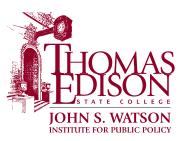
Economic Analysis:

North Central Region of New Jersey

Final Report

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Attachments

Attachment A - Roadmap to the Interpretation of Community Profiles

Attachment B – Community Profiles and Data

Seven County Region

Asbury Park

Bayonne

Bloomfield

East Orange

Elizabeth

Hoboken

Irvington

Jersey City

Lakewood

Neptune

Newark

New Brunswick

City of Orange

Passaic

Paterson

Perth Amboy

Plainfield

Roselle

Woodbridge

Attachment C - Innovation Economy & Green/Clean Tech Data

Attachment D – Memo of Findings from Facilitated Discussion

Attachment E - Memo with Comments and Suggestions for CEDS



INTRODUCTION

The faculty and staff of the John S. Watson Institute for Public Policy of Thomas Edison State College (TESC) have been working with the New Jersey Urban Mayors Association (NJUMA) for a number of years on economic planning and revitalization efforts. Growing out of that effort was a desire to engage the Economic Development Administration (EDA) of the United States Department of Commerce, since the EDA serves as the chief federal agency charged with economic development. As part of its involvement in such matters, the EDA requires communities to complete a Comprehensive Economic Development Strategy (CEDS), which is a statutorily-defined planning process culminating in a series of prioritized actions and recommendations. However, prior to undertaking a CEDS, the EDA requests applicants first collect baseline data on economic, demographic and social characteristics as well as relevant metrics on industry, occupation and other essential trends.

TESC turned to Camoin Associates to assist it in collecting and analyzing this essential baseline data on the economic conditions of the North Central Region of New Jersey. Specifically, TESC desired to have baseline information on each of the 19 NJUMA municipalities, plus baseline data on the entire seven county region as a whole. The 19 municipalities in question are: Asbury Park, Bayonne, Bloomfield, East Orange, Elizabeth, Hoboken, Irvington, Jersey City, Lakewood, Neptune, Newark, New Brunswick, (City of) Orange, Passaic, Paterson, Perth Amboy, Plainfield, Roselle, and Woodbridge. For each of the communities, we collected the following information in a "Community Profile":

- **Section 1 Economic Base Analysis**, including demographics, industry trends, industry competitiveness, occupational trends and workforce preparedness.
- Section 2 Retail and Revenue Analysis, including income, commutation patterns, retail sales leakage/surplus, traffic counts, market segmentation and a brief review of major sources of revenue and tax rates.
- Section 3 Constraints and Opportunities, which primarily included self-reported strengths and weaknesses of each community and a review of the most recent economic development planning documents (if available).

A lengthy description of the sources used and interpretation of the data can be found in "Attachment A – Roadmap to the Interpretation of Community Profiles." All 20 community profiles (19 municipalities + seven county region) can be found in Attachment B.

Major Sections of the Report

The report is broken down into the following major sections:

- 1. Community Data Summaries high-level data on each of the 19 municipalities and the seven county region as a whole.
- 2. Community Comparisons for each community, 23 quantitative data points are provided that allow the reader to compare against: (a) each of the other communities in the region, (b) the average value for all communities, and (c) the seven county region as a whole.
- 3. Recommendations for CEDS Process gleaned from the research and from several facilitated sessions, suggestions regarding using the data for future planning efforts, recommendations on how to structure the CEDS process and other elements to consider for the CEDS.
- 4. Innovation Economy & Green/Clean Tech Opportunities a specific analysis was conducted on the industries and industry clusters most closely associated with emerging technology, innovation and the "clean" economy. Data on such clusters can be found on Attachment C.



ALL COUNTIES PROFILE SUMMARY

Summary indicators for the North Central New Jersey Region as a whole are shown below for demographics, economics, and industry and occupation trends.

Demographic Indicators

2010 Population	4,445,195
% Change in Population 2000-2010	3.60%
Median Household Income	\$67,689
Poverty Rate	10%
% Population with No HS Diploma	15%
% Population with BA or More	32%

Fastest Growing Industries

	0	
Industry	2010 # of Employees	# Change 2010-20
Health Care and Social Assistance	268,301	40,997
Finance and Insurance	165,690	39,269
Real Estate and Rental and Leasing	118,869	20,981
Professional, Scientific, and Technical Services	186,141	20,026
Administrative and Support and Waste Management	152,184	14,492

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Personal financial advisors	23,911	11,265
Real estate sales agents	42,444	9,279
Securities, commodities, and financial services sales	23,650	8,413
Child care workers	26,351	5,681
Property, real estate, and community association	26,244	5,659



ASBURY PARK CITY

Summary indicators for the City of Asbury Park are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	18,174
% Change in Population 2000-2010	7.3%
Median Household Income	\$29,131
Poverty Rate	27%
% Population with No HS Diploma	25%
% Population with BA or More	16%

Tax and Revenue Indicators

Calendar Year Total Rate	5.221
Average Residential Property Value	\$80,283
Property Tax on the Average Res. Unit	\$4,192
Total General Revenues	\$43,118,208
Amount to be Raised by Taxes	\$13,082,904
Percent to be Raised by Taxes	30%

Fastest Growing Industries

2010 # of Employees	# Change 2010-20
2,228	457
1,273	257
1,156	211
853	139
961	136
	2,228 1,273 1,156 853

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Real estate sales agents	504	116
Property, real estate, and community association	300	67
Customer service representatives	178	36
Real estate brokers	158	36
Physical therapists	80	34

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$23,939,903	\$4,590,977	\$19,348,926
Food & Beverage Stores	\$27,070,729	\$16,932,050	\$10,138,679
Gasoline Stations	\$15,940,960	\$8,425,060	\$7,515,900

- Quality of K-12 Education
- Perception of Safety in the Community
- Training/Education Levels of the Workforce
- Access to Financing



Bayonne City

Summary indicators for the City of Bayonne are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	58,577
% Change in Population 2000-2010	-5.3%
Median Household Income	\$54,534
Poverty Rate	12%
% Population with No HS Diploma	14%
% Population with BA or More	27%

Tax and Revenue Indicators

Calendar Year Total Rate	6.287
Average Residential Property Value	\$133,971
Property Tax on the Average Res. Unit	\$8,423
Total General Revenues	\$130,486,588
Amount to be Raised by Taxes	\$69,410,604
Percent to be Raised by Taxes	53%

Fastest Growing Industries

Tastest Growing maastries		
Industry	2010 # of Employees	
Health Care and Social Assistance	2,956	487
Government	4,168	217
Other Services	1,874	178
Professional, Scientific, and Technical Services	591	131
Transportation and Warehousing	2,956	108

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Personal and home care aides	239	196
Taxi drivers and chauffeurs	365	131
Home health aides	175	110
Hairdressers, hairstylists, and cosmetologists	204	74
Child care workers	266	63

Retail Sectors with the Largest Gap

		0	
Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$98,962,481	\$10,394,112	\$88,568,369
Nonstore Retailers	\$28,250,821	\$3,827,263	\$24,423,558
Food Services & Drinking Places	\$88,373,803	\$64,729,597	\$23,644,206

- Condition of Renter-Occupied Housing
- Condition of Existing Industrial/Commercial Properties
- Affordability and Availability of Existing Industrial/Commercial Properties
- Entrepreneur & Small Business Assistance Support Programs

