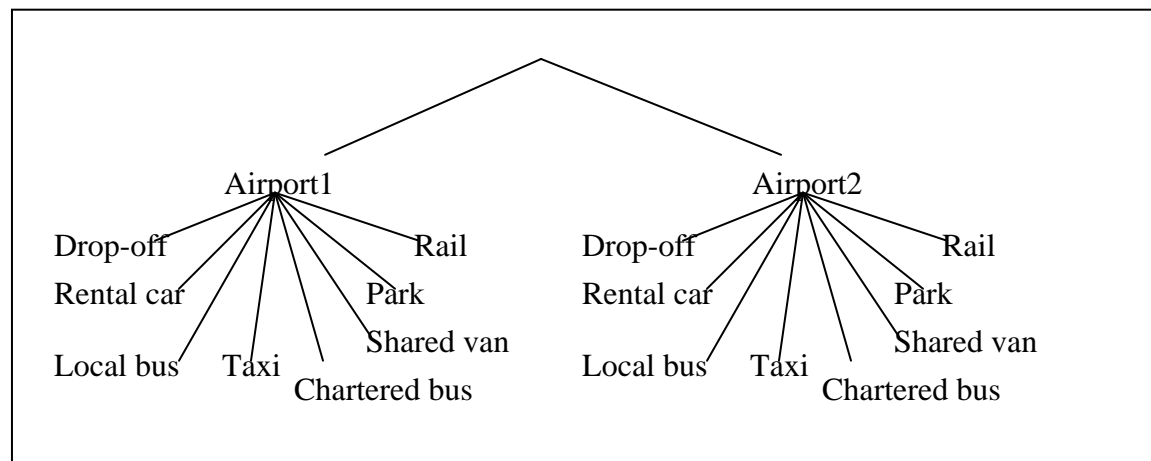
The utility for each choice includes airport characteristics (such as travel impedance, attractiveness of the airport and size variable) and mode characteristics. The presence of a *size variable* makes the airport choice utility non-linear (in parameters). The utility also constitutes socio-economic person characteristics and origin related variables.

The nesting coefficient for the adopted structure proved to be slightly large than 1.0; thus the structure was eventually restricted to be joint multinomial logit. A possible behavioral explanation is that the traveler values the ground access to the airport the same as the airport quality itself. This implies that the importance of a convenient ground access should not be underestimated.

The joint choice model is fully segmented by 2 travel purposes:

1. Business trips
2. Non-business trips /Personal trips

III.4 Data Sources used for Estimation and Application

A database with 19,127 observations was built based on the 2005 air passenger survey undertaken for all 9 study area airports as part of Task A. The data set was segmented into two subsets for model estimation -- by travel purpose, with *business* containing 5,812 records, and *non-business* containing 13,315 records. The survey questionnaire included the trip and person information. It was augmented by the data on the airport characteristics, as well as level-of-service variables for all 9 airports and 8 ground access modes.

The secondary data source is a level-of-service (LOS) file with information for travel times, distance and costs for ground access modes for the 54-county study region. New York BPM model outputs were used to calculate the LOS data for the 28 county region at TAZ (4,000) level. For the remaining 26 counties, county to airport skims were prepared based on MapQuest and BPM outputs.

The tertiary data source is airport characteristics such as number of flights, gauge, average yield, average airport delay, probability of delay etc for all the 9 airports. These data were developed in the Task D and E analyses. Other information about airport parking rates and available ground access modes were obtained from the official airport websites.

Ground Access: Level of Service (LOS) Data Development

The 54 county study area was divided into two analysis areas-

Area 1 Analysis: BPM Model Area (28 Counties)

   a. There are seven airports in the BPM model area

   b. BPM highway "skim" times/tolls/distance from each ZIP5 to each airport were prepared

   c. BPM transit "skim" times from each ZIP5 to each airport were prepared

Area 2 Analysis: Outside BPM Model Area (26 Counties)

   a. Includes the remaining 26 county region and two airports.

b. County Air Passenger Origins Centroid (CAPOC) - compute weight-average latitude and longitudes by total originations. The corresponding ZIPs for each Area 2 County were selected to represent the county.

There are four combinations of areas and airports for which origin-to-airport ground access travel time and costs "skims" matrices were assembled, with varying methods used for each.

1. Area 1 to Area 1 airports –

    a. BPM TAZ level highway and transit skims were transformed to Zip level

2. Area 1 to Area 2 airports-

    a. Appropriate BPM external stations leading to airports were located, and their latitude and longitude were mapped using MapQuest.

    b. BPM highway time/distance skims were created from all BPM zipcodes to the external nodes and MapQuest directions were used from external node to the Area 2 airports.

    c. Based on MapQuest directions, highway tolls for outside BPM area were calculated using various turnpike websites.

    d. Possible transit connections at the boundary of Area 1 were found using transit agency (such as NJ Transit, MTA, SEPTA) websites. Using the online schedules, travel times, wait times and costs were computed for travel outside the region and added to BPM transit skims. Where multiple transit paths were available, lowest travel time paths were picked.

3. Area 2 to Area 1 airports-

    a. Appropriate BPM external stations leading to airports were located, and their latitude and longitude were mapped using Mapquest.

    b. BPM highway time/distance skims were created from the external nodes to airports and Mapquest directions were used from CAPOC to the external nodes.

    c. Based on MapQuest directions, highway tolls were calculated for CAPOCs to the external node using appropriate official websites.

    d. Transit skims preparation - same as #2. For the counties on the boundary of the study area (such as South Jersey counties) which are far from any transit station, drive access was assumed to the closest transit station based on destination.

4. Area 2 to Area 2 airports-

    a. Mapquest directions were used to get time/distance between CAPOCs and the two airports.

    b. Based on MapQuest directions, highway tolls were calculated for CAPOCs to the two airports using appropriate online toll information.

c. Local transit agency's online schedules were used to create time, cost and wait time skims.

BPM highway and transit skims were weight-averaged to produce ZIP level LOS variables. These weights were based on household number and employment for the scenario year in the zone.

weight = hhfac*households +empfac*employment

where, *hhfac* and *empfac* are percentage of home and non-home origins in the survey as shown in **Table III-1**.

Table III-1:
Percentage of Household and Employment

Sub-Region	hhfac	empfac
Manhattan	0.39	0.61
NJ State	0.75	0.25
NY, CT, PA (excluding Manhattan)	0.84	0.16

While preparing skims for future years, the BPM skims were used to update the highway skims for all four combinations and transit skims for BPM area only. The weights were recomputed based on future year SED forecasts for averaging the TAZ skims to Zip level.

Computing Taxi and Shared Ride Costs:

Port Authority's websites for JFK, LGA and EWR were used to obtain official taxi rates to various locations in NY and NJ. These rates were mapped to the GIS BPM layer and extended to other locations by averaging neighboring TAZ rates. In case of NY City, taxi rates were calculated based on base fare and per mile rate using BPM distance skims when traveling to/from JFK and LGA. For outside NY city trips, a surcharge was also added.

For other six airports, taxi rates were similarly computed based on base fare, per mile rate and surcharge. These values were slightly changed for different destinations to match the existing taxi fare rates as available online. Similar approach was used for shared ride costs. Information was gathered online from various service providers to calibrate the regression models.

Auto highway travel times were used for taxi trips, and for shared ride it was inflated by 1.53 to reflect time lost in multiple pick ups/drop offs. The ratio 1.53 was based on travel time reported by shared ride in the survey data.

Chartered Bus Travel Time and Costs:

The travel time and costs for chartered buses were only available for some locations from BPM skims and online information. These were used to create cost regression model based on highway distance and highway tolls. The auto highway travel times were increased by 1.7 times (ratio calculated based on reported time in the survey data) to obtain chartered bus travel times.

Air Passenger Survey Data

Table 2 shows the sample description for the two data sets: business and non-business. The male-female ratio for full sample is close half-half, but there are more males in business trips and more females in non-business trips. The ratio of residents to visitors is nearly half for both trip purposes. The sample represents similar percentages of income group categories for both travel types except for high income group individuals. There is a higher percentage of high income group people travel on business travel. However, these percentages do not show the actual breakdown because a large percentage (nearly 25%) of individuals refused to tell their income. Sample represents that people travel alone on business trips (88%) as compared to non-business trips (30%) which is as expected.

Table III-2:
Survey Sample Description by Trip Purpose

	Business		Non Business		Total	
	Count	*%*	Count	*%*	Count	*%*
Total	5812	*100*	13315	*100*	19127	*100*
Gender						
Male	3747	*64%*	5119	*38%*	8866	*46%*
Female	2046	*35%*	8144	*61%*	10190	*53%*
Missing	19	*0%*	52	*0%*	71	*0%*
Resident	2853	*49%*	7143	*54%*	9996	*52%*
Visitor	2959	*51%*	6172	*46%*	9131	*48%*
Income Groups						
Low (<60K)	701	*12%*	3590	*27%*	4291	*22%*
Medium (>60K & <140K)	2188	*38%*	4148	*31%*	6336	*33%*
High (>140K)	1723	*30%*	1996	*15%*	3719	*19%*
Refused	1200	*21%*	3581	*27%*	4781	*25%*
Age Group						
Less than 35 yrs	1463	*25%*	4288	*32%*	5751	*30%*
35 yrs to 55 yrs	3261	*56%*	4757	*36%*	8018	*42%*
Greater than 55 yrs	1013	*17%*	3990	*30%*	5003	*26%*
Unknown	75	*1%*	280	*2%*	355	*2%*
Party Size						
Single Person	5118	*88%*	3951	*30%*	9069	*47%*
Group of 4 or less	2839	*49%*	8513	*64%*	11352	*59%*
Group of 5 or more	134	*2%*	851	*6%*	985	*5%*
Time of Travel						
Peak	2548	*44%*	5582	*42%*	8130	*43%*
Off-Peak	3264	*56%*	7733	*58%*	10997	*57%*

III.5   Variables Used in the Model

Alternatives Specification

Airports: The 9 airports in the 54 county study area are:

1. John F Kennedy (JFK)
2. La Guardia (LGA)
3. Newark Liberty International (EWR)
4. Stewart International (SWF)
5. Long Island Islip Macarthur (ISP)
6. Westchester County (HPN)
7. Atlantic City International (ACY)
8. Lehigh Valley International (ABE)
9. Trenton Mercer (TTN)

Ground Access Modes: For the purpose of this study, some ground access modes were grouped together. There are 8 mode alternatives specified for airport access as shown below:

10. Auto Drop off
11. Auto Park
12. Taxi and Limos
13. Shared Vans, Shared Limos and Hotel Courtesy Vehicles
14. Rental Cars
15. Rail (Subway, PATH, Commuter Rail, Amtrak and others)
16. Local Buses
17. Chartered Buses

Some modes are not available (or not observed) for particular airports and purposes. For example, local bus and shared ride vehicles are not available for Trenton Mercer airport.

Explanatory Variables: Components of Choice Utilities

The explanatory variables considered in the choice model for analysis can be classified into variables for airport choice and mode choice. The following explanatory variables were statistically tested in both model segments:

Airport Choice

Impedance:

1. Highway distance
2. Average domestic yield ($)
3. Probability of Delay (%) and Average Delay (minutes)
4. Number of domestic[2] and international airports served
5. Dummy for River crossing – the river crossings in the New York region are categorized into three:
    a. Hudson River
    b. East River and Harlem River
    c. Delaware River and others
6. Size Variable
    a. Number of domestic flights per day
    b. Number of international flights per day
    c. Domestic Gauge
    d. International Gauge

Ground Access Mode Choice

1. Travel time – it includes wait time (weighted by 2) for rail and local bus
2. Travel cost including transit fare ($)
3. Daily airport parking rate
4. Number of flights per day
5. Number of domestic flights per day
6. AirTrain connectivity to airport
7. Manhattan origin dummy
8. Resident or Visitor
9. Gender – male or female
10. Age group
    a. Less than 35 years
    b. 35 to 55 years
    c. Above 55 years
11. Income groups
    a. Low Income
    b. Medium Income
    c. High Income
12. Travel party size
    a. 1 or alone
    b. 2 to 4
    c. 5 or more

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[2] All flights to Canada and Mexico are considered domestic.

The first five variables may assume specific numerical values; while the rest are dummy variables i.e. are categorical classifications (nominal) with value 1 if true and 0 otherwise (e.g., if a person is female then Female =1 else 0)

In all model segments, auto passenger drop-off serves as the reference utility with all constants equal to zero. Therefore, other ground access mode coefficients/constants express attractiveness of the mode relative to auto passenger drop-off.

III.6   Empirical Estimation Results

The estimated coefficients for the adopted model structure are shown in **Table 3**.

The travel time, distance and cost coefficients are generic across all modes. The negative sign on these coefficients shows that increase in impedance between origin and destination increases the disutility associated with the airport and mode choice. However, the coefficient on distance^1.5 has a positive estimated coefficient which shows that marginal disutility associated with distance reduces for longer distances. This does not mean that for very long distances the utility is positive because the net effect of the composite distance term will always be negative. The estimated value of time (VOT) for business trips (63$/hr) is higher than for non-business trips (42$/hr). These value ranges are consistent with inter-city travel VOT studies for most places in US (Reference/Citation??).

The river crossing dummy shows a strong negative influence as expected. Crossing Hudson River has a higher disutility as compared to crossing East River/Harlem River. This could be a consequence of more crossings on East River as compared to Hudson River or due to the fact that the New York City spreads on both sides of East River.

The coefficients on domestic and international flights are restricted to a value of 1.

Table III-3:
Airport and Ground Access Mode Choice Model

Variables	Business		Non Business	
	Coeff	**t-stat**	**Coeff**	**t-stat**
VOT ($/hr)	63		42	
Impedance				
Distance	-0.064	-8.0	-0.068	-15.3
Distance ^1.5	0.002	3.2	0.003	7.5
Attraction Measures				
Average Yield (Dom)	-5.368	-3.6	-16.128	-25.0
Probability of Delay				
Average Delay (min)	-0.007	-2.8	-0.005	-4.0
Number of Domestic Airports Served				
Number of International Airports Served	0.002	1.3	0.000	
River Crossing				
Hudson	-1.207	-24.4	-0.918	-29.7
East River/ Harlem River	-0.109	-1.6	-0.008	-0.3
Delaware River	-0.905	-4.1	-0.660	-4.3
Airport Size Variable				
Domestic Flights	1.000		1.000	
International Flights	1.000		1.000	
Domestic Gauge			0.167	1.1
International Gauge				
Mode Specific LOS Variables				
Time	-0.008	-6.4	-0.007	-10.6
Cost/Occupancy	-0.008	-9.7	-0.011	-16.9
Parking Rate/Occupancy	-0.015	-2.5	-0.057	-9.8
Mode Specific Constants				
Auto Drop-off				
Auto Park	-1.830	-9.7	-1.695	-13.7
Rail	-1.947	-8.9	-1.842	-13.7
Taxi	-1.937	-4.9	-3.069	-11.0
Rental Car	1.145	13.1	-0.879	-6.4
Chartered Bus	-2.688	-10.3	-2.755	-17.8
Shared Van	-2.819	-3.4	-4.850	-7.7
Local Bus	-15.151	-3.0	-19.961	-7.7

Variables	Business		Non Business	
	Coeff	**t-stat**	**Coeff**	**t-stat**
AirTrain Present Rail	2.166	10.6	1.517	14.3
Manhattan Origin				
Rental Cars	-2.492	-15.7	-1.889	-12.3
Logarithm -Number of Flights Taxi	0.546	8.7	0.605	13.7
Shared Van	0.413	3.1	0.670	6.6
Logarithm -Number of Domestic Flights Local Bus	1.970	2.4	3.084	7.3
Resident				
Auto Park	2.177	12.5	1.625	15.8
Rail	-0.988	-8.4	-0.600	-9.0
Taxi	-0.792	-11.1	-0.496	-11.4
Rental Car	-3.433	-20.7	-2.754	-19.7
Chartered Bus	-1.469	-4.8	-1.265	-8.4
Shared Van	-1.884	-12.8	-1.107	-14.3
Local Bus	1.106	2.7	0.340	2.0
International Flight				
Auto Park	-0.609	-3.2	-0.712	-6.1
Rail			0.176	2.2
Taxi	0.176	1.8	0.417	7.5
Rental Car	-0.788	-3.7	-0.396	-2.3
Chartered Bus	0.908	2.8	1.168	8.2
Shared Van	0.259	1.5	0.551	6.4
Local Bus			-0.258	-0.9
Income Group				
Low Income Group (<60K)				
Auto Park	-0.683	-3.5	-0.509	-5.6
Rail	0.293	2.1		
Taxi	-0.368	-3.8	-0.332	-6.3
Rental Car	-0.734	-4.1	-0.824	-6.1
Chartered Bus				
Shared Van				
Local Bus	0.802	2.1	0.543	3.1
High Income Group (>140K)				
Auto Park			0.313	3.5
Rail	-0.143	-1.1	0.405	4.4
Taxi	0.386	5.8	0.388	6.1

Variables	Business		Non Business	
	Coeff	t-stat	Coeff	t-stat
Rental Car			0.480	3.6
Chartered Bus	-0.593	-1.5	-1.042	-3.1
Shared Van	-0.303	-2.1		
Local Bus	-1.421	-2.1	-0.445	-1.3
Female				
Auto Park	-0.781	-7.4	-0.330	-4.9
Rail			-0.355	-5.7
Rental Car	-0.468	-4.1	-0.503	-5.1
Local Bus			-0.708	-4.3
Age Group				
Less than 35 yrs				
Auto Park	-0.679	-5.6	-0.328	-3.8
Rail			0.636	8.3
Taxi			0.150	3.2
Rental Car	-0.232	-1.9	-0.150	-1.2
Chartered Bus			0.253	1.8
Shared Van			0.099	1.3
Above 55 yrs				
Auto Park			-0.124	-1.6
Rail			-0.241	-2.7
Taxi				
Rental Car			-0.223	-1.9
Shared Van/Limo	0.693	5.2		
Local Bus	0.886	2.1	-0.508	-2.2
Number of People Traveling With				
Less than Four				
Auto Park				
Rail	-0.283	-2.5	-0.189	-2.9
Taxi	-0.379	-5.9	-0.136	-2.9
Rental Car			0.643	5.6
Chartered Bus	0.677	2.4	0.311	2.1
Shared Van				
Local Bus			-0.837	-4.7
Four or more				
Auto Park	-0.394	-1.3		
Rail	-1.286	-2.5	-0.431	-2.6
Taxi	-1.089	-5.3	-0.354	-3.7
Rental Car			0.802	3.7
Chartered Bus	1.433	2.8	1.057	4.2

Variables	Business		Non Business	
	Coeff	**t-stat**	**Coeff**	**t-stat**
Shared Van			0.316	2.1
Local Bus			-2.180	-2.4
Log Likelihood Constants only	-16375.5		-37144.8	
Log Likelihood for Final Model	-12664.7		-30502.3	

The Manhattan dummy variable proved to be strong factor in disfavoring car rentals irrespective of trip purpose. This could be attributed to congested highway times, driving inconvenience, and limited and expensive parking available in Manhattan. Also, Manhattan provides a pedestrian friendly environment and dense transit services. These factors are not fully quantified by the LOS variables.

The estimated coefficient for the AirTrain dummy highly favors use of rail service to airport. In a congested urban area like New York, providing a convenient and reliable rail service in the past to the airport proved to be a successful measure. Significant investments were made to build AirTrains connecting the Newark airport to the NJ Transit rail line (introduced in 2001) and connecting the JFK airport to the subway/LIRR station (opened in 2003). Both AirTrain projects have a visible success in attracting passengers.

Taxi and shared vans are favored to airports with higher number of flights and local bus is favored to airports with higher number of domestic flights. Here, number of flights is a proxy for airport size, thus capturing the affect of frequency and reliability of these services to bigger airports.

Gender bias is also observed for ground access mode choices. Females are less likely to take auto-park and rental cars for both business and non-business trips. This shows that females are less inclined to drive to airport. For non-business trips, females are also reluctant to take transit options. One reason could be that females are often accompanied by kids on non-business trips which make transit options inconvenient.

International passengers are less likely to auto-park or use a rental car as compared to domestic passengers. Typically, international trips are longer in length which makes the parking costs 3 higher. Also, international travelers might be uncomfortable with driving in another country which reduces the attractiveness of rental cars. As expected, international travelers prefer taxis, shared limos and chartered buses which could be attributed to convenience and carrying more luggage.

The estimated coefficients show that residents are more likely to choose auto-park and less likely to choose rental cars over other ground access modes as compared

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[3] Instead of airport parking cost, parking rate has been used in the model because the length of trip is not known.

to visitors. Typically, residents have availability of car and visitors are likely to rent cars.

Ground access mode preferences also vary across income group categories as expected. The estimates show the lower income groups prefer low cost mode options as compared to higher income group and vice versa. Low income (< 60 K) individuals have higher disutility associated with taxis, rental cars or auto-park as compared to higher income individuals. This could be due to non-availability of car and high travel costs for taxi/rental cars. They seem to prefer public transit modes (rail and bus). The trends are similar for both travel purposes. Higher income individuals (> 140 K) are less likely to use shared ride, chartered and local buses, but they are likely to use rail transit particularly for non-business trips.

Younger individuals (less than 35 years old) are found not to auto-park or rent cars as compared to older individuals for business trips. Typically, younger people are at entry/mid level positions in their respective firms. These individuals may have budget restrictions on car rentals/auto-parking options.

Why older people prefer local bus for business trips and not for non-business trips??

However, older (55 years or more) do not prefer driving modes (auto park and rental cars) and transit for non-business trips. Younger people prefer transit, taxis and shared rides as compared to older people.

Individuals make different mode choice decisions when traveling in groups. One reason is that the mode costs are shared in non-transit options. On business travel, groups tend to take chartered buses which could also be company provided buses. Groups are less likely to take transit and taxis, particularly for non-business travel and more likely to take chartered buses, rental cars and shared rides. One would expect that most of these non-business travel groups are families (including children), which makes rental cars an attractive option.

III.7   Summary of Model Application Forecast and Tests

A custom program was developed and tested to apply the estimated model described above. The model was applied as an incremental or switching logit model, directly to the 2006 airport survey data records in what is termed a "sample enumeration" approach. Depending on the change in inputs provided, the model reacts with the possible switching of chosen airport and chose general ground access mode depending on the evaluation of the change in the relative utilities between the scenario and the base or existing case. As part of this approach, the Level 4 expansion weights developed and reported in Section II have been used so that the results are for total air passenger travel on an average weekday.

Table III-4 shows the set of scenarios that have been constructed and used with tests of the model, with "bases", "baseline", and "plan" scenarios as relevant for 2015 and 2025 forecasts.   These scenario tests vary with respect to the inputs provided to the model as described in the table, with respect to the three main categories:

- *Person characteristics (PC)* – as reflected in the 2006 survey, with the exception of income shifts (Level 2)

- *Airport service and cost measures (APT)* –forecast data available from Landrum & Brown to represent the attractiveness of each airport. Note that some measures have not been forecast, but are assumed in these tests to remain at their 2005 levels.   A listing of the items available for use at this point in forecasting application of the model are found in **Appendix E**.

- *Ground access travel times and costs (GA)*   – these are origin-to-airport times and costs ("Skims"), by travel mode. For the future year 2025 skims, limited time and resources for this study allowed only for the use of the NYMTC Regional Transportation Planning skims for the BPM 28 county model area. For the portion of travel to airports in the other counties in the 54 county region, 2005 times and costs have been used.

Table III-4   Inputs for Baseline Forecast Test Applications

			A	B	C	D	E	F	G
Scenario		Variables	2005	2015	2015	2025	2025	2025	2025
			Notes:	*(a)*	*(a,b)*	*(a)*	*(a,b)*	*(a,c)*	*(a,b,c)*
			Base	Base (Level 4)	Baseline (APT only)	Base (Level 4)	Baseline (APT only)	Plan (GT only)	Plan APT & GA
PC: Person Characteristics		# of Households	2005	2015	2015	2025		2025	2025
		Employment	2005	2015	2015	2025		2025	2025
		# of Hotel Rooms	2005	2015	2015	2025		2025	2025
		Income	2005	2015	2015	2025		2025	2025
		Gender, age	2005		2005			2005	2005
APT: Airport Specific Variable		Avg Yield	2005		2015		2025	2005	2025
		Dom Flights	2005		2015		2025	2005	2025
		Interntl Flights	2005		2015		2025	2005	2025
		Dom Gauge	2005		2015		2025	2005	2025
		Avg Delay	2005		2005		2005	2005	2005
		Interntl Airports	2005		2015		2025	2005	2025
		Parking Cost	2005		2005		2005	2005	2005
		Airtrain	2005		2005		2005	2005	2005
GA: Ground Access Variables: Times and Costs	BPM Highway & Transit Network Based	Highway Time	2005		2005		2005	BPM 2025 Plan "Skims" (for 28 County Area) Assume 2005 for other Counties in 54 County Area	
		Highway Cost	2005		2005		2005		
		Highway Toll	2005		2005		2005		
		Local Bus time	2005		2005		2005		
		Local Bus Cost	2005		2005		2005		
		Local Bus WaitTime	2005		2005		2005		
		Local Bus Acc Cost	2005		2005		2005		
		Rail time	2005		2005		2005		
		Rail Cost	2005		2005		2005		
		Rail Wait Time	2005		2005		2005		
		Rail Acc Cost	2005		2005		2005		
	PB Estimated (not in BPM)	Chartered Bus Time	2005		2005			2005	2005
		Chartered Bus Fare +Acc Cost	2005		2005			2005	2005
		Taxi Fare	2005		2005			2005	2005
		Shared Ride Fare	2005		2005			2005	2005

(a) "Unconstrained" - assumes existing ground access times and costs
(b) Airport service measures: Landrum & Brown (see Appendix E)
(c) Reflecting Regional Transportation Plan (RTP) Highway and Transit, and future congestion levels

The results of the scenario tests are summarized by airports and ground access model in **Tables III-5 through III-7**, showing the absolute number of air passenger trips, the growth or difference between scenarios, and the percentage change.

A few general observations about the results of these preliminary forecast tests can be made:

- The model shows a fairly low and reasonable sensitivity of airport choice <u>with respect to ground access</u> as evident in the comparison of 2025 Plan (Scenario E: with RTP forecast BPM "skims") and the 2025 Base (Scenario D: existing ground access travel modes, times and costs. The comparison of these scenarios (Difference 5 in Tables III-6 and 7) shows a small loss of trips to JFK (-1.1%), a smaller increase at LGA (+0.5%), and little change a EWR (-0.1%). Overall there is a small sift form the three major airports (-0.4%) to the six smaller and more remote airports in the region (+4.5% NYSDOT and +8.0% DVRPC). This airport shift is accompanied by very small modal shift, with a small reduction in the total number of shared van and rail access trips, off-set by a small increase in drive and park, drop-off, taxi and local bus.
- A fairly strong sensitivity for airport choice is shown with <u>respect to the limited airport service measures available</u> and tested. This can be see in the comparison of 2025 Baseline (Scenario D: forecast air capacity, flights and yield inputs) and the 2025 Base (Scenario D: no change from existing airport service measures). The comparison of these scenarios (Difference 4 in Tables III-6 and 7) indicates a possible shift to EWR (+13.7%), mostly from JFK (-8.0%) and LGA (-4.6 %), but also from the NYSDOT airports (-5.5 %). This is attributable to the specific set of airport service forecasts used in this test with reduced costs (average yield) at EWR, along with augmented service levels in terms of added domestic gauge and a substantial increase in the number of international flights international flights.
- When <u>both the ground access and airport service measure inputs </u>are used in the 2025 Scenario G, a blend to the effects of these sets of inputs is shown, in the comparison with the 2025 Base cases (Difference 6 in Tables III-6 and 7), with the airport service measure inputs showing the stronger influence.

The construction and initial estimation of this model represents the first and important stage in the development of a fully validated model that could be useful for airport planning with respect the choice of access mode and airports in the analysis of air passenger demand in the region. In order to build on this capability, it is proposed that the utility of this model be further evaluated with additional tests, including refinement of the both the ground access travel times and costs, as well the conduct of sensitivity test for other airport service measures that could be tested for their effects, such as probability and average length of delay, even if they not easily pre-determined.

Table III-5
Summary of Mode and Airport Choice Model Application (Level 5 Analysis)

Summary	Scenario						
	A	**B**	**C**	**D**	**E**	**F**	**G**
	2005	**2015**	**2015**	**2025**	**2025**	**2025**	**2025**
	Base	**Base (Level 4)**	**Baseline (Apt Only)**	**Base (Level 4)**	**Baseline (Apt Only)**	**Plan (GT only)**	**Plan APT & GA**
By Airport							
JFK	48,651	61,772	60,132	71,055	65,337	70,246	64,605
LGA	33,433	39,415	35,397	44,037	42,019	44,270	42,116
EWR	34,556	48,814	55,007	58,759	66,811	58,721	66,889
PA Airports	**116,640**	**150,001**	**150,536**	**173,851**	**174,167**	**173,237**	**173,610**
SWF	546	679	557	873	787	962	862
ISP	2,892	3,612	3,284	4,260	3,867	4,364	3,974
HPN	1,278	1,745	1,796	1,801	1,900	1,920	2,021
NYSDOT Airports	**4,716**	**6,037**	**5,636**	**6,934**	**6,554**	**7,246**	**6,858**
ACY	1,339	1,564	1,522	1,803	1,746	1,933	1,856
ABE	1,143	1,466	1,348	1,877	1,857	2,038	1,990
TTN	74	90	116	110	250	120	261
DVRPC Airports	**2,556**	**3,120**	**2,985**	**3,790**	**3,852**	**4,091**	**4,106**
All Airports	**123,912**	**159,158**	**159,158**	**184,574**	**184,574**	**184,574**	**184,574**
By Mode							
PA Airports	**116,640**	**150,001**	**150,536**	**173,851**	**174,167**	**173,237**	**173,610**
Drop Off	36,752	47,888	46,028	55,865	51,879	55,756	51,733
Auto Park	9,466	12,936	12,565	15,623	14,756	15,506	14,663
Rail	10,467	13,218	12,341	15,049	13,058	14,624	12,826
Taxis	42,920	53,940	56,567	61,851	67,122	62,137	67,288
Rental Cars	5,773	7,867	7,518	9,405	8,691	9,344	8,647
Chartered Bus	1,853	2,357	2,230	2,683	2,435	2,661	2,415
Shared Van	8,190	10,375	11,280	11,817	13,360	11,613	13,126
Local Bus	1,219	1,421	2,006	1,557	2,865	1,595	2,911
NYSDOT Airports	**4,716**	**6,037**	**5,636**	**6,934**	**6,554**	**7,246**	**6,858**
Drop Off	2,351	2,974	2,726	3,427	3,173	3,564	3,300
Auto Park	893	1,168	1,090	1,350	1,270	1,418	1,330
Rail	161	193	161	215	173	258	220
Taxis	453	596	628	660	733	690	765
Rental Cars	743	959	881	1,112	1,021	1,143	1,054
Chartered Bus	21	27	24	31	27	32	28
Shared Van	91	117	120	134	146	135	148
Local Bus	3	4	6	6	12	6	13
DVRPC Airports	**2,556**	**3,120**	**2,985**	**3,790**	**3,852**	**4,091**	**4,106**
Drop Off	1,318	1,582	1,472	1,892	1,826	2,051	1,949
Auto Park	886	1,095	1,017	1,352	1,353	1,435	1,431
Rail	9	10	10	12	12	14	13
Taxis	111	139	194	168	271	185	292
Rental Cars	212	268	256	332	334	368	360
Chartered Bus	4	5	6	6	7	8	9
Shared Van	14	18	26	24	39	27	42
Local Bus	2	3	4	3	10	3	11
All Airports							
Drop Off	40,421	52,443	50,226	61,185	56,878	61,371	56,983
Auto Park	11,244	15,199	14,672	18,324	17,379	18,359	17,424
Rail	10,637	13,421	12,512	15,276	13,243	14,896	13,059
Taxis	43,484	54,674	57,390	62,680	68,125	63,011	68,345
Rental Cars	6,728	9,095	8,656	10,849	10,046	10,855	10,061
Chartered Bus	1,879	2,388	2,261	2,719	2,470	2,700	2,452
Shared Van	8,295	10,510	11,425	11,975	13,545	11,776	13,316
Local Bus	1,224	1,428	2,016	1,566	2,887	1,605	2,935

Table III-6
Summary of Mode and Airport Choice Model Application (Level 5 Analysis)
– Difference between Baseline Scenarios

Summary	1 [B-A] 2015 - 2005 Bases: Growth	2 [C-B] 2015 Baseline - Base	3 [D-A] 2025 - 2005 Bases: Growth	4 [E-D] Baseline (APTOnly)	5 [F-D] Baseline: w/GA Only	6 [G-D] Plan: APT& GA
				2025 Build Tests Compared to 2025 Base		
By Airport						
JFK	13,121	(1,640)	22,404	(5,718)	(809)	(6,450)
LGA	5,982	(4,018)	10,604	(2,018)	233	(1,921)
EWR	14,258	6,193	24,203	8,052	(38)	8,130
PA Airports	**33,361**	**535**	**57,211**	**316**	**(614)**	**(241)**
SWF	133	(123)	326	(85)	89	(11)
ISP	720	(328)	1,368	(393)	104	(286)
HPN	468	50	523	99	119	221
NYSDOT Airports	**1,321**	**(400)**	**2,217**	**(379)**	**312**	**(76)**
ACY	226	(42)	464	(57)	131	53
ABE	323	(118)	733	(20)	161	113
TTN	16	25	36	140	9	151
DVRPC Airports	**564**	**(135)**	**1,234**	**63**	**301**	**317**
All Airports	**35,246**	**0**	**60,663**	**(0)**	**(1)**	**(0)**
By Mode						
PA Airports	**33,361**	**535**	**57,211**	**316**	**(614)**	**(241)**
Drop Off	11,135	(1,859)	19,113	(3,986)	(110)	(4,132)
Auto Park	3,470	(370)	6,157	(866)	(117)	(960)
Rail	2,751	(877)	4,583	(1,991)	(425)	(2,223)
Taxis	11,019	2,627	18,931	5,270	285	5,437
Rental Cars	2,094	(349)	3,632	(714)	(61)	(758)
Chartered Bus	504	(126)	830	(248)	(22)	(268)
Shared Van	2,185	905	3,627	1,543	(204)	1,309
Local Bus	202	585	338	1,308	39	1,355
NYSDOT Airports	**1,321**	**(400)**	**2,217**	**(379)**	**312**	**(76)**
Drop Off	623	(248)	1,077	(255)	137	(127)
Auto Park	275	(78)	457	(80)	69	(20)
Rail	31	(31)	54	(42)	44	5
Taxis	143	32	207	73	30	106
Rental Cars	216	(78)	369	(91)	31	(58)
Chartered Bus	5	(2)	9	(3)	1	(3)
Shared Van	26	3	43	12	2	14
Local Bus	1	2	3	6	0	7
DVRPC Airports	**564**	**(135)**	**1,234**	**63**	**301**	**317**
Drop Off	264	(110)	574	(66)	159	57
Auto Park	209	(78)	466	1	83	79
Rail	2	(0)	3	(0)	1	1
Taxis	28	56	57	102	17	123
Rental Cars	56	(12)	120	2	35	28
Chartered Bus	1	1	1	2	2	3
Shared Van	5	7	10	15	3	18
Local Bus	1	1	1	7	0	7
All Airports						
Drop Off	12,023	(2,217)	20,764	(4,307)	186	(4,202)
Auto Park	3,954	(526)	7,080	(945)	35	(900)
Rail	2,784	(908)	4,640	(2,033)	(380)	(2,218)
Taxis	11,190	2,716	19,195	5,446	332	5,666
Rental Cars	2,366	(439)	4,121	(803)	5	(789)
Chartered Bus	510	(128)	841	(249)	(19)	(267)
Shared Van	2,216	915	3,680	1,570	(199)	1,341
Local Bus	204	588	342	1,321	39	1,369

Table III-7
Summary of Mode and Airport Choice Model Application (Level 5 Analysis)
– Percentage Difference between Baseline Scenarios

