Economic Impact of the William J. Hughes Technical Center on Southern New Jersey: Update 2015

SUBMITTED TO:

FEDERAL AVIALTION ADMINISTRATION
WILLIAM J. HUGES TECHNICAL CENTER
ATLANTIC CITY INTERNATIONAL AIRPORT

BY:

RICHARD C. PERNICIARO, PH.D.

DIRECTOR

ORDER FOR SUPPLIES OR SERVICES

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IMPORTANT: Mark all packages and papers with contract and/or order numbers

1. DATE OF ORDER: 02/09/2015
2. CONTRACT NO. (If any):
3. ORDER NO.: DTFACT-15-P-00051
4. REQUISITION/REFERENCE NO.: See Schedule

5. ISSUING OFFICE (Address correspondence to):
AJA-4A3 Acquisition Team A3
Federal Aviation Administration
WM J Hughes Technical Center
Colleen McLaughlin-Heasty 609-485-6740
Atlantic City Intl Airport NJ 08405

6. SHIP TO:
a. NAME OF CONSIGNEE: N692K02F
b. STREET ADDRESS: 692K02 DOT FAA ANG-E6
ATTN MICHAEL GRECO
WILLIAM J HUGHES TECHNICAL CTR
ATLANTIC CITY NJ 084050001
c. CITY: ATLANTIC CITY
d. STATE: NJ
e. ZIP CODE: 084050001

7. TO:
a. NAME OF CONTRACTOR: ATLANTIC CAPE COMMUNITY COLLEGE
b. COMPANY NAME:
c. STREET ADDRESS: 5100 BLACK HORSE PIKE
d. CITY: MAYS LANDING
e. STATE: NJ
f. ZIP CODE: 08330-2623

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[X] a. PURCHASE — REFERENCE YOUR:
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11. BUSINESS CLASSIFICATION (Check appropriate box(es))
[ ] a. SMALL [X] b. OTHER THAN SMALL [ ] c. DISADVANTAGED [ ] d. WOMEN-OWNED

12. F.O.B. POINT: Destination
13. PLACE OF
a. INSPECTION: Destination
b. ACCEPTANCE: Destination
14. BILL OF LADING NO.:
15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date):
16. DISCOUNT TERMS:

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	AUTHORITY 49 U.S.C. 106 (1)(6) Economic Impact Study Award based upon Economic Impact Study quote dated 29 January 2015 via email from Richard Perniciaro of Center for Regional and Business Research, Atlantic Cape Continued ...					

18. SHIPPING POINT:
19. GROSS SHIPPING WEIGHT:
20. INVOICE NO.:
17(h). TOTAL (Cont. pages): $21,000.00

21. MAIL INVOICE TO:
a. NAME: FAA AAC ACCTG OFC
b. STREET ADDRESS (or P.O. Box): DOT/FAA AMZ-110
PO BOX 25710
OKLAHOMA CITY OK 73125
c. CITY: OKLAHOMA CITY
d. STATE: OK
e. ZIP CODE: 73125

17(i). GRAND TOTAL: $21,000.00

SEE BILLING INSTRUCTIONS ON REVERSE

22. CONTRACTING AUTHORITY BY (Signature): Colleen Ann McLaughlin-Heasty
Digitally signed by Colleen Ann McLaughlin-Heasty
DN: c=US, o=U.S. Government, ou=ACT, ou=ACT, cn=Colleen Ann McLaughlin-Heasty
Date: 2015.02.09 13:39:40 -05'00'

23. NAME (Typed): Colleen McLaughlin-Heasty
TITLE: CONTRACTING/ORDERING OFFICER

ACKNOWLEDGMENTS

The impetus for this reassessment of the economic significance of the William J. Hughes Technical Center is directly traceable to the adoption by many federal agencies of best business practices. I ndependent contractors specializing in economic analysis were employed to assess the economic impact of the Technical Center in 1996 and 2002. This report serves to update those studies to reflect both the changing role of the Center since the events of 2001 as well as the economic transition of the Southern New Jersey region that began with the national recession of 2007 and has continued to date due to regional downturns in the hospitality and gaming industries.

With continued support from FAA personnel, the contactor was able to collect the necessary input data for modeling and analyzing the economic impacts. Richard Perniciaro conducted the model simulation activities and generated study results. A brief description of technical personnel who participated in this study is as follows:

1. Dennis Steelman - FAA,ANG-E3, Engineer, Center Operations Division, William J. Hughes Technical Center.

2. Michael Greco, Manager – FAA NextGen, William J. Hughes Technical Center.

3. Gayle Martin-Taylor, Business Account manager, ANG-E32, William J. Hughes Technical Center.

4. Richard C. Perniciaro, Ph.D. – Director of the *Center for Regional and Business Research* (CRBR). He specializes in economic impact studies, land-use and demographics. He has completed impact studies for the Federal Highway Administration and the U.S. Department of Transportation.

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EXECUTIVE SUMMARY

This study updates earlier analyses of the economic contributions of the William J. Hughes Technical Center (in this study the Technical Center includes all of the tenant organizations and departments on the property; the FAA refers to only the William J. Hughes Technical Center itself) to the economy of Southern New Jersey. The first study was undertaken in 1996 (ACT-500 Research Group, 1997) and was updated in 1999 (ACT-500 Research Group, 2002). In 2015, the FAA contracted with the *Center for Regional and Business Research* (CRBR) to provide another update. The current one has been undertaken due to two trends with substantial consequences for the economic impact of the Technical Center. These include:

- A number of changes in the tenants and their roles at the Technical Center have occurred that alter the impact of the Technical Center on the local economy.

- A major transition in the regional economy brought about by the national recession beginning in 2007 and the loss of competitive market share by the Atlantic City casino gaming industry. This has resulted in the loss of thousands of jobs which has had a substantial impact on the entire Southern New Jersey region.

Background:

The FAA William J. Hughes Technical Center is the nation's premier aviation research, development, test and evaluation facility. Its world-class laboratories and top-notch engineering place it at the forefront of the FAA's challenge to modernize the U.S. air transportation system. The William J. Hughes Technical Center serves as the FAA national scientific test base for research and development, test and evaluation, and verification and validation in air traffic control, communications, navigation, airports, aircraft safety, and security. It is the primary facility supporting the nation's Next Generation Air Transportation System, called NextGen, as well as the integration of unmanned aircraft systems (UAS) into the national air space.

The inter-related nature of the industry structure, income levels and lack of job growth in higher-wage industries is the context in which the Technical Center's role in the study area's economy and quality of life is best considered. The total of 2,732 direct employees on the Technical Center campus provides a stable base of well-paid employees that are a very valuable counterpoint to the economic performance of the wider Southern New Jersey economy. The Technical Center is composed of the FAA William J. Hughes Technical Center, the Department of Homeland Security – Transportation Security Administration, Department of Homeland Security – Transportation Security Lab, the United States Coast Guard Group Air Station Atlantic City, the Atlantic City

International Airport (ACY), a component of the South Jersey Transportation Authority, and New Jersey Air National Guard 177th Fighter Wing.

