

Atlantic City International Airport Economic Impact Analysis

SUBMITTED TO:

**South Jersey Transportation Planning Organization
and
South Jersey Transportation Authority**

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Atlantic City International Airport Economic Impact Analysis

EXECUTIVE SUMMARY

PURPOSE:

The South Jersey Transportation Planning Organization (SJTPO) sent out a request for proposals for an *Atlantic City International Airport Economic Impact Analysis* due in November of 2007. The funding for the project was provided by the Federal Highway Administration and the Federal Transit Administration of the United States Department of Transportation.

The RFP issued by the SJTPO stated that the economic impact analysis was needed “due to the planned growth at Atlantic City International Airport (ACY)”. The anticipated increase in regional growth brought about by the on-going expansion of the casino industry in Atlantic City as well as the diversification of the regional economy are expected to lead to continued air travel expansion.

The entire potential of Atlantic City International Airport may not be realized immediately. However, it is clearly well positioned given the regional economic outlook and the needs of the marketplace. The facts are fairly straightforward. In order to simply absorb the current building phase in Atlantic City, the hotel/casino industry must attract an additional **5 million new patrons in the next few years**. With an estimated current number of 34 million annual visitors, expansions should generate corresponding increases in the number of tourists as well as conventioners. Additionally, it is estimated that 21,900 new employees will be required simply to staff the new facilities. This will create a whole new round of secondary impacts as well.

Given the wide array of those that both receive the significant benefits as well as pay the costs from ACY, it is essential that the economic impact is analyzed, described and

disseminated to inform all stakeholders of the true role of the airport in the regional economy. This demands that the process and results of this study are understandable and defensible. This study aims to fulfill these purposes.

MEASURING ECONOMIC IMPACTS:

The measurement of economic impacts is often criticized as being arbitrary and determined by the methodology chosen by the researchers. However, as a project funded by the Federal Highway Administration, this study adheres to the guidelines that have been established by the Federal Aviation Administration (FAA) for regional airports

There are two main categories of economic advantages that accrue from airports. These include the **economic impacts** and the **transportation benefits**. In each of these categories there are benefits that can be measured and those that cannot be measured in dollars but can be enumerated from surveys and customer testimonials. This study is primarily concerned with the measurable impacts.

In the case of **economic impacts**, the regional levels of economic activity, earnings and employment due to expenditures attributed to ACY and the activities that occur at the airport facility are measured. These expenditures include the direct operations and maintenance of the facility, the activity of vendors on the property, and the dollars spent on construction. In addition, the regional impacts from the tourism generated by available air service – scheduled, charter and general aviation – are likewise measurable from estimates of the expenditures of these visitors.

The measurement of **transportation benefits** that accrue to those that use the airport is a bit more restrictive. The current methodology only allows the inclusion of **travel savings due to time saved and costs avoided** as defined by the difference in miles traveled

compared to an alternative airport. However, other transportation benefits include but are not limited to:

- convenience
- comfort
- safety
- business generation
- the avoidance of environmental degradation
- reduced delays at alternative airports

The airport and visitor expenditures generate impacts that are both **direct and indirect**. The direct impacts are generally due to expenditures paid by those passengers engaged directly in tourism after they arrive at ACY or the consumption of air services at the airport. Examples include lodging expenses for visitors or the purchase of food from a vendor in the ACY passenger terminal. Indirect impacts are those expenditures that are attributable to the direct impacts and are often referred to as spin-off or secondary effects. For instance, the vendors at ACY employ cashiers, a direct impact, and they spend their incomes at Wa-Wa or the local mall. The **total impacts are the sum** of these:

**SJTPO
ACY ECONOMIC IMPACT ANALYSIS
SUMMARY OF ECONOMIC IMPACTS, 2007**

	<u>EXPENDITURES</u>	<u>TOTAL ECONOMIC ACTIVITY</u>	<u>TOTAL EARNINGS</u>	<u>TOTAL EMPLOYMENT</u>
SJTA	\$56,408,832	\$111,621,267	\$33,769,941	830
VISITORS	\$185,276,558	\$352,438,477	\$102,308,303	3,708
TOTAL	\$241,685,388	\$464,059,741	\$136,078,242	4,538

The creation of \$464m in economic activity and over 4,500 jobs makes ACY one of the largest economic forces in the region.

The empirical findings reported above give an excellent background to public policy issues regarding the use of the airport to maximize economic benefits to the region and state. The economic impacts for ACY are clearly influenced by the level of tourism generated by air service. The expenditures associated with airport activities on a per passenger basis are independent of the purpose of travel. However, a visitor enhances this general impact by bringing added expenditures to the economy. These dollars are all imported from outside the region, giving a maximum impact. In addition, visitor generation has a large employment impact and sales tax effect. This leads to increased tax collections from income, sales and casino taxes.

