New Jersey Highlands Water Protection and Planning Council

Fiscal Impact Assessment

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Abstract

This document provides an analysis of a wide range of economic and fiscal data for the Highlands Region and for comparison regions in New Jersey, New York and Pennsylvania in support of the RMP Monitoring Program. It evaluates ways in which the Act and the RMP may have influenced the economy and the fiscal resources of Highlands Region municipalities. It is intended to support the development of the RMP Monitoring Program.

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Statutory Platform, Purpose and Funding

Pursuant to the Regional Master Plan (RMP)* the New Jersey Highlands Water Protection and Planning Council (the Highlands Council) has started a process to establish an RMP Monitoring Program. The Monitoring Program is intended to evaluate progress toward achieving the goals of the RMP through implementation of policies and programs.

As part of the process, the Highlands Council engaged the services of an outside consultant to prepare a Fiscal Impact Assessment (FIA) of the Highlands Water Protection and Planning Act (the Act) and the RMP. The purpose of the FIA is to demonstrate the economic effects of the Act and RMP on Highlands Region municipalities in relation to comparison regions in New Jersey, New York, and Pennsylvania.

The report is presented in three parts:

Part 1: Regional Economic Evaluation of the Highlands Region
Part 2: Demographic and Real Estate Analysis
Part 3: Fiscal and Financial Analysis

This document is a technical report, meant to inform the development of the RMP Monitoring Program. It primarily is intended for use by Highlands Council staff and other consultants and stakeholders involved in the Monitoring Program. Because the public has an interest in the analysis generated for the FIA, however, the report attempts to minimize the use of jargon where possible without compromising the technical specificity required to support the Monitoring Program.

** Copies of the Highlands Regional Master Plan are available in most municipal offices and can be obtained by contacting the Highlands Council office.*

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Chapter 1 Introduction

1.1 Purpose and Intent

In August 2004, the State of New Jersey enacted the Highlands Water Protection and Planning Act (the Act), and, in 2008, the Highlands Council approved the Regional Master Plan (RMP). The Act and RMP were part of a comprehensive response to the Region's rapid growth, which had the potential to impact water and other valued natural resources in the area that supplies drinking water to five million New Jersey residents.

In 2013, the Highlands Council began a process to establish the RMP Monitoring Program. As a part of that process, the Council retained a consultant to prepare a Fiscal Impact Assessment (FIA). The intent of the FIA is to demonstrate the economic and fiscal impacts of the Act and the RMP to the degree that such impacts are evident and to identify indicators that the Council should monitor through the RMP Monitoring Program.

The FIA report contains three parts:

- **Part 1: Regional Economic Evaluation**
  Analyzes economic growth patterns in the Highlands Region and in adjacent regions. The purpose of this part is to determine the degree to which, if any, the Act and the RMP have had a measurable impact on the regional economy. Part 1 covers chapters 2 through 6.

- **Part 2: Demographic and Real Estate Analysis**
  Analyzes how the demographics and socioeconomic characteristics of the Highlands Region and adjacent regions have or are changing and assesses the relation between such changes and the regional economy. Also evaluates the real estate and development market and describes the interplay between the economy, demographic trends, and real estate and development. The purpose of this part is to determine the degree to which, if any, the Act and the RMP have had a measurable impact on development and real estate sales values. Part 2 covers chapters 7 through 9.

- **Part 3: Fiscal and Financial Analysis**
  Assesses the degree to which, if any, the Act and RMP have had a fiscal impact on Highlands Region municipalities, providing comparisons to similar municipalities that are not in the Highlands Region. Also presents the Cash Flow Timetable as required by the Highlands Water Protection and Planning Act. The purpose of this part is to determine the degree to which, if any, the Act and the RMP have had a measurable impact on the fiscal resources of the Highlands Region municipalities. Part 3 covers chapters 10 and 11.

1.2 General Approach

Measuring Economy

The most common measure of an economy is the total value of the goods and services produced by an economy over a period of time. This is what the U.S. Bureau of Economic Analysis (BEA) measures each quarter with the Gross Domestic Product (GDP). GDP, however, only measures economic activity. It does not measure well-being factors, such as public and environmental health.

The data used to measure GDP are national in scope, but BEA also calculates a GDP measure for states and metropolitan areas. However, there is no GDP measure for counties or local jurisdictions. To analyze regional economies that are smaller or distinct from metropolitan areas, economists rely on employment as a proxy measure for economic activity.

This report focuses on employment: total employment, changes in the level of employment (or number of jobs), and the rate of change in employment. The focus on employment should be regarded as the measure of overall economic activity. By analyzing overall economic activity, as measured by employment, this report is able address the primary issue of the impact of the Act and the RMP on the economy of the Highlands Region.

Fiscal Impacts

In the conventional model of community growth and development, economic expansion drives population growth. Regions with growing economies are able to attract more migrants and retain more of their residents than regions with stagnating or declining economies. Growing population generates demand for housing development and a growing economy drives demand for commercial and industrial development. Building on the economic analysis, the FIA explores the trends in construction, demographics, and real estate sales in the Highlands Region. In turn, new development leads to increases in a municipality's tax base and property tax revenues. The assessment concludes with an analysis of municipal revenues.

Basic Methodology

The analyses in this report are built on the hypothesis that if the Act and the RMP have had economic and fiscal impacts in the Highlands Region, then measures of overall economic activity and employment, development and real estate sales, and municipal revenues will show higher or lower rates of growth over time compared to other regions that were not subject to the Act and the RMP.

This report has three tiers of analysis. The first tier analyzes the changes at the regional level. Employment growth rates for the entire Highlands Region are compared to growth rates across the comparison regions. The second tier analyzes growth rates at the municipal level, comparing the municipalities in the Highlands Region with the municipalities in each of the comparison regions. The

third tier of analysis quantifies whether or not there is a statistically significant difference in the rate of employment growth between Highlands Region municipalities and the municipalities in the other regions.

Time Frame

To capture the potential economic impact of the Act and the RMP, the analysis focuses on the change in employment from 2004, when the Act was adopted, and 2008, when the RMP was approved, to the present. Due to data limitations, as discussed below, the present is considered 2011 or 2013, depending on the data set.