Economic Impact Analysis:

The process of estimating economic impacts for a region is fairly straightforward once the study area and direct inputs are collected and verified. In the case of this study, these inputs have already been restricted to those expenditures made in the geography which the economic model can match directly. That is, it is a county-level model that has been aggregated to the Southern New Jersey region by combining data from the eight southernmost counties in the state. Actual expenditures for 2014 were used as the base year..

Having collected and verified the data, the resulting inputs were put into the IMPLAN (MIG, Incorporated's IMpact analysis for PLANning) model that was calibrated for impacts to the study area. Using classic input-output analysis in combination with regional specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model. The IMPLAN database contains county, state, zip code, and federal economic statistics which are specialized by region, not estimated from national averages, and can be used to measure the effect on a regional or local economy of a given change or event in the economy's activity.

A summary of the results are shown in **Table ES1:**

TABLE ES1

FAA TECHNICAL CENTER - ECONOMIC IMPACT				
SOUTHERN NEW JERSEY - ECONOMIC IMPACTS, 2014				
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015				
ImpactType	Employment	Wages	TotalValueAdded	Output
Direct Effect	3,069	$287,092,983	$323,983,593	$241,679,311
Indirect Effect	1,944	$39,851,012	$71,809,413	$77,335,181
Induced Effect	2,748	$122,405,173	$219,124,402	$359,193,025
Total Effect	7,761	$449,349,169	$614,917,409	$678,207,517

The three types of effects measured include:

- The **direct effect** is the known or predicted change in the local economy that is to be studied. Direct effects take place only in the industry immediately affected, in this case the tenants of the Technical Center.
- The **indirect effect** is the business to business transactions required to satisfy the direct effect.
- Finally, the **induced effect** is derived from local spending on goods and services by people working to satisfy the direct and indirect effects.

Total economic impacts are the total changes to the original economy as the result of a defined event, i.e. Direct effects + Indirect effects + Induced effects = Total Impacts.

The results show the more than substantial impact that the Technical Center has on the study area. Included in its impacts are: well-paying jobs for highly-degreed residents; the attraction of some of the nation's most prominent technology firms such as Computer Science Corp., Lockheed Martin, and General Dynamics; and, a large contribution to the overall economic activity of the region as a stabilizing and consistent presence that is non-seasonal and enduring.

Employment: The 3,069 direct employment jobs, of which 2,732 are employed by the tenants of the Technical Center and the remainder are due to the construction activity there in 2014, taken together form a significant cluster of aviation-related activity that helps to define the region. As was illustrated in the 1996 assessment, these residents take part in many community events, are members of School Boards, and their households promote a professional workforce image that is not found in the region's more dominant hospitality industry.

The indirect and induced employment of 4,650+ jobs also adds to the diversity of the economy as the many contractors and suppliers specialize in areas not in demand in the general economy. The total employment of 7,761 workers provides a stability to the region.

Wages: This is the distinguishing factor of the impacts of the Technical Center's role in the diversification of the regional economy. The large wage bill in relationship to the other expenditures reflects the extraordinary level of wages that serves as a strong foundation for the economy. The annual wages of the Center are in excess of $229M and the total wages that this activity creates exceed $449M.

These wage incomes are brought back to the various communities in which the employees live, work, shop and enjoy free time. They are spent in restaurants and home repair stores while the taxes from this income support local schools, municipal governments and county budgets.

Output: This is a measure of the overall economic activity generated by the Technical Center. On an annual basis, the $241M in direct purchases done by tenants or visitors to the campus create an additional $436M in economic activity outside the fence. The ability to import federal dollars from outside the region has created a primary economic driver in the region. This allows it to further develop and create indirect impacts that become part of the supply-chain to that cluster.

Again, this does more than create an economic impact. It helps to define the region as the home to one of the leading research and development clusters in the aviation field.

Economic Impact of the William J. Hughes Technical Center on Southern New Jersey: Update 2015

1. INTRODUCTION

1.1 Purpose

This study updates earlier analyses of the economic contributions of the William J. Hughes Technical Center (referred to as the Technical Center in this study, including all of the tenant organizations and departments on the property; FAA refers to only the William J. Hughes Technical Center itself) to the economy of Southern New Jersey. The first study was undertaken in 1996 (ACT-500 Research Group, 1997) and was updated in 1999 (ACT-500 Research Group, 2002). In 2015, the Center contracted with the *Center for Regional and Business Research* (CRBR) to provide another update. The current one has been undertaken due to two trends with substantial consequences for the economic impact of the Technical Center. These include:

- A number of changes in the tenants and their roles at the Technical Center have occurred that alter the impact of the Technical Center on the local economy. The major changes include, but are not limited to:

1. Transfer of the operation of the Atlantic City International Airport from FAA to the South Jersey Transportation Authority (SJTA) and subsequent to the Port Authority of New York and New Jersey (PANYNJ).
2. Establishment of the NextGen Airspace Modernization Effort by the FAA, the principal research to be carried out at the Technical Center.
3. Expansion of Federal Air Marshall activities on/near the Technical Center campus.
4. Transfer of the Aviation Security Laboratory, now designated the Transportation Security Laboratory, to the Department of Homeland Security.
5. Upgrades to the missions and facilities of both the Air National Guard's 177th Fighter Wing and the Coast Guard's search and rescue activities since the events of September 11, 2001.

- A major transition in the regional economy brought about by the national recession beginning in 2007 and the loss of competitive market share by the Atlantic City casino gaming industry. This has resulted in the loss of thousands of jobs which has had a substantial impact on the entire Southern New Jersey region.

1.2 Background

The FAA William J. Hughes Technical Center is the nation's premier aviation research, development, test and evaluation facility. Its world-class laboratories and top-notch engineering

place it at the forefront of the FAA's challenge to modernize the U.S. air transportation system. The Center is the FAA's National Laboratory providing a national scientific test base for research and development, test and evaluation, and verification and validation in air traffic control, communications, navigation, airports, aircraft safety, and security. The Technical Center is the primary facility supporting the nation's Next Generation Air Transportation System, called NextGen, as well as the integration of unmanned aircraft systems (UAS) into the national air space.

Located 10 miles northwest of Atlantic City, and covering over 5,000 acres, the Technical Center consists of state-of-the art laboratories, test facilities, support facilities, the Atlantic City International Airport (ACY), and a non-commercial aircraft hangar. The National Aviation Facilities Experimental Center (NAFEC) was established as the foremost aviation research and development facility by the Airways Modernization Board on July 1, 1958. A former naval station, this facility was selected for its broad range of flying conditions and its proximity to both the northeast high-density corridor and open airspace above the Atlantic Ocean. The Federal Aviation Act of 1958 dissolved the Airways Modernization Board and created the FAA as an independent government agency. NAFEC became the FAA Technical Center on May 29, 1980, concluding with the dedication of the $50 million, 516,000-square foot Technical Building. It was renamed the William J. Hughes Technical Center in May of 1996.

In 1999, 2,281 acres, comprising the ACY and associated operations were leased to, and are now operated by the Southern New Jersey Transportation Authority (SJTA) to facilitate airport expansion via the federal Airport Improvement Fund. The airport, including four operating runways, is open to private, commercial, and military aircraft. The main instrument runway is 10,000 ft. long and 180 ft. wide. Several experimental approach and guidance systems are tested at the airport.