The principle transportation benefits of ACY are the time saved by users over travel to alternative airports and the mileage saved by shorter trips. These overall transportation benefits are substantial. Combined, a savings of approximately \$20m was realized by less than half of ACY's total 2007 passengers. **The miles saved will become increasingly valuable as the cost of automobile transportation rises.**

**SJTPO
 ACY ECONOMIC IMPACT ANALYSIS
 SUMMARY OF TRANSPORTATION SAVINGS**

<u>PASSENGERS 2007</u>	<u>MILES SAVED</u>	<u>HOURS SAVED</u>	<u>MILES-SAVINGS</u>	<u>TIME-SAVINGS</u>
471,989.2	11,046,470.2	314,254.2	\$5,304,464.13	\$14,846,293.79

ROLE OF THE AVIATION COMPLEX IN REGIONAL GROWTH:

While the primary focus of this study is the impact of ACY, **the property encompasses a very diverse group of aviation-related functions that makes it one of the largest aviation complexes on the east coast.** The Air National Guard, Coast Guard, Department of Transportation and FAA all have major operational and/or research facilities on the property. The latter itself employs over 3,000 federal and contract

employees with average incomes well over the region's average. These functions all play a large role in the regional economy, either supporting other growing industries or as economic generators in their own right.

The economic impacts of the airport and FAA Tech Center alone can be compared to the casino industry. According to information released annually by the *New Jersey Casino Control Commission*, the total direct expenditures of the gaming industry in the Southern New Jersey region (eight southernmost counties) amounted to \$2.05b in 2007. The direct spending of the two aviation-related entities amounted to \$432m or 21.1% of that total. **The economic impact of the aviation complex, with all entities included would be approximately one-quarter the size of the casino industry, one of the state's largest industries as is shown below.**

**SJTPO
ACY ECONOMIC IMPACT ANALYSIS
TOTAL AVIATION COMPLEX ECONOMIC IMPACT, 2007**

	<u>DIRECT EXPENDITURES</u>	<u>TOTAL ECONOMIC ACTIVITY</u>	<u>TOTAL EARNINGS</u>	<u>TOTAL EMPLOYMENT</u>
ACY	\$241,685,388	\$464,059,741	\$136,078,242	4,538
FAATEC	\$190,320,000	\$422,009,261	\$225,948,301	6,200
TOTAL	\$432,005,388	\$886,069,002	\$362,026,544	10,738

Atlantic City International Airport is already an essential component of the region's economy and its role can only grow in the years ahead. Even if one discounts the projected growth numbers, it's clear that both the visitor and employee counts for the region are now and will continue to experience dramatic growth. **The airport provides one of the only viable alternatives for expanding the visitor base consistent with the constraints common to a barrier island.**

In terms of public investment, ACY offers a mode of transportation that can accommodate the increase in travel demands while limiting the additional congestion and environmental degradation that would occur with alternative modes. ACY already provides a substantial level of economic and transportation benefits to the region and state. Its continued development is essential for the competitiveness and growth of the regional economy.

Atlantic City International Airport Economic Impact Analysis

PART I. INTRODUCTION

Introduction:

The South Jersey Transportation Planning Organization (SJTPO) sent out a request for proposals for an *Atlantic City International Airport Economic Impact Analysis* due in November of 2007. The funding for the project was provided by the Federal Highway Administration and the Federal Transit Administration of the United States Department of Transportation.

The contract was awarded to the Center for Regional and Business Research (CRBR) at Atlantic Cape Community College. The Scope of Services from the proposal are presented in **APPENDIX 1**. The CRBR performed all of the projections and economic impact estimates. In addition, the New Jersey Institute of Technology's Office of Research and Development was included on the research team to provide an analysis of the funding implications of the economic impacts and how these could best be used for informing funding agencies and partners regarding funding requests, project justification and resource allocation. Finally, M&M Communications was also included on the research team to make the technical economic impact analysis as accessible as possible to a variety of audiences.

While the current study is confined to the economic impacts generated by the activity that occurs only at the commercial airport on the property, the overall operations include the following: the 177th Fighter Wing of the Air National Guard; the air-sea rescue operations of the U.S. Coast Guard for the Mid-Atlantic region; the national training center for the Transportation Security Administration's Federal Air Marshal program;

and, the FAA's William J. Hughes Technical Research Center. The economic impact of the entire facility far outweighs the ACY functions alone, and there is some discussion of the magnitude of the overall impact in the study.