Geography

Map 1 shows the regions analyzed in this report. The Highlands Region and its subareas (Preservation and Planning Areas) are the areas defined in the Act and the RMP. Within New Jersey there are two comparison regions. The Highlands county municipalities not in the Highlands Region, include all the municipalities in the seven Highlands counties, except for the 88 municipalities that are in the Highlands Region. Northern New Jersey includes the municipalities in the following ten counties: Bergen, Essex, Hudson, Hunterdon, Middlesex, Morris, Passaic, Somerset, Sussex, Union, and Warren, inclusive of the Highlands Region.

To provide some understanding of how other state trends and policies may have affected the Highlands Region, the analysis also compares the Region's economic performance to comparison regions in New York and Pennsylvania. The adjacent region in New York includes Orange, Rockland, Sullivan, and Westchester counties. The adjacent region in Pennsylvania includes Pike, Monroe, Bucks, and Northampton counties. Only a limited number of comparison regions could be analyzed for this report. Based on discussions with NJHC staff, the regions analyzed are those of greatest concern to the Highlands Region.

As described in section 1.5 Municipal Classification and detailed in Appendix A, certain very high density municipalities are excluded from the analysis.

1.3 Data Sources

Three key considerations constrain the selection of data sources:

- For cross-state comparisons, the data need to be consistent across states.
- For measuring potential impacts since adoption of the Act and the RMP, the data need to be available for 2004 and 2008 as well as for a recent 12-month period.
- For measuring potential impacts at the municipal level and comparing differences among the Preservation Area, the Planning Area, and areas outside of the Highlands Region, the data need to be available at a sub-county level.

The analysis uses four basic types of data: employment data, demographic data, building permit data, and assessing data.

Employment Data

Quarterly Census of Employment and Wages (QCEW)

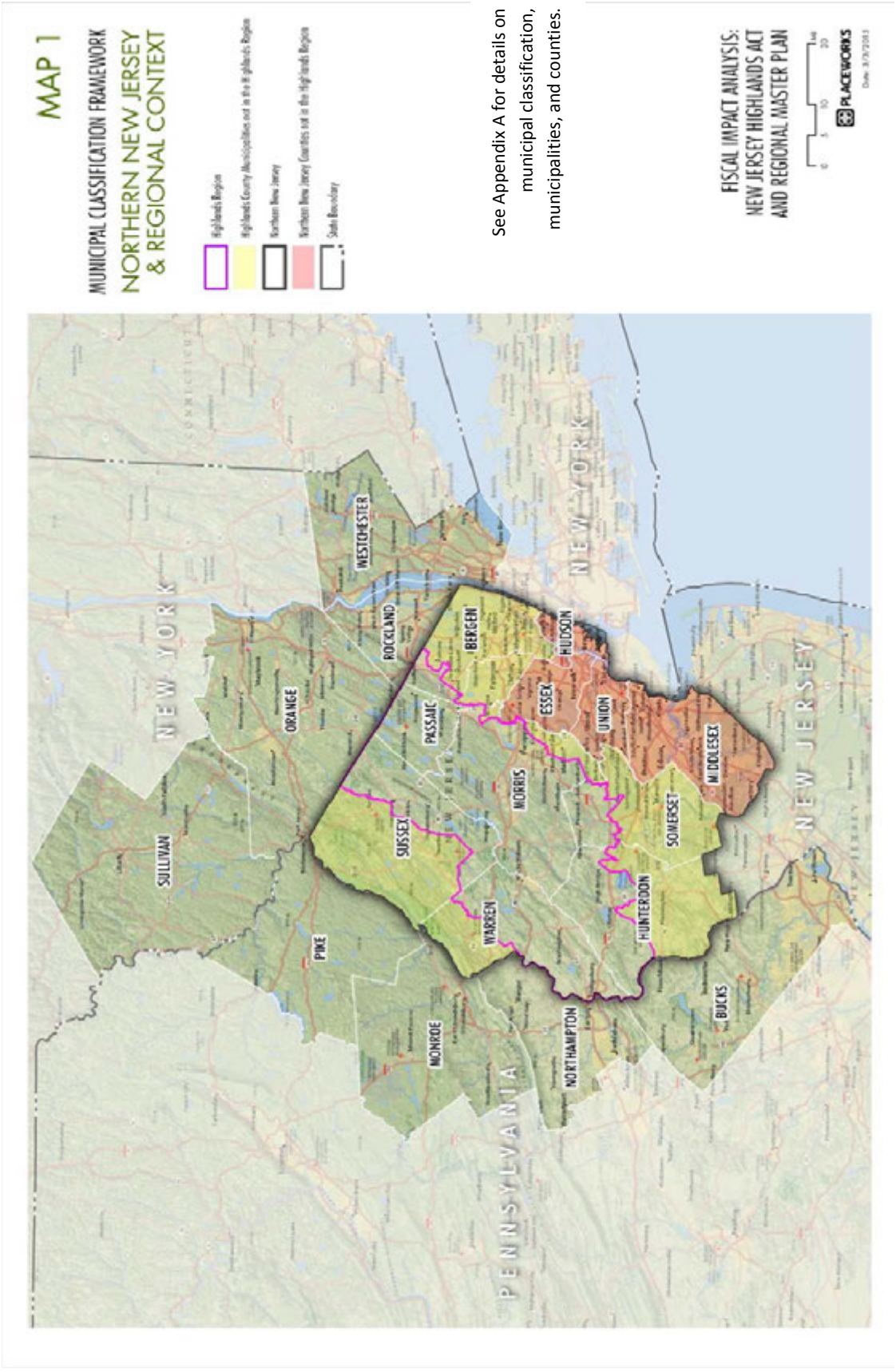
The QCEW provides detailed job counts at each place of employment in each state. The data include the number of employees in each month, the economic sector (see the discussion of economic sectors later in this chapter) of the primary activity occurring at each place of business, and the latitude and longitude coordinates for each place of business.

Because the QCEW contain such detailed information, the data are confidential. Under an agreement with the State, public agencies can have access to the data for analysis, but the data cannot be published or otherwise made available to the public in a format or level of detail that could compromise the confidentiality of the data or enable the identification of individual establishments or their sensitive information. It is unlikely that the dataset will be available for all municipalities, but there may be some larger municipalities for which the total employment data could be released.

Each state treats the QCEW a little differently. In New Jersey, the data available to agencies does not include employers like domestic violence shelters, and it does not include domestic workers directly employed by households. These exceptions represent a tiny fraction of the total number of jobs and do not affect the analysis.

When a new business opens or an existing business expands to a new location, it can take several quarters to get the records completed. Typically, this results in some businesses not having latitude and longitude coordinates or the economic sector data in the record for a few quarters. Once those data are finalized, however, the State does not go back and correct the previous records. Thus, the dataset is not perfect, and some minor changes in total employment may result from updating records. Nevertheless, in the data used in this analysis, the incomplete records represented less than one percent of all records.