Summary	1 [B-A] 2015 - 2005 Bases: Growth	2 [C-B] 2015 Baseline - Base	3 [D-A] 2025 - 2005 Bases: Growth	4 [E-D] Baseline (APTOnly)	5 [F-D] Baseline: w/GA Only	6 [G-D] Plan: APT& GA
By Airport						
JFK	27.0%	-2.7%	46.1%	-8.0%	-1.1%	-9.1%
LGA	17.9%	-10.2%	31.7%	-4.6%	0.5%	-4.4%
EWR	41.3%	12.7%	70.0%	13.7%	-0.1%	13.8%
PA Airports	**28.6%**	**0.4%**	**49.0%**	**0.2%**	**-0.4%**	**-0.1%**
SWF	24.3%	-18.1%	59.7%	-9.8%	10.2%	-1.2%
ISP	24.9%	-9.1%	47.3%	-9.2%	2.4%	-6.7%
HPN	36.6%	2.9%	40.9%	5.5%	6.6%	12.2%
NYSDOT Airports	**28.0%**	**-6.6%**	**47.0%**	**-5.5%**	**4.5%**	**-1.1%**
ACY	16.9%	-2.7%	34.7%	-3.2%	7.2%	3.0%
ABE	28.2%	-8.0%	64.2%	-1.1%	8.6%	6.0%
TTN	21.9%	28.2%	48.9%	127.0%	8.6%	136.7%
DVRPC Airports	**22.1%**	**-4.3%**	**48.3%**	**1.7%**	**8.0%**	**8.4%**
Total	**28.4%**	**0.0%**	**49.0%**	**0.0%**	**0.0%**	**0.0%**
By Mode						
PA Airports	**28.6%**	**0.4%**	**49.0%**	**0.2%**	**-0.4%**	**-0.1%**
Drop Off	30.3%	-3.9%	52.0%	-7.1%	-0.2%	-7.4%
Auto Park	36.7%	-2.9%	65.0%	-5.5%	-0.7%	-6.1%
Rail	26.3%	-6.6%	43.8%	-13.2%	-2.8%	-14.8%
Taxis	25.7%	4.9%	44.1%	8.5%	0.5%	8.8%
Rental Cars	36.3%	-4.4%	62.9%	-7.6%	-0.6%	-8.1%
Chartered Bus	27.2%	-5.4%	44.8%	-9.2%	-0.8%	-10.0%
Shared Van	26.7%	8.7%	44.3%	13.1%	-1.7%	11.1%
Local Bus	16.6%	41.2%	27.7%	84.0%	2.5%	87.0%
NYSDOT Airports	**28.0%**	**-6.6%**	**47.0%**	**-5.5%**	**4.5%**	**-1.1%**
Drop Off	26.5%	-8.3%	45.8%	-7.4%	4.0%	-3.7%
Auto Park	30.8%	-6.7%	51.2%	-5.9%	5.1%	-1.4%
Rail	19.4%	-16.3%	33.2%	-19.5%	20.3%	2.4%
Taxis	31.6%	5.4%	45.7%	11.1%	4.5%	16.0%
Rental Cars	29.0%	-8.2%	49.6%	-8.2%	2.7%	-5.2%
Chartered Bus	24.2%	-9.2%	42.4%	-11.1%	3.3%	-9.2%
Shared Van	28.0%	2.9%	47.1%	9.2%	1.2%	10.4%
Local Bus	42.2%	44.6%	79.2%	108.2%	6.0%	121.2%
DVRPC Airports	**22.1%**	**-4.3%**	**48.3%**	**1.7%**	**8.0%**	**8.4%**
Drop Off	20.0%	-7.0%	43.6%	-3.5%	8.4%	3.0%
Auto Park	23.6%	-7.1%	52.6%	0.1%	6.1%	5.9%
Rail	17.8%	-1.2%	40.3%	-0.9%	11.2%	4.7%
Taxis	24.9%	40.3%	51.8%	60.7%	9.9%	73.2%
Rental Cars	26.5%	-4.6%	56.5%	0.6%	10.7%	8.4%
Chartered Bus	15.6%	18.0%	31.0%	28.8%	37.5%	55.6%
Shared Van	33.4%	40.7%	72.1%	63.5%	13.5%	78.1%
Local Bus	30.8%	50.3%	68.0%	211.5%	5.6%	223.7%
All Airports						
Drop Off	29.7%	-4.2%	51.4%	-7.0%	0.3%	-6.9%
Auto Park	35.2%	-3.5%	63.0%	-5.2%	0.2%	-4.9%
Rail	26.2%	-6.8%	43.6%	-13.3%	-2.5%	-14.5%
Taxis	25.7%	5.0%	44.1%	8.7%	0.5%	9.0%
Rental Cars	35.2%	-4.8%	61.3%	-7.4%	0.0%	-7.3%
Chartered Bus	27.1%	-5.4%	44.7%	-9.2%	-0.7%	-9.8%
Shared Van	26.7%	8.7%	44.4%	13.1%	-1.7%	11.2%
Local Bus	16.7%	41.2%	27.9%	84.4%	2.5%	87.4%

APPENDIX A:
AIRPORT SURVEY ANALYSIS PROCEDURES (SPSS) for
LEVEL 1-4 ANALYSIS and FORECASTING

```
* TASK C  .
* AIR PASSENGEER SURVEYS - 2006        .
* O and D or Ground Access Surveys Only .

*** PART 1****** .
*** BUILD AIR PASSENGER  SURVEY DATA FILE
*** AIRPAX_SURVEY_1 ***  .

GET TRANSLATE
 FILE='C:\0_Work\FAA\Task C\Run\Integrated_Surveys_060531.dbf'
 /TYPE=DBF /MAP .

************  BASIC SURVEY TRANSFORMATIONS and CODING   ************* .

IF APID_CL='&'  APID_CL='-999'.
IF APID_CL='-'  APID_CL='-999'.
COMPUTE APID_CLS = NUMBER(APID_CL,f6.0) .
execute.

VALUE LABELS
APID_C APID_P APID_CLS APID
1 "JFK"
2 "LGA"
3 "EWR"
4 "SWF"
5 "ISP"
6 "HPN"
7 "ACY"
8 "ABE"
9 "TTN"
.

Variable Labels
APID_C "Airport - Considered"
APID_P "Airport - Preferred"
APID_CLS "Airport - Closest"
APID "Airport - Chosen"
.

FREQUENCIES
 VARIABLES=APID APID_C APID_P APID_CLS
 /ORDER=  ANALYSIS .

COMPUTE AP_GROUP = APID.
RECODE AP_GROUP (4 THRU 6=4)(7 THRU 9 =5).
EXECUTE.

VALUE LABELS
AP_GROUP
1 "JFK"
2 "LGA"
3 "EWR"
4 "NYSDOT"
5 "DVRPC".

FORMATS AP_GROUP (F4.0).

COMPUTE OCO_ID=999.
IF      OCO_TEXT="NEW YORK" OCO_ID=1.
IF      OCO_TEXT="QUEENS" OCO_ID=    2.
IF      OCO_TEXT="BRONX"      OCO_ID=        3.
IF      OCO_TEXT="KINGS"      OCO_ID=        4.
IF      OCO_TEXT="RICHMOND" OCO_ID=        5.
IF      OCO_TEXT="NASSAU"     OCO_ID=        6.
IF      OCO_TEXT="SUFFOLK"    OCO_ID=        7.
```

```
IF        OCO_TEXT="WESTCHESTER"        OCO_ID=        8.
IF        OCO_TEXT="ROCKLAND"  OCO_ID=        9.
IF        OCO_TEXT="PUTNAM"    OCO_ID=        10.
IF        OCO_TEXT="ORANGE"    OCO_ID=        11.
IF        OCO_TEXT="DUTCHESS"  OCO_ID=12.
IF        OCO_TEXT="FAIRFIELD"  OCO_ID=13.
IF        OCO_TEXT="BERGEN"    OCO_ID=        14    .
IF        OCO_TEXT="PASSAIC"   OCO_ID=        15    .
IF        OCO_TEXT="HUDSON"    OCO_ID=        16    .
IF        OCO_TEXT="ESSEX"     OCO_ID=        17    .
IF        OCO_TEXT="UNION"     OCO_ID=        18    .
IF        OCO_TEXT="MORRIS"    OCO_ID=        19    .
IF        OCO_TEXT="SOMERSET"  OCO_ID=        20    .
IF        OCO_TEXT="MIDDLESEX" OCO_ID=        21    .
IF        OCO_TEXT="MONMOUTH"  OCO_ID=        22    .
IF        OCO_TEXT="OCEAN"     OCO_ID=        23    .
IF        OCO_TEXT="HUNTERDON"        OCO_ID=        24    .
IF        OCO_TEXT="WARREN"    OCO_ID=        25    .
IF        OCO_TEXT="SUSSEX"    OCO_ID=        26    .
IF        OCO_TEXT="NEW HAVEN"OCO_ID=        27    .
IF        OCO_TEXT="MERCER"    OCO_ID=        28    .
IF        OCO_TEXT="DELAWARE"  OCO_ID=        29    .
IF        OCO_TEXT="SULLIVAN"  OCO_ID=        30    .
IF        OCO_TEXT="ULSTER"    OCO_ID=        31    .
IF        OCO_TEXT="ATLANTIC"  OCO_ID=        32    .
IF        OCO_TEXT="BURLINGTON"        OCO_ID=        33    .
IF        OCO_TEXT="CAMDEN"    OCO_ID=        34    .
IF        OCO_TEXT="CAPE MAY"  OCO_ID=        35    .
IF        OCO_TEXT="CUMBERLAND"        OCO_ID=        36    .
IF        OCO_TEXT="GLOUCESTER"        OCO_ID=        37    .
IF        OCO_TEXT="SALEM"     OCO_ID=        38    .
IF        OCO_TEXT="LITCHFIELD" OCO_ID=        39    .
IF        OCO_TEXT="BERKS"     OCO_ID=        40    .
IF        OCO_TEXT="BUCKS"     OCO_ID=        41    .
IF        OCO_TEXT="CARBON"    OCO_ID=        42    .
IF        OCO_TEXT="COLUMBIA"  OCO_ID=        43    .
IF        OCO_TEXT="LACKAWANNA"        OCO_ID=        44    .
IF        OCO_TEXT="LEHIGH"    OCO_ID=        45    .
IF        OCO_TEXT="LUZERNE"   OCO_ID=        46    .
IF        OCO_TEXT="MONROE"    OCO_ID=        47    .
IF        OCO_TEXT="MONTGOMERY"        OCO_ID=        48    .
IF        OCO_TEXT="NORTHAMPTON"        OCO_ID=        49    .
IF        OCO_TEXT="NORTHUMBERLAND" OCO_ID=50    .
IF        OCO_TEXT="PIKE"      OCO_ID=        51    .
IF        OCO_TEXT="SCHUYLKILL"OCO_ID=        52    .
IF        OCO_TEXT=        "SUSQUEHANNA" OCO_ID=        53.
IF        OCO_TEXT=        "WYOMING"    OCO_ID=        54.
EXECUTE.

FORMATS OCO_ID (F4.0).

VARIABLE LABELS
OCO_ID "Origin County"
.

VALUE LABELS
OCO_ID
1        "NEW YORK"
2        "QUEENS          "
3        "BRONX "
4        "KINGS  "
5        "RICHMOND        "
6        "NASSAU          "
7        "SUFFOLK         "
8        "WESTCHESTER  "
9        "ROCKLAND        "
```

```
10      "PUTNAM         "
11      "ORANGE         "
12      "DUTCHESS       "
13      "FAIRFIELD      "
14      "BERGEN         "
15      "PASSAIC        "
16      "HUDSON         "
17      "ESSEX  "
18      "UNION  "
19      "MORRIS         "
20      "SOMERSET       "
21      "MIDDLESEX      "
22      "MONMOUTH       "
23      "OCEAN  "
24      "HUNTERDON      "
25      "WARREN         "
26      "SUSSEX         "
27      "NEW HAVEN      "
28      "MERCER         "
29      "DELAWARE       "
30      "SULLIVAN       "
31      "ULSTER "
32      "ATLANTIC       "
33      "BURLINGTON     "
34      "CAMDEN         "
35      "CAPE MAY       "
36      "CUMBERLAND     "
37      "GLOUCESTER     "
38      "SALEM  "
39      "LITCHFIELD     "
40      "BERKS  "
41      "BUCKS  "
42      "CARBON         "
43      "COLUMBIA       "
44      "LACKAWANNA     "
45      "LEHIGH "
46      "LUZERNE        "
47      "MONROE         "
48      "MONTGOMERY     "
49      "NORTHAMPTON    "
50      "NORTHUMBERLAND         "
51      "PIKE     "
52      "SCHUYLKILL     "
53      "SUSQUEHANNA    "
54      "WYOMING"
999  "OUT SIDE AREA"
.

FREQUENCIES
 VARIABLES=APID
 /ORDER=  ANALYSIS .

FREQUENCIES
 VARIABLES=OCO_ID
 /ORDER=  ANALYSIS .


************  KEEP only VALID RECORDS for MODELING  ************ .

RENAME VARIABLES SURV_ID = RECNO .
EXECUTE.

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\Valid Surv_ids.sav'
 /BY RECNO.
EXECUTE.
```

```
FILTER OFF.
USE ALL.
SELECT IF(Useable=1).
EXECUTE .

***************************************** .
FREQUENCIES
 VARIABLES=APID
 /ORDER=  ANALYSIS .

FREQUENCIES
 VARIABLES=OCO_ID
 /ORDER=  ANALYSIS .

***************************************** .

*  Weighting  - Expanding to Average Day 2005 .

Compute EXP_05=1.00.
if APID=1 EXP_05=9.8066.
if APID=2 EXP_05=7.9414.
if APID=3 EXP_05=7.9420 .
if APID=4 EXP_05=0.5050.
if APID=5 EXP_05=2.6555 .
if APID=6 EXP_05=1.1778.
if APID=7 EXP_05=1.2383 .
if APID=8 EXP_05=0.9738.
if APID=9 EXP_05=0.7954.
execute.


WEIGHT BY EXP_05 .

FREQUENCIES
 VARIABLES=APID
 /ORDER=  ANALYSIS .

WEIGHT OFF .

***************************************** .
*  TIME PERIODS .

if (st_ap=2 and st_hr<>12)st_hr=st_hr+12.
if (ap_ap=2and ap_hr<>12) ap_hr=ap_hr+12.
execute.

FREQUENCIES
 VARIABLES=sd_hr st_hr st_ap ap_hr ap_ap
 /ORDER=  ANALYSIS .

Compute AP_PER = AP_HR.
execute.
Recode AP_PER (0 thru 5=1)(6 thru 9=2)(10 thru 15=3)(16 thru 19=4)(20 thru 24=5).
execute.

rename variables (buck=income).

* reassign a few (9) cases to HOME.
IF orig_TYPE=0 orig_type=1.
execute.

VALUE LABELS
ORIG_TYPE DEST_TYP
1 "Home"
2 "Business/Company/Work"
```

```
3 "Other Private Res."
4 "Hotel/Motel"
5 "School/Military Base"
6 "Other"
/
AP_PER
1 "Early AM before 6"
2 "AM Peak - 6 to 10"
3 "Midday - 10 to 4"
4 "PM Peak - 4 to 8"
5 "Night - 8 to Midnight"
/
TRIPURP
1 "Business"
2 "Non-Business"
/INCOME
1 "Under $20K"
2 "$20-39K"
3 "$40-59K"
4 "$60-79K"
5 "$80-99K"
6 "$100-119K"
7 "$120-139K"
8 "$140-159K"
9 "$160-174K"
10 "$175-199K"
11 "$200-249K"
12 "$250+"
0 "Refused"
.

*********** MODEL TIME PERIOD SPECIFICATION ******************.

COMPUTE Mod_per =ap_per -1.
EXECUTE.

 RECODE
  mod_per  (0=4)  .
EXECUTE .

VALUE LABELS
MOD_PER
1 "AM Peak - 6 to 10"
2 "Midday - 10 to 4"
3 "PM Peak - 4 to 8"
4 "Night - 8 pm to 6 am".

FORMATS  AP_PER MOD_PER(f4.0).

*********** RESIDENT / non-RESIDENT *************** .


COMPUTE Zip5 = NUMBER(h_zip,f10.0) .
EXECUTE .

FORMATS  Zip5 (f10.0).

SORT CASES BY
 Zip5 (A) .

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\ZIP_County.sav'
 /BY Zip5.
EXECUTE.
```

```
RECODE
co_id
  (SYSMIS=0) (1 thru 28 =1)   (29 thru 54 =2)  INTO  RESIDENT .
EXECUTE .


FORMATS  Resident (f8.0).

VALUE LABELS
Resident
0 "Non-Resident"
1 "Resident (1-28)"
2 "Resident (29-54)".

SORT CASES BY
recno (A) .

*********** TRIP TYPE  *************** .

IF (tripurp>0) triptype = (resident =0)*2+tripurp .
EXECUTE .

IF (tripurp=0) triptype = 4.
EXECUTE .

FORMATS  triptype (f8.0).

VALUE LABELS
triptype
0 "Unkown"
1 "Resident-Business"
2 "Resident-Other"
3 "Non Resident-Business"
4 "Non Resident-Other".

FREQUENCIES
  VARIABLES=resident tripurp triptype
  /ORDER=  ANALYSIS .

CROSSTABS
  /TABLES=resident  BY tripurp  BY triptype
  /FORMAT= AVALUE TABLES
  /CELLS= COUNT .

************** ORIGINATIONS by TRIP TYPE - UNWEIGHTED  *************************.

USE ALL.
COMPUTE filter_$=(triptype>0).
VARIABLE LABEL filter_$ 'triptype>0 (FILTER)'.
VALUE LABELS filter_$  0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .


MEANS
  TABLES=recno  BY triptype By MOD_per
  /CELLS COUNT  .

MEANS
  TABLES=recno  BY triptype By MOD_per by AP_GROUP
  /CELLS COUNT  .

MEANS
  TABLES=recno  BY triptype By oco_id by AP_GROUP
  /CELLS COUNT  .
```

```
************** ORIGINATIONS by TRIP TYPE - EXPANDED (DAILY - 2005 )
*************************.

WEIGHT BY EXP_05.

USE ALL.
COMPUTE filter_$=(triptype>0).
VARIABLE LABEL filter_$ 'triptype>0 (FILTER)'.
VALUE LABELS filter_$  0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .


MEANS
 TABLES=recno  BY triptype By MOD_per
 /CELLS COUNT  .

MEANS
 TABLES=recno  BY triptype  by AP_GROUP
 /CELLS COUNT  .

MEANS
 TABLES=recno  BY triptype By oco_id by AP_GROUP
 /CELLS COUNT  .


************************************************** .
* CREATE BASIC MARKETS from TRIP TYPE and ORIGIN TYPE.

COMPUTE MARKET = 0.
IF TRIPTYPE=1 and (ORIG_TYPE=1 or ORIG_TYPE = 3) MARKET = 11.
IF TRIPTYPE=1 and (ORIG_TYPE=2 or ORIG_TYPE>3) MARKET = 12.
IF TRIPTYPE=2 and (ORIG_TYPE=1 or ORIG_TYPE = 3) MARKET = 21.
IF TRIPTYPE=2 and (ORIG_TYPE=2 or ORIG_TYPE>3) MARKET = 22.
IF TRIPTYPE=3 and (ORIG_TYPE=1 or ORIG_TYPE = 3) MARKET = 31.
IF TRIPTYPE=3 and (ORIG_TYPE=2 or ORIG_TYPE>4) MARKET = 32.
IF TRIPTYPE=3 and (ORIG_TYPE=4) MARKET = 33.
IF TRIPTYPE=4 and (ORIG_TYPE=1 or ORIG_TYPE = 3) MARKET = 41.
IF TRIPTYPE=4 and (ORIG_TYPE=2 or ORIG_TYPE>4) MARKET = 42.
IF TRIPTYPE=4 and (ORIG_TYPE=4) MARKET = 43.
EXECUTE.

Value Labels
MARKET
11 "ResBs per POP"
12 "ResBs per EMP"
21 "ResOth per POP"
22 "ResOth  per EMP"
31 "NonResBs per POP"
32 "NonResBsper EMP"
33 "NonResBs per HOTEL"
41 "NonResOth per POP"
42 "NonResOth per EMP"
43 "NonResOth per HOTEL"
.

FORMATS MARKET (F4.0).

FREQUENCIES
 VARIABLES=MARKET
 /ORDER=  ANALYSIS .

************************************************** .
```

```
COMPUTE IncGroup = Income.
Recode IncGroup (1 thru 3=1)(4 thru 6 = 2)(7 thru 12 =3).
Execute.

* 2005 Dollars .

Value Labels
IncGroup
0 "Not Reported"
1 "Low (Lt $60K)"
2 "Medium ($60K - $120K)"
3 "High (Gt $120K)"
.

FORMATS IncGroup (F4.0).

FREQUENCIES
 VARIABLES=IncGroup
 /ORDER=  ANALYSIS .

**************************************************** .
* VALID TRIP TYPE ONLY .
USE ALL.
COMPUTE filter_$=(triptype>0).
VARIABLE LABEL filter_$ 'triptype>0 (FILTER)'.
VALUE LABELS filter_$  0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .


CROSSTABS
 /TABLES=orig_type  BY triptype
 /FORMAT= AVALUE TABLES
 /CELLS= COUNT .

CROSSTABS
 /TABLES=orig_type  BY triptype BY oco_id
 /FORMAT= AVALUE TABLES
 /CELLS= COUNT .

FREQUENCIES
 VARIABLES=MARKET
 /ORDER=  ANALYSIS .

CROSSTABS
 /TABLES=income  BY triptype
 /FORMAT= AVALUE TABLES
 /CELLS= COUNT .

*MEANS
 TABLES=recno  BY oco_id  BY triptype BY IncGroup
 /CELLS COUNT .

*MEANS
 TABLES=recno  BY oco_id  BY MARKET
 /CELLS COUNT .

*MEANS
 TABLES=recno  BY oco_id  BY AP_GROUP by triptype /CELLS COUNT .

*MEANS
 TABLES=recno  BY oco_id   by triptype /CELLS COUNT .

*MEANS
```

```
    TABLES=recno  BY ap_group  by triptype /CELLS COUNT .


*******************************************************************************
**************************** .
SAVE
 OUTFILE='C:\0_Work\FAA\PAS_Data_060330\Integrated_Surveys\AIRPAX_SURVEY_1.sav'
 /COMPRESSED.
*******************************************************************************
**************************** .


* TASK C  .
* AIR PASSENGEER SURVEYS - 2006        .
* O and D or Ground Access Surveys Only .


********************.
*** PART 2A  ****** .
********************.

*** LEVEL 1 WEIGHTING
   COMPUTE 2005 RATES by MARKET (TRIP PURPOSE+ORIGIN TYPE: POP, EMP, and HOTEL
BASED)
     TRIPWT06 to TRIPWT25 in FILE: WHTS_AIRPAX_SURVEY_1 .


GET
 FILE='C:\0_Work\FAA\PAS_Data_060330\Integrated_Surveys\AIRPAX_Survey_1.sav'.

********************** MARKET RATES ********************** .

AGGREGATE
 /OUTFILE='C:\0_Work\FAA\PAS_Data_060330\Integrated_Surveys\AGGR.SAV'
 /BREAK=oco_id MARKET
 /TRIPS05= N(recno).

GET
 FILE='C:\0_Work\FAA\PAS_Data_060330\Integrated_Surveys\AGGR.SAV'.


******************** APPEND W&P SED DATA ****************** .

Rename variabales (OCO_ID=CO_ID).

sort cases by co_id.

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\SED\WP_SED_County.sav'
 /BY co_id.
EXECUTE.

******************** APPEND HOTEL DATA  ****************** .
MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_HOTEL_54.SAV'
 /BY CO_ID.
EXECUTE.

Rename variabales (CO_ID=OCO_ID).

******************** MARKET RATES   ********************** .
* per 100,000 for POP and EMP and per 1000 Hotel ROOMS.
* NOTE: POP and EMP are in expressed in 000's in WP_SED_County .
* while Hotel Rooms are in actual number .

COMPUTE RATE_MKT=0.
```

```
IF MARKET = 11 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 12 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 21 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 22 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 31 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 32 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 33 RATE_MKT = 1000*TRIPS05/ROOMS05.
IF MARKET = 41 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 42 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 43 RATE_MKT = 1000* TRIPS05/ROOMS05.
EXECUTE.

FORMATS RATE_MKT (f6.1).


MEANS
 TABLES=rate_MKT by OCO_ID by MARKET
 /CELLS SUM.


********************* APPLY 2005 MARKET RATES to FUTURE YEARS ****************** .

IF MARKET = 11 TRIPS06= RATE_MKT *POP06/100.
IF MARKET = 12 TRIPS06= RATE_MKT *EMP06/100.
IF MARKET = 21 TRIPS06= RATE_MKT *POP06/100.
IF MARKET = 22 TRIPS06= RATE_MKT *EMP06/100.
IF MARKET = 31 TRIPS06= RATE_MKT *POP06/100.
IF MARKET = 32 TRIPS06= RATE_MKT *EMP06/100.
IF MARKET = 33 TRIPS06= RATE_MKT *ROOMS06/1000.
IF MARKET = 41 TRIPS06= RATE_MKT *POP06/100.
IF MARKET = 42 TRIPS06= RATE_MKT *EMP06/100.
IF MARKET = 43 TRIPS06= RATE_MKT *ROOMS06/1000.
EXECUTE.

IF MARKET = 11 TRIPS07= RATE_MKT *POP07/100.
IF MARKET = 12 TRIPS07= RATE_MKT *EMP07/100.
IF MARKET = 21 TRIPS07= RATE_MKT *POP07/100.
IF MARKET = 22 TRIPS07= RATE_MKT *EMP07/100.
IF MARKET = 31 TRIPS07= RATE_MKT *POP07/100.
IF MARKET = 32 TRIPS07= RATE_MKT *EMP07/100.
IF MARKET = 33 TRIPS07= RATE_MKT *ROOMS07/1000.
IF MARKET = 41 TRIPS07= RATE_MKT *POP07/100.
IF MARKET = 42 TRIPS07= RATE_MKT *EMP07/100.
IF MARKET = 43 TRIPS07= RATE_MKT *ROOMS07/1000.
EXECUTE.
IF MARKET = 11 TRIPS08= RATE_MKT *POP08/100.
IF MARKET = 12 TRIPS08= RATE_MKT *EMP08/100.
IF MARKET = 21 TRIPS08= RATE_MKT *POP08/100.
IF MARKET = 22 TRIPS08= RATE_MKT *EMP08/100.
IF MARKET = 31 TRIPS08= RATE_MKT *POP08/100.
IF MARKET = 32 TRIPS08= RATE_MKT *EMP08/100.
IF MARKET = 33 TRIPS08= RATE_MKT *ROOMS08/1000.
IF MARKET = 41 TRIPS08= RATE_MKT *POP08/100.
IF MARKET = 42 TRIPS08= RATE_MKT *EMP08/100.
IF MARKET = 43 TRIPS08= RATE_MKT *ROOMS08/1000.
EXECUTE.
IF MARKET = 11 TRIPS09= RATE_MKT *POP09/100.
IF MARKET = 12 TRIPS09= RATE_MKT *EMP09/100.
IF MARKET = 21 TRIPS09= RATE_MKT *POP09/100.
IF MARKET = 22 TRIPS09= RATE_MKT *EMP09/100.
IF MARKET = 31 TRIPS09= RATE_MKT *POP09/100.
IF MARKET = 32 TRIPS09= RATE_MKT *EMP09/100.
IF MARKET = 33 TRIPS09= RATE_MKT *ROOMS09/1000.
IF MARKET = 41 TRIPS09= RATE_MKT *POP09/100.
IF MARKET = 42 TRIPS09= RATE_MKT *EMP09/100.
IF MARKET = 43 TRIPS09= RATE_MKT *ROOMS09/1000.
```

```
EXECUTE.
IF MARKET = 11 TRIPS10= RATE_MKT *POP10/100.
IF MARKET = 12 TRIPS10= RATE_MKT *EMP10/100.
IF MARKET = 21 TRIPS10= RATE_MKT *POP10/100.
IF MARKET = 22 TRIPS10= RATE_MKT *EMP10/100.
IF MARKET = 31 TRIPS10= RATE_MKT *POP10/100.
IF MARKET = 32 TRIPS10= RATE_MKT *EMP10/100.
IF MARKET = 33 TRIPS10= RATE_MKT *ROOMS10/1000.
IF MARKET = 41 TRIPS10= RATE_MKT *POP10/100.
IF MARKET = 42 TRIPS10= RATE_MKT *EMP10/100.
IF MARKET = 43 TRIPS10= RATE_MKT *ROOMS10/1000.
EXECUTE.
IF MARKET = 11 TRIPS15= RATE_MKT *POP15/100.
IF MARKET = 12 TRIPS15= RATE_MKT *EMP15/100.
IF MARKET = 21 TRIPS15= RATE_MKT *POP15/100.
IF MARKET = 22 TRIPS15= RATE_MKT *EMP15/100.
IF MARKET = 31 TRIPS15= RATE_MKT *POP15/100.
IF MARKET = 32 TRIPS15= RATE_MKT *EMP15/100.
IF MARKET = 33 TRIPS15= RATE_MKT *ROOMS15/1000.
IF MARKET = 41 TRIPS15= RATE_MKT *POP15/100.
IF MARKET = 42 TRIPS15= RATE_MKT *EMP15/100.
IF MARKET = 43 TRIPS15= RATE_MKT *ROOMS15/1000.
EXECUTE.
IF MARKET = 11 TRIPS20= RATE_MKT *POP20/100.
IF MARKET = 12 TRIPS20= RATE_MKT *EMP20/100.
IF MARKET = 21 TRIPS20= RATE_MKT *POP20/100.
IF MARKET = 22 TRIPS20= RATE_MKT *EMP20/100.
IF MARKET = 31 TRIPS20= RATE_MKT *POP20/100.
IF MARKET = 32 TRIPS20= RATE_MKT *EMP20/100.
IF MARKET = 33 TRIPS20= RATE_MKT *ROOMS20/1000.
IF MARKET = 41 TRIPS20= RATE_MKT *POP20/100.
IF MARKET = 42 TRIPS20= RATE_MKT *EMP20/100.
IF MARKET = 43 TRIPS20= RATE_MKT *ROOMS20/1000.
EXECUTE.
IF MARKET = 11 TRIPS25= RATE_MKT *POP25/100.
IF MARKET = 12 TRIPS25= RATE_MKT *EMP25/100.
IF MARKET = 21 TRIPS25= RATE_MKT *POP25/100.
IF MARKET = 22 TRIPS25= RATE_MKT *EMP25/100.
IF MARKET = 31 TRIPS25= RATE_MKT *POP25/100.
IF MARKET = 32 TRIPS25= RATE_MKT *EMP25/100.
IF MARKET = 33 TRIPS25= RATE_MKT *ROOMS25/1000.
IF MARKET = 41 TRIPS25= RATE_MKT *POP25/100.
IF MARKET = 42 TRIPS25= RATE_MKT *EMP25/100.
IF MARKET = 43 TRIPS25= RATE_MKT *ROOMS25/1000.
EXECUTE.

FORMATS TRIPS06 to TRIPS25 (F8.0).

******************COUNTY and MARKET IDs **************************************.

COMPUTE CTYMKT=OCO_ID*100+MARKET.
EXECUTE.

COMPUTE TRIPWT06 = TRIPS06/TRIPS05.
COMPUTE TRIPWT07 = TRIPS07/TRIPS05.
COMPUTE TRIPWT08 = TRIPS08/TRIPS05.
COMPUTE TRIPWT09 = TRIPS09/TRIPS05.
COMPUTE TRIPWT10 = TRIPS10/TRIPS05.
COMPUTE TRIPWT15 = TRIPS15/TRIPS05.
COMPUTE TRIPWT20 = TRIPS20/TRIPS05.
COMPUTE TRIPWT25 = TRIPS25/TRIPS05.
EXECUTE.

FORMATS TRIPWT06 to TRIPWT25 (F6.3).

SUMMARIZE
```

```
 /TABLES=OCO_ID MARKET TRIPS05 TRIPS06 to TRIPS25 TRIPWT06 to TRIPWT25
 /FORMAT=VALIDLIST NOCASENUM TOTAL LIMIT=10000
 /TITLE='Case Summaries'
 /MISSING=VARIABLE
 /CELLS=COUNT .

SAVE
 OUTFILE='C:\0_Work\FAA\Task C\Run\Whts_AIRPAX_Survey_1.sav'
 /COMPRESSED.


* TASK C  .
* AIR PASSENGEER SURVEYS - 2006          .
* O and D or Ground Access Surveys Only .


*******************.
*** PART 2B ****** .
*******************.

*** LEVEL 2 WEIGHTING
   APPEND INCOME-BASED WEIGHTS (LOW, MIDDLE, HIGH) from REAL INCOME and
SEGMENTATION MODEL
   COMPUTE COMPOSITE FORECAST WEIGHTS by COUNTY, MARKET TYPE, and INCOME
   FILE: FUT_AIRPAX_Survey_12  with LEVEL 1 AND LEVEL 2 WEIGHTS .


***************** ADD INCOME-Based WEIGHTS for RESIDENTS of 54 COUNTY AREA
*****************************.

GET TRANSLATE
 FILE='C:\0_Work\FAA\Task C\Run\SED\Inc_Whts25.dbf'
 /TYPE=DBF /MAP .

SAVE OUTFILE='C:\0_Work\FAA\Task C\Run\SED\Inc_Whts25.sav'
 /KEEP
 OCO_ID  LOW06 TO HIGH25
 /COMPRESSED.

*********************************************************************************
************************* .
GET
 FILE='C:\0_Work\FAA\Task C\Run\Whts_AIRPAX_Survey_1.sav'.

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\SED\Inc_Whts25.sav'
 /BY OCO_ID.
EXECUTE.

********** ACCOUNTING for TRIPS outside 54 COUNTY AREA *************** .
***                      SET to 40% GROWTH over 20 YERAS ******* .

IF OCO_ID=999 TRIPWT06 = 1.03.
IF OCO_ID=999 TRIPWT07 = 1.06.
IF OCO_ID=999 TRIPWT08 = 1.09.
IF OCO_ID=999 TRIPWT09 = 1.12.
IF OCO_ID=999 TRIPWT10 = 1.15.
IF OCO_ID=999 TRIPWT15 = 1.20.
IF OCO_ID=999 TRIPWT20 = 1.30.
IF OCO_ID=999 TRIPWT25 = 1.40.
EXECUTE.


IF OCO_ID=999 LOWINC = 1.00.
IF OCO_ID=999  MEDINC = 1.00.
IF OCO_ID=999  HIGHINC = 1.00.
```

```
EXECUTE.

COMPUTE CTYMKT=OCO_ID*100+MARKET.
EXECUTE.

SORT CASES BY  CTYMKT (A) .

FORMATS CTYMKT (F4.0).

SAVE
 OUTFILE='C:\0_Work\FAA\Task C\Run\Whts_1.sav'
 /KEEP
  CTYMKT  TRIPWT06 to TRIPWT25 LOW06 to HIGH25 LOWINC  MEDINC  HIGHINC
  /COMPRESSED.


**************** APPEND LEVEL 1 and 2 WEIGHTS for SAMPLE ENUMERATION  FORECASTING
******************************.

GET
 FILE='C:\0_Work\FAA\Task C\Run\AIRPAX_Survey_1.sav'.

COMPUTE CTYMKT=OCO_ID*100+MARKET.
EXECUTE.

SORT CASES BY  CTYMKT (A) .

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\Whts_1.sav'
 /BY CTYMKT.
EXECUTE.

********** COMPUTE COMPOSITE FORECAST WEIGHTS by COUNTY, MARKET TYPE, and INCOME
**************** .

* ACCOUNTING for EMP, POP and HOTEL GROWTH ONLY .

IF SYSMIS (TRIPWT06) TRIPWT06=1.00.
IF SYSMIS (TRIPWT07) TRIPWT07=1.00.
IF SYSMIS (TRIPWT08) TRIPWT08=1.00.
IF SYSMIS (TRIPWT09) TRIPWT09=1.00.
IF SYSMIS (TRIPWT10) TRIPWT10=1.00.
IF SYSMIS (TRIPWT15) TRIPWT15=1.00.
IF SYSMIS (TRIPWT20) TRIPWT20=1.00.
IF SYSMIS (TRIPWT25) TRIPWT25=1.00.
EXECUTE.

COMPUTE FUT1_06 = EXP_05 * TRIPWT06 .
COMPUTE FUT1_07 = EXP_05 * TRIPWT07 .
COMPUTE FUT1_08 = EXP_05 * TRIPWT08 .
COMPUTE FUT1_09 = EXP_05 * TRIPWT09 .
COMPUTE FUT1_10 = EXP_05 * TRIPWT10 .
COMPUTE FUT1_15 = EXP_05 * TRIPWT15 .
COMPUTE FUT1_20 = EXP_05 * TRIPWT20.
COMPUTE FUT1_25 = EXP_05 * TRIPWT25 .
EXECUTE.


* ACCOUNTING for REAL INCOME GROWTH ALSO  - RESIDENTS of 54 COUNTY AREA  ONLY .

IF SYSMIS (LOWINC) LOWINC=1.00.
IF SYSMIS (MEDINC) MEDINC=1.00.
IF SYSMIS (HIGHINC) HIGHINC=1.00.
EXECUTE.

COMPUTE FUT2_06 = FUT1_06 .
```

```
COMPUTE FUT2_07 = FUT1_07 .
COMPUTE FUT2_08 = FUT1_08 .
COMPUTE FUT2_09 = FUT1_09 .
COMPUTE FUT2_10 = FUT1_10 .
COMPUTE FUT2_15 = FUT1_15 .
COMPUTE FUT2_20 = FUT1_20 .
COMPUTE FUT2_25 = FUT1_25 .
EXECUTE.

IF INCGROUP=1 AND TRIPTYPE <3  FUT2_06=FUT1_06 * LOW06.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_06=FUT1_06 * MED06.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_06=FUT1_06 * HIGH06.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_07=FUT1_07 * LOW07.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_07=FUT1_07 * MED07.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_07=FUT1_07 * HIGH07.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_08=FUT1_08 * LOW08.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_08=FUT1_08 * MED08.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_08=FUT1_08 * HIGH08.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_09=FUT1_09 * LOW09.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_09=FUT1_09 * MED09.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_09=FUT1_09 * HIGH09.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_10=FUT1_10 * LOW10.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_10=FUT1_10 * MED10.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_10=FUT1_10 * HIGH10.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_15=FUT1_15 * LOW15.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_15=FUT1_15 * MED15.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_15=FUT1_15 * HIGH15.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_20=FUT1_20 * LOW20.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_20=FUT1_20 * MED20.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_20=FUT1_20 * HIGH20.
IF INCGROUP=1 AND TRIPTYPE <3  FUT2_25=FUT1_25 * LOW25.
IF INCGROUP=2 AND TRIPTYPE <3  FUT2_25=FUT1_25 * MED25.
IF INCGROUP=3 AND TRIPTYPE <3  FUT2_25=FUT1_25 * HIGH25.
EXECUTE.

WEIGHT OFF.

DESCRIPTIVES
 VARIABLES=EXP_05 FUT1_06 to FUT2_25
 /STATISTICS=MEAN SUM STDDEV MIN MAX .

*************************************************************************************
*************************  .
SAVE
 OUTFILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_12.sav'
 /COMPRESSED.
*************************************************************************************
*************************  .



* TASK C  .
* AIR PASSENGEER SURVEYS - 2006        .
* O and D or Ground Access Surveys Only .


*******************.
*** PART 3 ****** .
*******************.

*** LEVEL 3  WEIGHTING
    CONTROL TO TASK B TOTAL ALL 9-AIRPORT ENPLANMENT FORECASTS COMBINED
    FILE: FUT_AIRPAX_Survey_123  with LEVEL 1,2 AND 3 WEIGHTS .


GET
```

```
  FILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_12.sav' .

********** CONTROL TO TASK B TOTAL 9-AIRPORT ENPLANMENT FORECASTS   **************** .
****   REVISED 12/19/06 for Revised SWF Enplanment Forecasts from Task B   ******** .

COMPUTE B3_SCALE06 = 1.049931826.
COMPUTE B3_SCALE07 = 1.07824420.
COMPUTE B3_SCALE08 = 1.1048219265.
COMPUTE B3_SCALE09 = 1.13375906361.
COMPUTE B3_SCALE10 = 1.16218169.
COMPUTE B3_SCALE15 = 1.195799223.
COMPUTE B3_SCALE20 = 1.2381677.
COMPUTE B3_SCALE25 = 1.28772980.
EXECUTE.


****  SET for EACH FORECAST YEAR ***** .

COMPUTE FUT3_06 = FUT2_06  * B3_SCALE06 .
COMPUTE FUT3_07 = FUT2_07  * B3_SCALE07 .
COMPUTE FUT3_08 = FUT2_08  * B3_SCALE08 .
COMPUTE FUT3_09 = FUT2_09  * B3_SCALE09 .
COMPUTE FUT3_10 = FUT2_10  * B3_SCALE10 .
COMPUTE FUT3_15 = FUT2_15  * B3_SCALE15 .
COMPUTE FUT3_20 = FUT2_20  * B3_SCALE20 .
COMPUTE FUT3_25 = FUT2_25  * B3_SCALE25 .
EXECUTE.


********************************************************************************************
**************************** .
SAVE
 OUTFILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_123.sav'
 /COMPRESSED.
********************************************************************************************
**************************** .

* TASK C  .
* AIR PASSENGEER SURVEYS - 2006        .
* O and D or Ground Access Surveys Only .

********************.
*** PART 4 ****** .
********************.

*** LEVEL   WEIGHTING
   CONTROL TO TASK B  INDIVIDUAL AIRPORT ENPLANMENT FORECASTS
   FILE: FUT_AIRPAX_Survey_1234  with LEVEL 1,2,3 AND 4 WEIGHTS .

GET
 FILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_123.sav' .


********** CONTROL TO TASK B TOTAL 9-AIRPORT ENPLANMENT FORECASTS   **************** .

COMPUTE B4_SCALE06=  1.0000 .
COMPUTE B4_SCALE07=  1.0000 .
COMPUTE B4_SCALE08=  1.0000 .
COMPUTE B4_SCALE09=  1.0000 .
COMPUTE B4_SCALE10=  1.0000 .
COMPUTE B4_SCALE15=  1.0000 .
COMPUTE B4_SCALE20=  1.0000 .
COMPUTE B4_SCALE25=  1.0000 .
EXECUTE.
```