Bloomfield Township

Summary indicators for the Bloomfield Township are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	46,171
% Change in Population 2000-2010	-3.2%
Median Household Income	\$67,614
Poverty Rate	7%
% Population with No HS Diploma	10%
% Population with BA or More	35%

Tax and Revenue Indicators

Calendar Year Total Rate	3.077
Average Residential Property Value	\$296,493
Property Tax on the Average Res. Unit	\$9,123
Total General Revenues	\$70,079,337
Amount to be Raised by Taxes	\$54,718,693
Percent to be Raised by Taxes	78%

Fastest Growing Industries

Tastest Growing maastries			
Industry	2010 # of Employees	# Change 2010-20	
Health Care and Social Assistance	2,677	500	
Professional, Scientific, and Technical Services	2,157	287	
Educational Services	1,292	257	
Finance and Insurance	977	232	
Retail Trade	2,399	193	

Fastest Growing Occupations

Occupation		# Change 2010-20
Child care workers	304	95
Accountants and auditors	435	86
Home health aides	354	85
Personal financial advisors	156	71
Combined food preparation and serving workers	320	66

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
General Merchandise Stores	\$41,459,543	\$19,726,174	\$21,733,369
Nonstore Retailers	\$20,513,789	\$277,374	\$20,236,415
Food Services & Drinking Places	\$78,928,127	\$60,991,045	\$17,937,082

- Renter-Occupied Housing Affordability and Availability
- Outsider's Perception of Safety in the Community
- Labor Cost and Availability
- Business Retention Programs
- Condition of Existing Industrial/Commercial Properties
- Seed Capital & Incubators



East Orange City

Summary indicators for the City of East Orange are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	68,639
% Change in Population 2000-2010	-1.7%
Median Household Income	\$43,297
Poverty Rate	23%
% Population with No HS Diploma	20%
% Population with BA or More	17%

Tax and Revenue Indicators

Calendar Year Total Rate	3.175
Average Residential Property Value	\$242,612
Property Tax on the Average Res. Unit	\$7,703
Total General Revenues	\$65,007,804
Amount to be Raised by Taxes	\$39,377,277
Percent to be Raised by Taxes	61%

Fastest Growing Industries

2010 # of Employees	# Change 2010-20		
7,294	410		
1,390	201		
415	152		
544	77		
214	76		
	7,294 1,390 415 544		

Fastest Growing Occupations

Occupation		# Change 2010-20
Child care workers	506	158
Home health aides	564	141
Real estate sales agents	474	78
Personal and home care aides	274	63
Nursing aides, orderlies, and attendants	612	53

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$86,253,514	\$22,284,272	\$63,969,242
Food Services & Drinking Places	\$79,649,145	\$45,479,420	\$34,169,725
Food & Beverage Stores	\$106,395,871	\$81,885,105	\$24,510,766

- Renter-Occupied Housing Conditions
- Quality of K-12 Education
- Outsider's Perception of Safety
- Labor Training/Education Levels
- Business Attraction Programs
- Public-Supported Financing

Elizabeth City

Summary indicators for the City of Elizabeth are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	126,156
% Change in Population 2000-2010	4.6%
Median Household Income	\$48,531
Poverty Rate	17%
% Population with No HS Diploma	30%
% Population with BA or More	13%

Tax and Revenue Indicators

Calendar Year Total Rate	21.172
Average Residential Property Value	\$34,336
Property Tax on the Average Res. Unit	\$7,269
Total General Revenues	\$209,066,746
Amount to be Raised by Taxes	\$117,501,140
Percent to be Raised by Taxes	56%

Fastest Growing Industries

rastest Growing maastries			
Industry	2010 # of Employees		
Health Care and Social Assistance	4,306	502	
Retail Trade	6,299	458	
Government	3,469	266	
Transportation and Warehousing	8,159	191	
Other Services (except Public Administration)	2,172	172	

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Retail salespersons	2,251	323
Home health aides	492	186
Truck drivers, heavy and tractor-trailer	1,983	157
Managers, all other	462	88
First-line supervisors/managers	741	85

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$177,869,335	\$127,947,209	\$49,922,126
Electronics & Appliance Stores	\$32,595,876	\$13,087,097	\$19,508,779
Nonstore Retailers	\$20,096,091	\$1,988,183	\$18,107,908

- Industrial/Commercial Space Availability
- Industrial/Commercial Land Affordability and Availability
- Venture Capital Funding

Hoboken City

Summary indicators for the City of Hoboken are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	43,908
% Change in Population 2000-2010	13.8%
Median Household Income	\$80,953
Poverty Rate	8%
% Population with No HS Diploma	8%
% Population with BA or More	75%

Tax and Revenue Indicators

Calendar Year Total Rate	4.744
Average Residential Property Value	\$158,729
Property Tax on the Average Res. Unit	\$7,530
Total General Revenues	\$106,152,715
Amount to be Raised by Taxes	\$54,948,952
Percent to be Raised by Taxes	52%

Fastest Growing Industries

rastest Growing maastries			
Industry	2010 # of Employees	# Change 2010-20	
Information	3,137	831	
Educational Services	2,501	552	
Real Estate and Rental and Leasing	2,377	514	
Professional, Scientific, and Technical Services	3,060	427	
Other Services (except Public Administration)	1,317	248	

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Real estate sales agents	893	233
Editors	332	164
Property, real estate, and community association	511	128
Insurance sales agents	531	116
Advertising sales agents	266	98

Retail Sectors with the Largest Gap

		<u> </u>	
Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$165,631,842	\$15,705,605	\$149,926,237
General Merchandise Stores	\$76,996,424	\$12,624,337	\$64,372,087
Food Services & Drinking Places	\$134,423,298	\$99,725,316	\$34,697,982

- Owner-Occupied Housing Affordability
- Availability and Quality of Parks
- Industrial/Commercial Land Affordability
- Entrepreneur & Small Business Assistance Support Programs



Irvington Township

Summary indicators for the Irvington Township are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	59,041
% Change in Population 2000-2010	-2.7%
Median Household Income	\$48,624
Poverty Rate	16%
% Population with No HS Diploma	21%
% Population with BA or More	14%

Tax and Revenue Indicators

Calendar Year Total Rate	3.283
Average Residential Property Value	\$256,484
Property Tax on the Average Res. Unit	\$8,421
Total General Revenues	\$98,332,714
Amount to be Raised by Taxes	\$69,074,988
Percent to be Raised by Taxes	70%

Fastest Growing Industries

rastest drowing maastries		
Industry	2010 # of Employees	_
Health Care and Social Assistance	1,386	348
Real Estate and Rental and Leasing	814	148
Retail Trade	1,220	97
Accommodation and Food Services	660	90
Finance and Insurance	265	78

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Child care workers	563	178
Real estate sales agents	272	44
Combined food preparation and serving workers	186	34
First-line supervisors/managers	183	32
Preschool teachers, except special education	113	32

Retail Sectors with the Largest Gap

		<u> </u>	
Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$78,177,644	\$19,615,283	\$58,562,361
General Merchandise Stores	\$36,913,995	\$21,059,264	\$15,854,731
Nonstore Retailers	\$17,427,773	\$4,428,431	\$12,999,342

- Outsider's Perception of Safety
- Broadband Availability
- Industrial/Commercial Land Availability and Affordability
- Financial Support: Seed Capital, Venture Capital, and Bank Financing