QCEW data are the bedrock of economic analysis in the U.S., and they are a key dataset for this analysis. The report analyzes QCEW data for 2004, 2008, and 2013. However, the data are only available for New Jersey, so the analysis using these data covers only the Highlands Region and the two comparison regions in New Jersey. Due to scope and budget constraints, the analysis was not able to include additional time periods for the QCEW analysis.


MAP 1
MUNICIPAL CLASSIFICATION FRAMEWORK
NORTHERN NEW JERSEY
& REGIONAL CONTEXT
Highlands Region
Highlands County Municipalities not in the Highlands Region
Northern New Jersey
Northern New Jersey Counties not in the Highlands Region
State Boundary
See Appendix A for details on municipal classification, municipalities, and counties.
FISCAL IMPACT ANALYSIS:
NEW JERSEY HIGHLANDS ACT
AND REGIONAL MASTER PLAN
PLACEWORKS
NEW YORK
NEW YORK
NEW JERSEY
PENNSYLVANIA
WESTCHESTER
ROCKLAND
ORANGE
PASSAIC
BERGEN
HUDSON
ESSEX
UNION
MIDDLESEX
MORRIS
SOMERSET
SUSSEX
SULLIVAN
WARREN
HUNTERDON
PIKE
MONROE
NORTHAMPTON
BUCKS

Longitudinal Employer-Household Dynamics (LEHD) Program

Most contemporary regional economic analyses use employment data from the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) Program. This program combines the QCEW data from each state with IRS tax returns and other federal data into the LEHD dataset. The data are not confidential, and they are easily obtainable through the Census Bureau website.

The data are consistent across states, and they are available at the census-block level. This makes them very versatile. The main disadvantage with LEHD is that they are usually a year older than what is available through QCEW. The LEHD data analysis originally conducted for this project has been updated with the most recent available LEHD data, which covers the period through 2013.

Because the LEHD data are the best available data for comparing the Highlands Region with the adjacent regions in New York and Pennsylvania, the report uses these data for the interstate comparisons. The LEHD dataset also includes information on commuting patterns. Due to scope and budget limitations, commuting was not analyzed in this report, but it could have value in the RMP Monitoring Program.

Demographic Data

The report analyzes the correlation between job growth and a variety of demographic factors. The data for these demographic factors comes from the Census Bureau.

Many people may be familiar with the census long form. In the past, one out of every six or seven households was asked to complete a detailed survey in conjunction with the decennial census. This form provided information on education, income, housing costs, and many other topics. Starting with the 2010 Census, however, the long form was dropped, and the Census only recorded gender, age, race and ethnicity, and number of people in each household.

The Census Bureau replaced the long form with the American Community Survey (ACS). Each year, the Census Bureau surveys Americans, asking many of the same types of questions that were previously included on the long form. The ACS survey, however, includes far fewer respondents than the long form used to have, meaning that it has a higher margin of error. The trade off for the higher margin of error is that the results are updated every year instead of every ten years.

Because the survey size is small, the ACS only reports results for jurisdictions with less than 20,000 residents as a five-year average, although it is updated each year. The first five-year estimates were released for 2009. For this analysis, there is no demographic data for 2004 and 2008.

This analysis uses demographic data from the 2000 Census as a proxy for the demographic characteristics in 2004 and data from the 2010 Census as a proxy for the characteristics in 2008. The analysis uses ACS data from 2011 and 2013 from the demographic characteristics in those years.

Building Permit Data

The report analyzes trends in the issuance of building permits. Some building permit datasets provide information only about the issuance of building permits, and others provide information about the issuance of construction permits, start of construction, and completion of construction (typically the issuance of certificates of occupancy). The distinction is that not every building permit issued actually leads to construction. For example, the U.S. Census Bureau estimates that, nationally, 2.0 percent of building permits for single-family housing are abandoned before the start of construction, as are 1.5 percent of multifamily housing units. Another 0.5 percent of single-family and multifamily housing units are abandoned after construction starts. Such housing units may eventually be built, but new building permits are issued.

Unless the text indicates otherwise, the report uses the term "single-family residential" and "single-family dwelling" to refer to single-family detached housing. The term "multifamily" refers to all housing in which there are two or more housing units, such as duplexes, townhouses, and apartments. Furthermore, unless the text indicates otherwise, the analysis of building permits and construction does not differentiate between owner-occupied and renter-occupied housing.

The report uses three datasets for building permits, each of which is described below.

New Jersey Department of Community Affairs

The New Jersey Department of Community Affairs (DCA) maintains data on all building permits issued in New Jersey. This includes permits for new construction, permits for demolition, permits for additions and alterations, and certificates of occupancy. The building permit data also indicate what type of building was authorized by the permit (single-family attached and detached, multifamily, commercial, and industrial) and, for residential, the total number of units.

The DCA data is available in a digital format that provides a record for each building permit, including the location, identified as a parcel number consisting of the county and municipality number, the block and lot number, and the qualifier. However, municipalities have adopted the digital format for reporting building permits at different times. The further back in time one goes, the fewer digital records there are. For municipalities and time periods for which digital records are not available, DCA only maintains a summary total by type of permits and number of units (for residential) and building square footage (for nonresidential).

Because the digital data only goes back so far, this report could not effectively analyze construction trends in the Highlands Region's planning and preservation areas with the DCA data. Going forward, the digital building permit data should be of value in the RMP Monitoring Program.

U.S. Census Bureau Building Permits Records

The report did not have access to digital data with records for each building permit issued for the municipalities in the adjacent regions in New York and Pennsylvania. To compare building permit trends in the Highlands Region with the trends in the interstate municipalities, the report uses building permit data from the U.S. Census Bureau's Building Permits Survey and Survey of Construction programs. These programs provide up-to-date monthly data survey data on building permits and construction activity from a sample survey of permit-issuing authorities. The report, however, uses the more comprehensive annual reports which encompass information from all permit-issuing authorities.

U.S. Census Bureau Census of Housing

Construction is a highly seasonal and cyclical industry. The number of permits and the amount of construction activity goes up and down, often times from month to month. The variability in the data makes it challenging to identify and analyze trends. In statistical terms, datasets with high levels of variability often do not exhibit linear trends, and analysts often times cannot conclude that the trend in one group of data is statistically different than the trend in another group. Therefore, the report also analyzes the trends in the total amount of housing. Even with seasonal and structural swings in the number of building permits and the amount of construction, the percentage change in total housing is relatively small. Trends in total housing have less variability, so an Act- or RMP-impact in housing may be more statistically evident in total housing data.