Purpose of the Current Study:

The RFP issued by the SJTPO stated that the economic impact analysis was needed due to the planned growth at Atlantic City International Airport (ACY). The anticipated increase in regional growth brought about by the on-going expansion of the casino industry in Atlantic City as well as the diversification of the regional economy is expected to lead to related air travel expansion.

The current five-year construction budget, 2007-2011, calls for \$129m in expansions and improvements. With the recent June 2008 opening of the first parking garage within walking distance of the main passenger terminal, this construction phase includes an expansion of the terminal for better baggage handling and security purposes. The capital plan also allocates an additional \$32m for safety improvements. The combined expenditures of \$161.3m alone will give the regional economy a needed boost as housing construction continues to readjust.

As is the case for most airports, the funding and future expansion of ACY is determined through the state and local political process. At the current time, the funding of the airport is provided by activities that occur at the facility as well as the SJTA, a state agency. In addition, the surrounding community benefits from and supports ACY as it provides a wide array of economic as well as travel benefits. However, the community also must deal with some of the negative aspects of the facility such as increased traffic and noise.

Given the wide array of those that both receive the significant benefits as well as pay the costs from ACY, it is essential that the economic impact is analyzed, described and

disseminated to inform all stakeholders of the true role of the airport in the regional economy. This demands that the process and results of this study are understandable and defensible. This study aims to fulfill these purposes.

Methodology - Measuring Economic Benefits:

The measurement of economic impacts is often criticized as being arbitrary and determined by the methodology chosen by the researchers. However, as a project funded by the Federal Highway Administration, this study adheres to the guidelines that have been established by the Federal Aviation Administration (FAA) for regional airports. These guidelines have been established for two reasons:

- To allow for studies for the comparison of results for all airports with similar characteristics, and
- To assure the public that the methodology is as independent as possible from the researcher chosen to provide the analysis.

The currently used methodology was developed and illustrated by Butler and Kiernan in 1992 in *Estimating the Regional Economic Significance of Airports* (see: http://www.faa.gov/airports/airtraffic/airports/aip/bc_analysis/media/economic_significance_1992.pdf). In practice, this paper continues to be the basis for a large number of economic impact studies.

There are two main categories of economic advantages that accrue from airports. These include the **economic impacts** and the **transportation benefits**. In each of these categories there are benefits that can be measured and those that cannot be measured in dollars but can be enumerated from surveys and customer testimonials. This study is primarily concerned with the measurable impacts.

In the case of **economic impacts**, the regional levels of economic activity, earnings and employment due to expenditures attributed to ACY and the activities that occur at the

airport facility are measured. These expenditures include the direct operations and maintenance of the facility, the activity of vendors on the property, and the dollars spent on construction. In addition, the regional impacts from the tourism generated by available air service – scheduled, charter and general aviation – are likewise measurable from estimates of the expenditures of these visitors.

The measurement of **transportation benefits** that accrue to those that use the airport is a bit more restrictive. The current methodology only allows the inclusion of **travel savings due to time saved and costs avoided** as defined by the difference in miles traveled compared to an alternative airport. However, other transportation benefits include but are not limited to:

- convenience
- comfort
- safety
- business generation
- the avoidance of environmental degradation
- reduced delays at alternative airports

These are not included in the measurement methodology. **However, this study proposes an example of accounting for the benefits to the traveler that are not included in the current methodology.** In addition, evidence of the other benefits, while not measurable, is discussed.

Atlantic City International Airport Economic Impact Analysis

PART II. ESTIMATING ECONOMIC IMPACTS

The economic impacts of ACY are those that are generated by the activities that take place at the airport facility. These include those performed by SJTA staff, contractors, vendors and fixed based operators. Like any private business, the airport employs workers, purchases goods and services, and provides goods and services. This economic activity has an impact on the regional economy. In addition, this impact is on-going unlike construction projects that are one-time expenditures.

Types of Impacts:

In the Butler and Kiernan methodology, the economic impacts originate from two kinds of activities. The first is activity at the airport itself and the expenditures that pay for them. The second is the tourism activity that visitors using air service engage in once they arrive in the region. Both sources of direct economic activity must be accounted for in measuring the economic impact of the airport.

These two activities generate impacts that are both **direct and indirect**. The direct impacts are generally due to expenditures paid by those passengers engaged directly in tourism after they arrive at ACY or the consumption of air services at the airport. Examples include lodging expenses for visitors or the purchase of food from a vendor in the ACY passenger terminal. Indirect impacts are those expenditures that are attributable to the direct impacts and are often referred to as spin-off or secondary effects. For instance, the vendors at ACY employ cashiers, a direct impact, and they spend their incomes at Wa-Wa or the local mall. The **total impacts are the sum** of these (some models include a third category, induced impacts. These are due to repeated re-spending

of an ever-decreasing share of direct expenditures. In this study, the indirect impacts are the sum total of these impacts.)