Jersey City

Summary indicators for Jersey City are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	245,145
% Change in Population 2000-2010	2.1%
Median Household Income	\$50,784
Poverty Rate	17%
% Population with No HS Diploma	17%
% Population with BA or More	38%

Tax and Revenue Indicators

Calendar Year Total Rate	6.902
Average Residential Property Value	\$93,495
Property Tax on the Average Res. Unit	\$6,453
Total General Revenues	\$490,497,379
Amount to be Raised by Taxes	\$215,107,285
Percent to be Raised by Taxes	44%

Fastest Growing Industries

rastest Growing maastries		
Industry	2010 # of Employees	# Change 2010-20
Finance and Insurance	20,347	3,858
Health Care and Social Assistance	13,120	2,009
Government	22,812	1,249
Professional, Scientific, and Technical Services	8,050	1,093
Educational Services	3,122	844

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Personal financial advisors	1,502	532
Securities, commodities, and financial services sales	2,611	415
Accountants and auditors	1,494	415
Personal and home care aides	871	414
Child care workers	1,662	375

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Food & Beverage Stores	\$456,685,835	\$360,027,445	\$96,658,390
Gasoline Stations	\$277,842,713	\$203,476,540	\$74,366,173
Food Services & Drinking Places	\$349,070,688	\$278,295,159	\$70,775,529

- Quality of K-12 Education
- Owner-Occupied Housing Affordability
- Cultural and Recreational Opportunities
- Connections to Local Post-Secondary Institutions
- Industrial/Commercial Land Availability and Affordability
- Financial Support: Seed Capital, Venture Capital, and Bank Financing

Lakewood Township

Summary indicators for the Lakewood Township are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	73,361
% Change in Population 2000-2010	21.6%
Median Household Income	\$51,226
Poverty Rate	19%
% Population with No HS Diploma	17%
% Population with BA or More	13%

Tax and Revenue Indicators

Calendar Year Total Rate	2.251
Average Residential Property Value	\$232,016
Property Tax on the Average Res. Unit	\$5,222
Total General Revenues	\$67,845,571
Amount to be Raised by Taxes	\$43,796,462
Percent to be Raised by Taxes	65%

Fastest Growing Industries

Industry	2010 # of Employees	# Change 2010-20
Real Estate and Rental and Leasing	6,975	1,792
Educational Services	4,336	1,471
Health Care and Social Assistance	7,007	1,237
Finance and Insurance	2,359	979
Professional, Scientific, and Technical Services	2,498	291

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Real estate sales agents	2,790	770
Property, real estate, and community association	1,670	453
Personal financial advisors	641	338
Teachers and instructors, all other	830	267
Real estate brokers	879	241

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Food Services & Drinking Places	\$79,333,884	\$35,270,526	\$44,063,358
General Merchandise Stores	\$39,067,855	\$20,444,591	\$18,623,264
Gasoline Station	\$71,248,022	\$64,306,045	\$6,941,977

- Fiber Optics Availability
- Industrial/Commercial Land Availability and Affordability
- Renter-Occupied Housing Condition, Affordability, and Availability
- Outsider's Perception of Safety
- Local Roadways
- Venture Capital & Incubators



Neptune Township

Summary indicators for the Neptune Township are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	41,179
% Change in Population 2000-2010	3.7%
Median Household Income	\$68,343
Poverty Rate	9%
% Population with No HS Diploma	13%
% Population with BA or More	31%

Tax and Revenue Indicators

Calendar Year Total Rate	2.328
Average Residential Property Value	\$240,718
Property Tax on the Average Res. Unit	\$5,603
Total General Revenues	\$37,216,199
Amount to be Raised by Taxes	\$23,830,976
Percent to be Raised by Taxes	64%

Fastest Growing Industries

Industry	2010 # of Employees	# Change 2010-20
Health Care and Social Assistance	5,143	600
Government	1,933	-90
Retail Trade	1,799	221
Professional, Scientific, and Technical Services	1,539	117
Accommodation and Food Services	1,375	70

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Real estate sales agents	408	102
Nursing aides, orderlies, and attendants	768	89
Home health aides	239	82
Retail salespersons	404	76
Registered nurses	740	67

Retail Sectors with the Largest Gap

		0 1	
Retail Sector	Demand	Supply	Gap
Clothing & Clothing Accessory Stores	\$15,837,046	\$5,358,236	\$10,478,810
Gasoline Stations	\$39,185,028	\$30,330,215	\$8,854,813
Nonstore Retailers	\$13,160,856	\$4,647,762	\$8,513,094

- Outsider's Perception of Safety
- Financial Support: Seed Capital and Venture Capital
- Entrepreneur Support, Incubators, and Small Business Assistance Programs

Newark City

Summary indicators for the City of Newark are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	275,367
% Change in Population 2000-2010	30.0%
Median Household Income	\$37,334
Poverty Rate	25%
% Population with No HS Diploma	33%
% Population with BA or More	11%

Tax and Revenue Indicators

Calendar Year Total Rate	3.180
Average Residential Property Value	\$180,044
Property Tax on the Average Res. Unit	\$5,725
Total General Revenues	NA
Amount to be Raised by Taxes	NA
Percent to be Raised by Taxes	NA

Fastest Growing Industries

Industry	2010 # of Employees	# Change 2010-20
Health Care and Social Assistance	16,381	1,827
Administrative and Support and Waste Management	11,002	1,320
Accommodation and Food Services	7,475	1,188
Finance and Insurance	11,227	1,095
Transportation and Warehousing	28,185	837

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Child care workers	3,350	940
Flight attendants	3,986	549
Security guards	3,931	444
Reservation and transportation ticket agents	3,763	436
Personal financial advisors	733	332

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$296,340,258	\$230,072,495	\$66,267,763
Gasoline Stations	\$201,150,917	\$177,124,353	\$24,026,564
Electronics & Appliance Stores	\$50,970,317	\$35,513,899	\$15,456,418

- Housing Condition and Affordability
- Quality of K-12 Education
- Labor Training/Educational Attainment
- Bank Financing

New Brunswick City

Summary indicators for the City of New Brunswick are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

54,316
11.9%
\$54,890
21%
32%
23%

Tax and Revenue Indicators

Calendar Year Total Rate	5.161
Average Residential Property Value	\$117,866
Property Tax on the Average Res. Unit	\$6,084
Total General Revenues	\$77,201,169
Amount to be Raised by Taxes	\$29,795,973
Percent to be Raised by Taxes	39%

Fastest Growing Industries

Tastest drowing maastries		
Industry	2010 # of Employees	9
Administrative and Support and Waste Management	3,529	907
Health Care and Social Assistance	5,223	745
Government	25,747	624
Finance and Insurance	742	244
Educational Services	466	160

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Registered nurses	1,521	241
Posts econdary teachers	1,751	105
Elementary school teachers, except special	1,532	97
Teachers and instructors, all other	1,003	95
Self-enrichment education teachers	303	94

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Nonstore Retailers	\$27,807,110	\$3,359,311	\$24,447,799
Motor Vehicle & Parts Dealers	\$69,490,092	\$50,242,547	\$19,247,545
Food & Beverage Stores	\$69,715,748	\$55,633,396	\$14,082,352

- Quality of K-12 Education
- Outsider's Perception of Safety
- Incubators

City of Orange Township

Summary indicators for the City of Orange Township are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	32,079
% Change in Population 2000-2010	-2.4%
Median Household Income	\$46,396
Poverty Rate	17%
% Population with No HS Diploma	23%
% Population with BA or More	17%