Assessing Data

The report uses MOD-IV assessing data to identify and analyze the number and value of real property sales. To identify property sales that can be used for comparables for appraising purposes, the assessing data notes if the sales price does not reflect a market value. The analysis of the assessing data for this report excludes those sales that do not reflect a market value.

The report did not have access to similar property sales data in New York and Pennsylvania. Thus, the real estate sales analysis only provides comparisons for the Highlands Region and the two comparison regions in New Jersey.

1.4 Economic Structure

To understand the structure of a local or regional economy, economists usually look at the number of jobs in each of the major economic sectors as an indicator of the economic activity and the relative importance of each sector in the economy. The employment-defined economic structure is then compared to the economic structure of other localities, regions, and the state or nation to identify the sectors in which the local or regional economy specializes or lacks. This report follows this methodology.

Two-Digit Major Economic Sectors

The North American Industrial Classification System (NAICS) classifies each business by the primary good or service produced at each location using a six-digit code. A few types of economic analyses need to use the full six-digit code, but, most analyses, including this report, use only the first two digits. The two-digit code is typically referred to as a major economic sector. Appendix B provides descriptions of each of these two-digit sectors. The 20 major economic sectors are:

11 Agriculture, Forestry, Fishing and Hunting
21 Mining, Quarrying, and Oil and Gas Extraction
22 Utilities
23 Construction
31 Manufacturing
42 Wholesale Trade
44 Retail Trade
48 Transportation and Warehousing
51 Information
52 Finance and Insurance
53 Real Estate and Rental and Leasing
54 Professional, Scientific, and Technical Services
55 Management of Companies and Enterprises
56 Administrative and Support and Waste Management and Remediation Services
61 Educational Services
62 Health Care and Social Assistance
71 Arts, Entertainment, and Recreation
72 Accommodation and Food Services
81 Other Services (except Public Administration)
92 Public Administration

Base Economic Sectors

For some analyses, economists divide the economy into two groups: the base economic sectors and the local-serving economic sectors. The base sectors of the economy are those that typically export their goods and services outside of the local area or region, thus bringing new dollars into the local or regional economy. Manufacturing is a quintessential base economic sector.

In contrast, the non-base sectors, or local-serving sectors, predominantly sell their goods and services to local-area or regional residents, thus recirculating dollars that already exist in the local or regional economy. Retail trade is a quintessential local-serving economic sector.

Economic development efforts typically focus on the base economic sectors because expansion in these sectors increases the amount of dollars flowing into the local economy. For example, increased production leads to higher payrolls, and those paychecks then get spent at businesses in the local-serving sectors.

This report is not focused on economic development and how the economy could perform better in the future. Rather, it is focused on understanding what has happened over the past ten years or so. Nevertheless, the distinction between base and non-base, or local-serving, sectors does factor into the way this report divides the 20 major economic sectors into major functional groups, as described below.

Major Groups of Economic Sectors

To provide a broad understanding of economic structure, this report often breaks the 20 major economic sectors into six functional classifications, labeled major groups of economic sectors. This division also helps in the presentation of results of more detailed analyses, because it can be challenging to find meaning when looking at charts and data across 20 rows. The major groups are:

Base Goods–Producing Sectors

The base–goods producing group of sectors typically produce commodities, intermediate goods, and finished goods. These sectors often sell their goods outside of the region, although with construction, the inside or outside the region distinction gets blurred. The three base goods-producing economic sectors are: (1) agriculture, forestry, fishing, and hunting; (2) mining, quarrying, and oil and gas extraction; (3) construction; and manufacturing.

Base Service–Producing Sectors

The base service-producing sectors are: utilities; wholesale trade; and transportation and warehousing.

Knowledge–Based Sectors

The knowledge-based sectors tend to be base–service producers, but economists often look at this group separately because they tend to rely extensively on a well-educated work force. Businesses in these sectors most often operate in offices. The sectors in this group are: information; finance and insurance; professional, scientific, and technical services; and management of companies and enterprises.

Local–Serving Sectors

Demand in local-serving sectors is primarily driven by the needs and disposable income of the households residing in the region, although tourism may augment that demand. The sectors in this group are: retail trade; arts, entertainment, and recreation; accommodation and food services; and other services (ex. public administration).

Education and Health Care

This group of sectors provides services to households residing in the region. However, the location and size of businesses and school and the number of employees in this sector are influenced heavily by state and federal policies and funding. The sectors in this group are: educational services; and health care and social assistance.

Miscellaneous

Two sectors do not fit in neatly in the other categories; (1) administration and support, and waste management and remediation; (2) real estate and rental and leasing, include a wide variety of unrelated economic activities. Public administration is usually a local-serving sector, but the level of employment is driven by a variety of factors beyond just the number of residents.

1.5 Municipal Classification

To provide accurate comparisons upon which to measure the economic performance of the Highlands Region, the report divides all study area municipalities into groups to ensure that Highlands Region municipalities are compared to similar municipalities in other regions. The groups are based on population and employment densities. Appendix A provides summary tables identifying the municipalities included in each of the groups.

Acreage Adjustment

The land area of each municipality was adjusted downward to reflect the presence of land areas that are generally not available for development. Specifically, the acreage of the jurisdiction that was surface water and wetlands and the acreage that has been preserved as open space by county, state, and federal

governments were subtracted from the total acreage of the jurisdiction. Map 2 shows these areas that have been removed from the density calculation. It is important to note that the density calculation is used only for the purpose of grouping municipalities. It is not used in any other part of the analysis in this report.

Population Density

To create the population density categories, the population density was calculated for the 88 Highlands Region municipalities using the population from the 2000 Census and the adjusted acreage. Because population and employment density tend to be exponential curves, with a few large densities at the high end, the means and standard deviations were calculated based on the natural logarithm of the population (and employment) densities. The cutoff values, once determined, were converted back to their original values.

The cut-off point between the low-population and the medium-population density categories was set at the value of the mean population density minus one standard deviation. The cut-off point between the medium-population density and the high-population density group was set at the value of the mean population density plus one standard deviation. The cut-off point at the top of the high-population density group was set at a value of the mean population density plus 2.5 standard deviations. The analysis explored using percentiles to group municipalities. Percentiles provide a smoother distribution of Highlands Region municipalities but leave large gaps among the municipalities in the comparison regions.