For airports located in resort areas, the regional impact of even small airports can be substantial. According to the latest *2007 Conversion and Spending Survey* administered by the Atlantic City Convention and Visitors Authority, each tourist to the region spends over \$500. on a typical 1.9 night stay. More importantly, the airport plays a vital role in the tourism industry making larger geographic markets available to the expanding industry.

Model:

While the methodology for measuring economic impacts has been standardized by the FAA, there are still technical differences in how researchers estimate some of these measures. These differences are mostly due to the use of one of three commonly used models to estimate secondary or indirect impacts from direct impacts. A discussion of the principal methodologies and models used by researchers is found in *Analyzing the Economic Impact of Transportation Projects Using RIMS II, IMPLAN and REMI* prepared for the U.S. Department of Transportation by the Institute for Science and Public Affairs at Florida State University.

In order to provide measurements of the impacts, the U.S. Department of Commerce, Bureau of Economic Analysis' most often used economic impact model was benchmarked and used. The *Regional Industrial Multiplier System*, RIMS II, uses multipliers derived from the economic structure of Southern New Jersey as the primary tool. It gives estimates of economic impacts that are consistent with those of other large transportation project and airport studies. In addition, the results complement those contained in the neighboring FAA Technical Center impact study completed in 2002.

The results of this process provide the framework for constructing an input matrix and an output report that utilizes the RIMS II multipliers **to project impacts based on air service expansion scenarios**. The client can then add or remove to the activities at the airport as they change and calculate the economic impacts in real time. These are based on per passenger impacts.

Data Requirements:

The RIMS II model allows the estimation of total earnings and employment impacts from direct output or expenditure data. This necessitates the inclusion of all expenditures from all entities involved in airport operations. The table below shows the expenditure categories used:

TABLE 1

SJTPO ACY ECONOMIC IMPACT ANALYSIS DIRECT SJTA AND VENDOR AIRPORT EXPENDITURES, 2007	
<u>CATEGORY</u>	<u>DIRECT EXPENDITURES</u>
Constr. (5-yr. avg.)	\$32,255,951
Equip.	\$113,435
SJTA-Admin	\$1,006,850
SJTA-NonAdmin	\$8,097,559
Vendors	\$14,935,037
Sub-totals:	\$56,408,832

For all of these categories except construction and capital equipment, the 2007 data was used. In the case of construction expenditures which fluctuate substantially from year to year, a five-year average of approved future expenditures was used to give a better idea of the “annual” economic impact of the facility. The equipment purchase was also modified to approximate local purchases as expenditures outside the area would not

impact the regional economy. One-fourth (25%) of the projected average annual amount was used.

Economic Impacts:

The overall expenditures associated with the airport exceed \$56m which would make it one of the largest businesses in the region if privately owned. It is these dollars that are pumped into the local economy to produce the secondary or indirect impacts. By applying the expenditure data to the RIMS II multipliers, the total impacts are estimated. The results of this are shown below:

TABLE 2

SJTPO ACY ECONOMIC IMPACT ANALYSIS TOTAL SJTA IMPACTS, 2007					
CATEGORY	DIRECT EXPENDITURES	RIMS INDUSTRY	TOTAL OUTPUT	TOTAL EARNINGS	TOTAL EMPLOYMENT
Constr. (5-yr. avg.)	\$32,255,951	7. Construction	\$66,176,308	\$20,837,344	470
Equip.	\$113,435	18. Miscellaneous manufacturing	\$214,381	\$61,504	1
SJTA-Admin	\$1,006,850	47. Professional, scientific, and tech. services	\$2,010,881	\$674,690	13
SJTA-NonAdmin	\$8,097,559	29. Air transportation	\$15,873,644	\$4,113,560	84
Vendors	\$14,935,037	28. Retail trade	\$27,346,054	\$8,082,842	262
Sub-totals:	\$56,408,832		\$111,621,267	\$33,769,941	830

The economic impact generated by the activities at the airport, as shown, is \$111.6m which generates 830 regional jobs and \$33.8m in earnings.

In order to measure the impacts from the tourism activity from visitors entering the region through ACY, the number of visitors was estimated from the number of scheduled, charter and general aviation passengers. To do this, the number of visitors from scheduled air service used in the SJTA annual visitor count was used, 260,008. In addition, half of all charter passengers were included – an assumption that all charter deplanements are visitors. Finally, the FAA uses a 1.8 passengers per GA landing

estimate and this was applied to the ACY data. The overall number of visitors arriving through ACY in 2007 was estimated to be 360,344.