The Technical Center is also home to the Department of Homeland Security – Transportation Security Administration, Department of Homeland Security – Transportation Security Lab, the United States Coast Guard Group Air Station Atlantic City, and the New Jersey Air National Guard 177th Fighter Wing. While the Technical Center serves to advance aviation, it is a key focal point for Homeland Security as well.

With more than 50 years of achievement and excellence, the Technical Center continues to serve as the cornerstone for aviation innovation across the globe.

The study region, referred to as Southern New Jersey, includes the counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean and Salem. Nearly 95% of the employees of the Technical Center live within these eight counties. The economic contributions of the Technical Center to the economy of Southern New Jersey encompass a broad range of effects including the impact of the Technical Center on local employment; additionally, the locally produced Center purchasing actions have a multiplier effect on the local economy, reflecting the demand for local goods and services of the employees of the Technical Center and its contractors.

1.3 Changing Role of the Technical Center

Each of the six tenant agencies are represented in this study. The role and mission of each are summarized below:

1. **FAA Technical Center (FAA)**: The William J. Hughes Technical Center serves as the FAA national scientific test base for research and development, test and evaluation, and verification and validation in air traffic control, communications, navigation, airports, aircraft safety, and security. It is the primary facility supporting the nation's Next Generation Air Transportation System, called NextGen. The Center consists of laboratories, test facilities, and support facilities which include a heating and air conditioning plant, industrial shops, maintenance facilities, and a security department.
2. **Dept. of Homeland Security –Transportation Security Laboratory (DHS-TSL)**: TSL helps protect our nation's civilian air transportation systems. By virtue of its accomplished experts, cutting-edge facilities and partnerships, TSL offers the homeland security community and transportation security partners the ability to advance detection technology from conception to deployment through applied research, test and evaluation, assessment, certification and qualification testing. TSL's staff of more than 100 employees includes physicists, chemists, engineers and mathematicians who are leaders in explosives detection and mitigation. TSL's 12-acre secure campus includes specialized explosive storage and handling areas and a multi-laboratory infrastructure designed for applied research, test and evaluation.
3. **Dept. of Homeland Security – Transportation Security Administration (DHS-TSA):** The Federal Air Marshal Training Program (FAMTP) takes place in two stages: the initial FAMS 35-day basic training program, conducted at Federal Law Enforcement Training Center in Artesia, NM and the advanced 43-day training program conducted at the FAMS Training Center in Atlantic City, NJ.
4. **U.S. Coast Guard -Air Station Atlantic City (USCG):** Became operational 18 May, 1998. The Air Station is the product of the merging of Air Station Brooklyn, NY and Group/Air Station Cape May, NJ into one unit. The 69,200 square foot facility is the newest and largest single airframe unit of the Coast Guard's Air Stations. The Air Station is comprised of 10 MH-65D Dolphin Helicopters. Several tenant commands also have components located at the Air Station, including Sector Field Office and Electronics Systems Support Detachment Atlantic City. The Air Station supports the wide range of Coast Guard operations, such as search and rescue, law enforcement, port security, and marine environmental protection for both District One and District Five, encompassing the coastlines of Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland and Virginia including interior bays and rivers such as the Chesapeake, Delaware, Hudson and Long Island Sound.

5. **New Jersey Air National Guard -The 177th Fighter Wing (ANG)**: Located at the Atlantic City International Airport since 1958. The Mission Aircraft is the single seat F-16C Fighting Falcon. The 177th Fighter Wing comprises the following units:

    - 177th Headquarters Group
    - 177th Mission Support Group
    - 177th Maintenance Group

- 177th Operations Group
- 177th Medical Group
- The 177th Fire Department, in conjunction with the South Jersey Transportation Authority, is responsible for 24-hour crash, fire, and rescue services for the airport and its tenants.

6. **Atlantic City International Airport (ACY)**: A division of the South Jersey transportation Authority, the airport is currently managed by the Port Authority of NY & NJ. It conducts commercial and general aviation operations, offering air travel to support commerce, tourism and the general public. ACY provides convenient service to Atlantic City and Southern New Jersey shore region and outbound travel to a host of outer market destination. It is the designated airport for visitors to Atlantic City—the region's premiere entertainment destination. In 2011, a $27-million, 75,000-square-foot terminal expansion was completed. The modernization project included a new federal inspection station, a state-of-the-art international gateway, additional passenger loading bridges and gates, technological upgrades, baggage carousel enhancements, additional retail space, and improved check-in capabilities.

1.4 Methodology and Choice of Economic Impact Model

This study uses the IMPLAN (IMpact analysis for PLANning) model which was developed to be used by the federal government as a consistent model for comparative analysis of projects competing for funds in the 1970s and 1980s (see: USDA and Business Research Division, 2013). While the past studies of the Technical Center's economic impacts were conducted using the REMI (Regional Economic Model, Inc.) model, that model is designed primarily for forecasting changes due to policy choices. The IMPLAN model is well-suited for determining the impacts of existing federal institution as this and the other cited studies show.

The year 2014 is used as the base year, most expenditures are actuals as reported in 2015.

Economic Impact of the William J. Hughes Technical Center on Southern New Jersey: Update 2015

2. ECONOMIC OVERVIEW OF THE SOUTHERN NEW JERSEY REGION

As stated above, one of the most pressing reasons for updating the economic impacts of the Technical Center is the profound shift in the structure of the economy of Southern New Jersey since the onset of the national recession in 2007. Driven primarily by the diminishing east coast market share of the casino gaming industry centered in Atlantic City, this has been compounded by the continued decline of the glass industry in Salem and Cumberland counties with recent closings of plants that have been in production for over a century. It is this context that the regional economic benefits of the Technical Center should be viewed.

In order to better understand the impact of the Technical Center in the region, an overview of the current economy of the region is given below. The impacts of these economic forces on the quality of life of the residents of the region are well illustrated by the publication by K. Sloane (2015) to be found in the references to this study.

2.1 Economic Characteristics

The basis for growth in any region depends upon the performance of industries that drive the economy. The structure of the economy is made up of those industries that are the primary drivers which export goods and/or services to customers outside of the region, or those that come to the region temporarily to purchase those goods or services. A portion of the dollars received for those goods and services are then circulated within the region first as wages to those in the primary industries, and then to secondary and tertiary industries – the induced and indirect effects - as the primary industries buy supplies and the employees purchase goods and services from their wages.

In the Southern New Jersey region, the primary industries have historically been based on natural resources – sand for glassmaking, agricultural products, iron bog for metal products and shipbuilding being examples. In addition, the tourism services that began centuries ago in Cape May City grew in importance as modes of transportation improved and disposable incomes for those in the Mid-Atlantic states expanded. This culminated in the legalization of gaming in Atlantic City beginning in 1978 which complimented the traditional Shore economy in neighboring counties. From 1978 to 2005, the casino gaming industry added over 50,000 employees (see Perniciaro, 1982, 1995).