Any municipality with a population density higher than the mean plus 2.5 standard deviations is determined to be an outlier. Outliers are discussed in more detail in the final section of this Chapter, on page 14. Outlier municipalities are excluded from the entire analysis in this report. The list of outlier municipalities is provided at the end of Appendix A. Map 3 shows the population-density classifications of the municipalities in Northern New Jersey.

The values that define the upper and lower boundaries of the population density groups are based on the range of population densities among the 88 Highlands Region municipalities. However, those values are used to classify municipalities in all the regions. The values are not calculated separately for each region.

Employment Density

To create the employment density categories, the employment density was calculated for the 88 municipalities in the Highlands Region, using each municipality's total 2004 employment based on the LEHD dataset. The cut-off points between the employment-density categories were defined by the same method, based on the mean and 1 or 2.5 standard deviations, as used for population density. Once again, municipalities with employment densities greater than the mean plus 2.5 standard

deviations are determined to be outliers and are excluded from the analysis. Map 4 shows the employment-density classification of the municipalities in Northern New Jersey.

Density Classification Values

Each municipality is classified as low-, medium-, or high-population density and as low-, medium-, or high-employment density. The terms "low," "medium," and "high" are descriptions relative to the Highlands Region and represent the variation in density across the 88 municipalities. The sole purpose of classifying municipalities is to ensure that economic activity in the Highlands Region municipalities is compared to and analyzed with the economic activity in similar municipalities in the comparison regions. It is important to note that the use of the mean and standard deviations is only used for classifying municipalities. The means and standard deviations are not used in any of the analysis, and all the residents and jobs in the municipalities are included in the analyses, with the exception of the outlier municipalities discussed in the next section.

Map 5 shows the final classification of the municipalities in Northern New Jersey, and Map 6 shows the classifications for the entire region analyzed in this report. Table 1 provides the values that define the classification groups.

Table 1: Density Classification Values in Person per Adjusted Acre and Total Jobs per Adjusted Acre, Highlands Region and Comparison Regions

	Greater Than	Less Than
Low population density	0	.62
Medium population density	.62	4.5
High population density	4.5	19.83
Low employment density	0	.12
Medium employment density	.12	2.08
High employment density	2.08	17.59

Source: PlaceWorks, 2015, using 2004 employment data from the Census Bureau's Longitudinal Employer-Household Dynamics Program and 2000 population data from the US Census Bureau.

Very High Density Municipalities

Municipalities may be classified as outliers based on their population density, their employment density, or both. Regardless of which measure results in the outlier status, the municipality is excluded from every analysis in this report. The final table in Appendix A identifies the 19 outlier municipalities in Northern New Jersey and the one outlier municipality in New York.

These municipalities are statistical outliers relative to the Highlands Region. However, the report may occasionally compare the Highlands Region to this group of municipalities to contrast differences between the region's municipalities and the high-population municipalities when relevant to the discussion.

Excluding outliers is a common practice in statistical and economic analyses. Sometimes researchers exclude data because they represent a possible shortcoming in the sample or survey methodology or the experiment design. In other analyses, including this report, outliers are excluded because they are different from the subjects being analyzed. For this report, the economic activity in the relatively very high density municipalities is seen as having little to no value in understanding the economic trends in the Highlands Region municipalities.

Based on the GIS data, the entirety of Walpack Township in Sussex County is open space. Thus it has 0 acres of land, and density cannot be calculated across 0 acres. The report therefore classifies Walpack Township as an outlier. However, the Township's population in 2010 was 20, so its exclusion from the analysis has no impact on the analysis and the report's findings.

1.6 Limitations

This report reflects a comprehensive analysis of a wide range of factors related to the Highlands Region and the Act and RMP. Nevertheless, it could not cover everything, and there are limitations to what has or could be included.

Demographic Trends

The analysis includes many demographic factors, but there are many others that have not been analyzed. Broad regional and multistate trends could have unequally affected the different areas analyzed. It would be possible for such trends to mask impacts of the Act and RMP in ways that are not uncovered in the analyses.

Recession Impacts

The economic analysis may capture little potential employment impact from the Act and the RMP if the post-recession job growth has not reached a point requiring new development to accommodate new jobs. The report recommends continued monitoring of employment levels. As new development becomes necessary to accommodate continued economic expansion, effects of the Act and the RMP may become evident in employment trends.

Conforming and Nonconforming Planning Areas

In 2004, 89% of Highlands Region employment was in the Planning Area, and 70% was in areas that are currently non-conforming. Impacts of the RMP may become increasingly evident as more areas come into compliance.