Tax and Revenue Indicators

Calendar Year Total Rate	3.078
Average Residential Property Value	\$240,229
Property Tax on the Average Res. Unit	\$7,394
Total General Revenues	\$54,894,560
Amount to be Raised by Taxes	\$35,817,946
Percent to be Raised by Taxes	65%

Fastest Growing Industries

Industry	2010 # of Employees	# Change 2010-20
Administrative and Support and Waste Management	1,435	186
Construction	718	94
Health Care and Social Assistance	1,472	81
Finance and Insurance	216	71
Accommodation and Food Services	443	64

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Child care workers	291	88
First-line supervisors/managers of	226	68
Maids and housekeeping cleaners	206	43
Janitors and cleaners, except maids	773	39
Real estate sales agents	260	35

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$41,642,338	\$2,788,815	\$38,853,523
Food & Beverage Stores	\$49,393,225	\$33,637,471	\$15,755,754
Gasoline Stations	\$28,633,945	\$18,323,208	\$10,310,737

- Parks
- Strength of Business-to-Business Network
- Availability of Fiber Optics
- Condition of Local Roadways
- Industrial/Commercial Land Availability and Affordability
- Financial Support: Seed Capital and Venture Capital

Passaic City

Summary indicators for the City of Passaic are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	70,494
% Change in Population 2000-2010	3.9%
Median Household Income	\$46,174
Poverty Rate	27%
% Population with No HS Diploma	37%
% Population with BA or More	17%
	17%

Tax and Revenue Indicators

Calendar Year Total Rate	6.846
Average Residential Property Value	\$130,792
Property Tax on the Average Res. Unit	\$8,955
Total General Revenues	\$83,653,152
Amount to be Raised by Taxes	\$55,615,070
Percent to be Raised by Taxes	66%

Fastest Growing Industries

Tastest Growing maastries		
Industry	2010 # of Employees	3
Administrative and Support and Waste Management	3,507	786
Retail Trade	2,719	366
Transportation and Warehousing	698	157
Finance and Insurance	555	144
Other Services (except Public Administration)	976	115

Fastest Growing Occupations

Occupation		# Change 2010-20
Retail salespersons	678	102
Home health aides	222	86
Personal and home care aides	182	68
Construction laborers	218	66
Stock clerks and order fillers	390	59

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$80,501,209	\$49,840,981	\$30,660,228
Gasoline Stations	\$50,717,377	\$38,992,847	\$11,724,530
Bld Materials, Garden Equip. & Supply Stores	\$13,831,860	\$4,928,577	\$8,903,283

- Industrial/Commercial Land Availability
- Incubators

Paterson City

Summary indicators for the City of Paterson are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	150,926
% Change in Population 2000-2010	1.1%
Median Household Income	\$46,391
Poverty Rate	27%
% Population with No HS Diploma	30%
% Population with BA or More	10%

Tax and Revenue Indicators

Calendar Year Total Rate	2.126
Average Residential Property Value	\$354,002
Property Tax on the Average Res. Unit	\$7,525
Total General Revenues	\$236,992,514
Amount to be Raised by Taxes	\$131,116,070
Percent to be Raised by Taxes	55%

Fastest Growing Industries

Tastest Growing maastries			
Industry	2010 # of Employees	•	
Educational Services	1,245	762	
Health Care and Social Assistance	8,400	621	
Government	9,256	590	
Real Estate and Rental and Leasing	2,054	416	
Retail Trade	4,019	402	

Fastest Growing Occupations

	<u> </u>	
Occupation	2010 # of Jobs	# Change 2010-20
Child care workers	1,152	225
Posts econdary teachers	820	175
Home health aides	450	160
Personal and home care aides	410	156
Laundry and dry-cleaning workers	333	136

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$173,796,850	\$92,796,687	\$81,000,163
General Merchandise Stores	\$86,867,425	\$45,500,167	\$41,367,258
Gasoline Stations	\$113,326,089	\$74,440,888	\$38,885,201

- Outsider's Perception of Safety
- Financial Support: Seed Capital, Venture Capital, Bank Financing, and Public-Supported Financing
- Incubators



Perth Amboy City

Summary indicators for the City of Perth Amboy are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	49,406
% Change in Population 2000-2010	4.4%
Median Household Income	\$54,526
Poverty Rate	17%
% Population with No HS Diploma	33%
% Population with BA or More	13%

Tax and Revenue Indicators

Calendar Year Total Rate	2.459
Average Residential Property Value	\$279,432
Property Tax on the Average Res. Unit	\$6,871
Total General Revenues	\$71,842,971
Amount to be Raised by Taxes	\$57,139,220
Percent to be Raised by Taxes	80%

Fastest Growing Industries

rastest drowing maastres			
2010 # of Employees	9		
5,051	1,032		
625	261		
1,034	242		
839	65		
1,357	60		
	2010 # of Employees 5,051 625 1,034 839		

Fastest Growing Occupations

Occupation		# Change 2010-20
Registered nurses	1,016	237
Nursing aides, orderlies, and attendants	546	143
Home health aides	142	89
Personal financial advisors	114	55
Securities and commodities sales agents	107	54

Retail Sectors with the Largest Gap

		<u> </u>	
Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$73,007,829	\$41,220,578	\$31,787,251
Nonstore Retailers	\$27,714,826	\$5,164,633	\$22,550,193
Gasoline Stations	\$46,238,020	\$34,725,178	\$11,512,842

- Outsider's Perception of Safety
- Cultural and Recreational Opportunities
- Access to Financing
- Availability of Fiber Optics
- Incubators

Plainfield City

Summary indicators for the City of Plainfield are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

48,128
60.0%
\$59,369
17%
24%
21%

Tax and Revenue Indicators

Calendar Year Total Rate	6.747
Average Residential Property Value	\$112,863
Property Tax on the Average Res. Unit	\$7,615
Total General Revenues	\$70,350,845
Amount to be Raised by Taxes	\$50,430,833
Percent to be Raised by Taxes	72%

Fastest Growing Industries

rastest Growing maastries			
2010 # of Employees	# Change 2010-20		
1,315	365		
2,398	351		
621	177		
2,044	142		
1,222	103		
	2010 # of Employees 1,315 2,398 621 2,044		

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Child care workers	543	108
Nursing aides, orderlies, and attendants	300	47
Personal financial advisors	114	47
Real estate sales agents	320	45
Preschool teachers, except special education	163	45

Retail Sectors with the Largest Gap

Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$79,854,638	\$19,428,784	\$60,425,854
Food & beverage Stores	\$81,252,780	\$41,681,328	\$39,571,452
Gasoline Stations	\$52,621,487	\$22,878,075	\$29,743,412

- Outsider's Perception of Safety
- Financial Support: Seed Capital, Venture Capital, Bank Financing, and Public-Supported Financing

Roselle Borough

Summary indicators for the Roselle Borough are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	21,756
% Change in Population 2000-2010	2.3%
Median Household Income	\$66,171
Poverty Rate	8%
% Population with No HS Diploma	13%
% Population with BA or More	22%

Tax and Revenue Indicators

Calendar Year Total Rate	7.311
Average Residential Property Value	\$119,228
Property Tax on the Average Res. Unit	\$8,717
Total General Revenues	\$36,029,741
Amount to be Raised by Taxes	\$28,187,306
Percent to be Raised by Taxes	78%

Fastest Growing Industries

2010 # of Employees	•		
511	119		
1,252	100		
186	83		
581	78		
444	48		
	511 1,252 186 581		

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Bus drivers, school	217	44
Counter and rental clerks	34	19
Child care workers	91	18
Combined food preparation and serving workers	135	18
Rehabilitation counselors	44	18

Retail Sectors with the Largest Gap

		0 1	
Retail Sector	Demand	Supply	Gap
Motor Vehicle & Parts Dealers	\$42,007,283	\$14,927,660	\$27,079,623
Food Services & Drinking Places	\$32,544,921	\$17,778,743	\$14,766,178
Food & Beverage Stores	\$41,878,183	\$28,352,980	\$13,525,203

- Industrial/Commercial Land Availability and Affordability
- Condition of Existing Industrial/Commercial Properties
- Labor Training/Education
- Availability of Housing
- Outsider's Perception of Safety



Woodbridge Township

Summary indicators for the Woodbridge Township are shown below for demographics, economics, property tax, and industry and occupation trends.