The Philadelphia economy has long supported the education and development of a number of technology-related industries, life science being the largest. It is this combined set of labor demand pools – high technology and low-skilled leisure services – that has defined the region's pool of labor and industrial structure for the last 40 years. In that mix, the Technical Center and its local contractors have played an important role in diversifying the economy, especially in the eastern part of the region (see Cooke, 2014). **Table 1** below illustrates the changing fortunes of these industries and the current trends:

TABLE 1

FAA TECHNICAL CENTER - ECONOMIC IMPACT			
SOUTHERN NEW JERSEY - INDUSTRY STRUCTURE			
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015			
			% GROWTH
	2010	2014	2010-2014
TOTAL NONFARM	742.7	743.5	0.1%
Total Private Sector	611.3	620.5	1.5%
Goods Producing	77.4	75.9	-1.9%
Mining, Logging, and Construction	27.2	27.8	2.2%
Manufacturing	47.7	45.2	-5.2%
Service-Providing	665.3	667.6	0.3%
Private Service-Providing	534.0	544.7	2.0%
Trade, Transportation, and Utilities	153.8	154.1	0.2%
Wholesale Trade	34.8	34.6	-0.6%
Retail Trade	95.2	95.8	0.6%
Information	9.4	8.6	-8.5%
Financial Activities	34.6	33.0	-4.6%
Professional and Business Services	83.7	93.8	12.1%
Education and Health Services	114.2	121.0	6.0%
Leisure and Hospitality	103.4	101.0	-2.3%
Accommodation and Food Services	90.0	86.9	-3.4%
Casino Hotels	33.6	25.6	-23.8%
Other Services	28.3	26.4	-6.7%
Government	131.3	123.0	-6.3%
Federal Government	13.4	11.6	-13.4%
State Government	22.2	21.0	-5.4%
Local Government	95.7	90.3	-5.6%

This table is a compilation of the Atlantic – Hammonton (Atlantic County), Camden (Burlington, Camden and Gloucester counties), Ocean (Cape May County), and Vineland, Millville and Bridgeton (Cumberland County) – labor areas. Ocean and Salem counties are not included as they are parts of larger labor areas that extend outside the study area.

As **Table 1 reports,** growth in the region has been anemic over the 2010 – 2014 time period. In the same period, the State of New Jersey's economy grew by 3.0% compared to the 0.1% in the study area. While professional and healthcare services have performed well, declines in information and financial activities illustrate the impact of the lack of growth. Finally, the loss of four casino properties and 8,000 jobs have had a devastating impact on home foreclosures while increasing the demand for social services.

The combined influence of the industry structure of the region, both historically and in the past decade, results in the economic characteristics reported in **Table 2**. With 14% of the region's jobs in the Leisure and Hospitality sector compared to 9% in the State, this reliance on a low-wage and seasonal industry, coupled with a lack of diversity in the economy, has created a comparative income problem in Southern New Jersey which is firmly imbedded.

TABLE 2

FAA TECHNICAL CENTER - ECONOMIC IMPACT				
SOUTHERN NEW JERSEY - ECONOMIC CHARACTERISTICS, 2014				
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015				
STATE/COUNTY	MEDIAN HH INCOME	AVG. SALES PRICE EXISTING HOMES	EMPLOYMENT CHANGE, % 2010 - 2014	UNEMPLOYMENT % 2014
New Jersey	$71,629	$391,989	2.4	6.6
Atlantic	$54,235	$294,518	-3.2	10.4
Burlington	$78,446	$269,152	0.9	6.3
Camden	$61,683	$214,385	0.4	7.5
Cape May	$56,494	$562,917	0.2	12
Cumberland	$50,750	$147,917	-3.8	9.9
Gloucester	$74,524	$215,718	1.1	7.1
Ocean	$61,136	$306,258	3.7	7.2
Salem	$59,718	$191,582	1.4	8.2

As the 2014 data shows, the median household incomes of all but Gloucester and Burlington counties – both reliant on the Philadelphia economy and a healthy defense industry in Burlington County – lag behind the state's income level. Of the 21 counties in New Jersey, Cumberland is the poorest with Atlantic and Cape May not being far behind. This income deficit reflects the structure of the economy and its lack of demand for skilled, high-wage labor.

In the past five years, the problems of the traditionally low-wage labor market have been

compounded by the unemployment in Atlantic City and the further demise of the manufacturing industry, particularly in glassmaking in Cumberland and Salem counties. With Ocean County the only Southern New Jersey county showing a jobs recovery in step with the state, slow or negative employment growth continues to plague the region. This has slowed the recovery of the housing market and resulted in some of the highest unemployment rates in the country.

While this discussion illustrates the general development pattern of the region, there are some areas of successful economic development and performance. Parts of Ocean County have become integrated into the Northern New Jersey market where traditionally the market was mostly for retirement services. Also, parts of Burlington and Camden counties have a large defense industry sector led by Lockheed Martin and Tyco. Finally, small businesses in Cumberland and Gloucester counties have adapted old glassmaking skills into specialty products for the life sciences; these include both glass and plastic products.

Finally, the two major educational institutions in Southern New Jersey have undergone substantive changes in the past three years. Rowan University in Gloucester County has been designated a research university and has merged with a medical school once under the auspices of Rutgers University. Rowan has a fairly new but growing engineering school, the first in the region. In addition, Richard Stockton College in Atlantic County applied for and was granted university status in 2015 based primarily on its doctoral programs in healthcare.

2.2 Demographic Characteristics

The inevitable consequences of the industry structure on the demographic characteristics of the region are reported in **Tables 3 and 4.** The lack of employment growth discussed previously has resulted in the lack of population growth shown below. In fact, three of the study area's counties are now losing population. This makes the diversification of the region of primary importance and several of the counties have reinstituted economic development departments to try to encourage the attraction and development of higher-wage industries.

TABLE 3

FAA TECHNICAL CENTER - ECONOMIC IMPACT		
SOUTHERN NEW JERSEY - POPULATION		
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015		
	POPULATION	POP. GROWTH (%)
STATE/COUNTY	2014	2010 - 2014
New Jersey	8,938,175	1.7%
Atlantic	275,209	0.2%
Burlington	449,722	0.2%
Camden	511,038	-0.5%
Cape May	95,344	-2.0%
Cumberland	157,389	0.3%
Gloucester	290,951	0.9%
Ocean	586,301	1.7%
Salem	64,715	-2.1%

As discussed and documented by Sloane (2015), the impact of these transitions has been felt in the indicators of quality of life as shown in **Table 4.** It is sufficient to say that Southern New Jersey's income and income distribution have resulted in low incomes, severe poverty compared to the rest of New Jersey, and the lack of incentives to engage in higher educational attainment.