Carrying Capacity

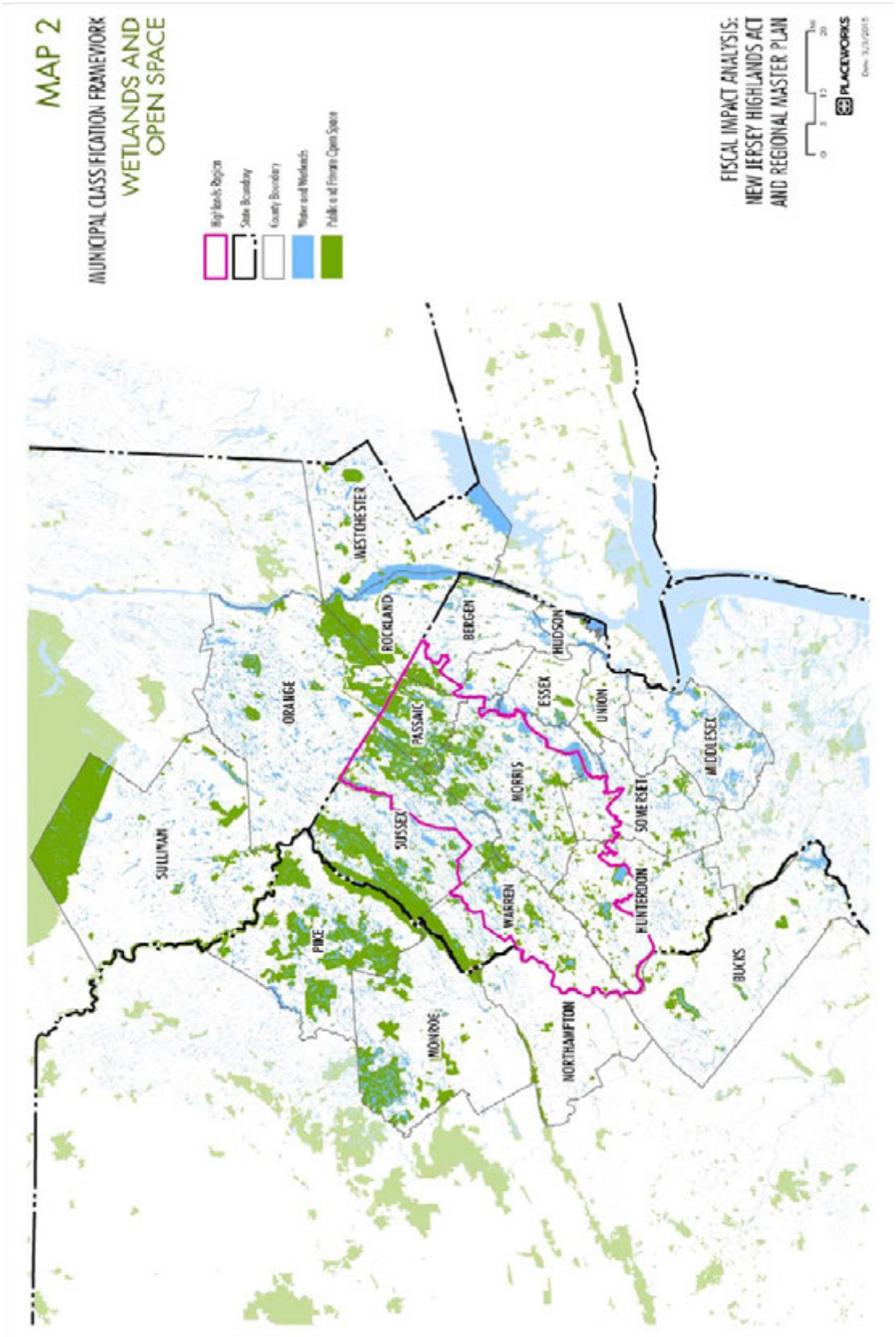
The *Highlands Regional Buildout Report* was originally completed in 2008. Updates to this report are done on a per municipality basis, not region wide and therefore could not be incorporated into these analyses. There could be value in incorporating an updated region-wide buildout analysis into the economic indicators for the RMP Monitoring Program.