Demographic Indicators

2010 Population	98,569
% Change in Population 2000-2010	1.4%
Median Household Income	\$76,569
Poverty Rate	6%
% Population with No HS Diploma	13%
% Population with BA or More	30%

Tax and Revenue Indicators

Calendar Year Total Rate	8.357
Average Residential Property Value	\$75,510
Property Tax on the Average Res. Unit	\$6,310
Total General Revenues	\$120,771,270
Amount to be Raised by Taxes	\$70,419,576
Percent to be Raised by Taxes	58%

Fastest Growing Industries

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2010 # of Employees	# Change 2010-20						
2,043	437						
2,365	421						
2,139	374						
2,534	233						
1,068	217						
	2010 # of Employees 2,043 2,365 2,139 2,534						

Fastest Growing Occupations

Occupation	2010 # of Jobs	# Change 2010-20
Real estate sales agents	738	169
Personal financial advisors	343	154
Securities and commodities sales agents	288	107
Property and real estate managers	467	103
Management analysts	276	96

Retail Sectors with the Largest Gap

		<u> </u>	
Retail Sector	Demand	Supply	Gap
Nonstore Retailers	\$92,086,338	\$53,281,484	\$38,804,854
Food Services & Drinking Places	\$172,974,899	\$154,891,823	\$18,083,076
Furniture & Home Furnishing Stores	\$39,428,419	\$29,494,096	\$9,934,323

- Natural Gas & Electric Power Affordability
- Industrial/Commercial Space Affordability
- Industrial/Commercial Land Availability

Demographics and Education										
Municipalities	2000-2010 % Population Change	Median Age	Median Income	No HS Diploma	HS Diploma only	Associates Degree only	BA Degree only	Advanced Degree	Outside Perception of Safety	K-12 Quality
Asbury Park City (Monmouth)	7.3%	32.1	\$29,131	25%	52%	7%	11%	5%	2	1
Bayonne City (Hudson)	-5.3%	39.3	\$54,534	14%	54%	6%	20%	7%	4	5
Bloomfield Township (Essex)	-3.2%	39.3	\$67,614	10%	50%	5%	22%	13%	2	3
East Orange City (Essex)	-1.7%	34.1	\$43,297	20%	56%	7%	13%	4%	3	3
Elizabeth City (Union)	4.6%	32.8	\$48,531	30%	53%	4%	9%	4%	3	3
Hoboken City (Hudson)	13.8%	31.3	\$80,953	8%	16%	2%	48%	27%	4	3
Irvington Township (Essex)	-2.7%	33.3	\$48,624	21%	61%	5%	11%	3%	2	3
Jersey City City (Hudson)	2.1%	33.4	\$50,784	17%	41%	4%	25%	13%	4	2
Lakewood Township (Ocean)	21.6%	31.7	\$51,226	17%	55%	5%	14%	9%	3	3
Neptune Township (Monmouth)	3.7%	41.0	\$68,343	13%	50%	6%	20%	11%	2	5
Newark City (Essex)	0.3%	31.5	\$37,334	33%	51%	4%	8%	3%	3	2
New Brunswick City (Middlesex)	11.9%	24.6	\$54,890	32%	40%	4%	13%	10%	2	2
City of Orange Township (Essex)	-2.4%	33.6	\$46,396	23%	53%	8%	12%	5%	4	4
Passaic City (Passaic)	3.9%	29.1	\$46,174	37%	42%	4%	12%	5%	3	3
Paterson City (Passaic)	1.1%	30.5	\$46,391	30%	56%	5%	8%	2%	1	2
Perth Amboy City (Middlesex)	4.4%	31.5	\$54,526	33%	50%	4%	9%	4%	2	3
Plainfield City (Union)	0.6%	33.5	\$59,369	24%	50%	5%	14%	7%	2	3
Roselle Borough (Union)	2.3%	36.9	\$66,171	13%	59%	6%	15%	7%	2	3
Woodbridge Township (Middlesex)	1.4%	38.9	\$76,569	13%	50%	7%	21%	9%	4	5
Seven County Area	3.6%	37.9	\$67,689	15%	47%	6%	20%	12%		
Average of Communities	3%	33.6	\$54,256	22%	49%	5%	16%	8%	2.74	3.05



Housing and Taxes								
Municipalities	% Renter- Occupied Housing	Median Home Value	Households	Average Household Size	Calendar Year Property Tax Total Rate	Average Residential Property Value	Property Tax on the Average Residential Unit	
Asbury Park City (Monmouth)	69%	\$185,724	7,146	2.50	5.221	\$80,283	\$4,192	
Bayonne City (Hudson)	54%	\$307,175	24,396	2.40	6.287	\$133,971	\$8,423	
Bloomfield Township (Essex)	44%	\$312,899	18,336	2.49	3.077	\$296,493	\$9,123	
East Orange City (Essex)	63%	\$225,884	25,695	2.62	3.175	\$242,612	\$7,703	
Elizabeth City (Union)	63%	\$259,562	41,490	2.97	21.172	\$34,336	\$7,269	
Hoboken City (Hudson)	71%	\$471,723	22,605	1.89	4.744	\$158,729	\$7,530	
Irvington Township (Essex)	59%	\$228,735	21,342	2.75	3.283	\$256,484	\$8,421	
Jersey City City (Hudson)	64%	\$256,611	91,839	2.63	6.902	\$93,495	\$6,453	
Lakewood Township (Ocean)	34%	\$249,873	23,363	3.04	2.251	\$232,016	\$5,222	
Neptune Township (Monmouth)	31%	\$272,850	11,374	2.47	2.328	\$240,718	\$5,603	
Newark City (Essex)	65%	\$237,807	92,234	2.85	3.18	\$180,044	\$5,725	
New Brunswick City (Middlesex)	65%	\$227,323	14,162	3.39	5.161	\$117,866	\$6,084	
City of Orange Township (Essex)	65%	\$235,921	11,502	2.75	3.078	\$240,229	\$7,394	
Passaic City (Passaic)	68%	\$269,324	19,433	3.60	6.846	\$130,792	\$8,955	
Paterson City (Passaic)	62%	\$258,582	44,279	3.32	2.126	\$354,002	\$7,525	
Perth Amboy City (Middlesex)	53%	\$238,449	14,935	3.26	2.459	\$279,432	\$6,871	
Plainfield City (Union)	45%	\$233,308	14,994	3.15	6.747	\$112,863	\$7,615	
Roselle Borough (Union)	36%	\$225,457	7,503	2.89	7.311	\$119,228	\$8,717	
Woodbridge Township (Middlesex)	29%	\$280,795	34,985	2.72	8.357	\$75,510	\$6,310	
Seven County Area	37%	\$321,528	1,608,085	2.71				
Average of Communities	55%	\$262,000	28,506	2.83	5.458	\$177,848	\$7,112	