**** SET for EACH FORECAST YEAR (After LEVEL 3 Tabulations) ***** .

```
IF APID=1  B4_SCALE06 =        0.99263781      .
IF APID=2  B4_SCALE06 =        1.001719359     .
IF APID=3  B4_SCALE06 =        1.009843739     .
IF APID=4  B4_SCALE06 =        0.744190418     .
IF APID=5  B4_SCALE06 =        1.020218927     .
IF APID=6  B4_SCALE06 =        1.101845286     .
IF APID=7  B4_SCALE06 =        0.965152608     .
IF APID=8  B4_SCALE06 =        0.966696405     .
IF APID=9  B4_SCALE06 =        0.941780822     .

IF APID=1  B4_SCALE07 =        0.993326414     .
IF APID=2  B4_SCALE07 =        0.983622567     .
IF APID=3  B4_SCALE07 =        1.015800012     .
IF APID=4  B4_SCALE07 =        1.431348614     .
IF APID=5  B4_SCALE07 =        1.002874111     .
IF APID=6  B4_SCALE07 =        1.163413404     .
IF APID=7  B4_SCALE07 =        0.940916009     .
IF APID=8  B4_SCALE07 =        0.954555338     .
IF APID=9  B4_SCALE07 =        0.9275458       .

IF APID=1  B4_SCALE08 =        0.996567449     .
IF APID=2  B4_SCALE08 =        0.966322351     .
IF APID=3  B4_SCALE08 =        1.030621736     .
IF APID=4  B4_SCALE08 =        1.468145249     .
IF APID=5  B4_SCALE08 =        0.987810278     .
IF APID=6  B4_SCALE08 =        1.139583509     .
IF APID=7  B4_SCALE08 =        0.916195573     .
IF APID=8  B4_SCALE08 =        0.944009734     .
IF APID=9  B4_SCALE08 =        0.914303918     .

IF APID=1  B4_SCALE09 =        0.998890338     .
IF APID=2  B4_SCALE09 =        0.949704406     .
IF APID=3  B4_SCALE09 =        1.046443269     .
IF APID=4  B4_SCALE09 =        1.485065561     .
IF APID=5  B4_SCALE09 =        0.970160122     .
IF APID=6  B4_SCALE09 =        1.114954111     .
IF APID=7  B4_SCALE09 =        0.892796293     .
IF APID=8  B4_SCALE09 =        0.932801845     .
IF APID=9  B4_SCALE09 =        0.901954748     .

IF APID=1  B4_SCALE10 =        1.001089616     .
IF APID=2  B4_SCALE10 =        0.93240772      .
IF APID=3  B4_SCALE10 =        1.063755581     .
IF APID=4  B4_SCALE10 =        1.453263497     .
IF APID=5  B4_SCALE10 =        0.955557129     .
IF APID=6  B4_SCALE10 =        1.087636108     .
IF APID=7  B4_SCALE10 =        0.867579909     .
IF APID=8  B4_SCALE10 =        0.924315557     .
IF APID=9  B4_SCALE10 =        0.880836648     .

IF APID=1  B4_SCALE15 =        1.003005075     .
IF APID=2  B4_SCALE15 =        0.925518785     .
IF APID=3  B4_SCALE15 =        1.067316912     .
IF APID=4  B4_SCALE15 =        1.4495105       .
IF APID=5  B4_SCALE15 =        0.970463663     .
IF APID=6  B4_SCALE15 =        1.043947041     .
IF APID=7  B4_SCALE15 =        0.844699547     .
IF APID=8  B4_SCALE15 =        0.943213272     .
IF APID=9  B4_SCALE15 =        0.866701791     .

IF APID=1  B4_SCALE20 =        1.006511054     .
IF APID=2  B4_SCALE20 =        0.915121009     .
IF APID=3  B4_SCALE20 =        1.072910857     .
IF APID=4  B4_SCALE20 =        1.439027666     .
```

```
IF APID=5  B4_SCALE20 =        0.981447201     .
IF APID=6  B4_SCALE20 =        0.984479945     .
IF APID=7  B4_SCALE20 =        0.819644731     .
IF APID=8  B4_SCALE20 =        0.959776634     .
IF APID=9  B4_SCALE20 =        0.852359209     .

IF APID=1  B4_SCALE25 =        1.011690452     .
IF APID=2  B4_SCALE25 =        0.903328416     .
IF APID=3  B4_SCALE25 =        1.077768922     .
IF APID=4  B4_SCALE25 =        1.419068736     .
IF APID=5  B4_SCALE25 =        0.98822064      .
IF APID=6  B4_SCALE25 =        0.920665602     .
IF APID=7  B4_SCALE25 =        0.791369502     .
IF APID=8  B4_SCALE25 =        0.986704694     .
IF APID=9  B4_SCALE25 =        0.847207587     .
EXECUTE.


COMPUTE FUT4_06 = FUT3_06 * B4_SCALE06 .
COMPUTE FUT4_07 = FUT3_07 * B4_SCALE07 .
COMPUTE FUT4_08 = FUT3_08 * B4_SCALE08 .
COMPUTE FUT4_09 = FUT3_09 * B4_SCALE09 .
COMPUTE FUT4_10 = FUT3_10 * B4_SCALE10 .
COMPUTE FUT4_15 = FUT3_15 * B4_SCALE15 .
COMPUTE FUT4_20 = FUT3_20 * B4_SCALE20 .
COMPUTE FUT4_25 = FUT3_25 * B4_SCALE25 .
EXECUTE.

SORT CASES by RECNO .

******************************************************************************
*************************** .
SAVE
 OUTFILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_1234.sav'
 /COMPRESSED.
******************************************************************************
*************************** .

******************************************************************************
*************************** .
SORT CASES by RECNO (A).

FORMATS  CTYMKT (F4.0) EXP_05 FUT1_06 to FUT4_25 (F6.5).

SAVE
 OUTFILE='C:\0_Work\FAA\Task C\Run\WHT_F.sav'
 /KEEP
  recno CTYMKT EXP_05
        FUT1_06 FUT2_06 FUT3_06 FUT4_06
        FUT1_07 FUT2_07 FUT3_07 FUT4_07
        FUT1_08 FUT2_08 FUT3_08 FUT4_08
        FUT1_09 FUT2_09 FUT3_09 FUT4_09
        FUT1_10 FUT2_10 FUT3_10 FUT4_10
        FUT1_15 FUT2_15 FUT3_15 FUT4_15
        FUT1_20 FUT2_20 FUT3_20 FUT4_20
        FUT1_25 FUT2_25 FUT3_25 FUT4_25
 /COMPRESSED.

******************************************************************************
*************************** .
****  FINAL SET OF FORECAST WEIGHTS  ***** .

 GET
 FILE='C:\0_Work\FAA\Task C\Run\WHT_F.sav'.

 SAVE TRANSLATE OUTFILE='C:\0_Work\FAA\Task C\Run\WHT_F.dbf'
```

```
   /TYPE=DBF /VERSION=4 /MAP /REPLACE.


 ******************************************************************************
 **************************** .
 ******************************************************************************
 **************************** .
GET
 FILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_1234.sav'.

* USER NOTE >> SET WEIGHTS BELOW for SPECIFIC FORECAST YEAR  .

 ******************************************************************************
 **************************** .
* UNWEIGHTED RECORDS .
WEIGHT OFF.

FREQUENCIES
 VARIABLES=APID AP_GROUP TRIPTYPE OCO_ID
 /ORDER=  ANALYSIS .

* 2005 EXPANSION .

WEIGHT BY EXP_05 .

FREQUENCIES
 VARIABLES=APID AP_GROUP TRIPTYPE OCO_ID
 /ORDER=  ANALYSIS .

CROSSTABS
 /TABLES=OCO_ID  BY apid
 /FORMAT= AVALUE TABLES
 /CELLS= COUNT
 /COUNT ROUND CELL .


**** SET for WEIGHTS for EACH FORECAST YEAR ***** .
***   NOW SET FOR:   2015   ********** .


* FORECAST EXPANSION - LEVEL 1 .

WEIGHT BY FUT1_15

FREQUENCIES
 VARIABLES=APID AP_GROUP TRIPTYPE OCO_ID
 /ORDER=  ANALYSIS .


* FORECAST EXPANSION - LEVEL 2 with INCOME EFFECT .

WEIGHT BY FUT2_15.

FREQUENCIES
 VARIABLES=APID AP_GROUP TRIPTYPE OCO_ID
 /ORDER=  ANALYSIS .



* FORECAST EXPANSION - LEVEL 3 with INCOME EFFECT and CONTROL to TASK B ENPLANEMENTS
  REGIONAL TOTAL.

WEIGHT BY FUT3_15.

FREQUENCIES
 VARIABLES=APID AP_GROUP TRIPTYPE OCO_ID
```

```
 /ORDER=  ANALYSIS .

CROSSTABS
 /TABLES=OCO_ID  BY apid
 /FORMAT= AVALUE TABLES
 /CELLS= COUNT
 /COUNT ROUND CELL .



* FORECAST EXPANSION - LEVEL 4 with INCOME EFFECT and CONTROL to TASK B ENPLANEMENTS
 AIRPORT SPECIFIC .

WEIGHT BY FUT4_15.

FREQUENCIES
 VARIABLES=APID AP_GROUP TRIPTYPE OCO_ID
 /ORDER=  ANALYSIS .

CROSSTABS
 /TABLES=OCO_ID  BY apid
 /FORMAT= AVALUE TABLES
 /CELLS= COUNT
 /COUNT ROUND CELL .
*********************************************************************************************
************************** .


* TASK C  .
* AIR PASSENGEER SURVEYS - 2006        .
* O and D or Ground Access Surveys Only .

********************.
*** PART 5  ****** .
********************.
*********************************************************************************************
************************************** .
*********************************************************************************************
************************************** .
*  CALCULATE FINAL (LEVEL 4) COUNTY SPECIFIC AIR TRIP RATES by MARKET .

GET
 FILE='C:\0_Work\FAA\Task C\Run\FUT_AIRPAX_Survey_1234.sav'.

* USER NOTE >> SET WEIGHTS BELOW for SPECIFIC FORECAST YEAR  .

*********************************************************************************************
************************** .


* FORECAST EXPANSION - LEVEL 4 with INCOME EFFECT and CONTROL to TASK B ENPLANEMENTS
 AIRPORT SPECIFIC .

WEIGHT BY FUT4_25.



********************** ADJUSTED MARKET RATES: LEVEL 4  ********************** .

AGGREGATE
 /OUTFILE='C:\0_Work\FAA\PAS_Data_060330\Integrated_Surveys\AGGR.SAV'
 /BREAK=oco_id MARKET
 /TRIPS05= N(recno).

GET
 FILE='C:\0_Work\FAA\PAS_Data_060330\Integrated_Surveys\AGGR.SAV'.
```

******************** APPEND W&P SED DATA ******************** .

Rename variabales (OCO_ID=CO_ID).

sort cases by co_id.

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\SED\WP_SED_County.sav'
 /BY co_id.
EXECUTE.

******************** APPEND HOTEL DATA ******************** .
MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_HOTEL_54.SAV'
 /BY CO_ID.
EXECUTE.

Rename variabales (CO_ID=OCO_ID).

******************** MARKET RATES   ********************** .
* per 100,000 for POP and EMP and per 1,000 Hotel ROOMS.
* NOTE: POP and EMP are in expressed in 000's in WP_SED_County .
* while Hotel Rooms are in actual number .

COMPUTE RATE_MKT=0.
IF MARKET = 11 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 12 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 21 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 22 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 31 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 32 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 33 RATE_MKT = 1000*TRIPS05/ROOMS05.
IF MARKET = 41 RATE_MKT = 100*TRIPS05/POP05.
IF MARKET = 42 RATE_MKT = 100*TRIPS05/EMP05.
IF MARKET = 43 RATE_MKT = 1000* TRIPS05/ROOMS05.
EXECUTE.

FORMATS RATE_MKT (f6.1).

MEANS
 TABLES=rate_MKT by OCO_ID by MARKET
 /CELLS SUM.

```
* TASK C  .
* ESTIMATE HOTEL ROOMS FOR COUNTIES without SMITH TRAVEL DATABASE (STD).
* REGRESSION ANALYSIS of COUNTIES with STD
* FAA DEMAND STUDY - PB CONSULT .
* JULY 2006 .

* 54 COUNTY AREA .
* MERGE SED DATA, AM HIGHWAY TIMES TO AIRPORTS, AND HOTEL   INFORMATION .
*   for CORE COUNTIES ONLY (SMITH TRAVEL RESERACH DATA)  .

GET
  FILE='C:\0_Work\FAA\Task C\Run\ZIP_County.sav'.

sort cases by zip5 (a) .

SAVE OUTFILE='C:\0_Work\FAA\Task C\Run\ZIP_County.sav'
 /COMPRESSED.


GET
  FILE='C:\0_Work\FAA\Task C\Run\Hotels\Logding Zip Code.sav'.
sort cases by zip5 (a) .

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\ZIP_County.sav'
 /BY zip5.
EXECUTE.


AGGREGATE
  /OUTFILE='C:\0_Work\FAA\Task C\Run\hotels\CO_HOTEL_1.sav'
  /BREAK=co_id
  /rooms = SUM(rooms) /eco_room = SUM(eco_room) /mid_room = SUM(mid_room) /up_room =
SUM(up_room) /room85
  = SUM(room85) /room8502 = SUM(room8502) /room02 = SUM(room02) /low_room = SUM(low_room)
/md_room = SUM
 (md_room) /hig_room = SUM(hig_room) /vh_room = SUM(vh_room).


GET
  FILE='C:\0_Work\FAA\Task C\Run\SED\WP_SED_County.sav'.

* APPEND AM HIGHWAY SKIMS to Airports.

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\Skims\AM_HwyTime_to_Airports_54Counties.sav'
 /BY co_id.
EXECUTE.


* APPEND Hotel Data - Core Counties .

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\Hotels\CO_HOTEL_1.sav'
 /BY co_id.
EXECUTE.

formats rooms to vh_room (F8.0).

VALUE LABELS
CO_ID
1        "NEW YORK"
2        "QUEENS          "
3        "BRONX "
```

```
4       "KINGS   "
5       "RICHMOND      "
6       "NASSAU        "
7       "SUFFOLK       "
8       "WESTCHESTER   "
9       "ROCKLAND      "
10      "PUTNAM        "
11      "ORANGE        "
12      "DUTCHESS      "
13      "FAIRFIELD     "
14      "BERGEN        "
15      "PASSAIC       "
16      "HUDSON        "
17      "ESSEX  "
18      "UNION  "
19      "MORRIS        "
20      "SOMERSET      "
21      "MIDDLESEX     "
22      "MONMOUTH      "
23      "OCEAN  "
24      "HUNTERDON     "
25      "WARREN        "
26      "SUSSEX        "
27      "NEW HAVEN     "
28      "MERCER        "
29      "DELAWARE      "
30      "SULLIVAN      "
31      "ULSTER"
32      "ATLANTIC      "
33      "BURLINGTON    "
34      "CAMDEN        "
35      "CAPE MAY      "
36      "CUMBERLAND    "
37      "GLOUCESTER    "
38      "SALEM  "
39      "LITCHFIELD    "
40      "BERKS  "
41      "BUCKS  "
42      "CARBON        "
43      "COLUMBIA      "
44      "LACKAWANNA    "
45      "LEHIGH"
46      "LUZERNE       "
47      "MONROE        "
48      "MONTGOMERY    "
49      "NORTHAMPTON   "
50      "NORTHUMBERLAND        "
51      "PIKE     "
52      "SCHUYLKILL    "
53      "SUSQUEHANNA   "
54      "WYOMING       "
999  "OUT SIDE AREA"
.


* NEAREST MAJOR AIRPORT - AM HIGHWAY TIMES.

COMPUTE AIRPORT_TIME = MIN(JFK,LGA,EWR) .
EXECUTE .


SUMMARIZE
  /TABLES=incpc05 incpc25 emp05 emp25  pop05 pop25
  jfk ewr lga swf isp hpn ttn abe acy AIRPORT_TIME
  rooms eco_room
   mid_room up_room room85 room8502 room02
```

```
  low_room md_room hig_room vh_room  BY co_id
  /FORMAT=VALIDLIST NOCASENUM TOTAL LIMIT=100
  /TITLE='Case Summaries'
  /MISSING=VARIABLE
  /CELLS=NONE.


SAVE OUTFILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_AMTIMES_HOTEL_54.SAV'
 /COMPRESSED.


SAVE TRANSLATE OUTFILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_AMTIMES_HOTEL_54.dbf'
 /TYPE=DBF /VERSION=4 /MAP /REPLACE.


FILTER OFF.
USE ALL.
SELECT IF(rooms>0).
EXECUTE .


SAVE OUTFILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_AMTIMES_HOTEL_AREA1.SAV'
 /COMPRESSED.


SAVE TRANSLATE OUTFILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_AMTIMES_HOTEL_AREA1.dbf'
 /TYPE=DBF /VERSION=4 /MAP /REPLACE.

*************************************************************** .

*HOTEL REGRESSION ANALYSIS .

GET
  FILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_AMTIMES_HOTEL_AREA1.SAV'.

* REMOVE MANHATTAN .

USE ALL.
COMPUTE filter_$=(co_id>1).
VARIABLE LABEL filter_$ 'co_id>1 (FILTER)'.
VALUE LABELS filter_$  0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .


* MODEL 1 .

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT rooms
  /METHOD=ENTER emp05 pop05
  /SCATTERPLOT=(*ZPRED ,rooms )
  /RESIDUALS HIST(ZRESID) ID( co_id )
  /CASEWISE PLOT(ZRESID) ALL .


* MODEL 2 .

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
```

```
 /NOORIGIN
 /DEPENDENT rooms
 /METHOD=ENTER incpc05 emp05 pop05
 /SCATTERPLOT=(*ZPRED ,rooms )
 /RESIDUALS HIST(ZRESID) ID( co_id )
 /CASEWISE PLOT(ZRESID) ALL .

* MODEL 3 .

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT rooms
 /METHOD=ENTER incpc05 pop05
 /SCATTERPLOT=(*ZPRED ,rooms )
 /RESIDUALS HIST(ZRESID) ID( co_id )
 /CASEWISE PLOT(ZRESID) ALL .


* MODEL 4 .

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT rooms
 /METHOD=ENTER incpc05 emp05
 /SCATTERPLOT=(*ZPRED ,rooms )
 /RESIDUALS HIST(ZRESID) ID( co_id )
 /CASEWISE PLOT(ZRESID) ALL .

* MODEL 5 .

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT rooms
 /METHOD=ENTER pop05 AIRPORT_TIME
 /SCATTERPLOT=(*ZPRED ,rooms )
 /RESIDUALS HIST(ZRESID) ID( co_id )
 /CASEWISE PLOT(ZRESID) ALL .


* MODEL 6 .

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT rooms
 /METHOD=ENTER  emp05 AIRPORT_TIME
 /SCATTERPLOT=(*ZPRED ,rooms )
 /RESIDUALS HIST(ZRESID) ID( co_id )
 /CASEWISE PLOT(ZRESID) ALL .

* MODEL 7 .

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
```

```
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT rooms
  /METHOD=ENTER emp05 pop05 AIRPORT_TIME
  /SCATTERPLOT=(*ZPRED ,rooms )
  /RESIDUALS HIST(ZRESID) ID( co_id )
  /CASEWISE PLOT(ZRESID) ALL .

* MODEL 8 .

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT rooms
  /METHOD=ENTER incpc05 emp05 pop05 AIRPORT_TIME
  /SCATTERPLOT=(*ZPRED ,rooms )
  /RESIDUALS HIST(ZRESID) ID( co_id )
  /CASEWISE PLOT(ZRESID) ALL .
```

* TASK C .
* APPLY ESTIMATION of HOTEL ROOMS FOR COUNTIES without SMITH TRAVEL DATABASE.

```
GET
  FILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_AMTIMES_HOTEL_54.SAV'.

* APPEND W&P SED FORECASTS .

MATCH FILES /FILE=*
 /TABLE='C:\0_Work\FAA\Task C\Run\SED\WP_SED_County.sav'
 /BY co_id.
EXECUTE.


* HOTEL FORECAST REGRESSION MODEL 8B APPLIED.
* CORRECED - APPLIED to SED DATA expresssed  in  000's.

COMPUTE ROOMS05 = -4*POP05 + 17*EMP05 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS06 = -4*POP06 + 17*EMP06 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS07 = -4*POP07 + 17*EMP07 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS08 = -4*POP08 + 17*EMP08 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS09 = -4*POP09 + 17*EMP09 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS10 = -4*POP10 + 17*EMP10 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS15 = -4*POP15 + 17*EMP15 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS20 = -4*POP20 + 17*EMP20 - 9.2*AIRPORT_TIME .
COMPUTE ROOMS25 = -4*POP25 + 17*EMP25 - 9.2*AIRPORT_TIME .
EXECUTE.

SUMMARIZE
  /TABLES=co_id pop05 emp05 incpc05 pop25 emp25 incpc25 AIRPORT_TIME rooms  ROOMS05
ROOMS10 ROOMS15 ROOMS20 ROOMS25
  /FORMAT=VALIDLIST NOCASENUM TOTAL LIMIT=100
  /TITLE='Case Summaries'
  /MISSING=VARIABLE
  /CELLS=COUNT .

* APPLY INCREMENT FORECAST GROWTH to OBSERVED "ROOMS"
  FOR AREA 1 COUNTIES - with 2005 SMITH TRAVEL ESTIMATES  .

IF ROOMS>0 and ROOMS05>0 ROOMS06 = ROOMS * ROOMS06/ROOMS05.
```

```
IF ROOMS>0 and ROOMS05<0 ROOMS06=ROOMS+(ROOMS06-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS07 = ROOMS * ROOMS07/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS07=ROOMS+(ROOMS07-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS08 = ROOMS * ROOMS08/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS08=ROOMS+(ROOMS08-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS09 = ROOMS * ROOMS09/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS09=ROOMS+(ROOMS09-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS10 = ROOMS * ROOMS10/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS10=ROOMS+(ROOMS10-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS15 = ROOMS * ROOMS15/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS15=ROOMS+(ROOMS15-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS20 = ROOMS * ROOMS20/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS20=ROOMS+(ROOMS20-ROOMS05).
IF ROOMS>0 and ROOMS05>0 ROOMS25 = ROOMS * ROOMS25/ROOMS05.
IF ROOMS>0 and ROOMS05<0 ROOMS25=ROOMS+(ROOMS25-ROOMS05).
EXECUTE.

IF ROOMS>0 ROOMS05 = ROOMS.
EXECUTE.


* RATE PER POP+EMP for AREA 2 COUNTIES (with NEGATIVE REGRESSION PREDICTIONS).

COMPUTE H_RATE05= ROOMS05/(POP05+EMP05).
COMPUTE H_RATE06= ROOMS06/(POP06+EMP06).
COMPUTE H_RATE07= ROOMS07/(POP07+EMP07).
COMPUTE H_RATE08= ROOMS08/(POP08+EMP08).
COMPUTE H_RATE09= ROOMS09/(POP09+EMP09).
COMPUTE H_RATE10= ROOMS10/(POP10+EMP10).
COMPUTE H_RATE15= ROOMS15/(POP15+EMP15).
COMPUTE H_RATE20= ROOMS20/(POP20+EMP20).
COMPUTE H_RATE25= ROOMS25/(POP25+EMP25).
EXECUTE.

SUMMARIZE
 /TABLES=co_id pop05 emp05 incpc05 pop25 emp25 incpc25 AIRPORT_TIME rooms  ROOMS05
ROOMS10 ROOMS15 ROOMS20 ROOMS25
  H_RATE05 H_RATE25
 /FORMAT=VALIDLIST NOCASENUM TOTAL LIMIT=100
 /TITLE='Case Summaries'
 /MISSING=VARIABLE
 /CELLS=COUNT .

USE ALL.
COMPUTE filter_$=(co_id>28 AND ROOMS05>0.).
VARIABLE LABEL filter_$ 'co_id>28 AND ROOMS05>0. (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .


DESCRIPTIVES
 VARIABLES=H_RATE05 H_RATE25
 /STATISTICS=MEAN SUM STDDEV MIN MAX .

* APPLY AVERAGE RATE (OF POSTITIVES).
IF ROOMS05<0 ROOMS05= .0022 * (POP05+EMP05).
IF ROOMS06<0 ROOMS06= .0022 * (POP06+EMP06).
IF ROOMS07<0 ROOMS07= .0023 * (POP07+EMP07).
IF ROOMS08<0 ROOMS08= .0024 * (POP08+EMP08).
IF ROOMS09<0 ROOMS09= .0024 * (POP09+EMP09).
IF ROOMS10<0 ROOMS10= .0025 * (POP10+EMP10).
IF ROOMS15<0 ROOMS15= .0027 * (POP15+EMP25).
IF ROOMS20<0 ROOMS20= .0029 * (POP20+EMP20).
IF ROOMS25<0 ROOMS25= .0031 * (POP25+EMP25).
EXECUTE.
```

```
FILTER OFF.
USE ALL.
EXECUTE .


SUMMARIZE
 /TABLES=co_id pop05 emp05 incpc05 pop25 emp25 incpc25 AIRPORT_TIME rooms  ROOMS05
ROOMS25
 /FORMAT=VALIDLIST NOCASENUM TOTAL LIMIT=100
 /TITLE='Case Summaries'
 /MISSING=VARIABLE
 /CELLS=COUNT .


FORMATS ROOMS05 to ROOMS25 (f8.0).

SAVE OUTFILE='C:\0_Work\FAA\Task C\Run\Hotels\CO_SED_HOTEL_54.SAV'
/KEEP
CO_ID  ROOMS05 ROOMS06 ROOMS07 ROOMS08 ROOMS09 ROOMS10 ROOMS15 ROOMS20  ROOMS25
 /COMPRESSED.
```

APPENDIX B:
DETAILED FORECASTS of ORIGINATIONS

Task C: Origin Productions
Base Year 2005

Airport - Chosen	Unweighted	2005
1 JFK	4,962	48,660
2 LGA	4,210	33,433
3 EWR	4,352	34,564
4 SWF	1,082	546
5 ISP	1,089	2,892
6 HPN	1,085	1,278
7 ACY	1,081	1,339
8 ABE	1,174	1,143
9 TTN	93	74
Total	**19,128**	**123,929**

AP_GROUP	Unweighted	2005
1 JFK	4,962	48,660
2 LGA	4,210	33,433
3 EWR	4,352	34,564
4 NYSDOT	3,256	4,716
5 DVRPC	2,348	2,556
Total	**19,128**	**123,929**

triptype	Unweighted	2005
1 Resident-Business	2,899	17,580
2 Resident-Other	6,985	44,744
3 Non Resident-Business	2,904	20,389
4 Non Resident-Other	6,340	41,216
Total	**19,128**	**123,929**

OCO_ID Origin County

Base Year 2005	Unweighted	2005
1 NEW YORK	4,972	43,035
2 QUEENS	840	7,402
3 BRONX	295	2,500
4 KINGS	810	7,129
5 RICHMOND	117	989
6 NASSAU	915	7,341
7 SUFFOLK	1,340	6,864
8 WESTCHESTER	988	5,067
9 ROCKLAND	184	1,232
10 PUTNAM	95	467
11 ORANGE	503	998
12 DUTCHESS	447	886
13 FAIRFIELD	925	4,648
14 BERGEN	597	4,779
15 PASSAIC	163	1,292
16 HUDSON	371	2,997
17 ESSEX	370	2,970
18 UNION	260	2,088
19 MORRIS	419	3,287
20 SOMERSET	228	1,762
21 MIDDLESEX	457	3,494
22 MONMOUTH	474	3,093
23 OCEAN	390	1,206
24 HUNTERDON	117	703
25 WARREN	86	366
26 SUSSEX	102	676
27 NEW HAVEN	157	1,269
28 MERCER	159	917
29 DELAWARE	11	14
30 SULLIVAN	80	102
31 ULSTER	203	283
32 ATLANTIC	331	594
33 BURLINGTON	123	344
34 CAMDEN	54	159
35 CAPE MAY	115	183
36 CUMBERLAND	30	64
37 GLOUCESTER	41	79
38 SALEM	4	5
39 LITCHFIELD	44	256
40 BERKS	98	129
41 BUCKS	148	377
42 CARBON	23	29
43 COLUMBIA	6	6
44 LACKAWANNA	19	53
45 LEHIGH	388	570
46 LUZERNE	26	48
47 MONROE	117	246
48 MONTGOMERY	86	209
49 NORTHAMPTON	319	483
50 NORTHUMBERLAND	7	24
51 PIKE	27	110
52 SCHUYLKILL	36	69
53 SUSQUEHANNA	6	12
54 WYOMING	5	21
999 OUT SIDE AREA		
Total	**19,128**	**123,929**

Base Year 2005   **Average Daily**

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	21,065	16,010	5,774	1	167	19	0	0	0	43,036
2 QUEENS	4,305	2,859	206	1	27	5	0	0	0	7,403
3 BRONX	1,177	1,215	87	0	13	7	0	0	0	2,499
4 KINGS	4,266	2,422	389	1	50	1	0	0	0	7,129
5 RICHMOND	343	95	548	0	3	0	0	0	0	989
6 NASSAU	4,452	2,406	95	0	388	0	0	0	0	7,341
7 SUFFOLK	2,922	1,668	103	0	2,167	2	0	1	0	6,863
8 WESTCHESTER	2,285	1,834	389	9	19	531	0	0	0	5,067
9 ROCKLAND	314	310	572	11	5	21	0	0	0	1,233
10 PUTNAM	147	214	64	8	0	34	0	0	0	467
11 ORANGE	216	206	357	198	0	20	0	0	0	997
12 DUTCHESS	324	262	79	165	5	51	0	0	0	886
13 FAIRFIELD	2,148	1,652	310	5	8	526	0	0	0	4,649
14 BERGEN	804	723	3,232	3	5	9	2	0	0	4,778
15 PASSAIC	118	103	1,064	1	5	0	0	1	0	1,292
16 HUDSON	422	326	2,240	0	8	1	1	0	0	2,998
17 ESSEX	245	143	2,581	1	0	0	0	0	0	2,970
18 UNION	186	95	1,803	0	3	0	1	0	0	2,088
19 MORRIS	216	143	2,915	1	3	0	2	8	0	3,288
20 SOMERSET	108	40	1,604	0	0	0	2	7	1	1,762
21 MIDDLESEX	490	103	2,859	0	3	0	35	2	2	3,494
22 MONMOUTH	235	32	2,692	0	5	0	124	0	4	3,092
23 OCEAN	69	40	747	0	0	0	350	0	1	1,207
24 HUNTERDON	20	0	651	1	0	0	6	22	3	703
25 WARREN	20	8	294	0	0	0	1	44	0	367
26 SUSSEX	69	24	572	8	0	0	0	4	0	677
27 NEW HAVEN	902	278	64	1	0	25	0	0	0	1,270
28 MERCER	108	32	723	0	5	0	25	2	23	918
29 DELAWARE	0	0	8	5	0	1	0	0	0	14
30 SULLIVAN	29	8	24	35	3	2	0	1	0	102
31 ULSTER	108	40	40	89	0	6	0	0	0	283
32 ATLANTIC	20	24	175	0	0	0	375	1	0	595
33 BURLINGTON	29	8	191	0	0	0	113	0	3	344
34 CAMDEN	59	0	48	0	0	0	52	0	0	159
35 CAPE MAY	0	0	48	0	0	0	135	0	0	183
36 CUMBERLAND	0	0	32	0	0	0	32	0	0	64
37 GLOUCESTER	10	0	24	0	0	0	46	0	0	80
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	127	71	40	2	0	15	0	0	0	255
40 BERKS	29	0	8	0	0	0	2	90	0	129
41 BUCKS	78	8	183	0	0	0	11	66	31	377
42 CARBON	0	8	0	0	0	0	0	21	0	29
43 COLUMBIA	0	0	0	0	0	0	0	6	0	6
44 LACKAWANNA	0	16	24	0	0	0	0	14	0	54
45 LEHIGH	20	0	199	0	0	0	0	352	0	571
46 LUZERNE	10	0	16	0	0	0	0	22	0	48
47 MONROE	0	8	143	0	0	0	0	95	0	246
48 MONTGOMERY	59	0	79	0	0	0	16	50	5	209
49 NORTHAMPTON	29	0	167	1	0	0	0	285	1	483
50 NORTHUMBERLAND	20	0	0	0	0	0	0	5	0	25
51 PIKE	20	0	79	4	0	0	0	7	0	110
52 SCHUYLKILL	29	0	8	0	0	0	0	31	0	68
53 SUSQUEHANNA	0	0	8	1	0	0	0	4	0	13
54 WYOMING	10	0	8	0	0	0	0	3	0	21
	48,662	33,434	34,566	552	2,892	1,276	1,336	1,144	74	123,936

Base Year 2005 — Annual (in 000's)