TABLE 4

FAA TECHNICAL CENTER - ECONOMIC IMPACT			
SOUTHERN NEW JERSEY - INCOME AND EDUCATIONAL ATTAINMENT			
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015			
STATE/COUNTY	EDUCATIONAL ATTAINMENT (%BA+)	POVERTY %	MEDIAN HH INCOME
New Jersey	35.8	10.4	$71,629
Atlantic	24.2	14.4	$54,235
Burlington	34.6	5.5	$78,446
Camden	29.1	13	$61,683
Cape May	14.3	10.1	$56,494
Cumberland	14.3	17.5	$50,750
Gloucester	28.4	8.1	$74,524
Ocean	25.4	10.4	$61,136
Salem	20.4	12.4	$59,718

The inter-related nature of the industry structure, income levels and lack of job growth based on higher-wage industries is the context **in which the Technical Center's role in the study area's economy and quality of life is best considered.**

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3. ECONOMIC CHARACTERISTICS OF TECHNICAL CENTER TENANTS

3.1 Data Collection

At the outset of the project, a data collection survey was constructed to gather the information needed to measure the economic impacts of the activities at the Technical Center on the economy of the study region. The data was collected by the Economic Impact Study Team members who worked directly for the FAA. In addition, several contractors were recruited to take part in a qualitative survey to help illustrate the overall impact of related industries to the region.

All data was requested for 2014, the last complete year of budget information. In addition, in order to assure that only local purchases and expenditures were included in the modelling process, data was requested for activities specifically in the Southern New Jersey region. This was done, where available, by listing employees by zip code and purchases by the location of vendors and contractors. Where this data was not available – and the vast majority was reported in this manner – averages from the reporting tenants were used to provide a geographic breakdown.

The following data was gathered from each tenant:

1. Expenditures made in Southern New Jersey on operational (non-wage and construction) items. This includes supplies, vendors/contractor services, utilities, equipment, etc. This ranged from 87% in the case of the FAA to 17.5% in the case of the Coast Guard. This category also included expenditures by visiting employees while in the region. In addition, the estimated sales by ACY vendors (not including fuel) such as concessions and car rentals were added to direct expenditures by the SJTA/ACY to get the total activity at that facility.
2. Employment by zip code.
3. Wages to Southern NJ employees. This included total wages which were allocated based on the place of residence of the employees.
4. Construction expenditures in 2014. These were allocated based on data provided by the FAA which made up a large majority of the construction dollars. While the impacts of construction projects are not long-term contributors to the economic impacts of a region, they do endure in two respects. First, construction projects for the expansion of facilities result in on-going operational expenses. Second, while construction expenditures fluctuate from year to year, for a facility as large and diverse as the Technical Center there are projects that occur and will continue to occur over time. Using one year may not

represent the average, but there was nothing extraordinary about the projects funded in that year. It can be viewed as "normal."

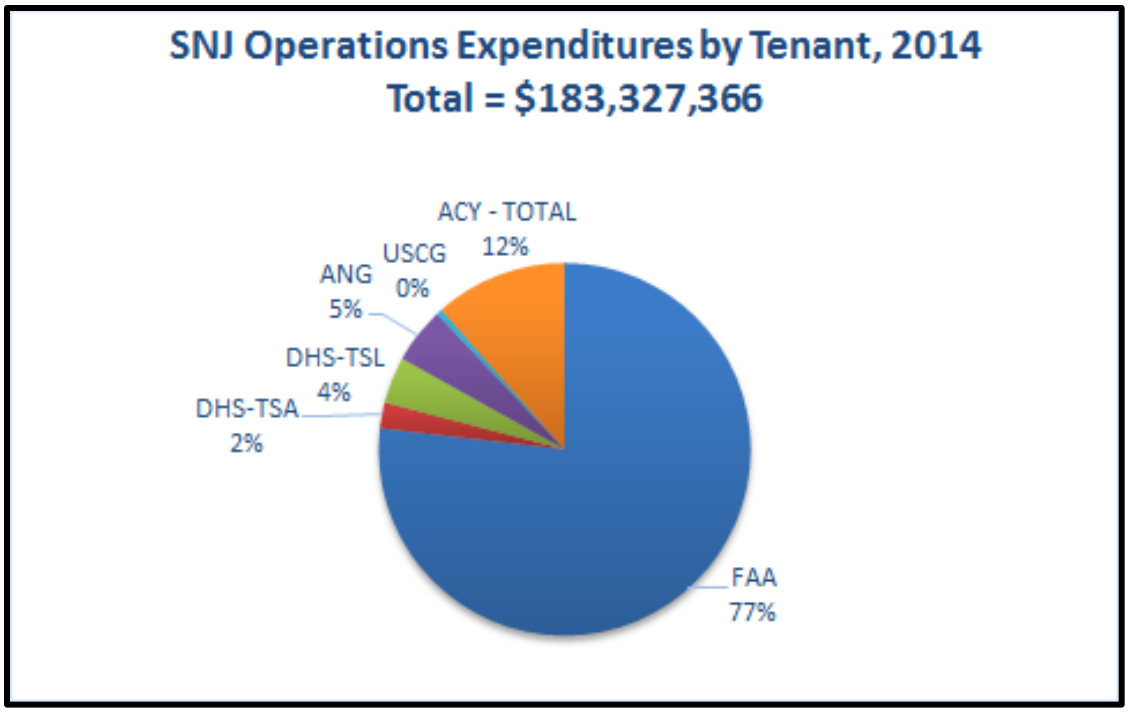
Where data was not available from one or more tenants, it was excluded and not estimated. This makes the level of direct expenditures used a conservative estimate. This results in overall economic benefits also being conservative but based on existing data.

3.2 Operational and Construction Expenditures

The main drivers of both direct and indirect economic impacts are the goods and services consumed from regional suppliers by the primary industry. The following charts report the totals for each of these categories as well as the distribution by tenant.

Chart 1 reports the total operational expenditures made in the study area. These amounted to $183.38M in 2014. The largest contributor to these expenditures was the FAA with over $140M.