TABLE 3

SJTPO ACY ECONOMIC IMPACT ANALYSIS VISITORS VIA ACY, 2007				
	<u>SCHEDULED</u>	<u>CHARTER</u>	<u>GEN. AVIATION</u>	<u>TOTAL</u>
Passengers	981,282	195,349	10,044	1,186,675
# of Visitors	260,008	97,675	2,661	360,344

While this estimate was required due to a more definitive count, it is recommended that a more complete passenger survey be conducted over a number of time periods which includes all classifications of passengers.

The ACCVA spending survey referred to previously was used to get expenditures from the visitor numbers. The average spending data is provided by category, allowing a better estimate of total economic impacts. The RIMS II model has separate multipliers for each category – the more disaggregated the expenditure information, the better the economic impact estimates.

TABLE 4

SJTPO ACY ECONOMIC IMPACT ANALYSIS VISITOR EXPENDITURES, 2007		
<u>CATEGORY</u>	<u>PER PARTY OF 2.59*</u>	<u>TOTAL EXPENDITURES</u>
Food	\$170	\$23,632,434
Lodging	\$226	\$31,377,740
Entertainment	\$649	\$90,308,566
Shopping	\$173	\$24,080,429
Transportation	\$23	\$3,195,791
Other	\$91	\$12,723,337
Total	\$1,332	\$185,276,558

* Source: 2007 Web Site Visitors Conversion and Spending Survey, ACCVA

The industry disaggregation is useful when economic impacts in a particular sector are needed. In addition, the estimation of tax revenues from ACY generated economic activity will later be derived from this information as each activity has its own tax rate.

As was done for airport activities, the visitor spending data is used to derive total output (economic activity), earnings and employment. **The visitor spending attributed to tourists arriving by air service creates \$352.4m in economic activity and 3,798 regional jobs.**

TABLE 5

SJTPO ACY ECONOMIC IMPACT ANALYSIS TOTAL VISITOR IMPACTS, 2007					
CATEGORY	DIRECT EXPENDITURES	RIMS INDUSTRY	TOTAL OUTPUT	TOTAL EARNINGS	TOTAL EMPLOYMENT
Food	\$23,632,434	58. Food services and drinking places	\$46,234,494	\$12,043,088	537
Lodging	\$31,377,740	57. Accommodation	\$57,487,157	\$16,793,366	510
Entertainment	\$90,308,566	56. Amusements, gambling, and recreation	\$172,299,713	\$50,735,352	1,932
Shopping	\$24,080,429	28. Retail trade	\$44,091,266	\$13,032,328	423
Transportation	\$3,195,791	33. Transit and ground passenger transportation*	\$6,792,653	\$2,123,603	82
Other	\$12,723,337	59. Other services*	\$25,533,194	\$7,580,564	224
Sub-totals:	\$185,276,558		\$352,438,477	\$102,308,303	3,708

The overall economic impacts from the airport are shown below.

TABLE 6

SJTPO ACY ECONOMIC IMPACT ANALYSIS SUMMARY OF ECONOMIC IMPACTS, 2007				
	<u>EXPENDITURES</u>	<u>TOTAL ECONOMIC ACTIVITY</u>	<u>TOTAL EARNINGS</u>	<u>TOTAL EMPLOYMENT</u>
SJTA	\$56,408,832	\$111,621,267	\$33,769,941	830
VISITORS	\$185,276,558	\$352,438,477	\$102,308,303	3,708
TOTAL	\$241,685,388	\$464,059,741	\$136,078,242	4,538

Finally, one of the associated benefits of economic activity is the tax revenue derived from it. For a public facility, this is important to consider when resource allocation is

being weighed on a state-wide basis. The only taxes considered were those that could conservatively be estimated with a high degree of certainty. Since the level of economic activity in earnings is a direct output of the RIMS II model, this was used with the NJ effective income tax rate to get tax revenues from the income generated.

Since the sector information is available to allow the measurement of retail activity alone, the sales tax from this was estimated using the NJ 7% Sales Tax. Finally, the casino tax of 8% was used on half of the recreational spending. This is probably low in the Atlantic City region since many of the visitors arrive for the purpose of gambling.

The net result is shown in the table below:

TABLE 7

SJTPO			
ACY ECONOMIC IMPACT ANALYSIS			
ACY IMPACTS: TAX REVENUES			
<u>CATEGORY</u>	<u>ACY IMPACT</u>	<u>EFFECTIVE TAX RATE</u>	<u>TAX REVENUE</u>
Earnings	\$136,078,242	0.03	\$4,082,347
Retail	\$39,015,466	0.07	\$2,731,083
Recreation	\$90,308,566	0.04	\$3,612,343
Total			\$10,425,773

The actual total tax revenues are no doubt higher. The inclusion of corporate and payroll taxes alone would greatly increase this number.