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	7,688.7	5,843.7	2,107.5	0.4	61.0	6.9	0.0	0.0	0.0	15,708.1
2 QUEENS	1,571.3	1,043.5	75.2	0.4	9.9	1.8	0.0	0.0	0.0	2,702.1
3 BRONX	429.6	443.5	31.8	0.0	4.7	2.6	0.0	0.0	0.0	912.1
4 KINGS	1,557.1	884.0	142.0	0.4	18.3	0.4	0.0	0.0	0.0	2,602.1
5 RICHMOND	125.2	34.7	200.0	0.0	1.1	0.0	0.0	0.0	0.0	361.0
6 NASSAU	1,625.0	878.2	34.7	0.0	141.6	0.0	0.0	0.0	0.0	2,679.5
7 SUFFOLK	1,066.5	608.8	37.6	0.0	791.0	0.7	0.0	0.4	0.0	2,505.0
8 WESTCHESTER	834.0	669.4	142.0	3.3	6.9	193.8	0.0	0.0	0.0	1,849.5
9 ROCKLAND	114.6	113.2	208.8	4.0	1.8	7.7	0.0	0.0	0.0	450.0
10 PUTNAM	53.7	78.1	23.4	2.9	0.0	12.4	0.0	0.0	0.0	170.5
11 ORANGE	78.8	75.2	130.3	72.3	0.0	7.3	0.0	0.0	0.0	363.9
12 DUTCHESS	118.3	95.6	28.8	60.2	1.8	18.6	0.0	0.0	0.0	323.4
13 FAIRFIELD	784.0	603.0	113.2	1.8	2.9	192.0	0.0	0.0	0.0	1,696.9
14 BERGEN	293.5	263.9	1,179.7	1.1	1.8	3.3	0.7	0.0	0.0	1,744.0
15 PASSAIC	43.1	37.6	388.4	0.4	1.8	0.0	0.0	0.4	0.0	471.6
16 HUDSON	154.0	119.0	817.6	0.0	2.9	0.4	0.4	0.0	0.0	1,094.3
17 ESSEX	89.4	52.2	942.1	0.4	0.0	0.0	0.0	0.0	0.0	1,084.1
18 UNION	67.9	34.7	658.1	0.0	1.1	0.0	0.4	0.0	0.0	762.1
19 MORRIS	78.8	52.2	1,064.0	0.4	1.1	0.0	0.7	2.9	0.0	1,200.1
20 SOMERSET	39.4	14.6	585.5	0.0	0.0	0.0	0.7	2.6	0.4	643.1
21 MIDDLESEX	178.9	37.6	1,043.5	0.0	1.1	0.0	12.8	0.7	0.7	1,275.3
22 MONMOUTH	85.8	11.7	982.6	0.0	1.8	0.0	45.3	0.0	1.5	1,128.6
23 OCEAN	25.2	14.6	272.7	0.0	0.0	0.0	127.8	0.0	0.4	440.6
24 HUNTERDON	7.3	0.0	237.6	0.4	0.0	0.0	2.2	8.0	1.1	256.6
25 WARREN	7.3	2.9	107.3	0.0	0.0	0.0	0.4	16.1	0.0	134.0
26 SUSSEX	25.2	8.8	208.8	2.9	0.0	0.0	0.0	1.5	0.0	247.1
27 NEW HAVEN	329.2	101.5	23.4	0.4	0.0	9.1	0.0	0.0	0.0	463.6
28 MERCER	39.4	11.7	263.7	0.0	1.8	0.0	9.1	0.7	8.4	335.1
29 DELAWARE	0.0	0.0	2.9	1.8	0.0	0.4	0.0	0.0	0.0	5.1
30 SULLIVAN	10.6	2.9	8.8	12.8	1.1	0.7	0.0	0.4	0.0	37.2
31 ULSTER	39.4	14.6	14.6	32.5	0.0	2.2	0.0	0.0	0.0	103.3
32 ATLANTIC	7.3	8.8	63.9	0.0	0.0	0.0	136.9	0.4	0.0	217.2
33 BURLINGTON	10.6	2.9	69.7	0.0	0.0	0.0	41.2	0.0	1.1	125.6
34 CAMDEN	21.5	0.0	17.5	0.0	0.0	0.0	19.0	0.0	0.0	58.0
35 CAPE MAY	0.0	0.0	17.5	0.0	0.0	0.0	49.3	0.0	0.0	66.8
36 CUMBERLAND	0.0	0.0	11.7	0.0	0.0	0.0	11.7	0.0	0.0	23.4
37 GLOUCESTER	3.7	0.0	8.8	0.0	0.0	0.0	16.8	0.0	0.0	29.2
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8
39 LITCHFIELD	46.4	25.9	14.6	0.7	0.0	5.5	0.0	0.0	0.0	93.1
40 BERKS	10.6	0.0	2.9	0.0	0.0	0.0	0.7	32.9	0.0	47.1
41 BUCKS	28.5	2.9	66.8	0.0	0.0	0.0	4.0	24.1	11.3	137.6
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	7.7	0.0	10.6
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2.2
44 LACKAWANNA	0.0	5.8	8.8	0.0	0.0	0.0	0.0	5.1	0.0	19.7
45 LEHIGH	7.3	0.0	72.6	0.0	0.0	0.0	0.0	128.5	0.0	208.4
46 LUZERNE	3.7	0.0	5.8	0.0	0.0	0.0	0.0	8.0	0.0	17.5
47 MONROE	0.0	2.9	52.2	0.0	0.0	0.0	0.0	34.7	0.0	89.8
48 MONTGOMERY	21.5	0.0	28.8	0.0	0.0	0.0	5.8	18.3	1.8	76.3
49 NORTHAMPTON	10.6	0.0	61.0	0.4	0.0	0.0	0.0	104.0	0.4	176.3
50 NORTHUMBERLAND	7.3	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	9.1
51 PIKE	7.3	0.0	28.8	1.5	0.0	0.0	0.0	2.6	0.0	40.2
52 SCHUYLKILL	10.6	0.0	2.9	0.0	0.0	0.0	0.0	11.3	0.0	24.8
53 SUSQUEHANNA	0.0	0.0	2.9	0.4	0.0	0.0	0.0	1.5	0.0	4.7
54 WYOMING	3.7	0.0	2.9	0.0	0.0	0.0	0.0	1.1	0.0	7.7
	17,761.6	12,203.4	12,616.6	201.5	1,055.6	465.7	487.6	417.6	27.0	45,236.6

Task C: Origin Productions **PANYNJ and Other Airports**
Year 2006   Forecasts

Airport - Chosen

Airport - Chosen	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4	Task B 2,006	Growth over '05	Diff. Level 3	Level 4 Scaling
1 JFK	4,962	48,660	48,867	48,907	51,349	50,971	0.4%	0.5%	5.5%	4.7%	50,971	-0.7%	378	0.9926
2 LGA	4,210	33,433	33,568	33,639	35,319	35,379	0.4%	0.6%	5.6%	5.8%	35,380	0.2%	-61	1.0017
3 EWR	4,352	34,564	34,842	34,875	36,616	36,977	0.8%	0.9%	5.9%	7.0%	36,976	1.0%	-360	1.0098
4 SWF	1,082	546	552	555	583	434	1.1%	1.5%	6.7%	-20.6%	434	-25.6%	149	0.7442
5 ISP	1,089	2,892	2,911	2,911	3,056	3,118	0.7%	0.7%	5.7%	7.8%	3,118	2.0%	-62	1.0202
6 HPN	1,085	1,278	1,286	1,295	1,360	1,498	0.6%	1.3%	6.4%	17.2%	1,499	10.2%	-139	1.1018
7 ACY	1,081	1,339	1,355	1,357	1,425	1,375	1.2%	1.4%	6.5%	2.7%	1,375	-3.5%	50	0.9652
8 ABE	1,174	1,143	1,154	1,156	1,213	1,173	0.9%	1.1%	6.1%	2.6%	1,173	-3.3%	40	0.9667
9 TTN	93	74	75	77	80	76	0.9%	3.6%	8.1%	2.7%	75	-5.8%	5	0.9418
Total	19,128	123,929	124,611	124,771	131,001	131,000	0.5%	0.7%	5.7%	5.7%	131,001	0.0%	0	1

1.04993   **Level 3 Scaling**

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Airport Group - Chosen

Airport Group - Chosen	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	48,867	48,907	51,349	50,971	0.4%	0.5%	5.5%	4.7%
2 LGA	4,210	33,433	33,568	33,639	35,319	35,379	0.4%	0.6%	5.6%	5.8%
3 EWR	4,352	34,564	34,842	34,875	36,616	36,977	0.8%	0.9%	5.9%	7.0%
4 NYSDOT	3,256	4,716	4,749	4,760	4,998	5,049	0.7%	0.9%	6.0%	7.1%
5 DVRPC	2,348	2,556	2,584	2,589	2,718	2,624	1.1%	1.3%	6.3%	2.7%
Total	19,128	123,929	124,611	124,771	131,001	131,000	0.5%	0.7%	5.7%	5.7%

1

Trip Type / Market

Trip Type / Market	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	17,672	17,764	18,651	18,692	0.5%	1.0%	6.1%	6.3%
2 Resident-Other	6,985	44,744	44,958	45,026	47,274	47,249	0.5%	0.6%	5.7%	5.6%
3 Non Resident-Business	2,904	20,389	20,542	20,542	21,567	21,599	0.8%	0.8%	5.8%	5.9%
4 Non Resident-Other	6,340	41,216	41,438	41,438	43,508	43,460	0.5%	0.5%	5.6%	5.4%
Total	19,128	123,929	124,611	124,771	131,001	131,000	0.5%	0.7%	5.7%	5.7%

OCO_ID Origin County
Year 2006

OCO_ID Origin County	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	43,114	43,114	45,267	45,198	0.2%	0.2%	5.2%	5.0%
2 QUEENS	840	7,402	7,457	7,508	7,882	7,857	0.7%	1.4%	6.5%	6.1%
3 BRONX	295	2,500	2,515	2,515	2,640	2,635	0.6%	0.6%	5.6%	5.4%
4 KINGS	810	7,129	7,178	7,178	7,536	7,513	0.7%	0.7%	5.7%	5.4%
5 RICHMOND	117	989	1,004	1,004	1,055	1,058	1.5%	1.5%	6.7%	7.0%
6 NASSAU	915	7,341	7,359	7,359	7,726	7,705	0.2%	0.2%	5.2%	5.0%
7 SUFFOLK	1,340	6,864	6,913	6,913	7,258	7,286	0.7%	0.7%	5.7%	6.2%
8 WESTCHESTER	988	5,067	5,090	5,090	5,344	5,389	0.5%	0.5%	5.5%	6.4%
9 ROCKLAND	184	1,232	1,243	1,256	1,319	1,323	0.8%	1.9%	7.0%	7.3%
10 PUTNAM	95	467	475	475	499	501	1.7%	1.7%	6.8%	7.2%
11 ORANGE	503	998	1,012	1,027	1,078	1,028	1.3%	2.9%	8.0%	3.0%
12 DUTCHESS	447	886	893	893	938	897	0.8%	0.8%	5.9%	1.3%
13 FAIRFIELD	925	4,648	4,675	4,733	4,969	5,015	0.6%	1.8%	6.9%	7.9%
14 BERGEN	597	4,779	4,800	4,800	5,040	5,069	0.5%	0.5%	5.5%	6.1%
15 PASSAIC	163	1,292	1,297	1,297	1,362	1,372	0.4%	0.4%	5.4%	6.2%
16 HUDSON	371	2,997	3,019	3,019	3,170	3,191	0.7%	0.7%	5.8%	6.5%
17 ESSEX	370	2,970	2,981	2,981	3,130	3,155	0.4%	0.4%	5.4%	6.2%
18 UNION	260	2,088	2,090	2,090	2,194	2,212	0.1%	0.1%	5.1%	5.9%
19 MORRIS	419	3,287	3,324	3,324	3,490	3,518	1.1%	1.1%	6.2%	7.0%
20 SOMERSET	228	1,762	1,795	1,795	1,885	1,900	1.9%	1.9%	7.0%	7.8%
21 MIDDLESEX	457	3,494	3,538	3,538	3,714	3,739	1.2%	1.2%	6.3%	7.0%
22 MONMOUTH	474	3,093	3,126	3,126	3,282	3,304	1.1%	1.1%	6.1%	6.8%
23 OCEAN	390	1,206	1,223	1,223	1,284	1,278	1.4%	1.4%	6.5%	6.0%
24 HUNTERDON	117	703	716	716	752	757	1.8%	1.8%	6.9%	7.7%
25 WARREN	86	366	370	370	389	390	1.0%	1.0%	6.1%	6.4%
26 SUSSEX	102	676	686	686	720	723	1.4%	1.4%	6.5%	6.9%
27 NEW HAVEN	157	1,269	1,274	1,274	1,338	1,335	0.4%	0.4%	5.4%	5.2%
28 MERCER	159	917	924	937	983	988	0.7%	2.1%	7.1%	7.7%
29 DELAWARE	11	14	14	14	14	13	0.1%	0.1%	2.5%	-4.9%
30 SULLIVAN	80	102	102	102	108	98	0.4%	0.4%	5.9%	-3.9%
31 ULSTER	203	283	285	285	300	276	1.0%	1.0%	6.2%	-2.3%
32 ATLANTIC	331	594	606	606	636	624	1.9%	1.9%	7.0%	5.0%
33 BURLINGTON	123	344	348	350	367	365	1.2%	1.8%	6.7%	6.2%
34 CAMDEN	54	159	159	159	167	165	0.3%	0.3%	5.4%	4.1%
35 CAPE MAY	115	183	184	184	193	189	0.8%	0.8%	5.7%	3.5%
36 CUMBERLAND	30	64	67	67	70	70	4.9%	4.9%	9.4%	9.4%
37 GLOUCESTER	41	79	80	80	84	83	1.2%	1.2%	5.7%	4.5%
38 SALEM	4	5	5	5	5	5	0.2%	0.2%	0.9%	0.9%
39 LITCHFIELD	44	256	258	262	275	275	0.8%	2.2%	7.4%	7.4%
40 BERKS	98	129	130	130	137	133	0.5%	0.5%	5.9%	2.8%
41 BUCKS	148	377	381	385	404	400	0.9%	1.9%	7.0%	6.0%
42 CARBON	23	29	30	30	31	30	0.5%	0.5%	5.6%	2.2%
43 COLUMBIA	6	6	6	6	6	6	0.4%	0.4%	2.7%	2.7%
44 LACKAWANNA	19	53	54	54	56	56	0.5%	0.5%	5.0%	5.0%
45 LEHIGH	388	570	575	575	603	593	0.9%	0.9%	5.8%	4.1%
46 LUZERNE	26	48	48	49	51	50	-0.1%	1.0%	6.1%	4.0%
47 MONROE	117	246	253	253	266	264	2.7%	2.7%	8.0%	7.2%
48 MONTGOMERY	86	209	210	210	220	218	0.5%	0.5%	5.4%	4.4%
49 NORTHAMPTON	319	483	488	488	512	503	1.0%	1.0%	6.0%	4.2%
50 NORTHUMBERLAND	7	24	24	24	26	25	-0.2%	-0.2%	6.2%	2.1%
51 PIKE	27	110	112	112	118	117	2.1%	2.1%	7.4%	6.5%
52 SCHUYLKILL	36	69	68	68	72	71	-0.2%	-0.2%	5.1%	3.6%
53 SUSQUEHANNA	6	12	12	12	13	13	0.5%	0.5%	5.3%	5.3%
54 WYOMING	5	21	21	21	22	22	0.0%	0.0%	6.4%	6.4%
999 OUT SIDE AREA										
Total	19,128	123,929	124,611	124,771	131,001	131,000	0.5%	0.1%	5.7%	5.7%

Forecasts: Origin County to Airports

Year 2006 | **Average Daily** | Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	21,996	16,865	6,134	1	179	22	0	0	0	45,197
2 QUEENS	4,533	3,067	222	0	28	6	0	0	0	7,856
3 BRONX	1,234	1,285	93	0	14	8	0	0	0	2,634
4 KINGS	4,474	2,567	416	0	55	1	0	0	0	7,513
5 RICHMOND	363	102	590	0	3	0	0	0	0	1,058
6 NASSAU	4,650	2,537	101	0	417	0	0	0	0	7,705
7 SUFFOLK	3,068	1,766	110	0	2,338	3	0	1	0	7,286
8 WESTCHESTER	2,392	1,938	415	7	20	618	0	0	0	5,390
9 ROCKLAND	331	333	620	8	5	25	0	0	0	1,322
10 PUTNAM	156	229	69	6	0	40	0	0	0	500
11 ORANGE	229	222	394	159	0	24	0	0	0	1,028
12 DUTCHESS	340	278	85	130	6	59	0	0	0	898
13 FAIRFIELD	2,270	1,775	336	4	8	622	0	0	0	5,015
14 BERGEN	841	763	3,444	2	6	11	3	0	0	5,070
15 PASSAIC	123	109	1,133	0	6	0	0	1	0	1,372
16 HUDSON	442	345	2,392	0	9	1	1	0	0	3,190
17 ESSEX	256	151	2,747	1	0	0	0	0	0	3,155
18 UNION	194	100	1,913	0	3	0	1	0	0	2,211
19 MORRIS	227	152	3,125	0	3	0	3	8	0	3,518
20 SOMERSET	114	43	1,733	0	0	0	3	7	1	1,901
21 MIDDLESEX	517	110	3,069	0	3	0	36	2	2	3,739
22 MONMOUTH	248	34	2,885	0	6	0	127	0	4	3,304
23 OCEAN	73	42	803	0	0	0	360	0	1	1,279
24 HUNTERDON	21	0	703	0	0	0	6	23	3	756
25 WARREN	21	8	315	0	0	0	1	45	0	390
26 SUSSEX	73	25	615	6	0	0	0	4	0	723
27 NEW HAVEN	944	293	68	0	0	29	0	0	0	1,334
28 MERCER	115	36	780	0	6	0	25	2	24	988
29 DELAWARE	0	0	8	4	0	1	0	0	0	13
30 SULLIVAN	31	8	25	27	3	3	0	1	0	98
31 ULSTER	113	42	42	71	0	7	0	0	0	275
32 ATLANTIC	21	25	190	0	0	0	387	1	0	624
33 BURLINGTON	31	8	205	0	0	0	117	0	3	364
34 CAMDEN	61	0	51	0	0	0	53	0	0	165
35 CAPE MAY	0	0	51	0	0	0	138	0	0	189
36 CUMBERLAND	0	0	37	0	0	0	33	0	0	70
37 GLOUCESTER	10	0	26	0	0	0	47	0	0	83
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	136	76	44	2	0	19	0	0	0	277
40 BERKS	31	0	8	0	0	0	3	91	0	133
41 BUCKS	85	8	195	0	0	0	11	69	32	400
42 CARBON	0	8	0	0	0	0	0	22	0	30
43 COLUMBIA	0	0	0	0	0	0	0	6	0	6
44 LACKAWANNA	0	17	26	0	0	0	0	14	0	57
45 LEHIGH	21	0	212	0	0	0	0	360	0	593
46 LUZERNE	10	0	17	0	0	0	0	24	0	51
47 MONROE	0	9	156	0	0	0	0	99	0	264
48 MONTGOMERY	62	0	85	0	0	0	16	51	5	219
49 NORTHAMPTON	31	0	179	0	0	0	0	292	1	503
50 NORTHUMBERLAND	20	0	0	0	0	0	0	5	0	25
51 PIKE	21	0	86	3	0	0	0	7	0	117
52 SCHUYLKILL	31	0	8	0	0	0	0	32	0	71
53 SUSQUEHANNA	0	0	8	0	0	0	0	4	0	12
54 WYOMING	10	0	8	0	0	0	0	3	0	21
	50,970	35,376	36,977	431	3,118	1,499	1,376	1,174	76	130,997

Forecasts: Origin County to Airports

Year 2006   **Annual (in 000's)**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	8,028.5	6,155.7	2,238.9	0.4	65.3	8.0	0.0	0.0	0.0	**16,496.9**
2 QUEENS	1,654.5	1,119.5	81.0	0.0	10.2	2.2	0.0	0.0	0.0	**2,867.4**
3 BRONX	450.4	469.0	33.9	0.0	5.1	2.9	0.0	0.0	0.0	**961.4**
4 KINGS	1,633.0	937.0	151.8	0.0	20.1	0.4	0.0	0.0	0.0	**2,742.2**
5 RICHMOND	132.5	37.2	215.4	0.0	1.1	0.0	0.0	0.0	0.0	**386.2**
6 NASSAU	1,697.3	926.0	36.9	0.0	152.2	0.0	0.0	0.0	0.0	**2,812.3**
7 SUFFOLK	1,119.8	644.6	40.2	0.0	853.4	1.1	0.0	0.4	0.0	**2,659.4**
8 WESTCHESTER	873.1	707.4	151.5	2.6	7.3	225.6	0.0	0.0	0.0	**1,967.4**
9 ROCKLAND	120.8	121.5	226.3	2.9	1.8	9.1	0.0	0.0	0.0	**482.5**
10 PUTNAM	56.9	83.6	25.2	2.2	0.0	14.6	0.0	0.0	0.0	**182.5**
11 ORANGE	83.6	81.0	143.8	58.0	0.0	8.8	0.0	0.0	0.0	**375.2**
12 DUTCHESS	124.1	101.5	31.0	47.5	2.2	21.5	0.0	0.0	0.0	**327.8**
13 FAIRFIELD	828.6	647.9	122.6	1.5	2.9	227.0	0.0	0.0	0.0	**1,830.5**
14 BERGEN	307.0	278.5	1,257.1	0.7	2.2	4.0	1.1	0.0	0.0	**1,850.6**
15 PASSAIC	44.9	39.8	413.5	0.0	2.2	0.0	0.0	0.4	0.0	**500.8**
16 HUDSON	161.3	125.9	873.1	0.0	3.3	0.4	0.4	0.0	0.0	**1,164.4**
17 ESSEX	93.4	55.1	1,002.7	0.4	0.0	0.0	0.0	0.0	0.0	**1,151.6**
18 UNION	70.8	36.5	698.2	0.0	1.1	0.0	0.4	0.0	0.0	**807.0**
19 MORRIS	82.9	55.5	1,140.6	0.0	1.1	0.0	1.1	2.9	0.0	**1,284.1**
20 SOMERSET	41.6	15.7	632.5	0.0	0.0	0.0	1.1	2.6	0.4	**693.9**
21 MIDDLESEX	188.7	40.2	1,120.2	0.0	1.1	0.0	13.1	0.7	0.7	**1,364.7**
22 MONMOUTH	90.5	12.4	1,053.0	0.0	2.2	0.0	46.4	0.0	1.5	**1,206.0**
23 OCEAN	26.6	15.3	293.1	0.0	0.0	0.0	131.4	0.0	0.4	**466.8**
24 HUNTERDON	7.7	0.0	256.6	0.0	0.0	0.0	2.2	8.4	1.1	**275.9**
25 WARREN	7.7	2.9	115.0	0.0	0.0	0.0	0.4	16.4	0.0	**142.4**
26 SUSSEX	26.6	9.1	224.5	2.2	0.0	0.0	0.0	1.5	0.0	**263.9**
27 NEW HAVEN	344.6	106.9	24.8	0.0	0.0	10.6	0.0	0.0	0.0	**486.9**
28 MERCER	42.0	13.1	284.7	0.0	2.2	0.0	9.1	0.7	8.8	**360.6**
29 DELAWARE	0.0	0.0	2.9	1.5	0.0	0.4	0.0	0.0	0.0	**4.7**
30 SULLIVAN	11.3	2.9	9.1	9.9	1.1	1.1	0.0	0.4	0.0	**35.8**
31 ULSTER	41.2	15.3	15.3	25.9	0.0	2.6	0.0	0.0	0.0	**100.4**
32 ATLANTIC	7.7	9.1	69.4	0.0	0.0	0.0	141.3	0.4	0.0	**227.8**
33 BURLINGTON	11.3	2.9	74.8	0.0	0.0	0.0	42.7	0.0	1.1	**132.9**
34 CAMDEN	22.3	0.0	18.6	0.0	0.0	0.0	19.3	0.0	0.0	**60.2**
35 CAPE MAY	0.0	0.0	18.6	0.0	0.0	0.0	50.4	0.0	0.0	**69.0**
36 CUMBERLAND	0.0	0.0	13.5	0.0	0.0	0.0	12.0	0.0	0.0	**25.6**
37 GLOUCESTER	3.7	0.0	9.5	0.0	0.0	0.0	17.2	0.0	0.0	**30.3**
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	**1.8**
39 LITCHFIELD	49.6	27.7	16.1	0.7	0.0	6.9	0.0	0.0	0.0	**101.1**
40 BERKS	11.3	0.0	2.9	0.0	0.0	0.0	1.1	33.2	0.0	**48.5**
41 BUCKS	31.0	2.9	71.2	0.0	0.0	0.0	4.0	25.2	11.7	**146.0**
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	8.0	0.0	**11.0**
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	**2.2**
44 LACKAWANNA	0.0	6.2	9.5	0.0	0.0	0.0	0.0	5.1	0.0	**20.8**
45 LEHIGH	7.7	0.0	77.4	0.0	0.0	0.0	0.0	131.4	0.0	**216.4**
46 LUZERNE	3.7	0.0	6.2	0.0	0.0	0.0	0.0	8.8	0.0	**18.6**
47 MONROE	0.0	3.3	56.9	0.0	0.0	0.0	0.0	36.1	0.0	**96.4**
48 MONTGOMERY	22.6	0.0	31.0	0.0	0.0	0.0	5.8	18.6	1.8	**79.9**
49 NORTHAMPTON	11.3	0.0	65.3	0.0	0.0	0.0	0.0	106.6	0.4	**183.6**
50 NORTHUMBERLAND	7.3	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	**9.1**
51 PIKE	7.7	0.0	31.4	1.1	0.0	0.0	0.0	2.6	0.0	**42.7**
52 SCHUYLKILL	11.3	0.0	2.9	0.0	0.0	0.0	0.0	11.7	0.0	**25.9**
53 SUSQUEHANNA	0.0	0.0	2.9	0.0	0.0	0.0	0.0	1.5	0.0	**4.4**
54 WYOMING	3.7	0.0	2.9	0.0	0.0	0.0	0.0	1.1	0.0	**7.7**
	18,604.1	**12,912.2**	**13,496.6**	**157.3**	**1,138.1**	**547.1**	**502.2**	**428.5**	**27.7**	**47,813.9**

Task C: Origin Productions **PANYNJ and Other Airports**

Year 2007 **Forecasts**

			Task B Enplanement Forecasts			

Airport - Chosen

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4	2,007	Growth over '05	Diff. Level 3	Level 4 Scaling
1 JFK	4,962	48,660	49,087	49,161	53,008	52,654	0.9%	1.0%	8.9%	8.2%	52,654	8.2%	354	0.9933
2 LGA	4,210	33,433	33,713	33,824	36,471	35,873	0.8%	1.2%	9.1%	7.3%	35,874	7.3%	597	0.9836
3 EWR	4,352	34,564	35,134	35,247	38,005	38,605	1.6%	2.0%	10.0%	11.7%	38,605	11.7%	-600	1.0158
4 SWF	1,082	546	558	562	606	867	2.2%	2.8%	10.9%	58.7%	867	58.7%	-261	1.4313
5 ISP	1,089	2,892	2,931	2,931	3,160	3,170	1.4%	1.4%	9.3%	9.6%	3,169	9.6%	-9	1.0029
6 HPN	1,085	1,278	1,295	1,310	1,412	1,643	1.3%	2.5%	10.5%	28.6%	1,643	28.5%	-231	1.1634
7 ACY	1,081	1,339	1,373	1,377	1,485	1,397	2.6%	2.9%	10.9%	4.4%	1,397	4.4%	88	0.9409
8 ABE	1,174	1,143	1,166	1,168	1,260	1,202	2.0%	2.2%	10.2%	5.1%	1,203	5.2%	57	0.9546
9 TTN	93	74	75	77	83	77	1.8%	4.5%	12.2%	4.1%	77	4.1%	6	0.9275
Total	19,128	123,929	125,332	125,658	135,490	135,489	1.1%	1.4%	9.3%	9.3%	135,490	9.3%	0	

1.07824 Level 3 Scaling

Airport Group - Chosen — Growth over 2005

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	49,087	49,161	53,008	52,654	0.9%	1.0%	8.9%	8.2%
2 LGA	4,210	33,433	33,713	33,824	36,471	35,873	0.8%	1.2%	9.1%	7.3%
3 EWR	4,352	34,564	35,134	35,247	38,005	38,605	1.6%	2.0%	10.0%	11.7%
4 NYSDOT	3,256	4,716	4,785	4,803	5,179	5,680	1.5%	1.8%	9.8%	20.4%
5 DVRPC	2,348	2,556	2,614	2,622	2,828	2,677	2.3%	2.6%	10.6%	4.7%
Total	19,128	123,929	125,332	125,658	135,490	135,489	1.1%	1.4%	9.3%	9.3%

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Trip Type / Market — Growth over 2005

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	17,772	17,965	19,370	19,410	1.1%	2.2%	10.2%	10.4%
2 Resident-Other	6,985	44,744	45,196	45,329	48,876	48,851	1.0%	1.3%	9.2%	9.2%
3 Non Resident-Business	2,904	20,389	20,693	20,693	22,312	22,316	1.5%	1.5%	9.4%	9.5%
4 Non Resident-Other	6,340	41,216	41,670	41,670	44,931	44,913	1.1%	1.1%	9.0%	9.0%
Total	19,128	123,929	125,332	125,658	135,490	135,489	1.1%	1.4%	9.3%	9.3%

1

OCO_ID Origin County — Year 2007 — Growth over 2005

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	43,199	43,199	46,579	46,246	0.4%	0.4%	8.2%	7.5%
2 QUEENS	840	7,402	7,513	7,564	8,156	8,077	1.5%	2.2%	10.2%	9.1%
3 BRONX	295	2,500	2,531	2,531	2,729	2,701	1.2%	1.2%	9.2%	8.1%
4 KINGS	810	7,129	7,229	7,229	7,795	7,727	1.4%	1.4%	9.3%	8.4%
5 RICHMOND	117	989	1,020	1,034	1,114	1,120	3.1%	4.5%	12.6%	13.2%
6 NASSAU	915	7,341	7,379	7,379	7,957	7,885	0.5%	0.5%	8.4%	7.4%
7 SUFFOLK	1,340	6,864	6,966	6,966	7,511	7,469	1.5%	1.5%	9.4%	8.8%
8 WESTCHESTER	988	5,067	5,116	5,168	5,573	5,630	1.0%	2.0%	10.0%	11.1%
9 ROCKLAND	184	1,232	1,253	1,267	1,366	1,377	1.7%	2.8%	10.8%	11.7%
10 PUTNAM	95	467	484	484	522	528	3.5%	3.5%	11.7%	13.0%
11 ORANGE	503	998	1,025	1,041	1,122	1,223	2.7%	4.3%	12.4%	22.5%
12 DUTCHESS	447	886	901	901	971	1,053	1.7%	1.7%	9.6%	18.9%
13 FAIRFIELD	925	4,648	4,704	4,762	5,134	5,192	1.2%	2.4%	10.5%	11.7%
14 BERGEN	597	4,779	4,824	4,824	5,201	5,241	0.9%	0.9%	8.8%	9.7%
15 PASSAIC	163	1,292	1,303	1,303	1,405	1,421	0.9%	0.9%	8.8%	10.0%
16 HUDSON	371	2,997	3,042	3,103	3,345	3,376	1.5%	3.5%	11.6%	12.6%
17 ESSEX	370	2,970	2,993	2,993	3,227	3,267	0.8%	0.8%	8.6%	10.0%
18 UNION	260	2,088	2,093	2,093	2,257	2,284	0.2%	0.2%	8.1%	9.4%
19 MORRIS	419	3,287	3,362	3,362	3,625	3,671	2.3%	2.3%	10.3%	11.7%
20 SOMERSET	228	1,762	1,829	1,843	1,987	2,014	3.8%	4.6%	12.8%	14.3%
21 MIDDLESEX	457	3,494	3,582	3,582	3,863	3,905	2.5%	2.5%	10.5%	11.8%
22 MONMOUTH	474	3,093	3,161	3,161	3,408	3,444	2.2%	2.2%	10.2%	11.4%
23 OCEAN	390	1,206	1,240	1,240	1,337	1,326	2.8%	2.8%	10.8%	9.9%
24 HUNTERDON	117	703	729	734	791	801	3.6%	4.4%	12.5%	13.9%
25 WARREN	86	366	374	374	403	406	2.1%	2.1%	10.0%	10.8%
26 SUSSEX	102	676	696	696	750	763	2.9%	2.9%	10.9%	12.8%
27 NEW HAVEN	157	1,269	1,280	1,280	1,380	1,375	0.9%	0.9%	8.8%	8.4%
28 MERCER	159	917	930	943	1,017	1,025	1.4%	2.8%	10.9%	11.7%
29 DELAWARE	11	14	14	14	15	17	0.3%	0.3%	9.8%	24.4%
30 SULLIVAN	80	102	103	110	119	136	1.0%	7.8%	16.6%	33.3%
31 ULSTER	203	283	288	288	311	353	2.0%	2.0%	10.1%	24.9%
32 ATLANTIC	331	594	617	617	665	643	3.8%	3.8%	11.9%	8.2%
33 BURLINGTON	123	344	352	354	382	377	2.5%	3.0%	11.1%	9.6%
34 CAMDEN	54	159	159	159	172	169	0.6%	0.6%	8.5%	6.6%
35 CAPE MAY	115	183	187	189	204	196	2.4%	3.6%	11.7%	7.3%
36 CUMBERLAND	30	64	70	70	76	74	9.9%	9.9%	18.8%	15.7%
37 GLOUCESTER	41	79	81	81	88	85	2.4%	2.4%	10.8%	7.0%
38 SALEM	4	5	5	5	5	5	0.6%	0.1%	0.9%	0.9%
39 LITCHFIELD	44	256	260	264	284	287	1.7%	3.1%	10.9%	12.1%
40 BERKS	98	129	131	131	141	136	1.1%	1.1%	8.9%	5.1%
41 BUCKS	148	377	385	388	419	414	1.9%	2.9%	11.0%	9.7%
42 CARBON	23	29	30	30	32	31	1.4%	1.4%	9.0%	5.6%
43 COLUMBIA	6	6	6	6	6	6	1.0%	1.0%	2.7%	2.7%
44 LACKAWANNA	19	53	54	58	63	62	1.0%	9.4%	18.1%	16.2%
45 LEHIGH	388	570	580	580	625	611	1.8%	1.8%	9.7%	7.2%
46 LUZERNE	26	48	48	49	52	51	-0.2%	1.0%	8.1%	6.1%
47 MONROE	117	246	260	260	280	277	5.4%	5.4%	13.7%	12.5%
48 MONTGOMERY	86	209	211	211	228	225	1.1%	1.1%	9.2%	7.8%
49 NORTHAMPTON	319	483	493	493	531	520	2.1%	2.1%	10.0%	7.7%
50 NORTHUMBERLAND	7	24	24	24	26	26	-0.3%	-0.3%	6.2%	6.2%
51 PIKE	27	110	115	120	129	132	5.1%	9.2%	17.4%	20.1%
52 SCHUYLKILL	36	69	69	69	74	72	0.1%	0.1%	8.0%	5.1%
53 SUSQUEHANNA	6	12	12	12	13	14	1.1%	1.1%	5.3%	13.4%
54 WYOMING	5	21	21	21	22	22	0.1%	0.1%	6.4%	6.4%
999 OUT SIDE AREA										
Total	19,128	123,929	125,332	125,658	135,490	135,489	1.1%	1.4%	8.1%	9.3%

Forecasts: Origin County to Airports

Year 2007   **Average Daily**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	22,652	17,038	6,349	2	181	24	0	0	0	46,246
2 QUEENS	4,694	3,116	232	1	29	6	0	0	0	8,078
3 BRONX	1,276	1,304	97	0	15	9	0	0	0	2,701
4 KINGS	4,627	2,608	434	1	56	1	0	0	0	7,727
5 RICHMOND	382	106	629	0	3	0	0	0	0	1,120
6 NASSAU	4,791	2,566	105	0	422	0	0	0	0	7,884
7 SUFFOLK	3,176	1,795	115	0	2,379	3	0	1	0	7,469
8 WESTCHESTER	2,486	1,989	439	13	20	682	0	0	0	5,629
9 ROCKLAND	343	339	646	17	6	27	0	0	0	1,378
10 PUTNAM	163	236	72	13	0	44	0	0	0	528
11 ORANGE	239	227	412	319	0	26	0	0	0	1,223
12 DUTCHESS	352	283	88	258	6	65	0	0	0	1,052
13 FAIRFIELD	2,346	1,801	349	7	9	679	0	0	0	5,191
14 BERGEN	868	773	3,576	4	6	12	3	0	0	5,242
15 PASSAIC	127	110	1,176	1	6	0	0	1	0	1,421
16 HUDSON	467	365	2,533	0	9	1	1	0	0	3,376
17 ESSEX	264	153	2,849	2	0	0	0	0	0	3,268
18 UNION	200	101	1,979	0	3	0	1	0	0	2,284
19 MORRIS	236	155	3,266	1	3	0	3	8	0	3,672
20 SOMERSET	123	43	1,837	0	0	0	3	7	1	2,014
21 MIDDLESEX	538	112	3,211	0	3	0	36	2	2	3,904
22 MONMOUTH	258	34	3,014	0	6	0	128	0	4	3,444
23 OCEAN	76	43	841	0	0	0	365	0	1	1,326
24 HUNTERDON	22	0	745	1	0	0	7	24	3	802
25 WARREN	21	9	329	0	0	0	1	46	0	406
26 SUSSEX	76	26	644	13	0	0	0	4	0	763
27 NEW HAVEN	975	297	70	1	0	31	0	0	0	1,374
28 MERCER	119	36	811	0	6	0	26	2	24	1,024
29 DELAWARE	0	0	9	7	0	1	0	0	0	17
30 SULLIVAN	35	8	29	55	4	3	0	1	0	135
31 ULSTER	118	43	44	141	0	8	0	0	0	354
32 ATLANTIC	21	26	200	0	0	0	394	1	0	642
33 BURLINGTON	33	9	214	0	0	0	118	0	3	377
34 CAMDEN	63	0	52	0	0	0	53	0	0	168
35 CAPE MAY	0	0	54	0	0	0	142	0	0	196
36 CUMBERLAND	0	0	41	0	0	0	33	0	0	74
37 GLOUCESTER	11	0	27	0	0	0	47	0	0	85
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	140	77	46	3	0	20	0	0	0	286
40 BERKS	32	0	9	0	0	0	3	93	0	137
41 BUCKS	89	9	203	0	0	0	12	70	32	415
42 CARBON	0	9	0	0	0	0	0	22	0	31
43 COLUMBIA	0	0	0	0	0	0	0	6	0	6
44 LACKAWANNA	0	19	29	0	0	0	0	15	0	63
45 LEHIGH	22	0	222	0	0	0	0	368	0	612
46 LUZERNE	10	0	17	0	0	0	0	24	0	51
47 MONROE	0	9	166	0	0	0	0	103	0	278
48 MONTGOMERY	64	0	88	0	0	0	16	52	5	225
49 NORTHAMPTON	32	0	187	1	0	0	0	300	1	521
50 NORTHUMBERLAND	21	0	0	0	0	0	0	5	0	26
51 PIKE	22	0	96	7	0	0	0	8	0	133
52 SCHUYLKILL	31	0	9	0	0	0	0	32	0	72
53 SUSQUEHANNA	0	0	9	1	0	0	0	4	0	14
54 WYOMING	11	0	9	0	0	0	0	3	0	23
	52,652	35,874	38,608	869	3,172	1,642	1,397	1,202	76	135,492