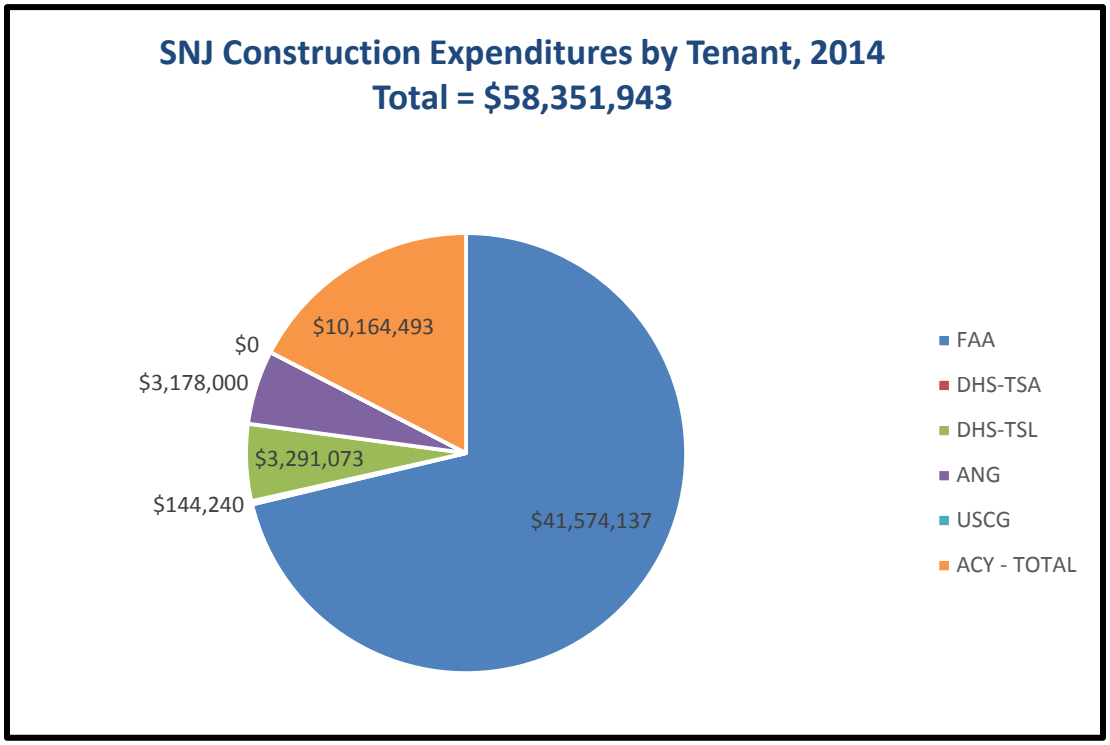
CHART 1



Likewise, the expenditures on construction in 2014 are shown in **Chart 2.** Again, the FAA has the largest share and the USCG reported no dollars in the base year. In that year, the largest

construction projects included the completion of the fire station to service the entire Technical Center complex and a new terminal at ACY to accommodate international passengers.

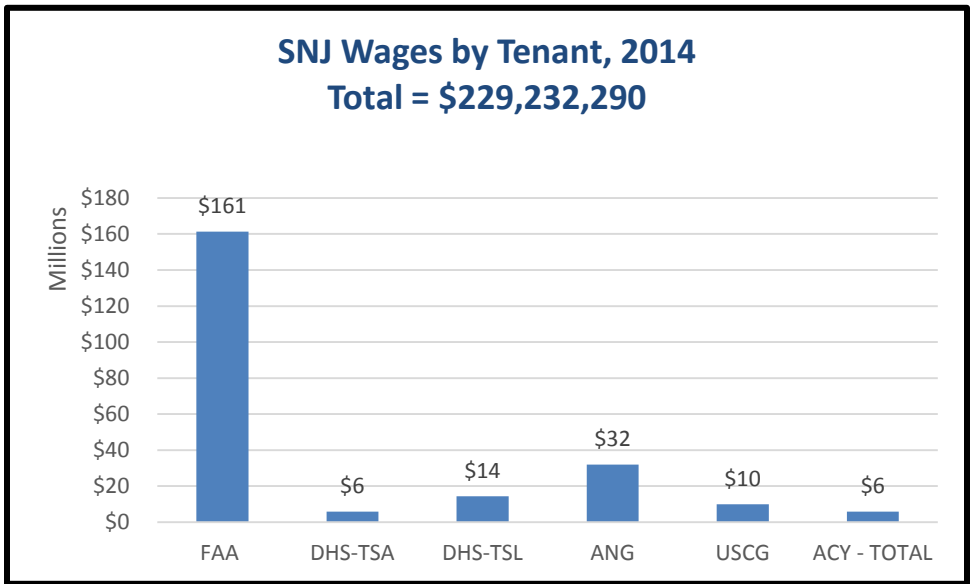
CHART 2



3.3 Wages and Employment

The primary means of inducing economic impacts from the primary expenditures on goods and services made by the Technical Center are through the spending of employees in their own communities. **For the tenants of the Technical Center where activities depend on very skilled and highly-educated workers, the wage bill is extremely high compared to other expenditures. In many ways, this is the attribute of the Center which lends itself to a unique role in the region and the main source of industry, skills and income diversity that it provides.** As **Chart 3** illustrates, the wage compensation directly attributable to the tenants of the Center is substantial at $229M in 2014. The average wage at the FAA is over $114,000 for full-time employees and the average wage for all tenants is $103,694.

CHART 3



The geographic distribution of employees has become slightly more concentrated near the Technical Center as compared to past studies. As shown in **Table 5** below, approximately 95% of all employees live in the study area, increasing the benefits to the region. The largest portion of employees reside in Atlantic County, just under two-thirds, with Camden County at 6.6% being the second highest concentration.

TABLE 5

Technical Center Employment by County
Full-Time Employees - % Distribution

County	%	FAA %
Atlantic	64.9%	63.5%
Burlington	3.4%	3.7%
Camden	6.6%	7.0%
Cape May	5.1%	6.2%
Cumberland	2.7%	2.9%
Gloucester	5.4%	6.1%
Ocean	6.3%	6.9%
Salem	0.3%	0.4%
Total	**100.0%**	**100.0%**
SNJ	**94.8%**	**96.8%**

Finally, **Table 6** reports the direct employment reported for each tenant. In the case of the ANG, the actual number reported was 1,244 total employees. This included 428 active FT personnel with others on the payroll at varying levels of participation. Based on available total wages, the FTE number of 857 was estimated. Of these 812 were estimated to live in the study area. Finally, for ACY the reported number of actual employees was 39. The estimated sales of the vendors at the airport were used to get a total which includes these employees.

TABLE 6

FAA TECHNICAL CENTER - ECONOMIC IMPACT
SOUTHERN NEW JERSEY - DIRECT EMPLOYMENT BY TENANT
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015

TENANT	EMPLOYMENT-SNJ	% OF TOTAL
FAA	1,348	49%
DHS-TSA	61	2%
DHS-TSL	171	6%
ANG	812	30%
USCG	212	8%
ACY - TOTAL	128	5%
TOTAL	2,732	100%

The total of 2,732 direct employees on the Technical Center campus provides a stable base of well-paid employees that are a very valuable counterpoint to the economic performance of the wider Southern New Jersey economy. This point is further illustrated in **Section 5** of this study which contrasts the educational attainment and average incomes of the Technical Center workforce with those of the communities of the study area.

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4. IMPACTS OF THE ECONOMIC ACTIVITY AT THE TECHNICAL CENTER, 2014

4.1 Methodology and Basic Characteristics of the IMPLAN Model

The process of estimating economic impacts for a region is fairly straightforward once the study area and direct inputs are collected and verified. In the case of this study, these inputs, as explained in the last section, are already restricted to those expenditures made in the geography which matches one that the economic model can match directly. That is, it is a county-level model that has been aggregated to the Southern New Jersey region by combining data from the southernmost eight counties in the state. In technical terms, the local purchase coefficient can be set to 100%.

Having collected and verified the data, the resulting inputs were put into the IMPLAN model that was calibrated for impacts to the study area (to estimate the employees and wages for the vendors at ACY - not directly reported - the more basic RIMS II model was used) IMPLAN was the model chosen for this study to be consistent with a number of other studies performed to estimate economic impacts of federal labs and facilities.

MIG, Inc. is the corporation that is responsible for the production of IMPLAN (IMpact analysis for PLANning) data and software. Using classic input-output analysis in combination with regional specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model. The IMPLAN database contains county, state, zip code, and federal economic statistics which are specialized by region, not estimated from national averages, and can be used to measure the effect on a regional or local economy of a given change or event in the economy's activity.