Employment and Household								
Municipalities	Poverty Rate	Total Employed in Community	Total Reside in Community	Average Travel Time to Work	Fastest Growing Industry	2nd Fastest Growing Industry		
Asbury Park City (Monmouth)	27%	3,190	5,630	26	Health Care and Social Assistance	Real Estate and Rental and Leasing		
Bayonne City (Hudson)	12%	12,260	25,503	33	Health Care and Social Assistance	Government		
Bloomfield Township (Essex)	7%	11,587	23,053	29	Health Care and Social Assistance	Professional, Scientific, and Technical Services		
East Orange City (Essex)	23%	12,206	22,178	34	Health Care and Social Assistance	Real Estate and Rental and Leasing		
Elizabeth City (Union)	17%	37,809	40,383	28	Health Care and Social Assistance	Retail Trade		
Hoboken City (Hudson)	8%	16,845	27,750	35	Information	Educational Services		
Irvington Township (Essex)	16%	8,528	22,711	34	Health Care and Social Assistance	Real Estate and Rental and Leasing		
Jersey City City (Hudson)	17%	87,716	96,340	34	Finance and Insurance	Health Care and Social Assistance		
Lakewood Township (Ocean)	19%	24,421	19,052	29	Real Estate and Rental and	Educational Services		
Neptune Township (Monmouth)	9%	13,485	12,172	28	Health Care and Social Assistance	Finance and Insurance		
Newark City (Essex)	25%	139,382	83,298	32	Health Care and Social Assistance	Administrative and Support and Waste Management and Remediation Services		
New Brunswick City (Middlesex)	21%	39,903	15,152	23	Administrative and Support and Waste Management and Remediation Services	Health Care and Social Assistance		
City of Orange Township (Essex)	17%	5,730	10,898	31	Administrative and Support and Waste Management and Remediation Services	Construction		
Passaic City (Passaic)	27%	14,322	20,805	27	Administrative and Support and Waste Management and Remediation Services	Retail Trade		
Paterson City (Passaic)	27%	37,350	52,617	24	Educational Services	Health Care and Social Assistance		
Perth Amboy City (Middlesex)	17%	11,528	20,294	24	Health Care and Social Assistance	Finance and Insurance		
Plainfield City (Union)	17%	7,663	17,376	30	Administrative and Support and Waste Management and Remediation Services	Health Care and Social Assistance		
Roselle Borough (Union)	8%	3,977	9,412	30	Health Care and Social Assistance	Government		
Woodbridge Township (Middlesex)	6%	18,151	8,432	30	Finance and Insurance	Administrative and Support and Waste Management and Remediation Services		
Seven County Area	10%			31	Health Care and Social Assistance	Finance and Insurance		
Average of Communities	17%	26,634	28,056	30				



RECOMMENDATIONS FOR CEDS PROCESS

During the course of data collection for this Economic Analysis, a number of ideas and suggestions presented themselves with respect to the future Comprehensive Economic Development Strategy process. These topics include the governance and implementation of the CEDS, the geography, stakeholder engagement, and specific areas that may require further study.

Define the Region

Before moving forward with the CEDS process, it will be essential to re-affirm the boundaries of the region, gauge the interest of individual communities, and finalize the regional boundaries for the CEDS. Questions to consider include:

- 1. Do all seven counties currently proposed "fit" together in a cohesive way?
- 2. Are all areas within the proposed region fully ready to participate?
- 3. Will the focus and implementation of the CEDS be on the 19 municipalities highlighted in this analysis, or will the entire geography of the seven counties be targeted?
- 4. Will planning and implementation decisions be made at the local municipal level (City/Town/Borough) or some higher level (County, region and/or State)? How does that affect thinking on the geography of the CEDS?

Preliminarily, it appears that that the geography of interest will be the seven counties as a whole from the perspective of understanding the economic opportunities of the area. However, the focus of the CEDS will likely be on the leadership, vision and implementation capacity of the 19 municipalities studied. Assuming this is the case, we recommend that the CEDS advisory committee be formulated from the larger geography whereas the CEDS steering committee be composed of a select group of leaders from the 19 municipalities.

Form a Steering Committee

The Steering Committee will be the governing body in charge of directing the work, prioritizing goals and actions, getting buy-in from the community, adopting the final report and, ideally, overseeing the implementation of the plan. Given the above discussion on geographic focus, the preliminary agreement of the participants seemed to be that the executive committee of the New Jersey Urban Mayors Association would most likely form the core of the Steering Committee. This could be supplemented by other executive-level individuals, such as a County Executive or a representative of the Governor, as well as other mayors from the region.

In forming the Steering Committee, it is essential that the individuals chosen understand the level of commitment being asked of them. Specifically, the CEDS process will likely involve monthly meetings for at least a year (plus periodic meetings during the implementation phase) with the Steering Committee itself, as well as participation at Advisory Committee meetings (see below) and other public events. Having a <u>fully-committed membership of the Steering Committee</u> is probably the single most important factor in determining the short- and long-term success of the CEDS.

As noted above, the Steering Committee's responsibilities would include:

- Adopting the CEDS 5-year work plan
- Evaluation of the CEDS process on an annual basis
- Define measurable goals and strategies to achieve the vision of the Work Plan
- Rank and prioritizes projects submitted by the communities
- Oversee the update of the CEDS plan every five years



Form an Advisory Committee

The CEDS Advisory Committee should be made up of representatives from all aspects of economic development. The following is our recommendation for the makeup of the steering committee.

- Representatives from each municipality and each county
- Representatives from regional planning commissions
- Representative from New Jersey Economic Development Authority-
- One member representing major sections such as: education, real estate, tourism, finance, health care and industry
- In addition to the above: community leaders, representatives of workforce development boards, representatives of institutions of higher education, minority and labor groups, major private foundations, etc.
- Specific suggestions for the composition of this Advisory Committee are provided as Attachment D to this report, based on the feedback from participants

The Advisory Committee would meet as directed by the Steering Committee. Its primary goals are to: (a) provide input to the Steering Committee on the CEDS vision, goals and objectives, (b) seek input from the public and any specific interest group they represent, and (c) to promote acceptance and engagement into the plan.

The Steering Committee may also choose to form sub-committees within the Advisory Committee that are topic-focused and given a specific charge by the Steering Committee.

Issues to Examine Further

During the base data collection, Camoin Associates identified several issues and topics that should be examined further during the CEDS process. Each of these is briefly discussed below.

Public Safety Perception - During the interviews conducted with representatives from each
community, one of the reoccurring themes was the negative perception of public safety both by
residents and non-residents.

Education

- K-12 Education Many interviewees rated the public school system in their community as lacking and identified it as a hindrance to economic development.
- The connection between local economic development officials and post-secondary curriculum offerings did not appear to be strongly established.
- How can the region better match skills of the workforce to job opportunities of the future?
- **Community Marketing** How and the degree to which communities market themselves to businesses, developers, new residents, and tourists is not consistent throughout the region. How can the region work together more effectively?
- **Transit Oriented Development** How can existing transit and mass-transit assets be better leveraged for TOD-focused development?