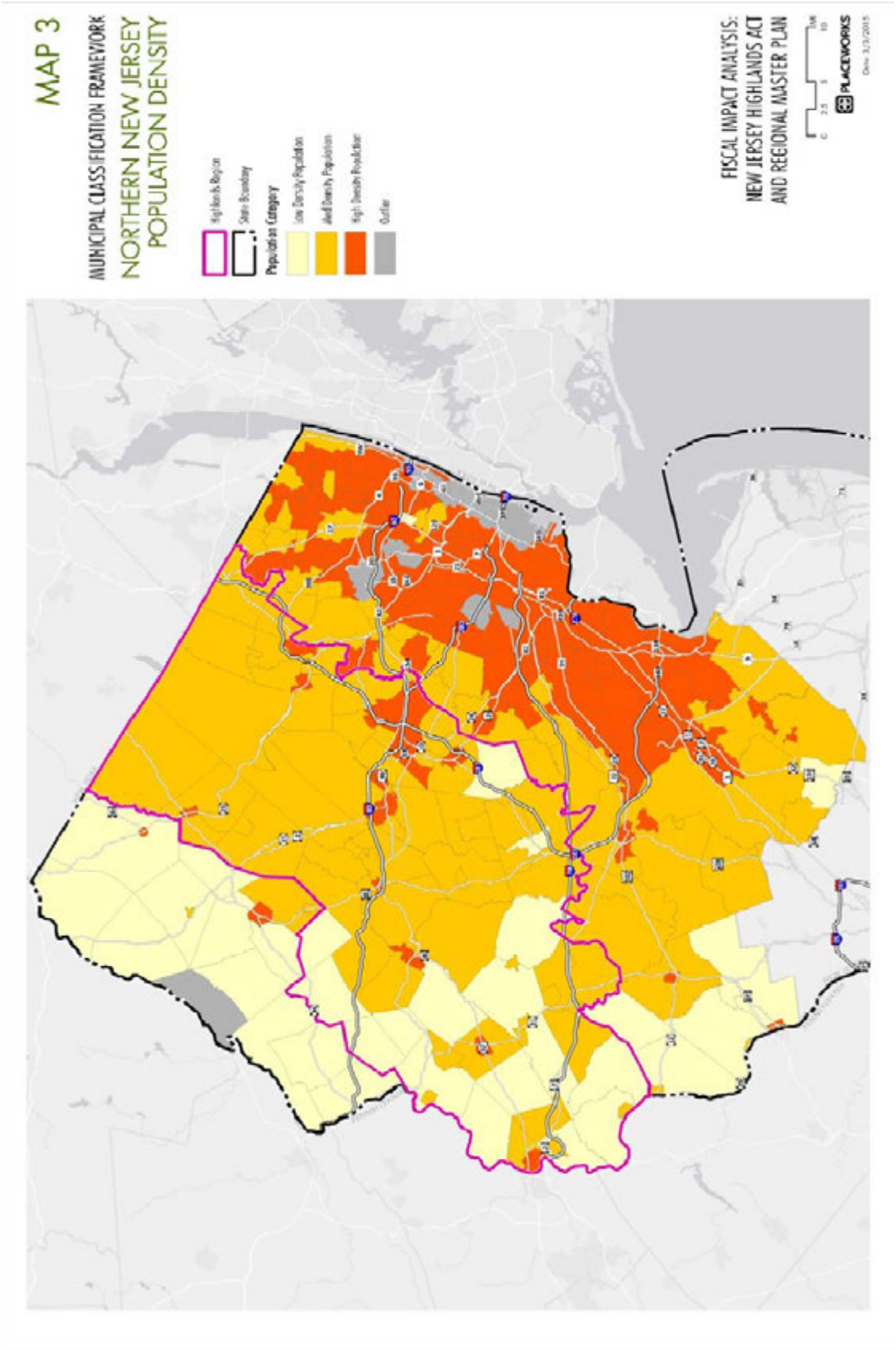
Detailed Analysis

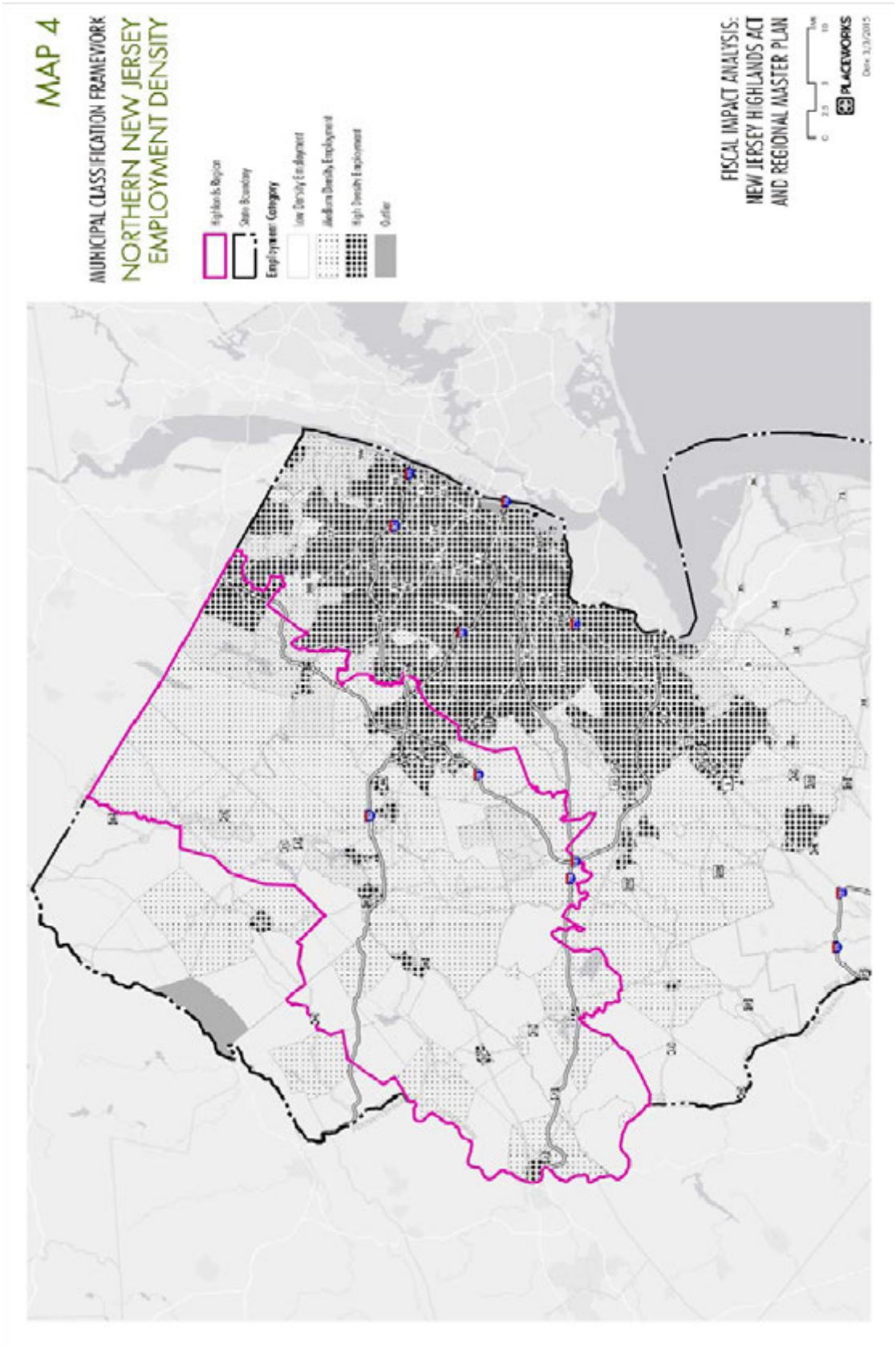
The scope of work for this report included a broad analysis of trends among all sales of properties in the Highlands Region and the two comparison regions in New Jersey. For a more detailed understanding of the interplay of land use and environmental regulations with other factors that influence real estate prices, more sophisticated hedonistic analyses could be conducted. Such focused analysis could be incorporated into future monitoring.