1_PB_Task_C1_Forecast_Summary_061218_PA.xls 2007

Forecasts: Origin County to Airports

Year 2007   **Annual (in 000's)**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	8,268.0	6,218.9	2,317.4	0.7	66.1	8.8	0.0	0.0	0.0	16,880
2 QUEENS	1,713.3	1,137.3	84.7	0.4	10.6	2.2	0.0	0.0	0.0	2,948
3 BRONX	465.7	476.0	35.4	0.0	5.5	3.3	0.0	0.0	0.0	986
4 KINGS	1,688.9	951.9	158.4	0.4	20.4	0.4	0.0	0.0	0.0	2,820
5 RICHMOND	139.4	38.7	229.6	0.0	1.1	0.0	0.0	0.0	0.0	409
6 NASSAU	1,748.7	936.6	38.3	0.0	154.0	0.0	0.0	0.0	0.0	2,878
7 SUFFOLK	1,159.2	655.2	42.0	0.0	868.3	1.1	0.0	0.4	0.0	2,726
8 WESTCHESTER	907.4	726.0	160.2	4.7	7.3	248.9	0.0	0.0	0.0	2,055
9 ROCKLAND	125.2	123.7	235.8	6.2	2.2	9.9	0.0	0.0	0.0	503
10 PUTNAM	59.5	86.1	26.3	4.7	0.0	16.1	0.0	0.0	0.0	193
11 ORANGE	87.2	82.9	150.4	116.4	0.0	9.5	0.0	0.0	0.0	446
12 DUTCHESS	128.5	103.3	32.1	94.2	2.2	23.7	0.0	0.0	0.0	384
13 FAIRFIELD	856.3	657.4	127.4	2.6	3.3	247.8	0.0	0.0	0.0	1,895
14 BERGEN	316.8	282.1	1,305.2	1.5	2.2	4.4	1.1	0.0	0.0	1,913
15 PASSAIC	46.4	40.2	429.2	0.4	2.2	0.0	0.0	0.4	0.0	519
16 HUDSON	170.5	133.2	924.5	0.0	3.3	0.4	0.4	0.0	0.0	1,232
17 ESSEX	96.4	55.8	1,039.9	0.7	0.0	0.0	0.0	0.0	0.0	1,193
18 UNION	73.0	36.9	722.3	0.0	1.1	0.0	0.4	0.0	0.0	834
19 MORRIS	86.1	56.6	1,192.1	0.4	1.1	0.0	1.1	2.9	0.0	1,340
20 SOMERSET	44.9	15.7	670.5	0.0	0.0	0.0	1.1	2.6	0.4	735
21 MIDDLESEX	196.4	40.9	1,172.0	0.0	1.1	0.0	13.1	0.7	0.7	1,425
22 MONMOUTH	94.2	12.4	1,100.1	0.0	2.2	0.0	46.7	0.0	1.5	1,257
23 OCEAN	27.7	15.7	307.0	0.0	0.0	0.0	133.2	0.0	0.4	484
24 HUNTERDON	8.0	0.0	271.9	0.4	0.0	0.0	2.6	8.8	1.1	293
25 WARREN	7.7	3.3	120.1	0.0	0.0	0.0	0.4	16.8	0.0	148
26 SUSSEX	27.7	9.5	235.1	4.7	0.0	0.0	0.0	1.5	0.0	278
27 NEW HAVEN	355.9	108.4	25.6	0.4	0.0	11.3	0.0	0.0	0.0	502
28 MERCER	43.4	13.1	296.0	0.0	2.2	0.0	9.5	0.7	8.8	374
29 DELAWARE	0.0	0.0	3.3	2.6	0.0	0.4	0.0	0.0	0.0	6
30 SULLIVAN	12.8	2.9	10.6	20.1	1.5	1.1	0.0	0.4	0.0	49
31 ULSTER	43.1	15.7	16.1	51.5	0.0	2.9	0.0	0.0	0.0	129
32 ATLANTIC	7.7	9.5	73.0	0.0	0.0	0.0	143.8	0.4	0.0	234
33 BURLINGTON	12.0	3.3	78.1	0.0	0.0	0.0	43.1	0.0	1.1	138
34 CAMDEN	23.0	0.0	19.0	0.0	0.0	0.0	19.3	0.0	0.0	61
35 CAPE MAY	0.0	0.0	19.7	0.0	0.0	0.0	51.8	0.0	0.0	72
36 CUMBERLAND	0.0	0.0	15.0	0.0	0.0	0.0	12.0	0.0	0.0	27
37 GLOUCESTER	4.0	0.0	9.9	0.0	0.0	0.0	17.2	0.0	0.0	31
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2
39 LITCHFIELD	51.1	28.1	16.8	1.1	0.0	7.3	0.0	0.0	0.0	104
40 BERKS	11.7	0.0	3.3	0.0	0.0	0.0	1.1	33.9	0.0	50
41 BUCKS	32.5	3.3	74.1	0.0	0.0	0.0	4.4	25.6	11.7	151
42 CARBON	0.0	3.3	0.0	0.0	0.0	0.0	0.0	8.0	0.0	11
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2
44 LACKAWANNA	0.0	6.9	10.6	0.0	0.0	0.0	0.0	5.5	0.0	23
45 LEHIGH	8.0	0.0	81.0	0.0	0.0	0.0	0.0	134.3	0.0	223
46 LUZERNE	3.7	0.0	6.2	0.0	0.0	0.0	0.0	8.8	0.0	19
47 MONROE	0.0	3.3	60.6	0.0	0.0	0.0	0.0	37.6	0.0	101
48 MONTGOMERY	23.4	0.0	32.1	0.0	0.0	0.0	5.8	19.0	1.8	82
49 NORTHAMPTON	11.7	0.0	68.3	0.4	0.0	0.0	0.0	109.5	0.4	190
50 NORTHUMBERLAND	7.7	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	9
51 PIKE	8.0	0.0	35.0	2.6	0.0	0.0	0.0	2.9	0.0	49
52 SCHUYLKILL	11.3	0.0	3.3	0.0	0.0	0.0	0.0	11.7	0.0	26
53 SUSQUEHANNA	0.0	0.0	3.3	0.4	0.0	0.0	0.0	1.5	0.0	5
54 WYOMING	4.0	0.0	3.3	0.0	0.0	0.0	0.0	1.1	0.0	8
	19,218	13,094	14,092	317	1,158	599	510	439	28	49,455

Task C: Origin Productions PANYNJ and Other Airports
Year 2008 Forecasts

Task B Enplanement Forecasts

Airport - Chosen

Airport - Chosen	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4	2,008	Growth over '05	Diff. Level 3	Level 4 Scaling
1 JFK	4,962	48,660	49,307	49,479	54,666	54,478	1.3%	1.7%	12.3%	12.0%	54,478	12.0%	188	0.9966
2 LGA	4,210	33,433	33,858	34,063	37,634	36,367	1.3%	1.9%	12.6%	8.8%	36,367	8.8%	1,267	0.9663
3 EWR	4,352	34,564	35,425	35,646	39,382	40,588	2.5%	3.1%	13.9%	17.4%	40,588	17.4%	-1,206	1.0306
4 SWF	1,082	546	565	571	630	926	3.3%	4.4%	15.3%	69.5%	925	69.3%	-295	1.4681
5 ISP	1,089	2,892	2,951	2,951	3,261	3,221	2.1%	2.1%	12.8%	11.4%	3,221	11.4%	40	0.9878
6 HPN	1,085	1,278	1,304	1,322	1,461	1,665	2.0%	3.5%	14.3%	30.3%	1,665	30.3%	-204	1.1396
7 ACY	1,081	1,339	1,391	1,399	1,546	1,416	3.9%	4.5%	15.5%	5.8%	1,416	5.8%	130	0.9162
8 ABE	1,174	1,143	1,177	1,182	1,306	1,233	3.0%	3.4%	14.2%	7.9%	1,233	7.8%	73	0.9440
9 TTN	93	74	76	78	86	79	2.8%	5.5%	16.3%	6.8%	79	6.3%	7	0.9143
Total	19,128	123,929	126,054	126,692	139,972	139,972	1.7%	2.2%	12.9%	12.9%	139,972	12.9%	0	

1.10482 Level 3 Scaling

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Airport Group - Chosen

Airport Group - Chosen	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	49,307	49,479	54,666	54,478	1.3%	1.7%	12.3%	12.0%
2 LGA	4,210	33,433	33,858	34,063	37,634	36,367	1.3%	1.9%	12.6%	8.8%
3 EWR	4,352	34,564	35,425	35,646	39,382	40,588	2.5%	3.1%	13.9%	17.4%
4 NYSDOT	3,256	4,716	4,820	4,844	5,352	5,811	2.2%	2.7%	13.5%	23.2%
5 DVRPC	2,348	2,556	2,644	2,659	2,938	2,728	3.4%	4.0%	15.0%	6.7%
Total	19,128	123,929	126,054	126,692	139,972	139,972	1.7%	2.2%	12.9%	12.9%

1

Trip Type / Market

Trip Type / Market	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	17,873	18,232	20,143	20,192	1.7%	3.7%	14.6%	14.9%
2 Resident-Other	6,985	44,744	45,434	45,712	50,504	50,480	1.5%	2.2%	12.9%	12.8%
3 Non Resident-Business	2,904	20,389	20,845	20,845	23,030	23,033	2.2%	2.2%	13.0%	13.0%
4 Non Resident-Other	6,340	41,216	41,902	41,902	46,295	46,268	1.7%	1.7%	12.3%	12.3%
Total	19,128	123,929	126,054	126,692	139,972	139,972	1.7%	2.2%	12.9%	12.9%

OCO_ID Origin County
Year 2008

OCO_ID Origin County	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	43,285	43,285	47,822	47,340	0.6%	0.6%	11.1%	10.0%
2 QUEENS	840	7,402	7,569	7,620	8,419	8,300	2.2%	2.9%	13.7%	12.1%
3 BRONX	295	2,500	2,547	2,547	2,814	2,767	1.9%	1.9%	12.6%	10.7%
4 KINGS	810	7,129	7,280	7,432	8,212	8,114	2.1%	4.3%	15.2%	13.8%
5 RICHMOND	117	989	1,036	1,049	1,159	1,174	4.7%	6.1%	17.2%	18.7%
6 NASSAU	915	7,341	7,400	7,426	8,204	8,094	0.8%	1.1%	11.7%	10.3%
7 SUFFOLK	1,340	6,864	7,018	7,018	7,754	7,653	2.3%	2.3%	13.0%	11.5%
8 WESTCHESTER	988	5,067	5,141	5,194	5,739	5,762	1.5%	2.5%	13.3%	13.7%
9 ROCKLAND	184	1,232	1,264	1,278	1,412	1,428	2.6%	3.7%	14.6%	15.9%
10 PUTNAM	95	467	492	495	547	550	5.3%	5.9%	17.1%	17.7%
11 ORANGE	503	998	1,039	1,055	1,166	1,281	4.1%	5.7%	16.8%	28.3%
12 DUTCHESS	447	886	909	909	1,004	1,091	2.6%	2.6%	13.4%	23.2%
13 FAIRFIELD	925	4,648	4,733	4,814	5,319	5,345	1.8%	3.6%	14.4%	15.0%
14 BERGEN	597	4,779	4,847	4,871	5,382	5,466	1.4%	1.9%	12.6%	14.4%
15 PASSAIC	163	1,292	1,309	1,309	1,446	1,479	1.3%	1.3%	11.9%	14.5%
16 HUDSON	371	2,997	3,064	3,126	3,453	3,517	2.2%	4.3%	15.2%	17.3%
17 ESSEX	370	2,970	3,004	3,038	3,357	3,440	1.1%	2.3%	13.0%	15.8%
18 UNION	260	2,088	2,095	2,116	2,337	2,395	0.3%	1.3%	11.9%	14.7%
19 MORRIS	419	3,287	3,400	3,418	3,776	3,872	3.4%	4.0%	14.9%	17.8%
20 SOMERSET	228	1,762	1,862	1,877	2,074	2,129	5.7%	6.5%	17.7%	20.8%
21 MIDDLESEX	457	3,494	3,627	3,627	4,007	4,098	3.8%	3.8%	14.7%	17.3%
22 MONMOUTH	474	3,093	3,196	3,196	3,530	3,610	3.3%	3.3%	14.1%	16.7%
23 OCEAN	390	1,206	1,257	1,257	1,389	1,380	4.2%	4.2%	15.2%	14.4%
24 HUNTERDON	117	703	741	747	825	846	5.4%	6.2%	17.3%	20.3%
25 WARREN	86	366	378	378	418	425	3.2%	3.2%	14.1%	16.0%
26 SUSSEX	102	676	706	706	780	803	4.3%	4.3%	15.3%	18.7%
27 NEW HAVEN	157	1,269	1,286	1,286	1,421	1,413	1.3%	1.3%	12.0%	11.4%
28 MERCER	159	917	937	950	1,050	1,068	2.1%	3.6%	14.4%	16.4%
29 DELAWARE	11	14	14	14	15	18	0.4%	0.4%	9.8%	31.7%
30 SULLIVAN	80	102	104	111	122	142	1.7%	8.5%	19.6%	39.2%
31 ULSTER	203	283	291	295	326	375	3.0%	4.4%	15.4%	32.7%
32 ATLANTIC	331	594	628	631	697	665	5.6%	6.1%	17.3%	11.9%
33 BURLINGTON	123	344	357	359	396	391	3.8%	4.3%	15.2%	13.7%
34 CAMDEN	54	159	160	160	177	173	0.9%	0.9%	11.7%	9.1%
35 CAPE MAY	115	183	190	192	212	201	4.0%	5.2%	16.1%	10.1%
36 CUMBERLAND	30	64	73	73	81	79	14.7%	14.7%	26.6%	23.5%
37 GLOUCESTER	41	79	82	82	91	87	3.6%	3.6%	14.5%	9.5%
38 SALEM	4	5	5	5	5	5	0.9%	0.4%	0.9%	0.9%
39 LITCHFIELD	44	256	262	266	294	296	2.5%	3.9%	14.8%	15.6%
40 BERKS	98	129	132	133	147	142	1.7%	3.1%	13.6%	9.7%
41 BUCKS	148	377	388	392	433	430	2.9%	3.8%	14.7%	13.9%
42 CARBON	23	29	30	30	33	32	2.3%	2.3%	12.4%	9.0%
43 COLUMBIA	6	6	6	6	7	6	1.5%	1.5%	19.8%	2.7%
44 LACKAWANNA	19	53	54	59	65	64	1.5%	9.9%	21.9%	20.0%
45 LEHIGH	388	570	585	585	646	631	2.7%	2.7%	13.4%	10.8%
46 LUZERNE	26	48	48	49	54	53	-0.2%	0.9%	12.3%	10.2%
47 MONROE	117	246	266	266	294	293	8.1%	8.1%	19.4%	18.9%
48 MONTGOMERY	86	209	212	212	235	232	1.7%	1.7%	12.6%	11.1%
49 NORTHAMPTON	319	483	498	498	550	538	3.2%	3.2%	13.9%	11.4%
50 NORTHUMBERLAND	7	24	24	24	27	27	-0.4%	-0.4%	10.3%	10.3%
51 PIKE	27	110	119	123	136	141	8.1%	12.2%	23.8%	28.3%
52 SCHUYLKILL	36	69	69	69	76	74	0.5%	0.5%	10.9%	8.0%
53 SUSQUEHANNA	6	12	13	13	14	14	1.6%	1.6%	13.4%	13.4%
54 WYOMING	5	21	21	21	23	23	0.2%	0.2%	11.3%	11.3%
999 OUT SIDE AREA										
Total	19,128	123,929	126,054	126,692	139,972	139,972	1.7%	2.2%	11.0%	12.9%

Forecasts: Origin County to Airports

Year 2008 **Average Daily** Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	23,335	17,182	6,614	2	183	24	0	0	0	**47,340**
2 QUEENS	4,861	3,160	242	1	30	6	0	0	0	**8,300**
3 BRONX	1,321	1,321	102	0	15	9	0	0	0	**2,768**
4 KINGS	4,884	2,702	469	1	57	2	0	0	0	**8,115**
5 RICHMOND	399	108	664	0	3	0	0	0	0	**1,174**
6 NASSAU	4,950	2,606	111	0	428	0	0	0	0	**8,095**
7 SUFFOLK	3,290	1,820	120	0	2,419	3	0	1	0	**7,653**
8 WESTCHESTER	2,568	2,012	459	14	21	688	0	0	0	**5,762**
9 ROCKLAND	356	344	677	18	6	27	0	0	0	**1,428**
10 PUTNAM	168	245	79	14	0	45	0	0	0	**551**
11 ORANGE	249	232	434	340	0	27	0	0	0	**1,282**
12 DUTCHESS	365	287	93	274	6	65	0	0	0	**1,090**
13 FAIRFIELD	2,435	1,835	368	8	9	690	0	0	0	**5,345**
14 BERGEN	894	789	3,757	4	6	12	3	0	0	**5,465**
15 PASSAIC	131	111	1,228	1	6	0	0	1	0	**1,478**
16 HUDSON	483	370	2,653	0	9	2	1	0	0	**3,518**
17 ESSEX	275	155	3,009	2	0	0	0	0	0	**3,441**
18 UNION	205	103	2,083	0	3	0	1	0	0	**2,395**
19 MORRIS	241	161	3,456	1	3	0	3	8	0	**3,873**
20 SOMERSET	129	44	1,944	0	0	0	3	8	1	**2,129**
21 MIDDLESEX	560	114	3,380	0	3	0	36	2	3	**4,098**
22 MONMOUTH	268	35	3,168	0	6	0	129	0	4	**3,610**
23 OCEAN	79	44	886	0	0	0	370	0	1	**1,380**
24 HUNTERDON	23	0	788	1	0	0	7	25	3	**847**
25 WARREN	22	9	345	0	0	0	1	47	0	**424**
26 SUSSEX	79	27	680	14	0	0	0	4	0	**804**
27 NEW HAVEN	1,007	300	74	1	0	32	0	0	0	**1,414**
28 MERCER	123	37	850	0	6	0	26	2	25	**1,069**
29 DELAWARE	0	0	9	7	0	2	0	0	0	**18**
30 SULLIVAN	37	9	30	59	4	3	0	1	0	**143**
31 ULSTER	121	45	47	154	0	8	0	0	0	**375**
32 ATLANTIC	21	27	212	0	0	0	404	1	0	**665**
33 BURLINGTON	34	9	226	0	0	0	119	0	4	**392**
34 CAMDEN	65	0	55	0	0	0	53	0	0	**173**
35 CAPE MAY	0	0	57	0	0	0	143	0	0	**200**
36 CUMBERLAND	0	0	46	0	0	0	33	0	0	**79**
37 GLOUCESTER	11	0	29	0	0	0	48	0	0	**88**
38 SALEM	0	0	0	0	0	0	5	0	0	**5**
39 LITCHFIELD	145	79	48	3	0	21	0	0	0	**296**
40 BERKS	32	0	9	0	0	0	3	97	0	**141**
41 BUCKS	92	9	213	0	0	0	12	72	33	**431**
42 CARBON	0	9	0	0	0	0	0	23	0	**32**
43 COLUMBIA	0	0	0	0	0	0	0	6	0	**6**
44 LACKAWANNA	0	19	30	0	0	0	0	15	0	**64**
45 LEHIGH	23	0	232	0	0	0	0	376	0	**631**
46 LUZERNE	11	0	18	0	0	0	0	24	0	**53**
47 MONROE	0	9	177	0	0	0	0	107	0	**293**
48 MONTGOMERY	66	0	92	0	0	0	17	53	5	**233**
49 NORTHAMPTON	34	0	196	1	0	0	0	307	1	**539**
50 NORTHUMBERLAND	21	0	0	0	0	0	0	5	0	**26**
51 PIKE	23	0	103	7	0	0	0	8	0	**141**
52 SCHUYLKILL	32	0	10	0	0	0	0	32	0	**74**
53 SUSQUEHANNA	0	0	9	1	0	0	0	4	0	**14**
54 WYOMING	11	0	9	0	0	0	0	3	0	**23**
	54,479	36,368	40,590	928	3,223	1,666	1,417	1,232	80	**139,983**

1_PB_Task_C1_Forecast_Summary_061218_PA.xls 2008

Year 2008   **Annual (in 000's)**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	8,517.3	6,271.4	2,414.1	0.7	66.8	8.8	0.0	0.0	0.0	17,279
2 QUEENS	1,774.3	1,153.4	88.3	0.4	11.0	2.2	0.0	0.0	0.0	3,030
3 BRONX	482.2	482.2	37.2	0.0	5.5	3.3	0.0	0.0	0.0	1,010
4 KINGS	1,782.7	986.2	171.2	0.4	20.8	0.7	0.0	0.0	0.0	2,962
5 RICHMOND	145.6	39.4	242.4	0.0	1.1	0.0	0.0	0.0	0.0	429
6 NASSAU	1,806.8	951.2	40.5	0.0	156.2	0.0	0.0	0.0	0.0	2,955
7 SUFFOLK	1,200.9	664.3	43.8	0.0	882.9	1.1	0.0	0.4	0.0	2,793
8 WESTCHESTER	937.3	734.4	167.5	5.1	7.7	251.1	0.0	0.0	0.0	2,103
9 ROCKLAND	129.9	125.6	247.1	6.6	2.2	9.9	0.0	0.0	0.0	521
10 PUTNAM	61.3	89.4	28.8	5.1	0.0	16.4	0.0	0.0	0.0	201
11 ORANGE	90.9	84.7	158.4	124.1	0.0	9.9	0.0	0.0	0.0	468
12 DUTCHESS	133.2	104.8	33.9	100.0	2.2	23.7	0.0	0.0	0.0	398
13 FAIRFIELD	888.8	669.8	134.3	2.9	3.3	251.9	0.0	0.0	0.0	1,951
14 BERGEN	326.3	288.0	1,371.3	1.5	2.2	4.4	1.1	0.0	0.0	1,995
15 PASSAIC	47.8	40.5	448.2	0.4	2.2	0.0	0.0	0.4	0.0	539
16 HUDSON	176.3	135.1	968.3	0.0	3.3	0.7	0.4	0.0	0.0	1,284
17 ESSEX	100.4	56.6	1,098.3	0.7	0.0	0.0	0.0	0.0	0.0	1,256
18 UNION	74.8	37.6	760.3	0.0	1.1	0.0	0.4	0.0	0.0	874
19 MORRIS	88.0	58.8	1,261.4	0.4	1.1	0.0	1.1	2.9	0.0	1,414
20 SOMERSET	47.1	16.1	709.6	0.0	0.0	0.0	1.1	2.9	0.4	777
21 MIDDLESEX	204.4	41.6	1,233.7	0.0	1.1	0.0	13.1	0.7	1.1	1,496
22 MONMOUTH	97.8	12.8	1,156.3	0.0	2.2	0.0	47.1	0.0	1.5	1,318
23 OCEAN	28.8	16.1	323.4	0.0	0.0	0.0	135.1	0.0	0.4	504
24 HUNTERDON	8.4	0.0	287.6	0.4	0.0	0.0	2.6	9.1	1.1	309
25 WARREN	8.0	3.3	125.9	0.0	0.0	0.0	0.4	17.2	0.0	155
26 SUSSEX	28.8	9.9	248.2	5.1	0.0	0.0	0.0	1.5	0.0	293
27 NEW HAVEN	367.6	109.5	27.0	0.4	0.0	11.7	0.0	0.0	0.0	516
28 MERCER	44.9	13.5	310.3	0.0	2.2	0.0	9.5	0.7	9.1	390
29 DELAWARE	0.0	0.0	3.3	2.6	0.0	0.7	0.0	0.0	0.0	7
30 SULLIVAN	13.5	3.3	11.0	21.5	1.5	1.1	0.0	0.4	0.0	52
31 ULSTER	44.2	16.4	17.2	56.2	0.0	2.9	0.0	0.0	0.0	137
32 ATLANTIC	7.7	9.9	77.4	0.0	0.0	0.0	147.5	0.4	0.0	243
33 BURLINGTON	12.4	3.3	82.5	0.0	0.0	0.0	43.4	0.0	1.5	143
34 CAMDEN	23.7	0.0	20.1	0.0	0.0	0.0	19.3	0.0	0.0	63
35 CAPE MAY	0.0	0.0	20.8	0.0	0.0	0.0	52.2	0.0	0.0	73
36 CUMBERLAND	0.0	0.0	16.8	0.0	0.0	0.0	12.0	0.0	0.0	29
37 GLOUCESTER	4.0	0.0	10.6	0.0	0.0	0.0	17.5	0.0	0.0	32
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2
39 LITCHFIELD	52.9	28.8	17.5	1.1	0.0	7.7	0.0	0.0	0.0	108
40 BERKS	11.7	0.0	3.3	0.0	0.0	0.0	1.1	35.4	0.0	51
41 BUCKS	33.6	3.3	77.7	0.0	0.0	0.0	4.4	26.3	12.0	157
42 CARBON	0.0	3.3	0.0	0.0	0.0	0.0	0.0	8.4	0.0	12
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2
44 LACKAWANNA	0.0	6.9	11.0	0.0	0.0	0.0	0.0	5.5	0.0	23
45 LEHIGH	8.4	0.0	84.7	0.0	0.0	0.0	0.0	137.2	0.0	230
46 LUZERNE	4.0	0.0	6.6	0.0	0.0	0.0	0.0	8.8	0.0	19
47 MONROE	0.0	3.3	64.6	0.0	0.0	0.0	0.0	39.1	0.0	107
48 MONTGOMERY	24.1	0.0	33.6	0.0	0.0	0.0	6.2	19.3	1.8	85
49 NORTHAMPTON	12.4	0.0	71.5	0.4	0.0	0.0	0.0	112.1	0.4	197
50 NORTHUMBERLAND	7.7	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	9
51 PIKE	8.4	0.0	37.6	2.6	0.0	0.0	0.0	2.9	0.0	51
52 SCHUYLKILL	11.7	0.0	3.7	0.0	0.0	0.0	0.0	11.7	0.0	27
53 SUSQUEHANNA	0.0	0.0	3.3	0.4	0.0	0.0	0.0	1.5	0.0	5
54 WYOMING	4.0	0.0	3.3	0.0	0.0	0.0	0.0	1.1	0.0	8
	19,885	13,274	14,815	339	1,176	608	517	450	29	51,094

Task C: Origin Productions   **PANYNJ and Other Airports**
Year 2009   **Forecasts**

Task B Enplanement Forecasts

Airport - Chosen			Forecasts				Growth over 2005					Growth over '05		Diff. Level 3	Level 4 Scaling
	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4					
1 JFK	4,962	48,660	49,525	49,727	56,379	56,316	1.8%	2.2%	15.9%	15.7%		56,316	15.7%	63	0.9989
2 LGA	4,210	33,433	34,001	34,239	38,819	36,867	1.7%	2.4%	16.1%	10.3%		36,867	10.3%	1,952	0.9497
3 EWR	4,352	34,564	35,714	36,007	40,824	42,720	3.3%	4.2%	18.1%	23.6%		42,720	23.6%	-1,896	1.0464
4 SWF	1,082	546	571	577	654	971	4.4%	5.5%	19.7%	77.7%	`	971	77.7%	-317	1.4851
5 ISP	1,089	2,892	2,971	2,977	3,375	3,274	2.8%	2.9%	16.7%	13.2%		3,274	13.2%	101	0.9702
6 HPN	1,085	1,278	1,312	1,331	1,509	1,682	2.7%	4.2%	18.1%	31.6%		1,682	31.7%	-173	1.1150
7 ACY	1,081	1,339	1,408	1,418	1,608	1,435	5.2%	5.9%	20.1%	7.2%		1,436	7.2%	172	0.8928
8 ABE	1,174	1,143	1,188	1,194	1,354	1,263	3.9%	4.4%	18.4%	10.5%		1,263	10.5%	91	0.9328
9 TTN	93	74	77	79	89	81	3.7%	6.5%	20.3%	9.5%		80	8.5%	9	0.9020
Total	19,128	123,929	126,767	127,549	144,611	144,609	2.3%	2.9%	16.7%	16.7%		144,610	16.7%	1	

1.13376

Level 3 Scaling

Airport Group - Chosen			Forecasts				Growth over 2005				
	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4	
1 JFK	4,962	48,660	49,525	49,727	56,379	56,316	1.8%	2.2%	15.9%	15.7%	
2 LGA	4,210	33,433	34,001	34,239	38,819	36,867	1.7%	2.4%	16.1%	10.3%	(only)
3 EWR	4,352	34,564	35,714	36,007	40,824	42,720	3.3%	4.2%	18.1%	23.6%	Level 2: plus Growth in Real Incomes
4 NYSDOT	3,256	4,716	4,855	4,884	5,538	5,927	2.9%	3.6%	17.4%	25.7%	Level 3: plus Scaling to Enplanements - Total
5 DVRPC	2,348	2,556	2,673	2,691	3,051	2,779	4.6%	5.3%	19.4%	8.7%	Level 4: plus Scaling to Enplanements - By Airport
Total	19,128	123,929	126,767	127,549	144,610	144,609	2.3%	2.9%	16.7%	16.7%	

Trip Type / Market			Forecasts				Growth over 2005				
	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4	
1 Resident-Business	2,899	17,580	17,971	18,421	20,885	20,951	2.2%	4.8%	18.8%	19.2%	1
2 Resident-Other	6,985	44,744	45,667	45,999	52,152	52,127	2.1%	2.8%	16.6%	16.5%	
3 Non Resident-Business	2,904	20,389	20,998	20,998	23,806	23,811	3.0%	3.0%	16.8%	16.8%	
4 Non Resident-Other	6,340	41,216	42,131	42,131	47,767	47,720	2.2%	2.2%	15.9%	15.8%	
Total	19,128	123,929	126,767	127,549	144,610	144,609	2.3%	2.9%	16.7%	16.7%	

OCO_ID Origin County   Forecasts   Growth over 2005

## Year 2009	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	43,369	43,369	49,170	48,528	0.8%	0.8%	14.3%	12.8%
2 QUEENS	840	7,402	7,625	7,676	8,703	8,539	3.0%	3.7%	17.6%	15.4%
3 BRONX	295	2,500	2,563	2,597	2,944	2,876	2.5%	3.9%	17.8%	15.1%
4 KINGS	810	7,129	7,330	7,484	8,485	8,354	2.8%	5.0%	19.0%	17.2%
5 RICHMOND	117	989	1,052	1,065	1,208	1,233	6.3%	7.7%	22.1%	24.6%
6 NASSAU	915	7,341	7,420	7,446	8,442	8,288	1.1%	1.4%	15.0%	12.9%
7 SUFFOLK	1,340	6,864	7,071	7,096	8,045	7,873	3.0%	3.4%	17.2%	14.7%
8 WESTCHESTER	988	5,067	5,166	5,219	5,917	5,903	2.0%	3.0%	16.8%	16.5%
9 ROCKLAND	184	1,232	1,275	1,289	1,461	1,482	3.4%	4.6%	18.5%	20.2%
10 PUTNAM	95	467	501	503	571	570	7.1%	7.7%	22.2%	22.0%
11 ORANGE	503	998	1,053	1,069	1,212	1,339	5.5%	7.1%	21.4%	34.2%
12 DUTCHESS	447	886	916	916	1,039	1,128	3.5%	3.5%	17.3%	27.4%
13 FAIRFIELD	925	4,648	4,762	4,843	5,491	5,481	2.4%	4.2%	18.1%	17.9%
14 BERGEN	597	4,779	4,870	4,895	5,549	5,683	1.9%	2.4%	16.1%	18.9%
15 PASSAIC	163	1,292	1,315	1,334	1,512	1,563	1.8%	3.2%	17.0%	21.0%
16 HUDSON	371	2,997	3,087	3,148	3,570	3,672	3.0%	5.0%	19.1%	22.5%
17 ESSEX	370	2,970	3,016	3,050	3,458	3,590	1.5%	2.7%	16.4%	20.9%
18 UNION	260	2,088	2,098	2,118	2,402	2,492	0.5%	1.4%	15.0%	19.3%
19 MORRIS	419	3,287	3,438	3,456	3,919	4,071	4.6%	5.2%	19.2%	23.9%
20 SOMERSET	228	1,762	1,896	1,911	2,166	2,254	7.6%	8.4%	22.9%	27.9%
21 MIDDLESEX	457	3,494	3,672	3,704	4,199	4,347	5.1%	6.0%	20.2%	24.4%
22 MONMOUTH	474	3,093	3,230	3,251	3,686	3,817	4.4%	5.1%	19.2%	23.4%
23 OCEAN	390	1,206	1,274	1,274	1,445	1,439	5.7%	5.7%	19.8%	19.3%
24 HUNTERDON	117	703	754	760	861	895	7.2%	8.0%	22.5%	27.3%
25 WARREN	86	366	382	382	433	445	4.3%	4.3%	18.2%	21.4%
26 SUSSEX	102	676	715	721	817	852	5.8%	6.6%	20.8%	26.0%
27 NEW HAVEN	157	1,269	1,292	1,292	1,465	1,454	1.8%	1.8%	15.5%	14.6%
28 MERCER	159	917	943	957	1,085	1,116	2.8%	4.3%	18.3%	21.6%
29 DELAWARE	11	14	14	14	16	19	0.5%	0.5%	17.1%	39.0%
30 SULLIVAN	80	102	104	111	126	147	2.1%	9.0%	23.5%	44.1%
31 ULSTER	203	283	294	298	338	391	4.0%	5.4%	19.6%	38.4%
32 ATLANTIC	331	594	639	642	728	687	7.5%	8.0%	22.5%	15.6%
33 BURLINGTON	123	344	361	363	412	407	5.0%	5.6%	19.8%	18.4%
34 CAMDEN	54	159	160	164	186	182	1.2%	3.5%	17.4%	14.8%
35 CAPE MAY	115	183	191	194	219	205	4.8%	6.0%	19.9%	12.3%
36 CUMBERLAND	30	64	77	77	87	85	19.7%	19.7%	36.0%	32.9%
37 GLOUCESTER	41	79	83	83	94	90	4.8%	4.8%	18.3%	13.3%
38 SALEM	4	5	5	5	6	5	1.2%	0.7%	21.1%	0.9%
39 LITCHFIELD	44	256	265	268	304	305	3.4%	4.8%	18.8%	19.1%
40 BERKS	98	129	132	134	152	145	2.3%	3.7%	17.4%	12.0%
41 BUCKS	148	377	392	396	449	448	3.8%	4.8%	19.0%	18.7%
42 CARBON	23	29	30	30	34	32	2.8%	3.3%	15.8%	9.0%
43 COLUMBIA	6	6	6	6	7	6	2.0%	2.0%	19.8%	2.7%
44 LACKAWANNA	19	53	54	59	67	66	2.0%	10.4%	25.6%	23.7%
45 LEHIGH	388	570	590	590	669	652	3.6%	3.6%	17.4%	14.4%
46 LUZERNE	26	48	48	48	55	54	-0.3%	0.8%	14.4%	12.3%
47 MONROE	117	246	273	273	309	309	10.8%	10.8%	25.4%	25.4%
48 MONTGOMERY	86	209	214	214	242	240	2.3%	2.3%	15.9%	14.9%
49 NORTHAMPTON	319	483	503	503	570	557	4.2%	4.2%	18.1%	15.4%
50 NORTHUMBERLAND	7	24	24	24	27	27	-0.5%	-0.9%	10.3%	10.3%
51 PIKE	27	110	121	126	143	150	10.4%	14.6%	30.1%	36.5%
52 SCHUYLKILL	36	69	69	69	78	76	0.3%	0.3%	13.8%	10.9%
53 SUSQUEHANNA	6	12	13	13	14	15	2.2%	2.1%	13.4%	21.5%
54 WYOMING	5	21	21	21	23	24	0.2%	0.2%	11.3%	16.1%
999 OUT SIDE AREA										
Total	19,128	123,929	126,767	127,549	144,610	144,609	2.3%	2.9%	14.1%	16.7%

Year 2009　　　　**Average Daily**　　　Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	24,052	17,360	6,906	2	185	24	0	0	0	**48,529**
2 QUEENS	5,037	3,210	255	1	30	6	0	0	0	**8,539**
3 BRONX	1,383	1,358	112	0	15	9	0	0	0	**2,877**
4 KINGS	5,055	2,746	492	1	58	2	0	0	0	**8,354**
5 RICHMOND	416	111	703	0	3	0	0	0	0	**1,233**
6 NASSAU	5,104	2,635	116	0	433	0	0	0	0	**8,288**
7 SUFFOLK	3,421	1,859	127	0	2,463	3	0	1	0	**7,874**
8 WESTCHESTER	2,654	2,039	481	15	21	695	0	0	0	**5,905**
9 ROCKLAND	369	350	712	18	6	28	0	0	0	**1,483**
10 PUTNAM	176	251	84	14	0	46	0	0	0	**571**
11 ORANGE	259	237	458	357	0	27	0	0	0	**1,338**
12 DUTCHESS	379	292	97	287	6	66	0	0	0	**1,127**
13 FAIRFIELD	2,519	1,863	385	8	9	697	0	0	0	**5,481**
14 BERGEN	924	800	3,934	4	6	12	3	0	0	**5,683**
15 PASSAIC	139	115	1,302	1	6	0	0	1	0	**1,564**
16 HUDSON	500	376	2,785	0	9	2	1	0	0	**3,673**
17 ESSEX	284	157	3,147	2	0	0	0	0	0	**3,590**
18 UNION	211	104	2,173	0	3	0	1	0	0	**2,492**
19 MORRIS	250	164	3,641	1	3	0	3	9	0	**4,071**
20 SOMERSET	135	45	2,063	0	0	0	3	8	1	**2,255**
21 MIDDLESEX	584	122	3,597	0	3	0	37	2	3	**4,348**
22 MONMOUTH	280	36	3,359	0	6	0	131	0	4	**3,816**
23 OCEAN	82	45	936	0	0	0	375	0	1	**1,439**
24 HUNTERDON	24	0	835	1	0	0	7	26	3	**896**
25 WARREN	23	9	363	0	0	0	1	48	0	**444**
26 SUSSEX	84	27	723	14	0	0	0	4	0	**852**
27 NEW HAVEN	1,040	304	77	1	0	32	0	0	0	**1,454**
28 MERCER	128	37	891	0	6	0	26	2	25	**1,115**
29 DELAWARE	0	0	9	8	0	2	0	0	0	**19**
30 SULLIVAN	38	9	31	61	4	3	0	1	0	**147**
31 ULSTER	126	46	50	162	0	8	0	0	0	**392**
32 ATLANTIC	22	27	226	0	0	0	410	1	0	**686**
33 BURLINGTON	36	9	238	0	0	0	121	0	4	**408**
34 CAMDEN	67	0	60	0	0	0	54	0	0	**181**
35 CAPE MAY	0	0	60	0	0	0	145	0	0	**205**
36 CUMBERLAND	0	0	52	0	0	0	34	0	0	**86**
37 GLOUCESTER	12	0	30	0	0	0	48	0	0	**90**
38 SALEM	0	0	0	0	0	0	5	0	0	**5**
39 LITCHFIELD	151	80	51	3	0	21	0	0	0	**306**
40 BERKS	33	0	10	0	0	0	3	99	0	**145**
41 BUCKS	95	9	224	0	0	0	12	74	34	**448**
42 CARBON	0	8	0	0	0	0	0	24	0	**32**
43 COLUMBIA	0	0	0	0	0	0	0	6	0	**6**
44 LACKAWANNA	0	19	32	0	0	0	0	15	0	**66**
45 LEHIGH	23	0	244	0	0	0	0	385	0	**652**
46 LUZERNE	11	0	18	0	0	0	0	25	0	**54**
47 MONROE	0	9	189	0	0	0	0	111	0	**309**
48 MONTGOMERY	68	0	97	0	0	0	17	54	5	**241**
49 NORTHAMPTON	35	0	206	1	0	0	0	314	1	**557**
50 NORTHUMBERLAND	22	0	0	0	0	0	0	5	0	**27**
51 PIKE	24	0	109	8	0	0	0	8	0	**149**
52 SCHUYLKILL	33	0	10	0	0	0	0	33	0	**76**
53 SUSQUEHANNA	0	0	10	1	0	0	0	4	0	**15**
54 WYOMING	11	0	9	0	0	0	0	3	0	**23**
	56,319	**36,868**	**42,719**	**971**	**3,275**	**1,683**	**1,437**	**1,263**	**81**	**144,616**