INNOVATION ECONOMY & GREEN/CLEAN TECH FINDINGS

The purpose of this section of the report is to examine the strengths and weaknesses of the Seven County Region to compete in the "innovation economy", which we define as economic activity driven by innovation (new products, services, and processes), technology, and research and development (R&D). We also specifically examine the sub-sectors of Green/Clean Technology. In these sections, we look at indicators that measure the capacity of the region to compete today, as well as past and projected trends in these indicators. This allows us to gain an understanding of where the region is headed. We have also identified specific industry clusters that seem to be strengths of the Region and/or clusters that the Region can further enhance for economic development purposes.

What follows is a summary of the major findings of our research into the innovation economy and green/cleantech industries in particular. The analysis itself and all the background data can be found in: **Attachment C – Innovation Economy & Green/Clean Tech Data**.

What makes innovation so important?

Why examine the innovation economy? Innovation drives economic growth and increases prosperity:

"In today's knowledge-based, global economy, innovation is becoming the coin of the realm. In recent years, a growing number of economists have come to see that it is not so much the accumulation of more capital that is the key to improving standards of living; rather it is innovation."

Elhanan Helpman, The Mystery of Economic Growth (Cambridge, Massachusetts: Belknap Press, 2004)

"For in a global economy, the key to our prosperity will never be to compete by paying our workers less or building cheaper, lower-quality products. That's not our advantage. The key to our success – as it has always been – will be to compete by developing new products, by generating new industries, by maintaining our role as the world's engine of scientific discovery and technological innovation. It's absolutely essential to our future."

President Barack Obama, November 17, 2010 – A Strategy for American Innovation; Securing Our Economic Growth and Prosperity; National Economic Council, Council of Economic Advisers, and Office of Science and Technology Policy; February 2011.

"The prosperity and security of all Americans — now and in the foreseeable future — depends increasingly on our nation's enduring and evolving capacity to learn, inspire, create and innovate."

F. Duane Ackerman, Chairman, Council on Competitiveness, and Chairman and CEO, BellSouth Corporation - Innovate America, National Innovation Initiative Summit and Report; Council on Competitiveness; 2005.

Research has shown that innovation intensive industries drive growth because they create new and/or improved products and services, generate jobs that pay higher than average wages and bring in wealth through exports of goods and services. A summary of some of the key findings from the analysis of the Seven County Region's innovative economy is provided below.

Promising Innovation Industry Clusters for the Region

The region has several industry clusters that are typically innovation intensive and exhibit growth potential. These industries also align well with the innovation assets in the region. They are:

Biomedical/Biotechnical (Life Sciences) Cluster

In the seven-county Region, there are just over 5,000 establishments employing over 200,000 workers that make up the biomedical/biotechnical cluster, with high earnings per job noted for most positions. Over the past ten years, the number of jobs in this cluster declined slightly; however, in the coming years this trend is expected to reverse. Top industries by employment in the biomedical/biotechnical cluster are diverse, including industries in the service sector of the cluster (hospitals, nursing care facilities, home care services, etc.) as well as R&D and manufacturing. There are particularly high concentrations of employment (as compared to the nation) in *Medicinal and Botanical Manufacturing* as well as *Pharmaceutical Preparation Manufacturing*.

Chemical and Chemical-Based Products Cluster

The Chemical and Chemical-Based Products industry cluster¹ (chemical cluster) consists of about 1,300 establishments and over 42,000 jobs in the Region. The average earnings per job at the regional level are much higher than at the national level and the region has a strong concentration of employment in this cluster. In the next decade, there is anticipated growth of over 2,000 jobs in the Toilet Preparation Manufacturing (cosmetics, perfumes, etc.) and Other Chemical and Allied Product Merchant Wholesalers industries.

• Information Technology & Telecommunications Cluster

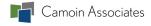
The *Information Technology and Telecommunications* industry cluster consists of about 8,700 establishments and 113,460 jobs with an average annual earning per job of \$103,735. Looking forward, the *Customer Computer Programming Services* industry is projected to add over 3,000 jobs and the *Wired Telecommunication Carriers* industry is expected to add over 2,400 jobs in the next ten years. Other industry categories in this cluster are also expected to add significant numbers of jobs in the Region. Many of these jobs will require a bachelor's degree or specific certifications, meaning that the Region will want to promote career path development in those industry-specific programs.

Energy (Fossil & Renewable) Cluster

The Energy cluster in the Region includes just over 7,000 establishments and over 94,800 jobs. Top industries in this cluster include R&D in Physical, Engineering, and Life Sciences (12,650 jobs), Engineering Services (11,600), Nonresidential Electrical Contractors (7,160) And Nonresidential Plumbing and HVAC Contractors (7,010). Over the next ten years, the industry expected to add the most jobs is Engineering Services, adding almost 2,630 jobs. Miscellaneous Intermediation (establishments primarily engaged in acting as principals in buying or selling of financial contracts) is expected to maintain its growth rate and add about 1,600 jobs in the next ten years

See details on each of these clusters starting on Page 57 in Attachment C.

¹ There is a certain amount of overlap with the Biomedical/Biotechnical cluster on specific industries/occupations, but there are strong non-overlapping industries as well.



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State of Green/Cleantech Industries in the Region

New Jersey and the Region are performing well in the emerging green/cleantech economy. In comparison to the Nation, the State of New Jersey ranks within the top 15 for all but one of the cleantech indicators. The State ranks 8th for jobs in both 2003 and 2010 and 5th for change during this time period. It ranks 12th for percent share of all jobs and average annual wages. Out of the 100 tops metros, the metro in which the Region is located also ranks highly: number one for jobs in 2003, jobs in 2010, and absolute job change from 2003 to 2010. The top occupations in the green/cleantech industries include *Civil Engineers, Management Analysts*, and *Mechanical Engineers*.

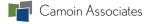
R&D Performance

New Jersey is a national leader among states in R&D performance; this is driven by R&D performed by the private sector. In 2008, total R&D performance (dollar value of R&D conducted) in New Jersey represented 4.28% of gross state product (GSP) compared to 2.57% for the U.S. as a whole. New Jersey has seen steady growth on this indicator over the past 5 years. In 2008, New Jersey ranked 7th among all states in total R&D as a percent of GSP.

- New Jersey ranks high on R&D performed by industry. After a period of slow growth 1998 to 2004, R&D performed by industry increased steady through 2008. New Jersey historically significantly outperforms the U.S. average on industry R&D performance and in 2008 it ranked 4th among all states.
- However, New Jersey lags in academic and not-for-profit R&D performance. In 2009, R&D performed at New Jersey academic institutions represented 0.19% of GSP compared to 0.39% in the U.S. as a whole. New Jersey ranked 50th in the nation for this indicator. In 2007, federal support for not-for-profit R&D spending as a percent of GSP was 0.005% compared to the United States level of 0.050% and New Jersey ranked 41st on this indicator.
- Life sciences are the largest field of research among academic R&D in New Jersey. In 2009, 47.2% of all R&D performed by academic institutions in New Jersey was within the life sciences field.
- New Jersey's R&D support from federal funds as a percent of gross state product is lower than the U.S. average. In 2008, New Jersey's total federal obligations as a percent of GSP was 0.453% compared to the United States level of 0.875%, which ranked New Jersey 25th on this indicator.
- New Jersey's federal support for R&D is driven by defense spending. In 2008, 74.3% of New Jersey's federal obligations for R&D came from the Department of Defense. This compares to 57.3% for the U.S. as a whole.