Multipliers are a numeric way of describing the secondary impacts stemming from a change. The Multiplier Model is derived mathematically using the input-output model and Social Accounting formats. The Social Accounting System provides the framework for the predictive Multiplier Model used in economic impact studies. Purchases for final use drive the model. Industries that produce goods and services for consumer consumption must purchase products, raw materials, and services from other companies to create their product. These vendors must also procure goods and services. This cycle continues until all the money is leaked from the region’s economy. There are three types of effects measured with a multiplier:

- The **direct effect** is the known or predicted change in the local economy that is to be studied. Direct effects take place only in the industry immediately affected, in this case the tenants of the Technical Center.
- The **indirect effect** is the business to business transactions required to satisfy the direct effect. These would include the employment, wages and expenditures of the contractors which do business with the FAA.
- Finally, the **induced effect** is derived from local spending on goods and services by people working to satisfy the direct and indirect effects.

Total economic impacts are the total changes to the original economy as the result of a defined event, i.e. Direct effects + Indirect effects + Induced effects = Total Impacts.

4.2 Direct Impacts

As charted and reported in **Section 3** above, the direct inputs for the model were collected from Technical Center tenants. These are shown again in tabular form below:

TABLE 7

FAA TECHNICAL CENTER - ECONOMIC IMPACT	
SOUTHERN NEW JERSEY - DIRECT IMPACTS	
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015	
EXPENDITURES - OPERATIONAL	**$183,327,366**
EXPENDITURES - WAGES	**$229,232,290**
EXPENDITURES - CONSTRUCTION	**$58,351,943**
EMPLOYMENT	**2,732**

4.3 Total Impacts

In order to include all expenditures in the model, the operational and construction expenditures were used to get estimates of the direct effects that they generate. These runs were done separately in IMPLAN and the results were then added together to get the results shown in the

first row of **Table 8:**

TABLE 8

FAA TECHNICAL CENTER - ECONOMIC IMPACT				
SOUTHERN NEW JERSEY - ECONOMIC IMPACTS, 2014				
CENTER FOR REGIONAL AND BUSINESS RESEARCH, AUGUST 2015				
ImpactType	Employment	Wages	TotalValueAdded	Output
Direct Effect	3,069	$287,092,983	$323,983,593	$241,679,311
Indirect Effect	1,944	$39,851,012	$71,809,413	$77,335,181
Induced Effect	2,748	$122,405,173	$219,124,402	$359,193,025
Total Effect	7,761	$449,349,169	$614,917,409	$678,207,517

The total impacts calculated by IMPLAN are broken down by direct, indirect and induced effects as previously defined. Value-added is a consequence of the overall economic activity that the Technical Center contributes to the region. It is the difference between an industry's total output and the cost of its intermediate inputs. It includes compensation to labor and can be seen in general terms as the margin on output.

For this study, the impacts most beneficial to the region include the contribution of wages to direct and indirect employees, employment in a diverse set of occupations, and an overall output which includes the activity at the Center as well as that of the many contractors and vendors which count on their relationship with the Technical Center.

4.4 Summary of Results

The results shown in **Table 8** show the more than substantial impact that the Technical Center has on the study area. Included in its impacts are: well-paying jobs for highly-degreed residents, the attraction of some of the nation's most prominent technology firms such as Computer Science Corp., Lockheed Martin and General Dynamics, and a large contribution to the overall economic activity of the region as a stabilizing and consistent presence that is non-seasonal and enduring.

Employment: Of the 3,069 direct employment jobs, 2,732 are employed by the tenants of the Technical Center and the remainder are due to the construction activity there in 2014; taken together they form a significant cluster of aviation-related activity that helps to define the region.

As was illustrated in the 1996 assessment, these residents take part in many community events, are members of School Boards, and their households promote a professional workforce image that is not found in the region's more dominant hospitality industry.

The indirect and induced employment of 4,650+ jobs also adds to the diversity of the economy as the many contractors and suppliers specialize in areas not in demand in the general economy. From IMPLAN, the top industries that benefit indirectly from the primary Technical Center activity include:

- Insurance agencies, brokerages, and related activities
- Architectural, engineering, and related services
- Employment services
- Data processing, hosting, and related services
- Accounting, tax preparation, bookkeeping, and payroll services

Wages: This is the distinguishing factor of the impacts of the Technical Center's role in the diversification of the regional economy. The large wage bill in relationship to the other expenditures reflects the extraordinary level of wages that serves as a strong foundation for the economy. The annual wages of the Center are in excess of $229M and the total wages that this activity creates exceed $449M.

These wage incomes are brought back to the various communities in which the employees live, work, shop and enjoy free time. They are spent in restaurants and home repair stores while the taxes from this income support local schools, municipal governments and county budgets.

Output: This is a measure of the overall economic activity generated by the Technical Center. On an annual basis, the $241M in direct purchases made by tenants or visitors to the campus create an additional $437M in economic activity outside the fence for a total of $678M. The ability to import federal dollars from outside the region has created a primary economic driver in the region. While the importation of federal dollars supports private citizens through entitlement programs and also has a local impact, the Technical Center amasses a substantial amount of dollars that creates a critical mass in one industry cluster. This allows it to further develop and create indirect impacts that become part of the supply-chain to that cluster. The overall impact is a unique presence in Southern New Jersey.

Again, this does more than create an economic impact. It helps to define the region as the home to one of the leading research and development clusters in the aviation field. In addition, it provides an economic diversity that is very much needed in the region. Finally, the perception of the region would be very different without the Technical Center and would lean even more on the leisure and hospitality industry, one that is in transition and under formidable regional competition.

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5. THE TECHNICAL CENTER'S IMPACT ON THE REGION'S COMMUNITIES

While much of the impact of the Technical Center on the communities in Southern New Jersey can be directly traced to the production and purchase of goods and services, a large part can be attributed to the contributions of employees to the life of the communities in which they live. A qualitative examination of some of the dimensions of these factors follows to give a sense of the benefits and opportunity costs that are included in these impacts. It is not comprehensive nor complete. However, by using some of the available data and direct interviews with some of the contractors as recipients of the economic benefits of the Technical Center, an appreciation of the wider benefits can be developed.

5.1 Employment and Incomes

The distribution of Center employees is shown in **Table 9** below. As one of the currently most distressed counties in New Jersey and the nation, Atlantic County is a large beneficiary of the direct employment from the Center.

TABLE 9

Technical Center Employment by County	
Full-Time Employees - Count	
County	**#**
Atlantic	1,774
Burlington	94
Camden	179
Cape May	140
Cumberland	74
Gloucester	147
Ocean	172
Salem	9
Total	**2,732**
SNJ	**94.8%**

With 1,774 of the employees residing in the county, and many of the major contractors renting office space and their employees also residing there, the Technical Center has helped to counter-balance the impacts of rising unemployment in the casino sector.

Table 10 contrasts the average wage of Technical Center employees with the mean household incomes of the three municipalities with the most direct employees as residents. While the average wage reflects the earnings of only one member of the households of Center employees, it is still significantly higher than the mean of the total household incomes of all employees in those communities.