Year 2009   **Annual (in 000's)**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	8,779.0	6,336.4	2,520.7	0.7	67.5	8.8	0.0	0.0	0.0	17,713
2 QUEENS	1,838.5	1,171.7	93.1	0.4	11.0	2.2	0.0	0.0	0.0	3,117
3 BRONX	504.8	495.7	40.9	0.0	5.5	3.3	0.0	0.0	0.0	1,050
4 KINGS	1,845.1	1,002.3	179.6	0.4	21.2	0.7	0.0	0.0	0.0	3,049
5 RICHMOND	151.8	40.5	256.6	0.0	1.1	0.0	0.0	0.0	0.0	450
6 NASSAU	1,863.0	961.8	42.3	0.0	158.0	0.0	0.0	0.0	0.0	3,025
7 SUFFOLK	1,248.7	678.5	46.4	0.0	899.0	1.1	0.0	0.4	0.0	2,874
8 WESTCHESTER	968.7	744.2	175.6	5.5	7.7	253.7	0.0	0.0	0.0	2,155
9 ROCKLAND	134.7	127.8	259.9	6.6	2.2	10.2	0.0	0.0	0.0	541
10 PUTNAM	64.2	91.6	30.7	5.1	0.0	16.8	0.0	0.0	0.0	208
11 ORANGE	94.5	86.5	167.2	130.3	0.0	9.9	0.0	0.0	0.0	488
12 DUTCHESS	138.3	106.6	35.4	104.8	2.2	24.1	0.0	0.0	0.0	411
13 FAIRFIELD	919.4	680.0	140.5	2.9	3.3	254.4	0.0	0.0	0.0	2,001
14 BERGEN	337.3	292.0	1,435.9	1.5	2.2	4.4	1.1	0.0	0.0	2,074
15 PASSAIC	50.7	42.0	475.2	0.4	2.2	0.0	0.0	0.4	0.0	571
16 HUDSON	182.5	137.2	1,016.5	0.0	3.3	0.7	0.4	0.0	0.0	1,341
17 ESSEX	103.7	57.3	1,148.7	0.7	0.0	0.0	0.0	0.0	0.0	1,310
18 UNION	77.0	38.0	793.1	0.0	1.1	0.0	0.4	0.0	0.0	910
19 MORRIS	91.3	59.9	1,329.0	0.4	1.1	0.0	1.1	3.3	0.0	1,486
20 SOMERSET	49.3	16.4	753.0	0.0	0.0	0.0	1.1	2.9	0.4	823
21 MIDDLESEX	213.2	44.5	1,312.9	0.0	1.1	0.0	13.5	0.7	1.1	1,587
22 MONMOUTH	102.2	13.1	1,226.0	0.0	2.2	0.0	47.8	0.0	1.5	1,393
23 OCEAN	29.9	16.4	341.6	0.0	0.0	0.0	136.9	0.0	0.4	525
24 HUNTERDON	8.8	0.0	304.8	0.4	0.0	0.0	2.6	9.5	1.1	327
25 WARREN	8.4	3.3	132.5	0.0	0.0	0.0	0.4	17.5	0.0	162
26 SUSSEX	30.7	9.9	263.9	5.1	0.0	0.0	0.0	1.5	0.0	311
27 NEW HAVEN	379.6	111.0	28.1	0.4	0.0	11.7	0.0	0.0	0.0	531
28 MERCER	46.7	13.5	325.2	0.0	2.2	0.0	9.5	0.7	9.1	407
29 DELAWARE	0.0	0.0	3.3	2.9	0.0	0.7	0.0	0.0	0.0	7
30 SULLIVAN	13.9	3.3	11.3	22.3	1.5	1.1	0.0	0.4	0.0	54
31 ULSTER	46.0	16.8	18.3	59.1	0.0	2.9	0.0	0.0	0.0	143
32 ATLANTIC	8.0	9.9	82.5	0.0	0.0	0.0	149.7	0.4	0.0	250
33 BURLINGTON	13.1	3.3	86.9	0.0	0.0	0.0	44.2	0.0	1.5	149
34 CAMDEN	24.5	0.0	21.9	0.0	0.0	0.0	19.7	0.0	0.0	66
35 CAPE MAY	0.0	0.0	21.9	0.0	0.0	0.0	52.9	0.0	0.0	75
36 CUMBERLAND	0.0	0.0	19.0	0.0	0.0	0.0	12.4	0.0	0.0	31
37 GLOUCESTER	4.4	0.0	11.0	0.0	0.0	0.0	17.5	0.0	0.0	33
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2
39 LITCHFIELD	55.1	29.2	18.6	1.1	0.0	7.7	0.0	0.0	0.0	112
40 BERKS	12.0	0.0	3.7	0.0	0.0	0.0	1.1	36.1	0.0	53
41 BUCKS	34.7	3.3	81.8	0.0	0.0	0.0	4.4	27.0	12.4	164
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	8.8	0.0	12
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2
44 LACKAWANNA	0.0	6.9	11.7	0.0	0.0	0.0	0.0	5.5	0.0	24
45 LEHIGH	8.4	0.0	89.1	0.0	0.0	0.0	0.0	140.5	0.0	238
46 LUZERNE	4.0	0.0	6.6	0.0	0.0	0.0	0.0	9.1	0.0	20
47 MONROE	0.0	3.3	69.0	0.0	0.0	0.0	0.0	40.5	0.0	113
48 MONTGOMERY	24.8	0.0	35.4	0.0	0.0	0.0	6.2	19.7	1.8	88
49 NORTHAMPTON	12.8	0.0	75.2	0.4	0.0	0.0	0.0	114.6	0.4	203
50 NORTHUMBERLAND	8.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	10
51 PIKE	8.8	0.0	39.8	2.9	0.0	0.0	0.0	2.9	0.0	54
52 SCHUYLKILL	12.0	0.0	3.7	0.0	0.0	0.0	0.0	12.0	0.0	28
53 SUSQUEHANNA	0.0	0.0	3.7	0.4	0.0	0.0	0.0	1.5	0.0	5
54 WYOMING	4.0	0.0	3.3	0.0	0.0	0.0	0.0	1.1	0.0	8
	20,556	13,457	15,592	354	1,195	614	525	461	30	52,785

Task C: Origin Productions **PANYNJ and Other Airports**
Year 2010 **Forecasts**

			Task B Enplanement Forecasts			

Airport - Chosen

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	49,744	50,042	58,158	58,221
2 LGA	4,210	33,433	34,144	34,490	40,083	37,374
3 EWR	4,352	34,564	36,005	36,364	42,262	44,956
4 SWF	1,082	546	577	585	680	988
5 ISP	1,089	2,892	2,992	2,997	3,483	3,328
6 HPN	1,085	1,278	1,321	1,342	1,560	1,696
7 ACY	1,081	1,339	1,426	1,446	1,680	1,458
8 ABE	1,174	1,143	1,200	1,206	1,402	1,296
9 TTN	93	74	77	80	93	82
Total	19,128	123,929	127,486	128,551	149,401	149,399

Growth over 2005

	Level 1	Level 2	Level 3	Level 4
1	2.2%	2.8%	19.5%	19.6%
2	2.1%	3.2%	19.9%	11.8%
3	4.2%	5.2%	22.3%	30.1%
4	5.6%	7.0%	24.4%	80.8%
5	3.4%	3.6%	20.4%	15.1%
6	3.4%	5.0%	22.1%	32.7%
7	6.5%	8.0%	25.5%	8.9%
8	4.9%	5.5%	22.6%	13.4%
9	4.7%	7.8%	25.7%	10.9%
Total	2.9%	3.7%	20.6%	20.6%

Task B Enplanement Forecasts

	2,010	Growth over '05	Diff. Level 3	Level 4 Scaling
	58,221	19.6%	-63	1.0011
	37,374	11.8%	2,709	0.9324
	44,956	30.1%	-2,694	1.0638
	988	80.9%	-308	1.4533
	3,328	15.1%	155	0.9556
	1,697	32.8%	-137	1.0876
	1,458	8.9%	222	0.8676
	1,296	13.4%	106	0.9243
	82	10.7%	11	0.8808
	149,400	20.6%	1	

1.16218
Level 3 Scaling

Airport Group - Chosen

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	49,744	50,042	58,158	58,221
2 LGA	4,210	33,433	34,144	34,490	40,083	37,374
3 EWR	4,352	34,564	36,005	36,364	42,262	44,956
4 NYSDOT	3,256	4,716	4,890	4,924	5,722	6,012
5 DVRPC	2,348	2,556	2,703	2,732	3,175	2,835
Total	19,128	123,929	127,486	128,551	149,400	149,399

Growth over 2005

	Level 1	Level 2	Level 3	Level 4
1	2.2%	2.8%	19.5%	19.6%
2	2.1%	3.2%	19.9%	11.8%
3	4.2%	5.2%	22.3%	30.1%
4	3.7%	4.4%	21.3%	27.5%
5	5.7%	6.9%	24.2%	10.9%
Total	2.9%	3.7%	20.6%	20.6%

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Trip Type / Market

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	18,070	18,681	21,711	21,796
2 Resident-Other	6,985	44,744	45,901	46,356	53,874	53,847
3 Non Resident-Business	2,904	20,389	21,151	21,151	24,581	24,592
4 Non Resident-Other	6,340	41,216	42,364	42,364	49,234	49,163
Total	19,128	123,929	127,486	128,551	149,400	149,399

Growth over 2005

	Level 1	Level 2	Level 3	Level 4
1	2.8%	6.3%	23.5%	24.0%
2	2.6%	3.6%	20.4%	20.3%
3	3.7%	3.7%	20.6%	20.6%
4	2.8%	2.8%	19.5%	19.3%
Total	2.9%	3.7%	20.6%	20.6%

1

OCO_ID Origin County
Year 2010

	Unweighted	2005	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	43,454	43,660	50,740	49,920	1.0%	1.5%	17.9%	16.0%
2 QUEENS	840	7,402	7,680	7,733	8,987	8,772	3.8%	4.5%	21.4%	18.5%
3 BRONX	295	2,500	2,579	2,613	3,036	2,945	3.2%	4.5%	21.5%	17.8%
4 KINGS	810	7,129	7,381	7,535	8,757	8,590	3.5%	5.7%	22.8%	20.5%
5 RICHMOND	117	989	1,067	1,081	1,256	1,293	7.9%	9.3%	27.0%	30.7%
6 NASSAU	915	7,341	7,440	7,466	8,677	8,477	1.3%	1.7%	18.2%	15.5%
7 SUFFOLK	1,340	6,864	7,123	7,148	8,308	8,066	3.8%	4.1%	21.0%	17.5%
8 WESTCHESTER	988	5,067	5,191	5,245	6,095	6,039	2.4%	3.5%	20.3%	19.2%
9 ROCKLAND	184	1,232	1,285	1,299	1,510	1,537	4.3%	5.4%	22.5%	24.7%
10 PUTNAM	95	467	509	512	595	590	8.9%	9.5%	27.3%	26.3%
11 ORANGE	503	998	1,067	1,083	1,258	1,386	6.9%	8.5%	26.0%	38.9%
12 DUTCHESS	447	886	924	931	1,082	1,163	4.3%	5.1%	22.2%	31.3%
13 FAIRFIELD	925	4,648	4,790	4,880	5,671	5,620	3.1%	5.0%	22.0%	20.9%
14 BERGEN	597	4,779	4,893	4,918	5,715	5,906	2.4%	2.9%	19.6%	23.6%
15 PASSAIC	163	1,292	1,321	1,340	1,557	1,630	2.2%	3.7%	20.5%	26.2%
16 HUDSON	371	2,997	3,110	3,171	3,686	3,833	3.8%	5.8%	23.0%	27.9%
17 ESSEX	370	2,970	3,028	3,062	3,558	3,745	1.9%	3.1%	19.8%	26.1%
18 UNION	260	2,088	2,101	2,121	2,465	2,593	0.6%	1.6%	18.0%	24.2%
19 MORRIS	419	3,287	3,476	3,495	4,061	4,279	5.8%	6.3%	23.6%	30.2%
20 SOMERSET	228	1,762	1,929	1,944	2,260	2,387	9.5%	10.4%	28.3%	35.5%
21 MIDDLESEX	457	3,494	3,716	3,749	4,357	4,569	6.3%	7.3%	24.7%	30.8%
22 MONMOUTH	474	3,093	3,265	3,286	3,819	4,008	5.6%	6.3%	23.5%	29.6%
23 OCEAN	390	1,206	1,291	1,327	1,543	1,541	7.1%	10.1%	27.9%	27.8%
24 HUNTERDON	117	703	767	772	898	947	9.1%	9.9%	27.7%	34.7%
25 WARREN	86	366	386	386	449	467	5.3%	5.3%	22.5%	27.4%
26 SUSSEX	102	676	725	731	849	897	7.3%	8.1%	25.5%	32.6%
27 NEW HAVEN	157	1,269	1,298	1,316	1,529	1,516	2.3%	3.7%	20.5%	19.5%
28 MERCER	159	917	950	963	1,120	1,165	3.5%	5.0%	22.1%	27.0%
29 DELAWARE	11	14	14	14	16	19	0.7%	0.7%	17.1%	39.0%
30 SULLIVAN	80	102	105	112	130	151	2.7%	9.6%	27.4%	48.0%
31 ULSTER	203	283	297	301	350	401	5.0%	6.4%	23.9%	41.9%
32 ATLANTIC	331	594	650	653	759	708	9.4%	9.9%	27.7%	19.1%
33 BURLINGTON	123	344	365	367	427	422	6.3%	6.9%	24.2%	22.7%
34 CAMDEN	54	159	161	165	191	187	1.5%	3.8%	20.5%	18.0%
35 CAPE MAY	115	183	194	197	228	210	6.4%	7.6%	24.8%	15.0%
36 CUMBERLAND	30	64	80	81	94	92	24.7%	26.3%	47.0%	43.8%
37 GLOUCESTER	41	79	84	84	98	92	6.1%	6.1%	23.3%	15.8%
38 SALEM	4	5	5	5	6	5	1.5%	1.0%	21.1%	0.9%
39 LITCHFIELD	44	256	267	270	314	315	4.2%	5.6%	22.7%	23.0%
40 BERKS	98	129	133	135	157	149	2.8%	4.3%	21.3%	15.1%
41 BUCKS	148	377	396	399	464	465	4.8%	5.8%	22.9%	23.2%
42 CARBON	23	29	30	31	36	33	3.7%	4.2%	22.6%	12.4%
43 COLUMBIA	6	6	6	6	7	6	2.5%	2.5%	19.8%	2.7%
44 LACKAWANNA	19	53	55	59	69	68	2.5%	10.9%	29.4%	27.5%
45 LEHIGH	388	570	596	596	692	675	4.5%	4.5%	21.5%	18.5%
46 LUZERNE	26	48	48	48	56	55	-0.4%	0.8%	16.5%	14.4%
47 MONROE	117	246	280	280	325	327	13.5%	13.5%	31.9%	32.7%
48 MONTGOMERY	86	209	215	218	253	252	2.9%	4.3%	21.2%	20.7%
49 NORTHAMPTON	319	483	508	508	591	578	5.3%	5.3%	22.4%	19.7%
50 NORTHUMBERLAND	7	24	24	24	28	28	-0.7%	-1.0%	14.4%	14.4%
51 PIKE	27	110	125	129	150	159	13.4%	17.7%	36.5%	44.7%
52 SCHUYLKILL	36	69	69	70	82	80	0.7%	2.4%	19.7%	16.7%
53 SUSQUEHANNA	6	12	13	13	15	15	2.8%	2.7%	21.5%	21.5%
54 WYOMING	5	21	21	21	24	24	0.4%	0.4%	16.1%	16.1%
999 OUT SIDE AREA										
Total	19,128	123,929	127,486	128,551	149,400	149,399	2.9%	3.7%	17.2%	20.6%

Forecasts: Origin County to Airports

| Year 2010 | Average Daily | Level 4: With Control to Task B Enplanments - Airport Specific |

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	24,852	17,601	7,254	2	187	24	0	0	0	**49,920**
2 QUEENS	5,212	3,255	267	1	31	6	0	0	0	**8,772**
3 BRONX	1,429	1,374	117	0	15	9	0	0	0	**2,944**
4 KINGS	5,226	2,784	517	1	59	2	0	0	0	**8,589**
5 RICHMOND	433	113	744	0	3	0	0	0	0	**1,293**
6 NASSAU	5,257	2,660	121	0	439	0	0	0	0	**8,477**
7 SUFFOLK	3,540	1,884	133	0	2,505	3	0	1	0	**8,066**
8 WESTCHESTER	2,739	2,062	503	15	21	698	0	0	0	**6,038**
9 ROCKLAND	382	355	748	19	6	28	0	0	0	**1,538**
10 PUTNAM	183	257	89	15	0	47	0	0	0	**591**
11 ORANGE	270	242	484	363	0	27	0	0	0	**1,386**
12 DUTCHESS	394	299	103	293	6	68	0	0	0	**1,163**
13 FAIRFIELD	2,607	1,889	404	8	9	703	0	0	0	**5,620**
14 BERGEN	952	808	4,120	4	6	12	3	0	0	**5,905**
15 PASSAIC	143	116	1,363	1	6	0	0	1	0	**1,630**
16 HUDSON	517	381	2,923	0	9	2	1	0	0	**3,833**
17 ESSEX	293	159	3,292	2	0	0	0	0	0	**3,746**
18 UNION	217	105	2,267	0	3	0	1	0	0	**2,593**
19 MORRIS	260	167	3,837	1	3	0	3	9	0	**4,280**
20 SOMERSET	141	46	2,187	0	0	0	3	8	1	**2,386**
21 MIDDLESEX	607	124	3,794	0	3	0	37	2	3	**4,570**
22 MONMOUTH	290	37	3,538	0	6	0	132	0	4	**4,007**
23 OCEAN	87	47	1,019	0	0	0	387	0	1	**1,541**
24 HUNTERDON	25	0	885	1	0	0	7	26	4	**948**
25 WARREN	24	9	383	0	0	0	1	50	0	**467**
26 SUSSEX	87	28	764	15	0	0	0	5	0	**899**
27 NEW HAVEN	1,084	315	82	1	0	33	0	0	0	**1,515**
28 MERCER	132	38	935	0	6	0	26	2	25	**1,164**
29 DELAWARE	0	0	10	8	0	2	0	0	0	**20**
30 SULLIVAN	39	9	33	62	4	3	0	1	0	**151**
31 ULSTER	130	47	52	164	0	8	0	0	0	**401**
32 ATLANTIC	23	28	241	0	0	0	415	1	0	**708**
33 BURLINGTON	37	9	251	0	0	0	122	0	4	**423**
34 CAMDEN	69	0	63	0	0	0	54	0	0	**186**
35 CAPE MAY	0	0	64	0	0	0	146	0	0	**210**
36 CUMBERLAND	0	0	57	0	0	0	35	0	0	**92**
37 GLOUCESTER	12	0	32	0	0	0	48	0	0	**92**
38 SALEM	0	0	0	0	0	0	5	0	0	**5**
39 LITCHFIELD	156	81	53	4	0	21	0	0	0	**315**
40 BERKS	34	0	10	0	0	0	3	102	0	**149**
41 BUCKS	99	9	236	0	0	0	12	75	34	**465**
42 CARBON	0	9	0	0	0	0	0	24	0	**33**
43 COLUMBIA	0	0	0	0	0	0	0	6	0	**6**
44 LACKAWANNA	0	19	33	0	0	0	0	15	0	**67**
45 LEHIGH	24	0	257	0	0	0	0	394	0	**675**
46 LUZERNE	11	0	19	0	0	0	0	25	0	**55**
47 MONROE	0	10	202	0	0	0	0	115	0	**327**
48 MONTGOMERY	71	0	103	0	0	0	17	55	5	**251**
49 NORTHAMPTON	36	0	217	1	0	0	0	322	1	**577**
50 NORTHUMBERLAND	23	0	0	0	0	0	0	5	0	**28**
51 PIKE	25	0	117	8	0	0	0	9	0	**159**
52 SCHUYLKILL	35	0	11	0	0	0	0	34	0	**80**
53 SUSQUEHANNA	0	0	10	1	0	0	0	4	0	**15**
54 WYOMING	11	0	10	0	0	0	0	3	0	**24**
	58,218	**37,376**	**44,954**	**990**	**3,327**	**1,696**	**1,458**	**1,294**	**82**	**149,395**

Forecasts: Origin County to Airports

Year 2010　　　**Annual (in 000's)**　　Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	9,071.0	6,424.4	2,647.7	0.7	68.3	8.8	0.0	0.0	0.0	18,221
2 QUEENS	1,902.4	1,188.1	97.5	0.4	11.3	2.2	0.0	0.0	0.0	3,202
3 BRONX	521.6	501.5	42.7	0.0	5.5	3.3	0.0	0.0	0.0	1,075
4 KINGS	1,907.5	1,016.2	188.7	0.4	21.5	0.7	0.0	0.0	0.0	3,135
5 RICHMOND	158.0	41.2	271.6	0.0	1.1	0.0	0.0	0.0	0.0	472
6 NASSAU	1,918.8	970.9	44.2	0.0	160.2	0.0	0.0	0.0	0.0	3,094
7 SUFFOLK	1,292.1	687.7	48.5	0.0	914.3	1.1	0.0	0.4	0.0	2,944
8 WESTCHESTER	999.7	752.6	183.6	5.5	7.7	254.8	0.0	0.0	0.0	2,204
9 ROCKLAND	139.4	129.6	273.0	6.9	2.2	10.2	0.0	0.0	0.0	561
10 PUTNAM	66.8	93.8	32.5	5.5	0.0	17.2	0.0	0.0	0.0	216
11 ORANGE	98.6	88.3	176.7	132.5	0.0	9.9	0.0	0.0	0.0	506
12 DUTCHESS	143.8	109.1	37.6	106.9	2.2	24.8	0.0	0.0	0.0	424
13 FAIRFIELD	951.6	689.5	147.5	2.9	3.3	256.6	0.0	0.0	0.0	2,051
14 BERGEN	347.5	294.9	1,503.8	1.5	2.2	4.4	1.1	0.0	0.0	2,155
15 PASSAIC	52.2	42.3	497.5	0.4	2.2	0.0	0.0	0.4	0.0	595
16 HUDSON	188.7	139.1	1,066.9	0.0	3.3	0.7	0.4	0.0	0.0	1,399
17 ESSEX	106.9	58.0	1,201.6	0.7	0.0	0.0	0.0	0.0	0.0	1,367
18 UNION	79.2	38.3	827.5	0.0	1.1	0.0	0.4	0.0	0.0	946
19 MORRIS	94.9	61.0	1,400.5	0.4	1.1	0.0	1.1	3.3	0.0	1,562
20 SOMERSET	51.5	16.8	798.3	0.0	0.0	0.0	1.1	2.9	0.4	871
21 MIDDLESEX	221.6	45.3	1,384.8	0.0	1.1	0.0	13.5	0.7	1.1	1,668
22 MONMOUTH	105.9	13.5	1,291.4	0.0	2.2	0.0	48.2	0.0	1.5	1,463
23 OCEAN	31.8	17.2	371.9	0.0	0.0	0.0	141.3	0.0	0.4	562
24 HUNTERDON	9.1	0.0	323.0	0.4	0.0	0.0	2.6	9.5	1.5	346
25 WARREN	8.8	3.3	139.8	0.0	0.0	0.0	0.4	18.3	0.0	170
26 SUSSEX	31.8	10.2	278.9	5.5	0.0	0.0	0.0	1.8	0.0	328
27 NEW HAVEN	395.7	115.0	29.9	0.4	0.0	12.0	0.0	0.0	0.0	553
28 MERCER	48.2	13.9	341.3	0.0	2.2	0.0	9.5	0.7	9.1	425
29 DELAWARE	0.0	0.0	3.7	2.9	0.0	0.7	0.0	0.0	0.0	7
30 SULLIVAN	14.2	3.3	12.0	22.6	1.5	1.1	0.0	0.4	0.0	55
31 ULSTER	47.5	17.2	19.0	59.9	0.0	2.9	0.0	0.0	0.0	146
32 ATLANTIC	8.4	10.2	88.0	0.0	0.0	0.0	151.5	0.4	0.0	258
33 BURLINGTON	13.5	3.3	91.6	0.0	0.0	0.0	44.5	0.0	1.5	154
34 CAMDEN	25.2	0.0	23.0	0.0	0.0	0.0	19.7	0.0	0.0	68
35 CAPE MAY	0.0	0.0	23.4	0.0	0.0	0.0	53.3	0.0	0.0	77
36 CUMBERLAND	0.0	0.0	20.8	0.0	0.0	0.0	12.8	0.0	0.0	34
37 GLOUCESTER	4.4	0.0	11.7	0.0	0.0	0.0	17.5	0.0	0.0	34
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2
39 LITCHFIELD	56.9	29.6	19.3	1.5	0.0	7.7	0.0	0.0	0.0	115
40 BERKS	12.4	0.0	3.7	0.0	0.0	0.0	1.1	37.2	0.0	54
41 BUCKS	36.1	3.3	86.1	0.0	0.0	0.0	4.4	27.4	12.4	170
42 CARBON	0.0	3.3	0.0	0.0	0.0	0.0	0.0	8.8	0.0	12
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2
44 LACKAWANNA	0.0	6.9	12.0	0.0	0.0	0.0	0.0	5.5	0.0	24
45 LEHIGH	8.8	0.0	93.8	0.0	0.0	0.0	0.0	143.8	0.0	246
46 LUZERNE	4.0	0.0	6.9	0.0	0.0	0.0	0.0	9.1	0.0	20
47 MONROE	0.0	3.7	73.7	0.0	0.0	0.0	0.0	42.0	0.0	119
48 MONTGOMERY	25.9	0.0	37.6	0.0	0.0	0.0	6.2	20.1	1.8	92
49 NORTHAMPTON	13.1	0.0	79.2	0.4	0.0	0.0	0.0	117.5	0.4	211
50 NORTHUMBERLAND	8.4	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	10
51 PIKE	9.1	0.0	42.7	2.9	0.0	0.0	0.0	3.3	0.0	58
52 SCHUYLKILL	12.8	0.0	4.0	0.0	0.0	0.0	0.0	12.4	0.0	29
53 SUSQUEHANNA	0.0	0.0	3.7	0.4	0.0	0.0	0.0	1.5	0.0	5
54 WYOMING	4.0	0.0	3.7	0.0	0.0	0.0	0.0	1.1	0.0	9
	21,250	13,642	16,408	361	1,214	619	532	472	30	54,529

Task C: Origin Productions   **PANYNJ and Other Airports**
Year 2015   Forecasts

Airport - Chosen

Airport - Chosen	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4	Task B Enplanement Forecasts 2,015	Growth over '05	Diff. Level 3	Level 4 Scaling
1 JFK	4,962	48,660	50,904	51,513	61,599	61,784	4.6%	5.9%	26.6%	27.0%	61,784	27.0%	-185	1.0030
2 LGA	4,210	33,433	34,908	35,614	42,587	39,415	4.4%	6.5%	27.4%	17.9%	39,415	17.9%	3,172	0.9255
3 EWR	4,352	34,564	37,511	38,255	45,746	48,825	8.5%	10.7%	32.4%	41.3%	48,825	41.3%	-3,079	1.0673
4 SWF	1,082	546	609	622	743	1,078	11.4%	13.8%	36.0%	97.3%	1,077	97.1%	-334	1.4495
5 ISP	1,089	2,892	3,097	3,112	3,722	3,612	7.1%	7.6%	28.7%	24.9%	3,612	24.9%	110	0.9705
6 HPN	1,085	1,278	1,367	1,398	1,672	1,746	7.0%	9.4%	30.8%	36.6%	1,745	36.6%	-73	1.0439
7 ACY	1,081	1,339	1,516	1,549	1,852	1,565	13.2%	15.7%	38.4%	16.9%	1,564	16.9%	288	0.8447
8 ABE	1,174	1,143	1,259	1,299	1,554	1,466	10.1%	13.7%	35.9%	28.2%	1,466	28.2%	88	0.9432
9 TTN	93	74	81	87	104	91	9.6%	18.1%	40.6%	23.0%	90	21.9%	14	0.8667
Total	19,128	123,929	131,251	133,450	159,579	159,580	5.9%	7.7%	28.8%	28.8%	159,579	28.8%	0	

1.19580
Level 3 Scaling

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Airport Group - Chosen

Airport Group - Chosen	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	50,904	51,513	61,599	61,784	4.6%	5.9%	26.6%	27.0%
2 LGA	4,210	33,433	34,908	35,614	42,587	39,415	4.4%	6.5%	27.4%	17.9%
3 EWR	4,352	34,564	37,511	38,255	45,746	48,825	8.5%	10.7%	32.4%	41.3%
4 NYSDOT	3,256	4,716	5,073	5,132	6,137	6,445	7.6%	8.8%	30.1%	36.4%
5 DVRPC	2,348	2,556	2,856	2,936	3,511	3,121	11.7%	14.9%	37.4%	22.1%
Total	19,128	123,929	131,251	133,450	159,579	159,580	5.9%	7.7%	28.8%	28.8%

1

Trip Type / Market

Trip Type / Market	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	18,604	19,851	23,738	23,823	5.8%	12.9%	35.0%	35.5%
2 Resident-Other	6,985	44,744	47,181	48,132	57,556	57,531	5.4%	7.6%	28.6%	28.6%
3 Non Resident-Business	2,904	20,389	21,911	21,911	26,201	26,211	7.5%	7.5%	28.5%	28.6%
4 Non Resident-Other	6,340	41,216	43,556	43,556	52,084	52,015	5.7%	5.7%	26.4%	26.2%
Total	19,128	123,929	131,251	133,450	159,579	159,580	5.9%	7.7%	28.8%	28.8%

OCO_ID Origin County

Year 2015	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	43,915	44,291	52,963	52,049	2.0%	2.9%	23.1%	20.9%
2 QUEENS	840	7,402	7,968	8,089	9,672	9,425	7.6%	9.3%	30.7%	27.3%
3 BRONX	295	2,500	2,663	2,768	3,310	3,203	6.5%	10.7%	32.4%	28.1%
4 KINGS	810	7,129	7,645	7,961	9,520	9,329	7.2%	11.7%	33.5%	30.9%
5 RICHMOND	117	989	1,148	1,190	1,423	1,467	16.0%	20.3%	43.9%	48.3%
6 NASSAU	915	7,341	7,556	7,632	9,126	8,912	2.9%	4.0%	24.3%	21.4%
7 SUFFOLK	1,340	6,864	7,397	7,483	8,948	8,723	7.8%	9.0%	30.4%	27.1%
8 WESTCHESTER	988	5,067	5,327	5,408	6,467	6,369	5.1%	6.7%	27.6%	25.7%
9 ROCKLAND	184	1,232	1,341	1,363	1,629	1,658	8.8%	10.6%	32.2%	34.5%
10 PUTNAM	95	467	552	555	664	655	18.1%	18.9%	42.1%	40.2%
11 ORANGE	503	998	1,138	1,170	1,398	1,538	14.0%	17.2%	40.1%	54.1%
12 DUTCHESS	447	886	964	971	1,162	1,244	8.9%	9.7%	31.2%	40.5%
13 FAIRFIELD	925	4,648	4,943	5,067	6,059	5,966	6.3%	9.0%	30.4%	28.4%
14 BERGEN	597	4,779	5,017	5,104	6,104	6,317	5.0%	6.8%	27.7%	32.2%
15 PASSAIC	163	1,292	1,353	1,391	1,664	1,746	4.7%	7.7%	28.8%	35.1%
16 HUDSON	371	2,997	3,227	3,343	3,998	4,166	7.7%	11.5%	33.4%	39.0%
17 ESSEX	370	2,970	3,090	3,159	3,778	3,988	4.0%	6.4%	27.2%	34.3%
18 UNION	260	2,088	2,118	2,155	2,576	2,718	1.4%	3.2%	23.4%	30.2%
19 MORRIS	419	3,287	3,672	3,704	4,429	4,680	11.7%	12.7%	34.7%	42.4%
20 SOMERSET	228	1,762	2,101	2,125	2,541	2,691	19.2%	20.6%	44.2%	52.7%
21 MIDDLESEX	457	3,494	3,945	4,001	4,785	5,032	12.9%	14.5%	36.9%	44.0%
22 MONMOUTH	474	3,093	3,444	3,489	4,173	4,388	11.4%	12.8%	34.9%	41.9%
23 OCEAN	390	1,206	1,380	1,418	1,696	1,687	14.4%	17.6%	40.6%	39.9%
24 HUNTERDON	117	703	832	850	1,016	1,076	18.4%	20.8%	44.5%	53.0%
25 WARREN	86	366	407	417	499	522	11.0%	13.8%	36.2%	42.4%
26 SUSSEX	102	676	777	788	942	998	14.8%	16.5%	39.3%	47.6%
27 NEW HAVEN	157	1,269	1,329	1,367	1,635	1,619	4.7%	7.7%	28.8%	27.6%
28 MERCER	159	917	984	1,026	1,227	1,279	7.3%	11.9%	33.7%	39.4%
29 DELAWARE	11	14	14	15	18	21	1.7%	7.9%	31.7%	53.7%
30 SULLIVAN	80	102	108	123	147	169	5.6%	20.3%	44.1%	65.7%
31 ULSTER	203	283	312	320	383	440	10.2%	13.3%	35.5%	55.7%
32 ATLANTIC	331	594	707	712	852	783	18.9%	19.9%	43.4%	31.7%
33 BURLINGTON	123	344	388	393	470	461	12.8%	14.2%	36.7%	34.1%
34 CAMDEN	54	159	164	170	203	198	3.2%	7.3%	28.1%	24.9%
35 CAPE MAY	115	183	207	211	253	228	13.1%	15.7%	38.5%	24.8%
36 CUMBERLAND	30	64	96	97	116	114	49.4%	51.0%	81.4%	78.2%
37 GLOUCESTER	41	79	89	88	105	98	12.3%	10.9%	32.2%	23.3%
38 SALEM	4	5	5	5	6	5	3.3%	2.6%	21.1%	0.9%
39 LITCHFIELD	44	256	278	285	341	341	8.7%	11.5%	33.2%	33.2%
40 BERKS	98	129	137	141	169	163	5.9%	9.3%	30.6%	25.9%
41 BUCKS	148	377	415	422	505	508	9.9%	11.9%	33.8%	34.6%
42 CARBON	23	29	32	32	38	36	7.8%	8.6%	29.4%	22.6%
43 COLUMBIA	6	6	6	6	7	7	5.2%	4.5%	19.8%	19.8%
44 LACKAWANNA	19	53	56	65	78	77	5.3%	21.7%	46.2%	44.4%
45 LEHIGH	388	570	622	640	765	757	9.3%	12.4%	34.3%	32.9%
46 LUZERNE	26	48	48	50	59	59	-0.5%	3.2%	22.7%	22.7%
47 MONROE	117	246	314	323	386	392	27.3%	31.1%	56.7%	59.1%
48 MONTGOMERY	86	209	222	230	275	275	6.1%	10.2%	31.7%	31.7%
49 NORTHAMPTON	319	483	535	554	663	656	10.8%	14.8%	37.3%	35.9%
50 NORTHUMBERLAND	7	24	24	24	29	29	-1.0%	-1.3%	18.5%	18.5%
51 PIKE	27	110	140	151	180	192	27.8%	37.2%	63.8%	74.7%
52 SCHUYLKILL	36	69	69	71	84	83	1.4%	3.1%	22.6%	21.1%
53 SUSQUEHANNA	6	12	13	13	16	16	5.9%	5.7%	29.6%	29.6%
54 WYOMING	5	21	21	22	27	27	1.2%	8.4%	30.6%	30.6%
999 OUT SIDE AREA										
Total	19,128	123,929	131,251	133,450	159,579	159,580	5.9%	7.7%	21.6%	28.8%