Projecting the Economic Impacts of New Services:

The above information can be used to calculate the economic impacts that would be realized by increased air service. This can be done by taking a per passenger value of

output, earnings and employment for both airport activities as well as visitor activities. These can be used to get the total increases due to expanded passenger counts.

To perform these projections, a spreadsheet has been provided with the electronic version of this report.

Summary:

The empirical findings reported above give an excellent background to public policy issues regarding the use of the airport to maximize the benefits to the region and state. The economic impacts for ACY are clearly influenced by the level of tourism that can be generated by air service. The expenditures associated with airport activities on a per passenger basis are independent of the purpose of travel. However, a visitor enhances this general impact by bringing added expenditures to the economy. These dollars are all imported from outside the region, giving a maximum impact. In addition, visitor generation has a large employment impact and sales tax effect. This leads to increased tax collections from income, sales and casino taxes.

This analysis begs the question about the bearing of the public costs of operating, maintaining and expanding the facility and its role in the tourism industry. Clearly, local businesses benefit from the spending by visitors. Local residents get jobs and earn wages. However, they also bear the costs due to increased congestion, pollution and noise levels. **The continued popular public support of the airport will depend on the ability to mitigate the costs of its operations while maximizing its benefits. Both demand continued investment.**

Atlantic City International Airport Economic Impact Analysis

PART III. ESTIMATING TRANSPORTATION BENEFITS

Measuring Time Saved and Miles Avoided:

The principle transportation benefits of ACY are the time saved by users over travel to alternative airports and the mileage saved by shorter trips. Unfortunately, the approved methodology does not allow the inclusion of other benefits in measuring impacts. In addition, the calculation of even these benefits is limited as only shorter trips to ACY compared to those to Newark (EWR) or Philadelphia (PHL) result in net benefits. Even if a longer trip is selected because comfort and convenience more than compensate for the added driving cost, the methodology cannot measure this difference.

The allowed transportation benefits have been calculated for those using ACY from Ocean, Atlantic, Cape May and Cumberland counties. All others result in longer drives in terms of miles and minutes to ACY. Mileage and time were calculated using Mapquest, and the county seat was used as a proxy for the average point of passenger departure for the trip to the airport. The IRS mileage reimbursement of \$.485 in 2007 was used for the mileage value and an FAA derived hourly "time value" of \$47.24 for domestic airline passenger time was used for calculating the time saved.

The table below shows the measurement of the transportation benefits. The passenger estimate was derived from the August 2007 license plate count at ACY and the results of the 2006 *Air Passenger Survey Findings for ACY* finding that 87% of passengers arrive by private car.

TABLE 8

**SJTPO
ACY ECONOMIC IMPACT ANALYSIS
SUMMARY OF TRANSPORTATION SAVINGS**

<u>PASSENGERS 2007</u>	<u>MILES SAVED</u>	<u>HOURS SAVED</u>	<u>MILES-SAVINGS</u>	<u>TIME-SAVINGS</u>
471,989.2	11,046,470.2	314,254.2	\$5,304,464.13	\$14,846,293.79

The overall transportation benefits are substantial. Combined, a savings of approximately \$20m was realized by less than half of ACY's 2007 passengers. **The miles saved will become increasingly valuable as the cost of automobile transportation rises.**

While the methodology of estimating the economic benefits of airports does not specify a means for measuring the other transportation benefits mentioned previously, **it should be clear that passengers choosing ACY over a closer alternative airport must do so because the net total transportation benefits exceed the net costs.** While time and mileage costs may be greater than the alternative, this is compensated by some combination of benefits such as comfort, convenience, parking costs or ticket price.

One way to estimate the sum total of these "unmeasurable" benefits is to calculate the costs that are traded-off so they can be realized. **The difference can be assumed to be at least a small amount of net benefits as valued by the consumer.**

To illustrate this, the negative savings of ACY passengers from Monmouth County were calculated in the same manner as the positive benefits for the nearby counties explained above. A trip from Monmouth is shorter in terms of both time and distance to EWR than ACY (a Mapquest average which depends, of course, on the time of day). As shown, the passengers are willing to accept a cost of over \$8.5m in added time and mileage costs to attain some combination of transportation benefits that make this a beneficial decision.