TABLE 10

Technical Center Employment by Income	
Full-Time Employees	
	Avg. Wage/Mean Housewold Income
Technical Center	$103,694
Egg Harbor Twsp.	$84,151
Galloway Twsp.	$77,708
Hamilton Twsp.	$73,223

In short, the presence of Technical Center employees, making significantly higher wages than the average households of their neighbors, creates an economic benefit that stabilizes housing prices, reduces foreclosures, supports the tax base, and provides a firm base for the finances and civic lives of these communities.

5.2 Educational Attainment and Fiscal Considerations

As was reported in **Table 4** previously, the educational attainment of many of the eight counties in the study area lags far behind that of New Jersey in general. At 35.8% of residents over 25 years-of-age having a BA or higher educational qualification, this far exceeds that of Atlantic County at 24.2% and Cape May and Cumberland counties at 14.3%. Only Gloucester County at 34.6% comes close to the State average.

Table 11 reports the average levels of educational attainment of Technical Center employees. With 44% of the employees having a BA degree or higher, this far surpasses that of the study area counties and the State. For the FAA employees, the large majority of the direct employees, this level is reached by 69% of employees. In addition, the Technical Center's vendors and contractors also employ well-educated residents of these Southern New Jersey counties.

TABLE 11

Technical Center Employment by Educational Attainment				
Full-Time Employees				
		FAA		
EDUCATION LEVEL	**%**	**%**		
< Bachelor's	55.8%	30.7%		
Bachelor Degree	31.6%	50.8%		
Masters Degree	10.7%	15.9%		
Doctoral Degree	1.9%	2.7%		
TOTAL - BA+	44.2%	69.3%		
TOTAL	**100.0%**	**100.0%**		

This presence is shown in the many summer and intern programs that these establishments sponsor. In addition, the advisory committees and science fairs of local schools and colleges draw from this pool of talent.

Finally, there are trade-offs for any economic benefits that an industry creates. While these are

netted out in the modeling of the economy, they are not made explicit in economic impact studies. Some of these costs are often cited by residents, such as those found in the Environmental Impact Study (U.S. Dept. of Transportation, 2003) that is part of the MOU between the Technical Center and the Pinelands Commission. The most common complaints from some members of the public are related to noise from ACY traffic.

One of the opportunity costs of having the Technical Center and its positive economic impacts in the study area is the lost development potential and the tax ratables from the 5,000 acres of land that make up the entire campus. To show one example of these costs (foregone fiscal revenues), **Table 12** summarizes the development that would be present if the developable land (much is wetlands or under other environmental restrictions) was developed at the average level – combination of commercial, residential, industrial and open space – in each of the impacted municipalities.

TABLE 12

FAA TECHNICAL CENTER - ECONOMIC IMPACT			
SOUTHERN NEW JERSEY - FISCAL IMPACT			
CRBR, AUGUST 2015			
Municipality	**Developable Acres**	**Value/Acre**	**Property Taxes Avoided**
Egg Harbor Twsp.	2,457	$85,214	$5,670,012
Galloway Twsp.	519	$36,803	$533,782
Hamilton Twsp.	484	$31,995	$403,975
TOTAL	**3,460**		**$6,607,770**

Clearly, Egg Harbor Township which has the largest piece of land and the highest per acre value shows the largest value of foregone tax revenues in the hypothetical event that the Technical Center did not exist.

This and all other costs, whether direct or indirect, need to be balanced against all of the benefits of the Technical Center to each township, the region, the state and the nation. Many of these benefits are also not captured by the economic impact model. An example of this is the environmental clean-up that is on-going on the property. With seven Superfund sites being remediated, the local public reservoir used by the Atlantic County Utilities Authority to furnish

potable water is being protected from harm.

As illustrated at length in this study, and further verbalized below in interviews with contractors, these benefits are clearly apparent to the residents of the region and far surpass any of the costs that residents associate with its location and impacts in their communities.

5.3 The Relationship of the Technical Center and Its Contractors – Interview Summaries

Descriptive Information:

Interviews of contractors to the FAA with facilities located in Southern New Jersey were conducted to help assess the role these firms and their employees play in the economy of the region. Six interviews were conducted with Human Resource staff members. The characteristics of the respondents included are indicative of the approximately 1,500 contractor employees supported by the Technical Center:

- All rented their facilities.
- On average, they have worked with the FAA for 19 years.
- Number of employees averaged 177.
- 50% of all employees had a BA degree or higher in educational attainment.
- 92% of employees live in the study region of Southern New Jersey.
- Monthly payrolls average $1.1M.
- Local purchases averaged $2M per year.

The results of this economic activity, and that of all other contractors, are captured in this study in the indirect and induced impacts.

Qualitative Benefits of Relationship with the Technical Center:

Highlights of the responses are summarized below. These are qualitative only and do not represent a statistically significant sample.

- Largest benefit of being located near the Center?

Many contracts require daily contact with or work done directly at the Technical Center. A nearby location minimizes the costs of transportation.

- Most important benefit of working and living in Southern New Jersey?

The quality of life and access to Philadelphia and New York were cited by four of the respondents. In addition, the cost of living is much lower than large urban locations and average salaries allow for a desirable lifestyle.

- Most frequently cited problem of residing in Southern New Jersey?

The lack of job opportunities for their employees and spouses lead to a lack of professional mobility. The overall economic conditions in the region are beginning to concern many employees.

- Largest drawback of being located away from the home office?

Only travel time in the event that the home office is a large distance. Most respondents reported that headquarters fully supported their branch office.

- What are some ways that your employees interact with your local communities?

Many employees adjunct at Stockton University. They host some STEM activities for high school students and invite members of professional associations to visit their locations and interact with their employees. Since many contractors have had a long-term relationship with the FAA, employees have become established in their communities.

- What improvements or changes do you suggest that the region could make to increase your productivity or employment level?

The Center could promote more public relations so that locals have a better understanding of what happens there. This would encourage interest in employment and skills needed by the contractors. There should be a better alignment between the educational needs of the Center and programs in schools. Begin to attract more high-tech companies to build a qualified labor pool. Encourage entrepreneurship.

5.4 Summary of Overall Economic Impacts of the Technical Center on Southern New Jersey

This study confirms the findings of past impact studies: the Technical Center provides an economic impact which is large and disproportionate to its overall employment share in the region. Due to the causes and effects that derive from the mission of the Center and the need

for highly-skilled employees to deliver that mission, the average level of wages far surpasses that of the overall economy. These wages cause indirect and induced impacts which provide a stability and critical foundation for the regional economy, especially in the current climate of uncertainty and decline in the gaming sector which employs far more workers than the Center.

However, it is not just the quantifiable impacts that are important to the region. Many of the local residents are not even aware that the indirect and induced impacts improve their employment and income opportunities. Moreover, the role of many of the contractor and direct employees in the many communities in which they reside, shop and play has now become engrained in the region.

It is important for periodic assessments of the economic impacts to be made and publicized to foster continued support for the facility. This mutual dependence between the region and the Technical Center provides the best opportunity for the continued success and growth of both into the future.

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