Year 2015 **Average Daily**

Forecasts: Origin County to Airports

Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	25,978	18,241	7,607	2	198	24	0	0	0	52,050
2 QUEENS	5,598	3,498	288	1	33	6	0	0	0	9,424
3 BRONX	1,557	1,488	133	0	16	10	0	0	0	3,204
4 KINGS	5,675	3,014	573	1	65	2	0	0	0	9,330
5 RICHMOND	487	128	849	0	4	0	0	0	0	1,468
6 NASSAU	5,525	2,790	130	0	468	0	0	0	0	8,913
7 SUFFOLK	3,818	2,023	146	0	2,731	3	0	1	0	8,722
8 WESTCHESTER	2,907	2,171	539	16	23	714	0	0	0	6,370
9 ROCKLAND	411	380	812	20	6	29	0	0	0	1,658
10 PUTNAM	203	286	100	16	0	50	0	0	0	655
11 ORANGE	299	266	543	400	0	29	0	0	0	1,537
12 DUTCHESS	424	319	111	314	7	70	0	0	0	1,245
13 FAIRFIELD	2,784	2,007	433	8	10	723	0	0	0	5,965
14 BERGEN	999	867	4,424	5	7	13	3	0	0	6,318
15 PASSAIC	154	123	1,460	1	6	0	0	1	0	1,745
16 HUDSON	560	416	3,177	0	9	2	1	0	0	4,165
17 ESSEX	310	166	3,509	2	0	0	0	0	0	3,987
18 UNION	223	109	2,382	0	3	0	1	0	0	2,718
19 MORRIS	281	181	4,200	1	4	0	3	10	0	4,680
20 SOMERSET	160	51	2,467	0	0	0	3	9	1	2,691
21 MIDDLESEX	664	137	4,183	0	3	0	39	2	3	5,031
22 MONMOUTH	317	40	3,879	0	7	0	140	0	5	4,388
23 OCEAN	95	51	1,124	0	0	0	414	0	1	1,685
24 HUNTERDON	27	0	1,006	1	0	0	7	30	4	1,075
25 WARREN	26	9	430	0	0	0	1	55	0	521
26 SUSSEX	96	30	851	16	0	0	0	5	0	998
27 NEW HAVEN	1,156	337	89	1	0	35	0	0	0	1,618
28 MERCER	146	45	1,023	0	8	0	27	2	29	1,280
29 DELAWARE	0	0	11	8	0	2	0	0	0	21
30 SULLIVAN	45	9	38	67	5	3	0	2	0	169
31 ULSTER	140	52	57	183	0	8	0	0	0	440
32 ATLANTIC	24	31	274	0	0	0	454	1	0	784
33 BURLINGTON	41	9	275	0	0	0	132	0	4	461
34 CAMDEN	72	0	69	0	0	0	56	0	0	197
35 CAPE MAY	0	0	72	0	0	0	157	0	0	229
36 CUMBERLAND	0	0	78	0	0	0	36	0	0	114
37 GLOUCESTER	12	0	35	0	0	0	51	0	0	98
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	169	87	59	4	0	22	0	0	0	341
40 BERKS	35	0	11	0	0	0	3	113	0	162
41 BUCKS	110	10	254	0	0	0	12	84	37	507
42 CARBON	0	8	0	0	0	0	0	28	0	36
43 COLUMBIA	0	0	0	0	0	0	0	7	0	7
44 LACKAWANNA	0	21	39	0	0	0	0	17	0	77
45 LEHIGH	26	0	286	0	0	0	0	445	0	757
46 LUZERNE	12	0	19	0	0	0	0	28	0	59
47 MONROE	0	13	242	0	0	0	0	137	0	392
48 MONTGOMERY	76	0	115	0	0	0	18	60	6	275
49 NORTHAMPTON	39	0	248	1	0	0	0	367	1	656
50 NORTHUMBERLAND	23	0	0	0	0	0	0	6	0	29
51 PIKE	29	0	143	10	0	0	0	10	0	192
52 SCHUYLKILL	36	0	13	0	0	0	0	35	0	84
53 SUSQUEHANNA	0	0	11	1	0	0	0	5	0	17
54 WYOMING	14	0	10	0	0	0	0	3	0	27
	61,783	39,413	48,827	1,079	3,613	1,745	1,563	1,463	91	159,577

Year 2015 **Annual (in 000's)** Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	9,482.0	6,658.0	2,776.6	0.7	72.3	8.8	0.0	0.0	0.0	**18,998**
2 QUEENS	2,043.3	1,276.8	105.1	0.4	12.0	2.2	0.0	0.0	0.0	**3,440**
3 BRONX	568.3	543.1	48.5	0.0	5.8	3.7	0.0	0.0	0.0	**1,169**
4 KINGS	2,071.4	1,100.1	209.1	0.4	23.7	0.7	0.0	0.0	0.0	**3,405**
5 RICHMOND	177.8	46.7	309.9	0.0	1.5	0.0	0.0	0.0	0.0	**536**
6 NASSAU	2,016.6	1,018.4	47.5	0.0	170.8	0.0	0.0	0.0	0.0	**3,253**
7 SUFFOLK	1,393.6	738.4	53.3	0.0	996.8	1.1	0.0	0.4	0.0	**3,184**
8 WESTCHESTER	1,061.1	792.4	196.7	5.8	8.4	260.6	0.0	0.0	0.0	**2,325**
9 ROCKLAND	150.0	138.7	296.4	7.3	2.2	10.6	0.0	0.0	0.0	**605**
10 PUTNAM	74.1	104.4	36.5	5.8	0.0	18.3	0.0	0.0	0.0	**239**
11 ORANGE	109.1	97.1	198.2	146.0	0.0	10.6	0.0	0.0	0.0	**561**
12 DUTCHESS	154.8	116.4	40.5	114.6	2.6	25.6	0.0	0.0	0.0	**454**
13 FAIRFIELD	1,016.2	732.6	158.0	2.9	3.7	263.9	0.0	0.0	0.0	**2,177**
14 BERGEN	364.6	316.5	1,614.8	1.8	2.6	4.7	1.1	0.0	0.0	**2,306**
15 PASSAIC	56.2	44.9	532.9	0.4	2.2	0.0	0.0	0.4	0.0	**637**
16 HUDSON	204.4	151.8	1,159.6	0.0	3.3	0.7	0.4	0.0	0.0	**1,520**
17 ESSEX	113.2	60.6	1,280.8	0.7	0.0	0.0	0.0	0.0	0.0	**1,455**
18 UNION	81.4	39.8	869.4	0.0	1.1	0.0	0.4	0.0	0.0	**992**
19 MORRIS	102.6	66.1	1,533.0	0.4	1.5	0.0	1.1	3.7	0.0	**1,708**
20 SOMERSET	58.4	18.6	900.5	0.0	0.0	0.0	1.1	3.3	0.4	**982**
21 MIDDLESEX	242.4	50.0	1,526.8	0.0	1.1	0.0	14.2	0.7	1.1	**1,836**
22 MONMOUTH	115.7	14.6	1,415.8	0.0	2.6	0.0	51.1	0.0	1.8	**1,602**
23 OCEAN	34.7	18.6	410.3	0.0	0.0	0.0	151.1	0.0	0.4	**615**
24 HUNTERDON	9.9	0.0	367.2	0.4	0.0	0.0	2.6	11.0	1.5	**392**
25 WARREN	9.5	3.3	157.0	0.0	0.0	0.0	0.4	20.1	0.0	**190**
26 SUSSEX	35.0	11.0	310.6	5.8	0.0	0.0	0.0	1.8	0.0	**364**
27 NEW HAVEN	421.9	123.0	32.5	0.4	0.0	12.8	0.0	0.0	0.0	**591**
28 MERCER	53.3	16.4	373.4	0.0	2.9	0.0	9.9	0.7	10.6	**467**
29 DELAWARE	0.0	0.0	4.0	2.9	0.0	0.7	0.0	0.0	0.0	**8**
30 SULLIVAN	16.4	3.3	13.9	24.5	1.8	1.1	0.0	0.7	0.0	**62**
31 ULSTER	51.1	19.0	20.8	66.8	0.0	2.9	0.0	0.0	0.0	**161**
32 ATLANTIC	8.8	11.3	100.0	0.0	0.0	0.0	165.7	0.4	0.0	**286**
33 BURLINGTON	15.0	3.3	100.4	0.0	0.0	0.0	48.2	0.0	1.5	**168**
34 CAMDEN	26.3	0.0	25.2	0.0	0.0	0.0	20.4	0.0	0.0	**72**
35 CAPE MAY	0.0	0.0	26.3	0.0	0.0	0.0	57.3	0.0	0.0	**84**
36 CUMBERLAND	0.0	0.0	28.5	0.0	0.0	0.0	13.1	0.0	0.0	**42**
37 GLOUCESTER	4.4	0.0	12.8	0.0	0.0	0.0	18.6	0.0	0.0	**36**
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	**2**
39 LITCHFIELD	61.7	31.8	21.5	1.5	0.0	8.0	0.0	0.0	0.0	**124**
40 BERKS	12.8	0.0	4.0	0.0	0.0	0.0	1.1	41.2	0.0	**59**
41 BUCKS	40.2	3.7	92.7	0.0	0.0	0.0	4.4	30.7	13.5	**185**
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	10.2	0.0	**13**
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	**3**
44 LACKAWANNA	0.0	7.7	14.2	0.0	0.0	0.0	0.0	6.2	0.0	**28**
45 LEHIGH	9.5	0.0	104.4	0.0	0.0	0.0	0.0	162.4	0.0	**276**
46 LUZERNE	4.4	0.0	6.9	0.0	0.0	0.0	0.0	10.2	0.0	**22**
47 MONROE	0.0	4.7	88.3	0.0	0.0	0.0	0.0	50.0	0.0	**143**
48 MONTGOMERY	27.7	0.0	42.0	0.0	0.0	0.0	6.6	21.9	2.2	**100**
49 NORTHAMPTON	14.2	0.0	90.5	0.4	0.0	0.0	0.0	134.0	0.4	**239**
50 NORTHUMBERLAND	8.4	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	**11**
51 PIKE	10.6	0.0	52.2	3.7	0.0	0.0	0.0	3.7	0.0	**70**
52 SCHUYLKILL	13.1	0.0	4.7	0.0	0.0	0.0	0.0	12.8	0.0	**31**
53 SUSQUEHANNA	0.0	0.0	4.0	0.4	0.0	0.0	0.0	1.8	0.0	**6**
54 WYOMING	5.1	0.0	3.7	0.0	0.0	0.0	0.0	1.1	0.0	**10**
	22,551	14,386	17,822	394	1,319	637	570	534	33	58,246

1_PB_Task_C1_Forecast_Summary_061218_PA.xls 2015

Task C: Origin Productions — PANYNJ and Other Airports
Year 2020 — Forecasts

Airport - Chosen

	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4	Task B 2,020	Growth over '05	Diff. Level 3	Level 4 Scaling
1 JFK	4,962	48,660	52,114	53,019	65,646	66,073	7.1%	9.0%	34.9%	35.8%	66,073	35.8%	-427	1.0065
2 LGA	4,210	33,433	35,706	36,741	45,492	41,630	6.8%	9.9%	36.1%	24.5%	41,631	24.5%	3,861	0.9151
3 EWR	4,352	34,564	39,059	40,230	49,812	53,443	13.0%	16.4%	44.1%	54.6%	53,444	54.6%	-3,632	1.0729
4 SWF	1,082	546	641	659	816	1,174	17.3%	20.6%	49.3%	114.9%	1,174	114.9%	-358	1.4390
5 ISP	1,089	2,892	3,206	3,227	3,996	3,922	10.9%	11.6%	38.2%	35.6%	3,922	35.6%	74	0.9814
6 HPN	1,085	1,278	1,415	1,458	1,805	1,777	10.7%	14.1%	41.2%	39.1%	1,777	39.1%	28	0.9845
7 ACY	1,081	1,339	1,607	1,655	2,049	1,679	20.1%	23.6%	53.1%	25.4%	1,679	25.5%	370	0.8196
8 ABE	1,174	1,143	1,320	1,395	1,727	1,658	15.5%	22.0%	51.1%	45.0%	1,658	45.0%	69	0.9598
9 TTN	93	74	85	94	117	100	14.6%	27.5%	58.2%	35.2%	100	34.8%	17	0.8524
Total	19,128	123,929	135,152	138,477	171,460	171,455	9.1%	11.7%	38.4%	38.3%	171,458	38.4%	2	

1.23817 Level 3 Scaling

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Airport Group - Chosen

	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	52,114	53,019	65,646	66,073	7.1%	9.0%	34.9%	35.8%
2 LGA	4,210	33,433	35,706	36,741	45,492	41,630	6.8%	9.9%	36.1%	24.5%
3 EWR	4,352	34,564	39,059	40,230	49,812	53,443	13.0%	16.4%	44.1%	54.6%
4 NYSDOT	3,256	4,716	5,262	5,344	6,616	6,872	11.6%	13.3%	40.3%	45.7%
5 DVRPC	2,348	2,556	3,012	3,144	3,893	3,436	17.8%	23.0%	52.3%	34.4%
Total	19,128	123,929	135,152	138,477	171,458	171,455	9.1%	11.7%	38.4%	38.3%

Trip Type / Market

	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	19,164	21,093	26,117	26,200	9.0%	20.0%	48.6%	49.0%
2 Resident-Other	6,985	44,744	48,537	49,934	61,826	61,804	8.5%	11.6%	38.2%	38.1%
3 Non Resident-Business	2,904	20,389	22,674	22,674	28,074	28,080	11.2%	11.2%	37.7%	37.7%
4 Non Resident-Other	6,340	41,216	44,776	44,776	55,440	55,371	8.6%	8.6%	34.5%	34.3%
Total	19,128	123,929	135,152	138,477	171,458	171,455	9.1%	11.7%	38.4%	38.3%

OCO_ID Origin County
Year 2020

	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	44,402	44,993	55,709	54,671	3.2%	4.5%	29.4%	27.0%
2 QUEENS	840	7,402	8,261	8,439	10,449	10,160	11.6%	14.0%	41.2%	37.3%
3 BRONX	295	2,500	2,751	2,859	3,540	3,414	10.0%	14.4%	41.6%	36.6%
4 KINGS	810	7,129	7,916	8,431	10,439	10,218	11.0%	18.3%	46.4%	43.3%
5 RICHMOND	117	989	1,230	1,285	1,591	1,646	24.4%	29.9%	60.8%	66.4%
6 NASSAU	915	7,341	7,682	7,773	9,625	9,392	4.6%	5.9%	31.1%	27.9%
7 SUFFOLK	1,340	6,864	7,682	7,797	9,654	9,434	11.9%	13.6%	40.7%	37.5%
8 WESTCHESTER	988	5,067	5,470	5,582	6,911	6,751	8.0%	10.2%	36.4%	33.2%
9 ROCKLAND	184	1,232	1,399	1,439	1,782	1,813	13.5%	16.8%	44.6%	47.1%
10 PUTNAM	95	467	596	600	743	727	27.5%	28.4%	59.0%	55.6%
11 ORANGE	503	998	1,210	1,260	1,560	1,711	21.2%	26.2%	56.3%	71.4%
12 DUTCHESS	447	886	1,006	1,021	1,264	1,346	13.6%	15.3%	42.7%	52.0%
13 FAIRFIELD	925	4,648	5,103	5,264	6,517	6,361	9.8%	13.2%	40.2%	36.8%
14 BERGEN	597	4,779	5,147	5,297	6,558	6,804	7.7%	10.8%	37.2%	42.4%
15 PASSAIC	163	1,292	1,387	1,442	1,786	1,882	7.4%	11.7%	38.2%	45.7%
16 HUDSON	371	2,997	3,347	3,530	4,370	4,568	11.7%	17.8%	45.8%	52.4%
17 ESSEX	370	2,970	3,157	3,251	4,025	4,267	6.3%	9.4%	35.5%	43.7%
18 UNION	260	2,088	2,137	2,198	2,722	2,884	2.3%	5.3%	30.3%	38.1%
19 MORRIS	419	3,287	3,872	3,913	4,845	5,142	17.8%	19.1%	47.4%	56.4%
20 SOMERSET	228	1,762	2,276	2,310	2,860	3,044	29.1%	31.1%	62.3%	72.8%
21 MIDDLESEX	457	3,494	4,179	4,311	5,338	5,637	19.6%	23.4%	52.8%	61.3%
22 MONMOUTH	474	3,093	3,629	3,707	4,590	4,846	17.3%	19.9%	48.4%	56.7%
23 OCEAN	390	1,206	1,470	1,533	1,898	1,880	21.9%	27.1%	57.4%	55.9%
24 HUNTERDON	117	703	899	922	1,142	1,216	27.9%	31.2%	62.4%	72.9%
25 WARREN	86	366	428	439	543	572	16.8%	19.8%	48.2%	56.1%
26 SUSSEX	102	676	830	849	1,051	1,118	22.7%	25.5%	55.4%	65.3%
27 NEW HAVEN	157	1,269	1,362	1,418	1,756	1,737	7.4%	11.8%	38.4%	36.9%
28 MERCER	159	917	1,020	1,074	1,330	1,390	11.2%	17.1%	45.0%	51.5%
29 DELAWARE	11	14	14	17	21	24	2.7%	21.5%	53.7%	75.6%
30 SULLIVAN	80	102	111	134	166	190	8.5%	31.0%	62.7%	86.2%
31 ULSTER	203	283	327	336	416	476	15.7%	18.9%	47.2%	68.5%
32 ATLANTIC	331	594	764	770	953	864	28.6%	29.6%	60.3%	45.4%
33 BURLINGTON	123	344	411	418	517	505	19.5%	21.4%	50.4%	46.9%
34 CAMDEN	54	159	167	176	218	211	5.1%	11.0%	37.5%	33.1%
35 CAPE MAY	115	183	217	224	277	246	18.7%	22.6%	51.7%	34.7%
36 CUMBERLAND	30	64	112	114	141	139	74.9%	78.1%	120.4%	117.3%
37 GLOUCESTER	41	79	94	92	114	105	18.8%	15.8%	43.5%	32.2%
38 SALEM	4	5	5	5	6	5	5.2%	4.2%	21.1%	0.9%
39 LITCHFIELD	44	256	290	301	373	371	13.4%	17.6%	45.7%	44.9%
40 BERKS	98	129	141	148	183	178	9.2%	14.2%	41.4%	37.5%
41 BUCKS	148	377	435	451	558	563	15.1%	19.4%	47.8%	49.2%
42 CARBON	23	29	33	33	41	39	11.4%	13.4%	39.6%	32.8%
43 COLUMBIA	6	6	6	6	8	7	8.2%	7.5%	36.9%	19.8%
44 LACKAWANNA	19	53	58	71	88	88	8.2%	32.6%	65.0%	65.0%
45 LEHIGH	388	570	650	685	848	849	14.1%	20.2%	48.8%	49.0%
46 LUZERNE	26	48	48	51	63	63	-0.5%	5.6%	31.0%	31.0%
47 MONROE	117	246	348	369	457	468	41.3%	49.8%	85.5%	90.0%
48 MONTGOMERY	86	209	229	240	298	299	9.5%	15.2%	42.7%	43.2%
49 NORTHAMPTON	319	483	562	600	742	745	16.4%	24.2%	53.7%	54.3%
50 NORTHUMBERLAND	7	24	24	24	30	30	-1.1%	-2.3%	22.5%	22.5%
51 PIKE	27	110	155	166	206	220	40.9%	51.2%	87.5%	100.2%
52 SCHUYLKILL	36	69	70	75	93	92	1.8%	9.1%	35.7%	34.3%
53 SUSQUEHANNA	6	12	13	13	17	18	9.2%	9.0%	37.7%	45.8%
54 WYOMING	5	21	21	23	28	29	2.1%	9.3%	35.5%	40.3%
999 OUT SIDE AREA										
Total	19,128	123,929	135,152	138,477	171,458	171,455	9.1%	11.7%	26.9%	38.3%

Year 2020 **Average Daily** Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	27,409	18,970	8,058	2	209	23	0	0	0	54,671
2 QUEENS	6,047	3,756	314	1	36	6	0	0	0	10,160
3 BRONX	1,671	1,572	144	0	17	10	0	0	0	3,414
4 KINGS	6,227	3,274	641	1	71	3	0	0	0	10,217
5 RICHMOND	545	141	957	0	4	0	0	0	0	1,647
6 NASSAU	5,839	2,915	138	0	500	0	0	0	0	9,392
7 SUFFOLK	4,133	2,161	158	0	2,978	3	0	1	0	9,434
8 WESTCHESTER	3,112	2,295	581	17	24	722	0	0	0	6,751
9 ROCKLAND	448	412	896	21	6	29	0	0	0	1,812
10 PUTNAM	226	318	113	18	0	53	0	0	0	728
11 ORANGE	332	294	614	441	0	30	0	0	0	1,711
12 DUTCHESS	461	344	122	340	7	72	0	0	0	1,346
13 FAIRFIELD	2,998	2,139	469	9	11	735	0	0	0	6,361
14 BERGEN	1,054	936	4,785	5	8	14	3	0	0	6,805
15 PASSAIC	167	131	1,575	1	7	0	0	1	0	1,882
16 HUDSON	609	458	3,488	0	10	2	1	0	0	4,568
17 ESSEX	330	175	3,760	2	0	0	0	0	0	4,267
18 UNION	233	114	2,533	0	3	0	1	0	0	2,884
19 MORRIS	307	196	4,619	1	4	0	3	11	0	5,141
20 SOMERSET	182	56	2,791	0	0	0	3	10	1	3,043
21 MIDDLESEX	732	160	4,693	0	4	0	42	3	3	5,637
22 MONMOUTH	350	44	4,290	0	8	0	149	0	5	4,846
23 OCEAN	104	57	1,268	0	0	0	450	0	1	1,880
24 HUNTERDON	30	0	1,137	1	0	0	8	35	4	1,215
25 WARREN	28	10	471	0	0	0	1	61	0	571
26 SUSSEX	109	33	953	17	0	0	0	6	0	1,118
27 NEW HAVEN	1,241	362	97	1	0	37	0	0	0	1,738
28 MERCER	158	49	1,113	0	8	0	28	3	31	1,390
29 DELAWARE	0	0	14	9	0	2	0	0	0	25
30 SULLIVAN	53	10	43	72	6	4	0	2	0	190
31 ULSTER	152	56	63	198	0	8	0	0	0	477
32 ATLANTIC	26	34	312	0	0	0	490	1	0	863
33 BURLINGTON	46	10	303	0	0	0	141	0	5	505
34 CAMDEN	76	0	76	0	0	0	59	0	0	211
35 CAPE MAY	0	0	79	0	0	0	167	0	0	246
36 CUMBERLAND	0	0	101	0	0	0	38	0	0	139
37 GLOUCESTER	13	0	39	0	0	0	53	0	0	105
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	184	93	66	4	0	24	0	0	0	371
40 BERKS	37	0	11	0	0	0	4	126	0	178
41 BUCKS	128	10	275	0	0	0	13	95	42	563
42 CARBON	0	8	0	0	0	0	0	31	0	39
43 COLUMBIA	0	0	0	0	0	0	0	7	0	7
44 LACKAWANNA	0	23	46	0	0	0	0	19	0	88
45 LEHIGH	28	0	320	0	0	0	0	501	0	849
46 LUZERNE	12	0	19	0	0	0	0	32	0	63
47 MONROE	0	16	289	0	0	0	0	163	0	468
48 MONTGOMERY	82	0	126	0	0	0	19	66	6	299
49 NORTHAMPTON	42	0	283	1	0	0	0	418	1	745
50 NORTHUMBERLAND	24	0	0	0	0	0	0	6	0	30
51 PIKE	33	0	164	11	0	0	0	12	0	220
52 SCHUYLKILL	40	0	14	0	0	0	0	38	0	92
53 SUSQUEHANNA	0	0	12	1	0	0	0	5	0	18
54 WYOMING	15	0	10	0	0	0	0	4	0	29
	66,073	41,632	53,443	1,174	3,921	1,777	1,678	1,657	99	171,454

Year 2020   **Annual (in 000's)**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	10,004.3	6,924.1	2,941.2	0.7	76.3	8.4	0.0	0.0	0.0	19,955
2 QUEENS	2,207.2	1,370.9	114.6	0.4	13.1	2.2	0.0	0.0	0.0	3,708
3 BRONX	609.9	573.8	52.6	0.0	6.2	3.7	0.0	0.0	0.0	1,246
4 KINGS	2,272.9	1,195.0	234.0	0.4	25.9	1.1	0.0	0.0	0.0	3,729
5 RICHMOND	198.9	51.5	349.3	0.0	1.5	0.0	0.0	0.0	0.0	601
6 NASSAU	2,131.2	1,064.0	50.4	0.0	182.5	0.0	0.0	0.0	0.0	3,428
7 SUFFOLK	1,508.5	788.8	57.7	0.0	1,087.0	1.1	0.0	0.4	0.0	3,443
8 WESTCHESTER	1,135.9	837.7	212.1	6.2	8.8	263.5	0.0	0.0	0.0	2,464
9 ROCKLAND	163.5	150.4	327.0	7.7	2.2	10.6	0.0	0.0	0.0	661
10 PUTNAM	82.5	116.1	41.2	6.6	0.0	19.3	0.0	0.0	0.0	266
11 ORANGE	121.2	107.3	224.1	161.0	0.0	11.0	0.0	0.0	0.0	625
12 DUTCHESS	168.3	125.6	44.5	124.1	2.6	26.3	0.0	0.0	0.0	491
13 FAIRFIELD	1,094.3	780.7	171.2	3.3	4.0	268.3	0.0	0.0	0.0	2,322
14 BERGEN	384.7	341.6	1,746.5	1.8	2.9	5.1	1.1	0.0	0.0	2,484
15 PASSAIC	61.0	47.8	574.9	0.4	2.6	0.0	0.0	0.4	0.0	687
16 HUDSON	222.3	167.2	1,273.1	0.0	3.7	0.7	0.4	0.0	0.0	1,667
17 ESSEX	120.5	63.9	1,372.4	0.7	0.0	0.0	0.0	0.0	0.0	1,557
18 UNION	85.0	41.6	924.5	0.0	1.1	0.0	0.4	0.0	0.0	1,053
19 MORRIS	112.1	71.5	1,685.9	0.4	1.5	0.0	1.1	4.0	0.0	1,876
20 SOMERSET	66.4	20.4	1,018.7	0.0	0.0	0.0	1.1	3.7	0.4	1,111
21 MIDDLESEX	267.2	58.4	1,712.9	0.0	1.5	0.0	15.3	1.1	1.1	2,058
22 MONMOUTH	127.8	16.1	1,565.9	0.0	2.9	0.0	54.4	0.0	1.8	1,769
23 OCEAN	38.0	20.8	462.8	0.0	0.0	0.0	164.3	0.0	0.4	686
24 HUNTERDON	11.0	0.0	415.0	0.4	0.0	0.0	2.9	12.8	1.5	443
25 WARREN	10.2	3.7	171.9	0.0	0.0	0.0	0.4	22.3	0.0	208
26 SUSSEX	39.8	12.0	347.8	6.2	0.0	0.0	0.0	2.2	0.0	408
27 NEW HAVEN	453.0	132.1	35.4	0.4	0.0	13.5	0.0	0.0	0.0	634
28 MERCER	57.7	17.9	406.2	0.0	2.9	0.0	10.2	1.1	11.3	507
29 DELAWARE	0.0	0.0	5.1	3.3	0.0	0.7	0.0	0.0	0.0	9
30 SULLIVAN	19.3	3.7	15.7	26.3	2.2	1.5	0.0	0.7	0.0	69
31 ULSTER	55.5	20.4	23.0	72.3	0.0	2.9	0.0	0.0	0.0	174
32 ATLANTIC	9.5	12.4	113.9	0.0	0.0	0.0	178.9	0.4	0.0	315
33 BURLINGTON	16.8	3.7	110.6	0.0	0.0	0.0	51.5	0.0	1.8	184
34 CAMDEN	27.7	0.0	27.7	0.0	0.0	0.0	21.5	0.0	0.0	77
35 CAPE MAY	0.0	0.0	28.8	0.0	0.0	0.0	61.0	0.0	0.0	90
36 CUMBERLAND	0.0	0.0	36.9	0.0	0.0	0.0	13.9	0.0	0.0	51
37 GLOUCESTER	4.7	0.0	14.2	0.0	0.0	0.0	19.3	0.0	0.0	38
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2
39 LITCHFIELD	67.2	33.9	24.1	1.5	0.0	8.8	0.0	0.0	0.0	135
40 BERKS	13.5	0.0	4.0	0.0	0.0	0.0	1.5	46.0	0.0	65
41 BUCKS	46.7	3.7	100.4	0.0	0.0	0.0	4.7	34.7	15.3	205
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	11.3	0.0	14
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	3
44 LACKAWANNA	0.0	8.4	16.8	0.0	0.0	0.0	0.0	6.9	0.0	32
45 LEHIGH	10.2	0.0	116.8	0.0	0.0	0.0	0.0	182.9	0.0	310
46 LUZERNE	4.4	0.0	6.9	0.0	0.0	0.0	0.0	11.7	0.0	23
47 MONROE	0.0	5.8	105.5	0.0	0.0	0.0	0.0	59.5	0.0	171
48 MONTGOMERY	29.9	0.0	46.0	0.0	0.0	0.0	6.9	24.1	2.2	109
49 NORTHAMPTON	15.3	0.0	103.3	0.4	0.0	0.0	0.0	152.6	0.4	272
50 NORTHUMBERLAND	8.8	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	11
51 PIKE	12.0	0.0	59.9	4.0	0.0	0.0	0.0	4.4	0.0	80
52 SCHUYLKILL	14.6	0.0	5.1	0.0	0.0	0.0	0.0	13.9	0.0	34
53 SUSQUEHANNA	0.0	0.0	4.4	0.4	0.0	0.0	0.0	1.8	0.0	7
54 WYOMING	5.5	0.0	3.7	0.0	0.0	0.0	0.0	1.5	0.0	11
	24,117	15,196	19,507	429	1,431	649	612	605	36	62,581

Task C: Origin Productions
Year 2025

PANYNJ and Other Airports
Forecasts

Airport	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4	Growth over '05	Growth over '05	Diff. Level 3	Level 4 Scaling
1 JFK	4,962	48,660	53,384	54,551	70,247	71,069	9.7%	12.1%	44.4%	46.1%	71,068	46.0%	-821	1.0117
2 LGA	4,210	33,433	36,544	37,857	48,750	44,037	9.3%	13.2%	45.8%	31.7%	44,037	31.7%	4,713	0.9033
3 EWR	4,352	34,564	40,732	42,348	54,533	58,774	17.8%	22.5%	57.8%	70.0%	58,774	70.0%	-4,241	1.0778
4 SWF	1,082	546	675	701	902	1,281	23.5%	28.3%	65.1%	134.4%	1,280	134.3%	-378	1.4191
5 ISP	1,089	2,892	3,319	3,348	4,311	4,260	14.8%	15.8%	49.1%	47.3%	4,260	47.3%	51	0.9882
6 HPN	1,085	1,278	1,465	1,519	1,956	1,801	14.6%	18.9%	53.1%	40.9%	1,801	40.9%	155	0.9207
7 ACY	1,081	1,339	1,702	1,769	2,278	1,803	27.1%	32.2%	70.2%	34.7%	1,803	34.7%	475	0.7914
8 ABE	1,174	1,143	1,384	1,477	1,902	1,877	21.0%	29.2%	66.4%	64.2%	1,877	64.2%	25	0.9867
9 TTN	93	74	89	101	130	110	19.9%	36.6%	75.7%	48.7%	110	48.9%	20	0.8472
Total	19,128	123,929	139,292	143,672	185,009	185,011	12.4%	15.9%	49.3%	49.3%	185,010	49.3%	-1	

1.28773
Level 3 Scaling

Airport Group - Chosen	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 JFK	4,962	48,660	53,384	54,551	70,247	71,069	9.7%	12.1%	44.4%	46.1%
2 LGA	4,210	33,433	36,544	37,857	48,750	44,037	9.3%	13.2%	45.8%	31.7%
3 EWR	4,352	34,564	40,732	42,348	54,533	58,774	17.8%	22.5%	57.8%	70.0%
4 NYSDOT	3,256	4,716	5,459	5,568	7,170	7,342	15.7%	18.1%	52.0%	55.7%
5 DVRPC	2,348	2,556	3,174	3,347	4,310	3,790	24.2%	31.0%	68.6%	48.3%
Total	19,128	123,929	139,292	143,672	185,010	185,011	12.4%	15.9%	49.3%	49.3%

(only)
Level 2: plus Growth in Real Incomes
Level 3: plus Scaling to Enplanements - Total
Level 4: plus Scaling to Enplanements - By Airport

Trip Type	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 Resident-Business	2,899	17,580	19,759	22,290	28,703	28,784	12.4%	26.8%	63.3%	63.7%
2 Resident-Other	6,985	44,744	49,991	51,839	66,755	66,741	11.7%	15.9%	49.2%	49.2%
3 Non Resident-Business	2,904	20,389	23,439	23,439	30,183	30,179	15.0%	15.0%	48.0%	48.0%
4 Non Resident-Other	6,340	41,216	46,104	46,104	59,369	59,307	11.9%	11.9%	44.0%	43.9%
Total	19,128	123,929	139,292	143,672	185,010	185,011	12.4%	15.9%	49.3%	49.3%

1

OCO_ID Origin County
Year 2025

	Unweighted	2005	Forecasts Level 1	Level 2	Level 3	Level 4	Growth over 2005 Level 1	Level 2	Level 3	Level 4
1 NEW YORK	4,972	43,035	44,919	45,601	58,721	57,557	4.4%	6.0%	36.4%	33.7%
2 QUEENS	840	7,402	8,562	8,773	11,297	10,966	15.7%	18.5%	52.6%	48.1%
3 BRONX	295	2,500	2,842	3,028	3,899	3,748	13.7%	21.1%	56.0%	49.9%
4 KINGS	810	7,129	8,196	8,893	11,452	11,202	15.0%	24.7%	60.6%	57.1%
5 RICHMOND	117	989	1,315	1,404	1,808	1,877	33.0%	42.0%	82.8%	89.8%
6 NASSAU	915	7,341	7,820	7,927	10,207	9,956	6.5%	8.0%	39.0%	35.6%
7 SUFFOLK	1,340	6,864	7,979	8,127	10,465	10,243	16.3%	18.4%	52.5%	49.2%
8 WESTCHESTER	988	5,067	5,623	5,753	7,408	7,175	11.0%	13.5%	46.2%	41.6%
9 ROCKLAND	184	1,232	1,459	1,508	1,942	1,976	18.4%	22.4%	57.6%	60.3%
10 PUTNAM	95	467	642	648	835	810	37.3%	38.7%	78.7%	73.3%
11 ORANGE	503	998	1,284	1,353	1,743	1,902	28.7%	35.6%	74.6%	90.6%
12 DUTCHESS	447	886	1,049	1,071	1,379	1,457	18.5%	20.9%	55.7%	64.5%
13 FAIRFIELD	925	4,648	5,272	5,489	7,069	6,836	13.4%	18.1%	52.1%	47.1%
14 BERGEN	597	4,779	5,284	5,452	7,021	7,299	10.6%	14.1%	46.9%	52.7%
15 PASSAIC	163	1,292	1,423	1,497	1,928	2,038	10.2%	15.9%	49.2%	57.7%
16 HUDSON	371	2,997	3,471	3,685	4,746	4,974	15.8%	23.0%	58.3%	65.9%
17 ESSEX	370	2,970	3,227	3,396	4,373	4,655	8.7%	14.3%	47.2%	56.7%
18 UNION	260	2,088	2,160	2,239	2,883	3,068	3.4%	7.2%	38.1%	46.9%
19 MORRIS	419	3,287	4,078	4,135	5,325	5,673	24.1%	25.8%	62.0%	72.6%
20 SOMERSET	228	1,762	2,454	2,500	3,219	3,441	39.3%	41.9%	82.7%	95.3%
21 MIDDLESEX	457	3,494	4,420	4,622	5,952	6,309	26.5%	32.3%	70.3%	80.5%
22 MONMOUTH	474	3,093	3,820	3,959	5,098	5,400	23.5%	28.0%	64.8%	74.6%
23 OCEAN	390	1,206	1,563	1,654	2,129	2,098	29.6%	37.1%	76.5%	73.9%
24 HUNTERDON	117	703	969	997	1,284	1,374	37.8%	41.8%	82.6%	95.4%
25 WARREN	86	366	450	472	608	644	22.9%	28.8%	65.9%	75.7%
26 SUSSEX	102	676	884	911	1,173	1,253	30.8%	34.6%	73.5%	85.3%
27 NEW HAVEN	157	1,269	1,398	1,473	1,897	1,876	10.2%	16.1%	49.5%	47.8%
28 MERCER	159	917	1,058	1,125	1,449	1,519	15.3%	22.6%	57.9%	65.6%
29 DELAWARE	11	14	14	19	25	29	4.0%	42.2%	83.0%	112.2%
30 SULLIVAN	80	102	114	146	188	214	11.8%	43.1%	84.3%	109.8%
31 ULSTER	203	283	343	356	459	524	21.4%	26.2%	62.4%	85.4%
32 ATLANTIC	331	594	822	831	1,071	952	38.3%	39.9%	80.2%	60.2%
33 BURLINGTON	123	344	435	443	571	553	26.4%	28.9%	66.1%	60.8%
34 CAMDEN	54	159	170	182	234	225	7.3%	14.8%	47.6%	42.0%
35 CAPE MAY	115	183	229	236	304	264	25.3%	29.4%	66.5%	44.6%
36 CUMBERLAND	30	64	129	132	170	168	101.1%	106.4%	165.8%	162.6%
37 GLOUCESTER	41	79	100	96	124	112	25.4%	20.9%	56.1%	41.0%
38 SALEM	4	5	5	5	7	5	7.4%	5.2%	41.3%	0.9%
39 LITCHFIELD	44	256	303	317	408	404	18.3%	23.7%	59.4%	57.8%
40 BERKS	98	129	146	153	198	196	12.7%	18.6%	53.0%	51.4%
41 BUCKS	148	377	455	475	611	620	20.7%	25.8%	61.9%	64.3%
42 CARBON	23	29	34	35	45	44	15.6%	18.8%	53.2%	49.8%
43 COLUMBIA	6	6	7	6	8	8	11.4%	9.4%	36.9%	36.9%
44 LACKAWANNA	19	53	59	77	99	100	11.4%	44.7%	85.6%	87.5%
45 LEHIGH	388	570	679	728	938	956	19.2%	27.8%	64.6%	67.8%
46 LUZERNE	26	48	48	52	67	68	-0.2%	8.3%	39.3%	41.4%
47 MONROE	117	246	384	406	523	543	55.7%	64.9%	112.3%	120.4%
48 MONTGOMERY	86	209	236	256	330	333	13.0%	22.6%	58.1%	59.5%
49 NORTHAMPTON	319	483	590	630	811	828	22.3%	30.4%	68.0%	71.5%
50 NORTHUMBERLAND	7	24	24	23	30	30	-1.1%	-4.1%	22.5%	22.5%
51 PIKE	27	110	171	190	245	263	55.7%	72.9%	123.0%	139.3%
52 SCHUYLKILL	36	69	136	143	185	192	98.6%	109.3%	170.0%	180.2%
53 SUSQUEHANNA	6	12	14	14	18	19	12.4%	12.3%	45.8%	53.9%
54 WYOMING	5	21	21	25	32	33	3.3%	20.2%	54.8%	59.7%
999 OUT SIDE AREA										
Total	19,128	123,929	139,292	143,672	185,010	185,011	12.4%	15.9%	32.8%	49.3%