TABLE 9

SJTPO
ACY ECONOMIC IMPACT ANALYSIS
MONMOUTH COUNTY: VALUE OF UNMEASURED BENEFITS

<u>PASSENGERS 2007</u>	<u>MILES SAVED</u>	<u>HOURS SAVED</u>	<u>MILES-SAVINGS</u>	<u>TIME-SAVINGS</u>
177,963.1	-7,401,487	-106,777.9	-\$3,589,721.07	-\$5,044,502.22

While further research would be needed, a means of sorting out these benefits and measuring them could be developed by combining cost data with research data to get the value of non-monetary benefits. **Since passengers from many other more distant locations choose to use ACY, these benefits must be meaningful.** In fact, the 2006 passenger survey did ask respondents to choose those benefits that drew them to ACY. Those chosen more often than travel time (65%) included the availability of direct flights (74%) and price of fares (65%).

From the perspective of maximizing economic impacts, this information provides some marketing direction. Direct flights to specific markets are limited at ACY, but the ones that do exist are preferred to those available from EWR. Niche markets could be available.

Atlantic City International Airport Economic Impact Analysis

PART IV. ROLE OF THE AVIATION INDUSTRY IN REGIONAL GROWTH

The previous three parts of the study have dealt with the economic impacts of ACY specifically. However, as noted above, **the property encompasses a very diverse group of aviation-related functions that makes the property one of the largest aviation complexes on the east coast.** The Air National Guard, Coast Guard, Department of Transportation and FAA all have major operational and/or research facilities on the property. The latter itself employs over 3,000 federal and contract employees with average incomes well over the region's average. These functions all play a large role in the regional economy, either supporting other growing industries or as economic generators in their own right.

This section intends to tie these economic links together. Some are stronger than others. The airport has served the casino industry since its inception in Atlantic City in 1978 to bring scheduled passengers, charters from domestic and international destinations, and company executives. In the beginning stages is the development of an aviation research park that would tie together the research capabilities of the FAA Technical Center with the educational and technology sectors of the region. **Finally, the continued development of the Atlantic City hospitality industry into a leading destination resort is dependent on transportation improvements.** These include the coordination of modes and the extension of the reach of the transit system to broaden the tourism market.

Current Economic Impact of the Aviation Complex:

Economic impact studies exist for the two major employers on the airport property, the current ACY study and the federally mandated impact study of the FAA Technical Center (see: <http://www.tc.faa.gov/its/worldpac/techrpt/cttn02-9.pdf>). The 2002 findings of this study have been updated to 2007 dollars to make them compatible with the ACY impacts. As the table below shows, the combined impacts approach one-billion dollars and are responsible for creating over 10,000 regional jobs.

TABLE 10

SJTPO
ACY ECONOMIC IMPACT ANALYSIS
TOTAL AVIATION COMPLEX ECONOMIC IMPACT, 2007

	<u>DIRECT</u> <u>EXPENDITURES</u>	<u>TOTAL</u> <u>ECONOMIC</u> <u>ACTIVITY</u>	<u>TOTAL</u> <u>EARNINGS</u>	<u>TOTAL</u> <u>EMPLOYMENT</u>
ACY	\$241,685,388	\$464,059,741	\$136,078,242	4,538
FAATEC	\$190,320,000	\$422,009,261	\$225,948,301	6,200
TOTAL	\$432,005,388	\$886,069,002	\$362,026,544	10,738

The total impact of the aviation complex would be even higher. However, studies for the impacts of the Air National Guard, Coast Guard and TSA operations are not available. Nonetheless, the economic impacts of the airport and Tech Center alone can be compared to the casino industry. According to information released annually by the *New Jersey Casino Control Commission*, the total direct expenditures of the gaming industry in the Southern New Jersey region (eight southernmost counties) amounted to \$2.05b in 2007. The direct spending of the two aviation-related entities amounted to \$432m or 21.1% of that total. **The economic impact of the aviation complex, with all entities included would be approximately one-quarter the size of the casino industry, one of the state's largest industries.**

TABLE 11

**SJTPO
ACY ECONOMIC IMPACT ANALYSIS
CASINO/AVIATION: DIRECT SPENDING IN SOUTHERN NJ, 2007**

CASINO INDUSTRY	\$2,046,229,415
AVIATION COMPLEX	\$432,005,388
%	21.1%

Regional Prospects:

Many communities have built entire economic development master plans around airports but that is not the case with Atlantic City International Airport. In this region, the airport has always been regarded as vital component for future growth, a major ingredient to accommodate a visitor market that has to grow if hotel/casino industry is to continue to be successful and a significant stand alone economic generator. In other words, it is one of many keys to regional growth.

While it's virtually impossible in today's economic market to make accurate predictions on extent of the potential for airport growth, it can safely be said that this regional market appears to offer considerable benefits that are not found in most areas of the country. Construction has continued at a remarkable rate particularly with regard to projects that augment the casino and visitor market.