Within the State, the Seven County Region receives a majority of the federal funds to New Jersey for R&D provided to higher education and not for profit institutions. In 2007, higher education institutions in the region received \$269 million in federal funding for R&D. This represented 69% of all funds for R&D at higher education institutions in the State and included 100% of Department to Agriculture, 93% of Environmental Protection Agency funding, and 78% of all Health and Human Service funding statewide. The largest dollar amount of funding was from Health and Human Services, followed by the National Science Foundation, and Department of Defense. Rutgers received the most funding of all the institutions in the region, followed by the University of Medicine and Dentistry and the NJ Institute of Technology.

In 2007, the nine not-for-profit institutions in the Seven County Region received just over \$12 million in federal R&D funding to not-for-profit institutions which represented roughly 61% of the total federal



funding for R&D granted to all of New Jersey not-for-profit institutions. They received 100% of the statewide funding in New Jersey from Department of Energy, 99% of the statewide funding from the Department of Commerce, and 93% of the statewide funding from the Department of Defense. The nonprofit that received the greatest amount of funding was the Center for Molecular Medicine and Immunology, which received its funding form Health and Human Services. The Christopher Reeve Paralysis Foundation was granted the second highest amount of funding of the regional nonprofits, followed by the Kessler Institute for Rehabilitation.

The Region is home to a substantial amount R&D related to life and biosciences. The National Institute of Health provides funding to entities for R&D and services related to life and biosciences. In 2011, entities within the region received \$182 million in funding awards from NIH. This represented 73% of NIH funding to entities statewide. The 2011 amount within the region represents a decrease from the 2007 level of \$200 million. Within the region the entity that received the most funding over this timeframe was Rutgers, followed by the University of Medicine and Dentistry.

Innovation and Commercialization

New Jersey businesses/residents generate patents at a higher rate than their U.S. counterparts. The number of patents issued per 1,000 residents of New Jersey has historically remained above the United States as a whole and in 2010, New Jersey had 0.498 patents for every 1,000 residents compared to the United States at 0.392 for every 1,000 residents. New Jersey ranked 10th out of all states. Patent activity in NJ is driven by advances in chemicals, compounds, and telecommunications.

The Region generates patents at lower rate than New Jersey as a whole, but still generates a substantial level of patents within sectors related to chemistry and chemical products and transporting. While the number of patents issued per 1,000 residents has seen a similar trend between the State of New Jersey and the Seven County Region over the 2000 to 2009 time period, the Region consistently remained below that of the State as a whole. In 2009, the number of patents per 1,000 residents in the Seven County Region was 0.18 compared to 0.34 for the State of New Jersey. Among the top ten industries in the Seven County Region for amount of total patents in the 2000-2010 time period is Human Necessities, which represents 35% of all the patents for the 2000-2010 period, followed by Chemistry; Metallurgy, which represents 24% of patents, and then Physics and Performing Operations followed by Transporting, which together represent just under 20% of all patents. During this period, the top assignee was Merck & Co, Inc. with 14% of all the patents. Following this were Hoffman-La Roche, Inc.; Beckon, Dickson and Company; and Schering Corporation, each representing approximately 10% of the total number of patents in the region.

Entrepreneurial activity (as measured by persons starting businesses) in New jersey lags that of the U.S. as a whole. In 2010, the percent of persons starting a business in New Jersey was 0.25% compared to the United States at 0.34% and the state ranked 34th on this indicator nationally.

New Jersey small businesses access less funding from the Federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs compared to the U.S. average, though the State has recently gained ground. In 2010, New Jersey's figure represented 0.0152% of GSP compared to the United States at 0.0163%. This ranked the State 19th in the nation.

On average, New Jersey companies access less venture capital compared to the U.S. as a whole. In 2010, venture capital investments in New Jersey were 0.093% of GSP. This was lower than the total U.S. level of 0.150% for the same year and, relative to other states, New Jersey ranked 14th. New Jersey's dollar amount invested in venture capital in 2010 was part of seventy-six deals. The largest industry classes by dollar amount were in biotechnology, software, medical devices and equipment, and industrial/energy. Within New Jersey however the region performs very well at attracting venture



capital. Between 2003 and 2009 the amount ranged from a low of \$188 million in 2003 to a high of over \$3.1 billion in 2005. In 2009, the amount of venture capital invested in the area was just over \$1 billion.

Of all the industries in the region that received venture capital investment, the biotechnology industry received the most with 22.4% of the total venture capital in the Seven County Region. This was followed by Internet at 17.2%, Communications at 15.5%, and the Pharmaceutical industry, which represented 14.6% of all venture capital. In terms of which specific companies received venture capital between 2000 and 2010, Vonage Holding Corp. received the highest percentage of venture capital in the region at 18.6%, followed by Amicus Therapeutics at 9% and Esprit Pharma at 7.5%.

Education, Workforce, & Employment

New Jersey 8th graders score very well on math and science scores. On the 2011 National Assessment of Education Progress (NAEP) tests, New Jersey eighth graders ranked 3rd nationally and on the 2009 NAEP science test ranted 19th.

New Jersey residents have a higher education attainment rate with regard to bachelor's degree or higher compared to their U.S. counterparts. In 2010, 35.4% of New Jersey's twenty five years and older population held four-year college degrees or higher compared to 28.2% for the U.S. as a whole, ranking it 6th among all states.

Residents of the region have higher education attainment rates that are higher than the U.S. on average but lower than that statewide. The region is host to more than 20 institutes for higher education.

New Jersey lags the nation in terms of degrees in science and engineering and graduate enrollments in science and engineering. In 2010, New Jersey colleges and universities awarded 19,585 degrees in science and engineering disciplines. This represented 2.24 science and engineering degrees per 1,000 New Jersey residents compared to 3.99 for the U.S. as a whole and New Jersey ranked 49th on this indicator. In terms of the academic disciplines in which degrees were awarded, New Jersey had a higher concentration compared to the U.S. as a whole in life sciences; math and computer sciences; physical sciences; and engineering and lower concentrations in science and engineering technologies and geosciences. In 2009, New Jersey had 15,424 graduate students enrolled in science and engineering programs. This represented 1.77 enrolled graduate students per 1,000 residents. On this indicator in 2009, New Jersey fell behind the U.S. (2.04) as a whole, ranking 31st out of all the states.

But in terms of employment, New Jersey ranks high on persons employed in science and engineering occupations. In 2008, there were an estimated 198,060 science and engineering (S&E) occupations in New Jersey's workforce. This represented 44.00 S&E occupations for every 1,000 New Jersey workers, which was higher than the U.S. as a whole (37.60). New Jersey ranked 8th for this indicator in 2008. In relation to the United States, New Jersey had a higher concentration of occupations in computer specialists and life and physical sciences. In terms of Ph.D scientists and engineers in the workforce, New Jersey also ranks high. In 2006, there were an estimated 20,840 doctoral scientists and engineers in New Jersey's labor force. This represented 4.7 doctoral scientists and engineers for every 1,000 New Jersey workers and was higher than the level for the nation as a whole (4.1) ranking New Jersey 14th. On this indicator, New Jersey has a higher concentration relative to the U.S in the occupations of computer & info and mathematical scientist occupations.