Forecasts: Origin County to Airports

Year 2025   **Average Daily**   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	29,038	19,733	8,540	2	222	23	0	0	0	57,558
2 QUEENS	6,553	4,024	343	1	39	7	0	0	0	10,967
3 BRONX	1,845	1,708	167	0	18	11	0	0	0	3,749
4 KINGS	6,851	3,553	715	1	78	3	0	0	0	11,201
5 RICHMOND	617	159	1,096	0	4	0	0	0	0	1,876
6 NASSAU	6,216	3,057	148	0	535	0	0	0	0	9,956
7 SUFFOLK	4,503	2,316	172	0	3,248	3	0	1	0	10,243
8 WESTCHESTER	3,350	2,428	628	18	26	726	0	0	0	7,176
9 ROCKLAND	489	443	984	23	7	30	0	0	0	1,976
10 PUTNAM	251	354	130	20	0	56	0	0	0	811
11 ORANGE	371	324	694	482	0	31	0	0	0	1,902
12 DUTCHESS	503	372	133	367	8	74	0	0	0	1,457
13 FAIRFIELD	3,260	2,295	512	9	12	748	0	0	0	6,836
14 BERGEN	1,127	990	5,152	6	8	14	3	0	0	7,300
15 PASSAIC	183	139	1,706	1	7	0	0	2	0	2,038
16 HUDSON	661	495	3,805	0	11	2	1	0	0	4,975
17 ESSEX	360	184	4,109	2	0	0	0	0	0	4,655
18 UNION	244	120	2,699	0	4	0	1	0	0	3,068
19 MORRIS	337	214	5,101	1	4	0	3	13	0	5,673
20 SOMERSET	208	62	3,155	0	0	0	4	12	1	3,442
21 MIDDLESEX	810	183	5,260	0	4	0	45	3	3	6,308
22 MONMOUTH	390	49	4,787	0	8	0	159	0	6	5,399
23 OCEAN	115	64	1,432	0	0	0	487	0	2	2,100
24 HUNTERDON	34	0	1,285	1	0	0	9	40	5	1,374
25 WARREN	30	11	533	0	0	0	1	69	0	644
26 SUSSEX	122	36	1,068	19	0	0	0	7	0	1,252
27 NEW HAVEN	1,342	389	105	1	0	38	0	0	0	1,875
28 MERCER	173	54	1,217	0	9	0	30	3	34	1,520
29 DELAWARE	0	0	18	9	0	2	0	0	0	29
30 SULLIVAN	62	10	50	78	8	4	0	3	0	215
31 ULSTER	164	63	69	220	0	8	0	0	0	524
32 ATLANTIC	27	37	354	0	0	0	532	1	0	951
33 BURLINGTON	51	11	334	0	0	0	151	0	6	553
34 CAMDEN	80	0	84	0	0	0	61	0	0	225
35 CAPE MAY	0	0	88	0	0	0	176	0	0	264
36 CUMBERLAND	0	0	127	0	0	0	41	0	0	168
37 GLOUCESTER	14	0	43	0	0	0	55	0	0	112
38 SALEM	0	0	0	0	0	0	5	0	0	5
39 LITCHFIELD	202	99	74	4	0	24	0	0	0	403
40 BERKS	39	0	12	0	0	0	4	141	0	196
41 BUCKS	142	11	301	0	0	0	14	107	46	621
42 CARBON	0	8	0	0	0	0	0	36	0	44
43 COLUMBIA	0	0	0	0	0	0	0	8	0	8
44 LACKAWANNA	0	26	53	0	0	0	0	21	0	100
45 LEHIGH	30	0	357	0	0	0	0	569	0	956
46 LUZERNE	13	0	19	0	0	0	0	36	0	68
47 MONROE	0	18	334	0	0	0	0	190	0	542
48 MONTGOMERY	90	0	142	0	0	0	20	74	7	333
49 NORTHAMPTON	46	0	310	1	0	0	0	469	1	827
50 NORTHUMBERLAND	24	0	0	0	0	0	0	7	0	31
51 PIKE	38	0	198	13	0	0	0	15	0	264
52 SCHUYLKILL	44	0	107	0	0	0	0	41	0	192
53 SUSQUEHANNA	0	0	13	1	0	0	0	5	0	19
54 WYOMING	19	0	10	0	0	0	0	4	0	33
	71,068	44,039	58,773	1,280	4,260	1,804	1,802	1,877	111	185,014

Forecasts: Origin County to Airports

Year 2025   Annual (in 000's)   Level 4: With Control to Task B Enplanments - Airport Specific

From County	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Region
1 NEW YORK	10,598.9	7,202.5	3,117.1	0.7	81.0	8.4	0.0	0.0	0.0	21,009
2 QUEENS	2,391.8	1,468.8	125.2	0.4	14.2	2.6	0.0	0.0	0.0	4,003
3 BRONX	673.4	623.4	61.0	0.0	6.6	4.0	0.0	0.0	0.0	1,368
4 KINGS	2,500.6	1,296.8	261.0	0.4	28.5	1.1	0.0	0.0	0.0	4,088
5 RICHMOND	225.2	58.0	400.0	0.0	1.5	0.0	0.0	0.0	0.0	685
6 NASSAU	2,268.8	1,115.8	54.0	0.0	195.3	0.0	0.0	0.0	0.0	3,634
7 SUFFOLK	1,643.6	845.3	62.8	0.0	1,185.5	1.1	0.0	0.4	0.0	3,739
8 WESTCHESTER	1,222.8	886.2	229.2	6.6	9.5	265.0	0.0	0.0	0.0	2,619
9 ROCKLAND	178.5	161.7	359.2	8.4	2.6	11.0	0.0	0.0	0.0	721
10 PUTNAM	91.6	129.2	47.5	7.3	0.0	20.4	0.0	0.0	0.0	296
11 ORANGE	135.4	118.3	253.3	175.9	0.0	11.3	0.0	0.0	0.0	694
12 DUTCHESS	183.6	135.8	48.5	134.0	2.9	27.0	0.0	0.0	0.0	532
13 FAIRFIELD	1,189.9	837.7	186.9	3.3	4.4	273.0	0.0	0.0	0.0	2,495
14 BERGEN	411.4	361.4	1,880.5	2.2	2.9	5.1	1.1	0.0	0.0	2,665
15 PASSAIC	66.8	50.7	622.7	0.4	2.6	0.0	0.0	0.7	0.0	744
16 HUDSON	241.3	180.7	1,388.8	0.0	4.0	0.7	0.4	0.0	0.0	1,816
17 ESSEX	131.4	67.2	1,499.8	0.7	0.0	0.0	0.0	0.0	0.0	1,699
18 UNION	89.1	43.8	985.1	0.0	1.5	0.0	0.4	0.0	0.0	1,120
19 MORRIS	123.0	78.1	1,861.9	0.4	1.5	0.0	1.1	4.7	0.0	2,071
20 SOMERSET	75.9	22.6	1,151.6	0.0	0.0	0.0	1.5	4.4	0.4	1,256
21 MIDDLESEX	295.7	66.8	1,919.9	0.0	1.5	0.0	16.4	1.1	1.1	2,302
22 MONMOUTH	142.4	17.9	1,747.3	0.0	2.9	0.0	58.0	0.0	2.2	1,971
23 OCEAN	42.0	23.4	522.7	0.0	0.0	0.0	177.8	0.0	0.7	767
24 HUNTERDON	12.4	0.0	469.0	0.4	0.0	0.0	3.3	14.6	1.8	502
25 WARREN	11.0	4.0	194.5	0.0	0.0	0.0	0.4	25.2	0.0	235
26 SUSSEX	44.5	13.1	389.8	6.9	0.0	0.0	0.0	2.6	0.0	457
27 NEW HAVEN	489.8	142.0	38.3	0.4	0.0	13.9	0.0	0.0	0.0	684
28 MERCER	63.1	19.7	444.2	0.0	3.3	0.0	11.0	1.1	12.4	555
29 DELAWARE	0.0	0.0	6.6	3.3	0.0	0.7	0.0	0.0	0.0	11
30 SULLIVAN	22.6	3.7	18.3	28.5	2.9	1.5	0.0	1.1	0.0	78
31 ULSTER	59.9	23.0	25.2	80.3	0.0	2.9	0.0	0.0	0.0	191
32 ATLANTIC	9.9	13.5	129.2	0.0	0.0	0.0	194.2	0.4	0.0	347
33 BURLINGTON	18.6	4.0	121.9	0.0	0.0	0.0	55.1	0.0	2.2	202
34 CAMDEN	29.2	0.0	30.7	0.0	0.0	0.0	22.3	0.0	0.0	82
35 CAPE MAY	0.0	0.0	32.1	0.0	0.0	0.0	64.2	0.0	0.0	96
36 CUMBERLAND	0.0	0.0	46.4	0.0	0.0	0.0	15.0	0.0	0.0	61
37 GLOUCESTER	5.1	0.0	15.7	0.0	0.0	0.0	20.1	0.0	0.0	41
38 SALEM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2
39 LITCHFIELD	73.7	36.1	27.0	1.5	0.0	8.8	0.0	0.0	0.0	147
40 BERKS	14.2	0.0	4.4	0.0	0.0	0.0	1.5	51.5	0.0	72
41 BUCKS	51.8	4.0	109.9	0.0	0.0	0.0	5.1	39.1	16.8	227
42 CARBON	0.0	2.9	0.0	0.0	0.0	0.0	0.0	13.1	0.0	16
43 COLUMBIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	3
44 LACKAWANNA	0.0	9.5	19.3	0.0	0.0	0.0	0.0	7.7	0.0	37
45 LEHIGH	11.0	0.0	130.3	0.0	0.0	0.0	0.0	207.7	0.0	349
46 LUZERNE	4.7	0.0	6.9	0.0	0.0	0.0	0.0	13.1	0.0	25
47 MONROE	0.0	6.6	121.9	0.0	0.0	0.0	0.0	69.4	0.0	198
48 MONTGOMERY	32.9	0.0	51.8	0.0	0.0	0.0	7.3	27.0	2.6	122
49 NORTHAMPTON	16.8	0.0	113.2	0.4	0.0	0.0	0.0	171.2	0.4	302
50 NORTHUMBERLAND	8.8	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	11
51 PIKE	13.9	0.0	72.3	4.7	0.0	0.0	0.0	5.5	0.0	96
52 SCHUYLKILL	16.1	0.0	39.1	0.0	0.0	0.0	0.0	15.0	0.0	70
53 SUSQUEHANNA	0.0	0.0	4.7	0.4	0.0	0.0	0.0	1.8	0.0	7
54 WYOMING	6.9	0.0	3.7	0.0	0.0	0.0	0.0	1.5	0.0	12
	25,940	16,074	21,452	467	1,555	658	658	685	41	67,530

APPENDIX C:
FORECAST 2025 - APPLICATION of HOUSEHOLD
SEGMENTATION MODEL for REAL INCOME GROWTH -
LEVEL 2 WEIGHTING

APPENDIX C:
FORECAST 2025 - APPLICATION OF HOUSEHOLD SEGMENTATION MODEL FOR REAL INCOME GROWTH - LEVEL 2 WEIGHTING

| | | Census 2,000 | Ratio to Reg 2000 | Year 2005 - Actual | | | Year 2005 - Modeled | | | % Growth W&P In Mean HH Income 2005 | Ratio to Reg 2000 | Year 2025 - Modeled | | |
| | | | | Lt $50K | $50-$100K | Gt $100K | Lt $50K | $50-$100K | Gt $100K | | | Lt $50K | $50-$100K | Gt $100K |
ID	NAME	Income	Reg 2000	Low	Med	High	Low	Med	High	2025	Reg 2000	Low	Med	High
1	New York NY	92,630	1.31	52%	24%	24%	34%	36%	30%	1.159	1.52	30%	34%	37%
2	Queens NY	56,330	0.80	57%	31%	12%	60%	30%	10%	1.222	0.97	45%	37%	18%
3	Bronx NY	44,116	0.62	73%	21%	6%	71%	24%	6%	1.272	0.79	60%	30%	10%
4	Kings NY	51,618	0.73	67%	23%	9%	64%	28%	8%	1.298	0.95	47%	37%	16%
5	Richmond NY	69,336	0.98	45%	36%	19%	45%	37%	18%	1.293	1.27	36%	36%	29%
6	Nassau NY	93,100	1.31	33%	35%	32%	34%	36%	30%	1.259	1.66	28%	34%	38%
7	Suffolk NY	78,901	1.11	36%	38%	26%	40%	36%	24%	1.205	1.34	34%	36%	30%
8	Westchester NY	100,776	1.42	40%	29%	31%	31%	36%	33%	1.229	1.75	28%	34%	39%
9	Rockland NY	84,456	1.19	36%	34%	31%	39%	37%	25%	1.200	1.43	31%	36%	33%
10	Putnam NY	83,620	1.18	30%	39%	31%	39%	37%	25%	1.166	1.38	33%	36%	32%
11	Orange NY	63,175	0.89	47%	37%	16%	51%	35%	14%	1.225	1.09	42%	37%	22%
12	Dutchess NY	64,805	0.92	46%	37%	17%	47%	37%	16%	1.179	1.08	42%	37%	22%
13	Fairfield CT	102,598	1.45	39%	30%	31%	31%	36%	33%	1.320	1.91	26%	34%	41%
14	Bergen NJ	88,999	1.26	38%	34%	29%	36%	36%	29%	1.276	1.60	29%	34%	38%
15	Passaic NJ	64,745	0.91	51%	32%	17%	47%	37%	16%	1.225	1.12	40%	36%	24%
16	Hudson NJ	58,677	0.83	60%	27%	13%	56%	32%	12%	1.300	1.08	42%	37%	22%
17	Essex NJ	72,206	1.02	54%	27%	19%	43%	37%	20%	1.239	1.26	36%	36%	29%
18	Union NJ	76,327	1.08	45%	33%	22%	42%	37%	22%	1.196	1.29	36%	36%	29%
19	Morris NJ	99,849	1.41	29%	35%	36%	31%	36%	33%	1.233	1.74	28%	34%	39%
20	Somerset NJ	100,796	1.42	29%	35%	36%	31%	36%	33%	1.240	1.76	27%	34%	39%
21	Middlesex NJ	74,579	1.05	40%	38%	23%	42%	37%	22%	1.284	1.35	33%	36%	32%
22	Monmouth NJ	85,591	1.21	39%	34%	28%	37%	35%	28%	1.210	1.46	30%	34%	36%
23	Ocean NJ	61,602	0.87	54%	33%	13%	51%	35%	14%	1.189	1.03	43%	37%	20%
24	Hunterdon NJ	98,450	1.39	28%	35%	37%	33%	36%	32%	1.159	1.61	29%	34%	38%
25	Warren NJ	68,935	0.97	43%	38%	18%	45%	37%	18%	1.083	1.05	42%	37%	22%
26	Sussex NJ	75,797	1.07	36%	41%	24%	42%	37%	22%	1.189	1.27	36%	36%	29%
27	New Haven CT	64,018	0.90	51%	33%	16%	47%	37%	16%	1.265	1.14	40%	36%	24%
28	Mercer NJ	77,619	1.10	44%	33%	23%	42%	37%	22%	1.219	1.34	34%	36%	30%
29	Delaware NY	40,155	0.57	71%	23%	6%	72%	23%	5%	1.236	0.70	64%	28%	8%
30	Sullivan NY	48,772	0.69	64%	27%	9%	69%	25%	7%	1.245	0.86	51%	35%	14%
31	Ulster NY	52,038	0.73	58%	32%	11%	64%	28%	8%	1.202	0.88	51%	35%	14%
32	Atlantic NJ	55,207	0.78	56%	33%	11%	60%	30%	10%	1.213	0.95	47%	37%	16%
33	Burlington NJ	70,028	0.99	41%	39%	20%	45%	37%	18%	1.260	1.25	37%	35%	28%
34	Camden NJ	61,896	0.87	52%	34%	15%	51%	35%	14%	1.216	1.06	42%	37%	22%
35	Cape May NJ	55,707	0.79	59%	29%	12%	60%	30%	10%	1.203	0.95	47%	37%	16%
36	Cumberland NJ	50,180	0.71	62%	30%	8%	64%	28%	8%	1.263	0.90	51%	35%	14%
37	Gloucester NJ	63,910	0.90	45%	39%	16%	47%	37%	16%	1.206	1.09	42%	37%	22%
38	Salem NJ	55,632	0.79	54%	35%	11%	60%	30%	10%	1.221	0.96	45%	37%	18%
39	Litchfield CT	70,609	1.00	44%	38%	19%	45%	37%	18%	1.180	1.18	39%	37%	25%
40	Berks PA	55,353	0.78	56%	34%	10%	60%	30%	10%	1.233	0.96	45%	37%	18%
41	Bucks PA	73,968	1.04	41%	38%	22%	43%	37%	20%	1.214	1.27	36%	36%	29%
42	Carbon PA	43,577	0.62	69%	27%	4%	71%	24%	6%	1.343	0.83	56%	32%	12%
43	Columbia PA	42,936	0.61	71%	24%	5%	71%	24%	6%	1.205	0.73	64%	28%	8%
44	Lackawanna PA	48,508	0.68	68%	25%	7%	69%	25%	7%	1.251	0.86	51%	35%	14%
45	Lehigh PA	56,749	0.80	56%	32%	12%	56%	32%	12%	1.238	0.99	45%	37%	18%
46	Luzerne PA	45,897	0.65	69%	25%	6%	71%	24%	6%	1.253	0.81	56%	32%	12%
47	Monroe PA	54,544	0.77	54%	35%	11%	60%	30%	10%	1.158	0.89	51%	35%	14%
48	Montgomery PA	78,055	1.10	40%	36%	23%	40%	36%	24%	1.228	1.35	33%	36%	32%
49	Northampton PA	56,950	0.80	55%	34%	11%	56%	32%	12%	1.180	0.95	47%	37%	16%
50	Northumberland I	40,857	0.58	74%	23%	4%	72%	23%	5%	1.238	0.71	64%	28%	8%
51	Pike PA	52,503	0.74	56%	35%	9%	64%	28%	8%	1.199	0.89	51%	35%	14%
52	Schuylkill PA	43,699	0.62	71%	25%	4%	71%	24%	6%	1.256	0.78	60%	30%	10%
53	Susquehanna PA	41,609	0.59	71%	25%	5%	72%	23%	5%	1.243	0.73	64%	28%	8%
54	Wyoming PA	43,604	0.62	66%	28%	6%	71%	24%	6%	1.151	0.71	64%	28%	8%
	Region Average	70,823	1.00							1.224	1.22			

		Change - Modeled 2025 / 2005			Change - Modeled Incremental				Change Lt $50K					Change - Modeled (for Weights)		
		Lt $50K	$50-$100K	Gt $100K	Lt $50K	$50-$100K	Gt $100K		Lt $50K	$50-$100K	Gt $100K			Lt $50K	$50-$100K	Gt $100K
ID	NAME	Low	Med	High	Low	Med	High		Low	Med	High		ID	Low	Med	High
1	New York NY	0.868	0.931	1.233	45%	22%	30%	97%	46%	23%	30%	100%	1	0.894	0.959	1.271
2	Queens NY	0.750	1.233	1.800	43%	38%	22%	103%	42%	37%	21%	100%	2	0.730	1.201	1.753
3	Bronx NY	0.845	1.277	1.818	62%	26%	11%	99%	62%	27%	11%	100%	3	0.850	1.285	1.830
4	Kings NY	0.734	1.321	2.000	49%	31%	19%	99%	50%	31%	19%	100%	4	0.741	1.334	2.019
5	Richmond NY	0.789	0.959	1.611	35%	34%	31%	101%	35%	34%	31%	100%	5	0.782	0.951	1.597
6	Nassau NY	0.824	0.944	1.267	27%	33%	41%	101%	27%	33%	41%	100%	6	0.816	0.936	1.255
7	Suffolk NY	0.850	1.000	1.250	31%	38%	32%	101%	31%	38%	32%	100%	7	0.842	0.991	1.238
8	Westchester NY	0.887	0.944	1.167	35%	27%	36%	99%	36%	28%	37%	100%	8	0.896	0.953	1.178
9	Rockland NY	0.805	0.986	1.320	29%	33%	41%	102%	28%	32%	40%	100%	9	0.786	0.963	1.289
10	Putnam NY	0.844	0.973	1.280	25%	38%	40%	103%	24%	36%	39%	100%	10	0.819	0.943	1.242
11	Orange NY	0.814	1.043	1.571	38%	38%	25%	102%	38%	37%	25%	100%	11	0.798	1.023	1.541
12	Dutchess NY	0.883	0.986	1.375	41%	36%	24%	101%	41%	36%	24%	100%	12	0.878	0.981	1.367
13	Fairfield CT	0.823	0.944	1.227	32%	29%	38%	99%	32%	29%	39%	100%	13	0.835	0.959	1.246
14	Bergen NJ	0.803	0.958	1.293	30%	32%	37%	100%	30%	32%	37%	100%	14	0.807	0.962	1.299
15	Passaic NJ	0.851	0.973	1.500	43%	31%	26%	100%	43%	31%	26%	100%	15	0.849	0.970	1.496
16	Hudson NJ	0.741	1.141	1.833	44%	31%	23%	99%	45%	32%	24%	100%	16	0.748	1.152	1.851
17	Essex NJ	0.826	0.959	1.450	45%	26%	27%	98%	46%	27%	27%	100%	17	0.844	0.981	1.483
18	Union NJ	0.855	0.973	1.318	39%	32%	29%	100%	39%	32%	29%	100%	18	0.859	0.977	1.324
19	Morris NJ	0.887	0.944	1.167	26%	33%	42%	101%	26%	33%	42%	100%	19	0.881	0.937	1.158
20	Somerset NJ	0.871	0.944	1.182	26%	33%	42%	101%	25%	33%	42%	100%	20	0.864	0.937	1.172
21	Middlesex NJ	0.783	0.973	1.455	31%	37%	33%	101%	31%	36%	33%	100%	21	0.777	0.965	1.443
22	Monmouth NJ	0.811	0.971	1.286	31%	33%	36%	100%	31%	33%	36%	100%	22	0.813	0.974	1.290
23	Ocean NJ	0.843	1.057	1.429	45%	35%	19%	99%	46%	36%	19%	100%	23	0.850	1.066	1.441
24	Hunterdon NJ	0.877	0.958	1.172	24%	34%	43%	101%	24%	33%	43%	100%	24	0.864	0.944	1.155
25	Warren NJ	0.922	0.986	1.222	40%	38%	22%	100%	40%	38%	22%	100%	25	0.920	0.985	1.220
26	Sussex NJ	0.855	0.973	1.318	30%	40%	31%	101%	30%	39%	31%	100%	26	0.845	0.961	1.302
27	New Haven CT	0.851	0.973	1.500	43%	32%	24%	99%	44%	33%	24%	100%	27	0.856	0.979	1.509
28	Mercer NJ	0.819	0.986	1.364	36%	33%	31%	100%	36%	33%	31%	100%	28	0.820	0.987	1.365
29	Delaware NY	0.889	1.217	1.600	63%	28%	9%	100%	63%	28%	9%	100%	29	0.885	1.212	1.592
30	Sullivan NY	0.739	1.429	2.154	47%	39%	19%	105%	45%	37%	18%	100%	30	0.704	1.361	2.051
31	Ulster NY	0.797	1.250	1.750	46%	39%	19%	104%	44%	38%	18%	100%	31	0.764	1.199	1.679
32	Atlantic NJ	0.783	1.233	1.600	44%	41%	17%	102%	43%	40%	17%	100%	32	0.769	1.211	1.571
33	Burlington NJ	0.822	0.946	1.556	34%	37%	31%	102%	33%	36%	31%	100%	33	0.808	0.930	1.529
34	Camden NJ	0.814	1.043	1.571	42%	35%	23%	100%	42%	35%	23%	100%	34	0.812	1.041	1.568
35	Cape May NJ	0.783	1.233	1.600	46%	36%	20%	101%	45%	35%	19%	100%	35	0.772	1.216	1.577
36	Cumberland NJ	0.797	1.250	1.750	49%	37%	14%	101%	49%	37%	14%	100%	36	0.788	1.237	1.731
37	Gloucester NJ	0.883	0.986	1.375	40%	39%	21%	100%	40%	39%	21%	100%	37	0.883	0.987	1.375
38	Salem NJ	0.750	1.233	1.800	40%	44%	19%	103%	39%	42%	19%	100%	38	0.726	1.194	1.743
39	Litchfield CT	0.856	0.986	1.389	37%	37%	26%	100%	37%	37%	26%	100%	39	0.852	0.982	1.383
40	Berks PA	0.750	1.233	1.800	42%	42%	18%	102%	41%	41%	18%	100%	40	0.733	1.206	1.760
41	Bucks PA	0.826	0.959	1.450	33%	36%	31%	101%	33%	36%	31%	100%	41	0.816	0.949	1.434
42	Carbon PA	0.789	1.362	2.182	54%	36%	9%	100%	54%	36%	9%	100%	42	0.788	1.361	2.181
43	Columbia PA	0.901	1.191	1.455	64%	29%	8%	100%	64%	29%	8%	100%	43	0.901	1.191	1.454
44	Lackawanna PA	0.739	1.429	2.154	50%	36%	15%	101%	49%	36%	15%	100%	44	0.729	1.410	2.126
45	Lehigh PA	0.804	1.156	1.500	45%	37%	18%	100%	45%	37%	18%	100%	45	0.805	1.158	1.502
46	Luzerne PA	0.789	1.362	2.182	54%	34%	13%	102%	53%	34%	13%	100%	46	0.775	1.338	2.144
47	Monroe PA	0.850	1.167	1.400	46%	41%	15%	102%	45%	40%	15%	100%	47	0.832	1.143	1.371
48	Montgomery PA	0.813	0.986	1.333	33%	36%	31%	100%	33%	36%	31%	100%	48	0.814	0.988	1.336
49	Northampton PA	0.839	1.156	1.333	46%	39%	15%	100%	46%	39%	15%	100%	49	0.838	1.154	1.331
50	Northumberland	0.889	1.217	1.600	66%	27%	6%	99%	66%	28%	6%	100%	50	0.900	1.232	1.619
51	Pike PA	0.797	1.250	1.750	45%	43%	16%	104%	43%	42%	15%	100%	51	0.765	1.200	1.680
52	Schuylkill PA	0.845	1.277	1.818	60%	31%	8%	99%	60%	32%	8%	100%	52	0.850	1.284	1.829
53	Susquehanna PA	0.889	1.217	1.600	63%	30%	8%	100%	62%	30%	8%	100%	53	0.885	1.212	1.593
54	Wyoming PA	0.901	1.191	1.455	60%	33%	9%	102%	59%	32%	9%	100%	54	0.887	1.172	1.431
Region Average																

APPENDIX D:
FORECAST ENPLANMENTS by AIRPORT

Enplanement Forecasts (O & D) - Task B: Total Annual

Year	1 JFK	2 LGA	3 EWR	4 SWF (a)	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Total: 9
2005	17,760,962	12,203,167	12,615,666	199,425	1,055,503	466,428	488,579	417,301	27,000	**45,234,031**
2006	18,604,400	12,913,600	13,496,400	158,360	1,137,993	546,956	502,000	428,000	27,500	**47,815,209**
2007	19,218,800	13,093,900	14,091,000	316,600	1,156,715	599,600	510,000	439,000	28,100	**49,453,715**
2008	19,884,600	13,273,800	14,814,600	337,600	1,175,756	607,700	517,000	450,000	28,700	**51,089,756**
2009	20,555,500	13,456,300	15,592,800	354,500	1,195,116	614,100	524,000	461,000	29,300	**52,782,616**
2010	21,250,800	13,641,400	16,409,100	360,700	1,214,795	619,300	532,000	473,000	29,900	**54,530,995**
2011	21,502,900	13,787,300	16,677,600	366,900	1,234,794	623,800	539,000	485,000	30,500	**55,247,794**
2012	21,758,900	13,934,700	16,953,000	373,300	1,255,217	627,700	547,000	497,000	31,100	**55,977,917**
2013	22,018,900	14,083,700	17,235,300	379,800	1,275,960	631,200	555,000	509,000	31,700	**56,720,560**
2014	22,283,000	14,234,300	17,524,600	386,400	1,297,023	634,300	563,000	522,000	32,300	**57,476,923**
2015	22,551,200	14,386,500	17,821,300	393,100	1,318,404	637,100	571,000	535,000	32,900	**58,246,504**
2020	24,116,800	15,195,200	19,507,000	428,600	1,431,480	648,600	613,000	605,000	36,400	**62,582,080**
2025	25,939,900	16,073,600	21,452,500	467,200	1,554,980	657,300	658,000	685,000	40,200	**67,528,680**

Enplanement Forecasts (O & D) - Task B: Average Weekday

Year	1 JFK	2 LGA	3 EWR	4 SWF	5 ISP	6 HPN	7 ACY	8 ABE	9 TTN	Total: 9
2005	48,660	33,433	34,563	546	2,892	1,278	1,339	1,143	74	**123,929**
2006	50,971	35,380	36,976	434	3,118	1,499	1,375	1,173	75	**131,001**
2007	52,654	35,874	38,605	867	3,169	1,643	1,397	1,203	77	**135,490**
2008	54,478	36,367	40,588	925	3,221	1,665	1,416	1,233	79	**139,972**
2009	56,316	36,867	42,720	971	3,274	1,682	1,436	1,263	80	**144,610**
2010	58,221	37,374	44,956	988	3,328	1,697	1,458	1,296	82	**149,400**
2011	58,912	37,773	45,692	1,005	3,383	1,709	1,477	1,329	84	**151,364**
2012	59,613	38,177	46,447	1,023	3,439	1,720	1,499	1,362	85	**153,364**
2013	60,326	38,585	47,220	1,041	3,496	1,729	1,521	1,395	87	**155,399**
2014	61,049	38,998	48,013	1,059	3,553	1,738	1,542	1,430	88	**157,471**
2015	61,784	39,415	48,825	1,077	3,612	1,745	1,564	1,466	90	**159,579**
2020	66,073	41,631	53,444	1,174	3,922	1,777	1,679	1,658	100	**171,458**
2025	71,068	44,037	58,774	1,280	4,260	1,801	1,803	1,877	110	**185,010**

(a) Revised 12/15/06

APPENDIX E:
AIRPORT SERVICE MEASURES
USED for LEVEL 5 TESTS

APPENDIX E:
Summary of Baseline Airport Service or Attraction Measures (Used for Level 5 Tests)

2005

	APID		Domestic Avg. Yield	Index to 2005	Index to Year	Acft. gauge	Average Delay in Minutes	International Flt Deps	# of Apts Served
PANYNJ	1	JFK	$0.083	0.71		134	35.8	146	72
	2	LGA	$0.139	1.19		97	58.1	32	5
	3	EWR	$0.121	1.03		101	57.8	101	60
NYSDOT	4	SWF	$0.126	1.08		49	23.3	0	0
	5	ISP	$0.091	0.78		97	80.3	0	0
	6	HPN	$0.187	1.60		44	47.5	0	0
DVRPC	7	ACY	$0.103	0.88		0	28.6	0	0
	8	ABE	$0.157	1.35		0	74.3	0	0
	9	TTN	$0.526	4.50		0	79.0	0	0
	All		**$0.117**	**1.00**					

Percent Change: 2005 to 2015

2015

	APID		Domestic Avg. Yield	Index to 2005	Index to Year	Acft. gauge	Average Delay in Minutes	International Flt Deps	# of Apts Served	Domestic Avg. Yield	Acft. gauge	Average Delay in Minutes	International Flt Deps	# of Apts Served
PANYNJ	1	JFK	$0.073	0.63	0.74	141	35.8	174	72	-11%	5%	0%	19%	0%
	2	LGA	$0.123	1.06	1.24	110	58.1	31	5	-11%	13%	0%	-5%	0%
	3	EWR	$0.093	0.80	0.94	106	57.8	148	100	-23%	5%	0%	47%	67%
NYSDOT	4	SWF	$0.112	0.95	1.13	61	23.3	0	0	-11%	24%	0%		
	5	ISP	$0.081	0.69	0.81	120	80.3	0	0	-11%	23%	0%		
	6	HPN	$0.166	1.42	1.68	52	47.5	0	0	-11%	19%	0%		
DVRPC	7	ACY	$0.091	0.78	0.92	119	28.6	0	0	-11%		0%		
	8	ABE	$0.139	1.19	1.41	56	74.3	0	0	-11%		0%		
	9	TTN	$0.466	3.99	4.70	50	79.0	0	0	-11%		0%		
	All		**$0.099**	**0.85**	**1.00**									

Percent Change: 2005 to 2025

2025

	APID		Domestic Avg. Yield	Index to 2005	Index to Year	Acft. gauge	Average Delay in Minutes	International Flt Deps	# of Apts Served	Domestic Avg. Yield	Acft. gauge	Average Delay in Minutes	International Flt Deps	# of Apts Served
PANYNJ	1	JFK	$0.065	0.56	0.74	142	35.8	210	79	-21%	6%	0%	44%	10%
	2	LGA	$0.109	0.94	1.24	115	58.1	32	5	-21%	18%	0%	-2%	3%
	3	EWR	$0.083	0.71	0.94	108	57.8	209	119	-32%	7%	0%	107%	98%
NYSDOT	4	SWF	$0.099	0.85	1.12	70	23.3	0	0	-21%	44%	0%		
	5	ISP	$0.071	0.61	0.81	125	80.3	0	0	-21%	29%	0%		
	6	HPN	$0.147	1.26	1.67	53	47.5	0	0	-21%	21%	0%		
DVRPC	7	ACY	$0.081	0.69	0.92	121	28.6	0	0	-21%		0%		
	8	ABE	$0.124	1.06	1.40	67	74.3	0	0	-21%		0%		
	9	TTN	$0.413	3.53	4.68	50	79.0	0	0	-21%		0%		
	All		**$0.088**	**0.75**	**1.00**									

Source: Landrum & Brown

APPENDIX E:
Summary of Baseline Airport Service or Attraction Measures (Used for Level 5 Tests)

2005

	APID		Avg. Yield	Index to 2005	Index to Year	Acft. gauge	Average Delay in Minutes	Flt Deps	# of Apts Served
			Domestic					International	
PANYNJ	1	JFK	$0.083	0.71		134	35.8	146	72
	2	LGA	$0.139	1.19		97	58.1	32	5
	3	EWR	$0.121	1.03		101	57.8	101	60
NYSDOT	4	SWF	$0.126	1.08		49	23.3	0	0
	5	ISP	$0.091	0.78		97	80.3	0	0
	6	HPN	$0.187	1.60		44	47.5	0	0
DVRPC	7	ACY	$0.103	0.88		0	28.6	0	0
	8	ABE	$0.157	1.35		0	74.3	0	0
	9	TTN	$0.526	4.50		0	79.0	0	0
	All		**$0.117**	**1.00**					

Percent Change: 2005 to 2015

2015

	APID		Avg. Yield	Index to 2005	Index to Year	Acft. gauge	Average Delay in Minutes	Flt Deps	# of Apts Served	Avg. Yield	Acft. gauge	Average Delay in Minutes	Flt Deps	# of Apts Served
			Domestic					International		Domestic			International	
PANYNJ	1	JFK	$0.073	0.63	0.74	141	35.8	174	72	-11%	5%	0%	19%	0%
	2	LGA	$0.123	1.06	1.24	110	58.1	31	5	-11%	13%	0%	-5%	0%
	3	EWR	$0.093	0.80	0.94	106	57.8	148	100	-23%	5%	0%	47%	67%
NYSDOT	4	SWF	$0.112	0.95	1.13	61	23.3	0	0	-11%	24%	0%		
	5	ISP	$0.081	0.69	0.81	120	80.3	0	0	-11%	23%	0%		
	6	HPN	$0.166	1.42	1.68	52	47.5	0	0	-11%	19%	0%		
DVRPC	7	ACY	$0.091	0.78	0.92	119	28.6	0	0	-11%		0%		
	8	ABE	$0.139	1.19	1.41	56	74.3	0	0	-11%		0%		
	9	TTN	$0.466	3.99	4.70	50	79.0	0	0	-11%		0%		
	All		**$0.099**	**0.85**	**1.00**									

Percent Change: 2005 to 2025

2025

	APID		Avg. Yield	Index to 2005	Index to Year	Acft. gauge	Average Delay in Minutes	Flt Deps	# of Apts Served	Avg. Yield	Acft. gauge	Average Delay in Minutes	Flt Deps	# of Apts Served
			Domestic					International		Domestic			International	
PANYNJ	1	JFK	$0.065	0.56	0.74	142	35.8	210	79	-21%	6%	0%	44%	10%
	2	LGA	$0.109	0.94	1.24	115	58.1	32	5	-21%	18%	0%	-2%	3%
	3	EWR	$0.083	0.71	0.94	108	57.8	209	119	-32%	7%	0%	107%	98%
NYSDOT	4	SWF	$0.099	0.85	1.12	70	23.3	0	0	-21%	44%	0%		
	5	ISP	$0.071	0.61	0.81	125	80.3	0	0	-21%	29%	0%		
	6	HPN	$0.147	1.26	1.67	53	47.5	0	0	-21%	21%	0%		
DVRPC	7	ACY	$0.081	0.69	0.92	121	28.6	0	0	-21%		0%		
	8	ABE	$0.124	1.06	1.40	67	74.3	0	0	-21%		0%		
	9	TTN	$0.413	3.53	4.68	50	79.0	0	0	-21%		0%		
	All		**$0.088**	**0.75**	**1.00**									

Source: Landrum & Brown