Projects recently completed or under construction have added or shortly will add an additional 4,830 rooms and 7,700 direct employees. In relative terms these additions represent the equivalent of adding two new hotel/casino facilities to the market. Projects in the planning approval and pre-construction phases have the potential to add an additional three casino/hotels (MGM, Pinnacle, Revel's Tower 2) with 8,000 new rooms over the next few years. These changes are summarized in the following two tables:

TABLE 12

**SJTPO
ACY ECONOMIC IMPACT ANALYSIS
CASINO INDUSTRY EMPLOYMENT PROJECTIONS
CRBR, 2008**

<u>PROJECT</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Direct Employment - Annual Additions	800	400	6,500	0	7,700	6,500	
Direct Employment - Total Additions		1,200	7,700	7,700	15,400	21,900	21,900
Spin-off Employment - Annual Additions		312	156	2,538	0	3,007	2,538
Spin-off Employment - Total Additions		312	469	3,007	3,007	6,014	8,552
Annual - Direct and Spin-Off		712	6,656	2,538	7,700	9,507	2,538
Total - Direct and Spin-Off		1,512	8,169	10,707	18,407	27,914	30,452

TABLE 13

**SJTPO
ACY ECONOMIC IMPACT ANALYSIS
ROOM DEVELOPMENT PROJECTIONS
CRBR, 2008**

		TOTAL ROOMS	% INCREASE
AVAILABLE ROOMS, 2006	15,015	15,015	
RECENTLY OPENED OR IN CONSTRUCTION	4,800	19,815	32.0%
ADDITIONAL ROOMS PROJECTED BY 2014	8,000	27,815	85.2%
TOTAL EXPANSION	12,800		

In addition to the casino industry-driven growth, the area immediately adjacent to ACY is also experiencing compatible growth which builds upon the availability of the facility and the unique strengths of it's closest neighbor, the FAA Technical Center. An Aviation Research and Technology Center jointly sponsored by the FAA, NJ Economic

Development Authority, USEDA and Richard Stockton College of NJ is designed to create a high tech innovation hub which maximizes proximity to one of the best known and highest regarded aviation technology centers in the country. The research park has received funding commitments for infrastructure design, permitting and infrastructure construction. The master plan for the 55-acre site includes 295,000 square feet of research space and will employ 2,000 highly-paid professionals. This addition to the current aviation complex will extend its role and promote added economic impacts to the region.

As mentioned previously, already the home of over 3,000 employees, the William J. Hughes Technical Center is currently the nation's premier aviation research, development and test evaluation facilities. These employees provide a substantial economic impact to the region, with average salaries near \$90,000. However, the Technical Center is poised to play a key role in the development of the Next Generation Air Traffic System, the successor to the current air traffic control system. This also will expand the role of the overall aviation complex.

The entire potential of Atlantic City International Airport may not be realized immediately. However, it is clearly well positioned given the regional economic outlook and the needs of the marketplace. The facts are fairly straightforward. In order to simply absorb the current building phase, the hotel/casino industry must attract an additional **5 million new patrons in the next few years**. With an estimated current number of 34 million annual visitors, expansions should generate corresponding increases in the number of tourists as well as conventioners. Additionally, it is estimated that 21,900 new employees will be required simply to staff the new facilities. This will create a whole new round of secondary impacts as well.

The increases in visitors expected and required along with competition for drive-in customers from nearby states will almost certainly require expanding the market from which the industry has traditionally drawn the bulk of its patrons and almost surely mean finding new ways of getting them to this area. **The critical mass, which is fundamental**

to a multi-dimensional destination community and is finally being realized in Atlantic City, brings with it a need to expand travel choices beyond the traditional modes of cars and buses. This is particularly true when one looks at the existing roadway network. All three of the major access roads to Atlantic City face environmental, access, right of way and geographic constraints, which severely limit the building of additional capacity.

Atlantic City International Airport is already an essential component of the region's economy and its role can only grow in the years ahead. Even if one discounts the projected growth numbers dramatically it's clear that both the visitor and employee counts for the region are and will continue to experience dramatic growth. **The airport provides one of the only viable alternatives for expanding the visitor base consistent with the constraints common to a barrier island.**

Perhaps of equal importance, it is already well prepared to meet increased demand. With improvements already underway or contained within the short-term facility master plan, the airport is in a position to handle additional daily passengers with virtually no drop-off in a well-regarded level of service. Just as importantly, ACY offers a mode of transportation that can accommodate the increase in travel demands while limiting the additional congestion and environmental degradation that would occur with alternative modes. ACY already provides a substantial level of economic and transportation benefits to the region and state. Its continued development is essential for the competitiveness and growth of the regional economy.