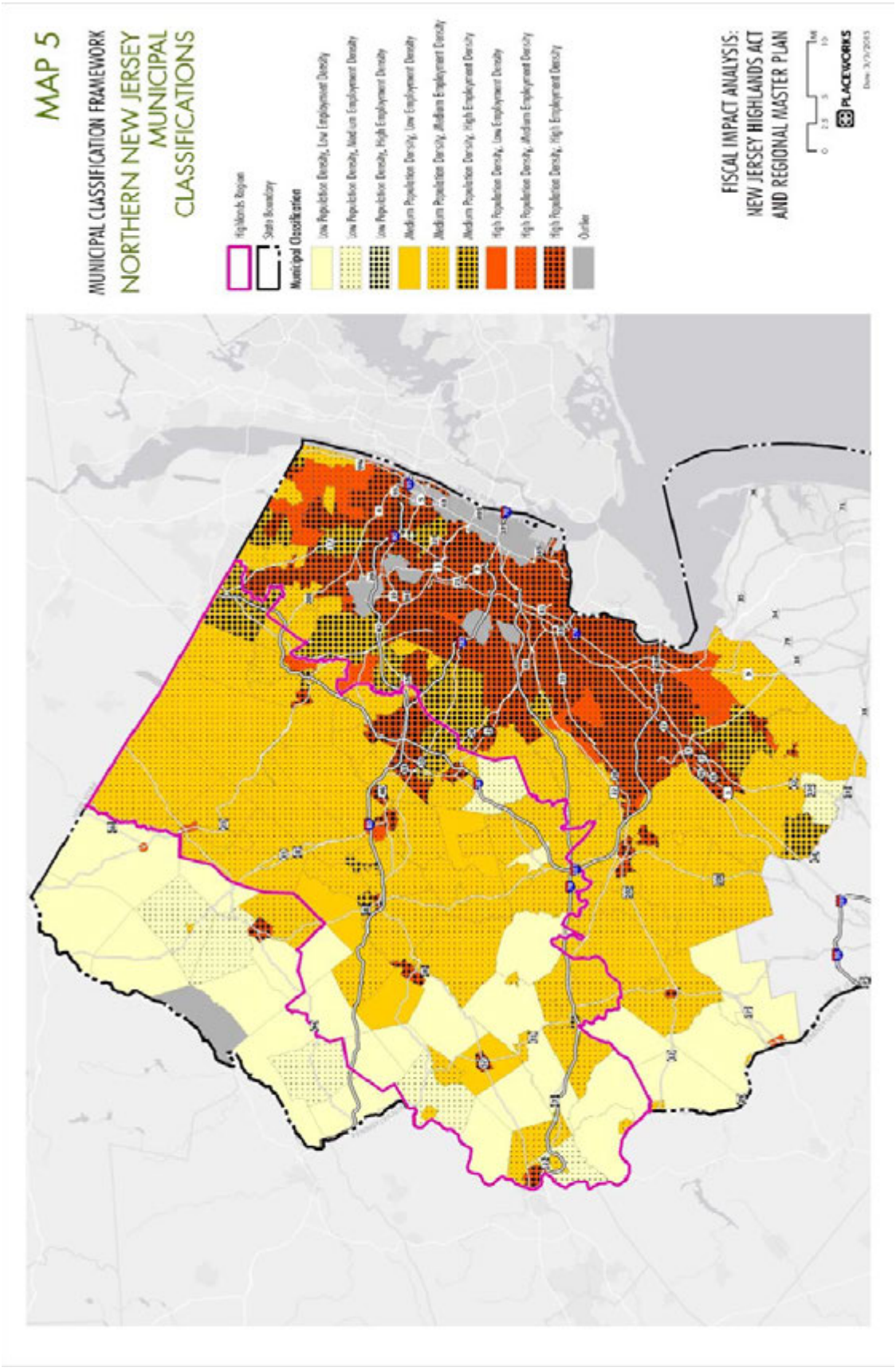
Municipal Expenditures

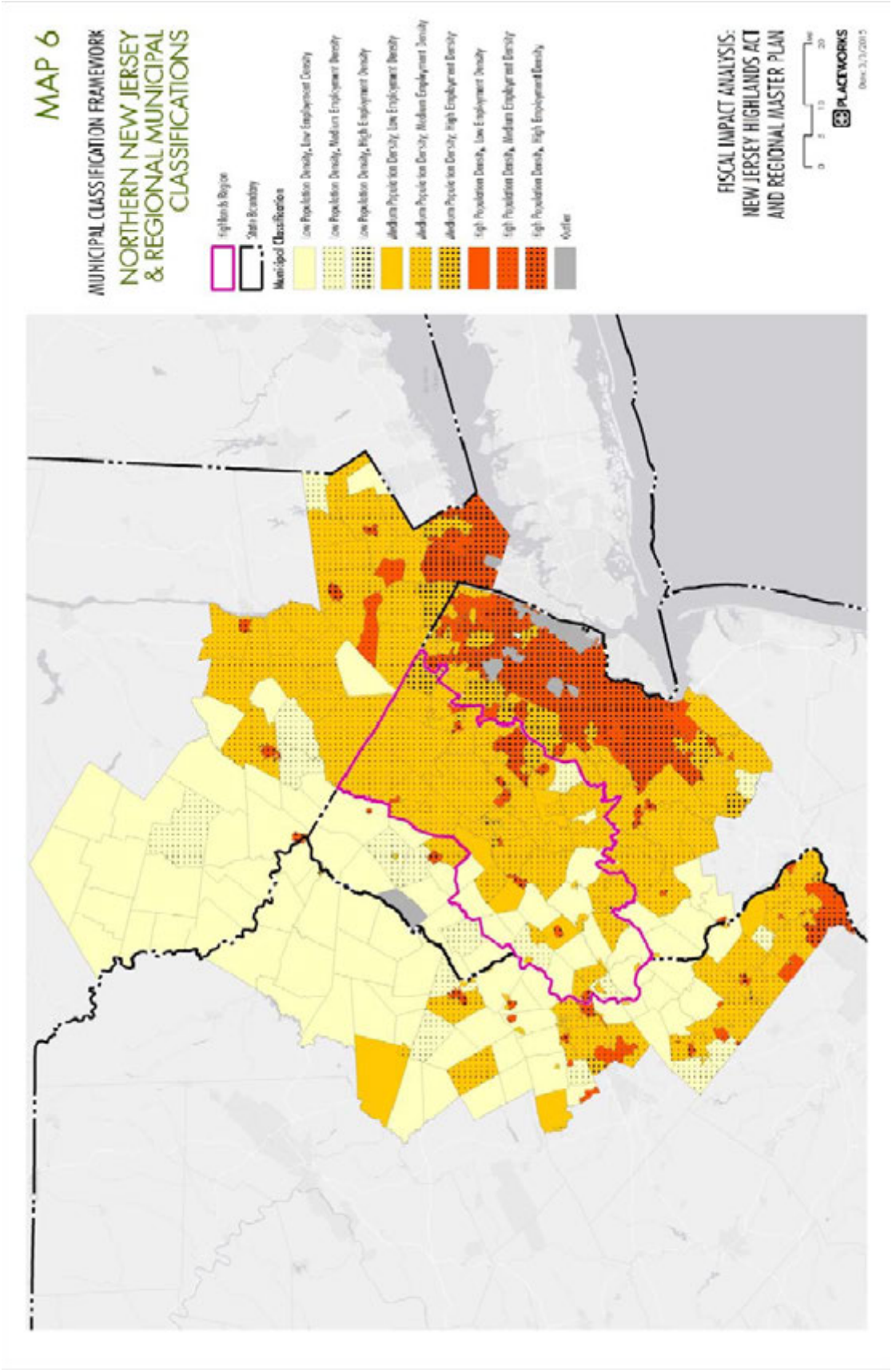
Because consistent data on municipal expenditures going back in time was not readily available, the municipal finance analysis focuses on revenues. With recent statewide requirements for budget reporting, expenditure data should be available to support the RMP Monitoring Program and future analyses.


MAP 2
MUNICIPAL CLASSIFICATION FRAMEWORK
WETLANDS AND
OPEN SPACE
FISCAL IMPACT ANALYSIS:
NEW JERSEY HIGHLANDS ACT
AND REGIONAL MASTER PLAN
PLACEWORKS
WESTCHESTER
ROCKLAND
BERGEN
HUDSON
ESSEX
UNION
ORANGE
PASSAIC
MORRIS
MIDDLESEX
SOMERSET
SUSSEX
SULLIVAN
HUNTERDON
WARREN
PIKE
BUCKS
MONROE
NORTHAMPTON


MAP 3
MUNICIPAL CLASSIFICATION FRAMEWORK
NORTHERN NEW JERSEY
POPULATION DENSITY
Population Category
FISCAL IMPACT ANALYSIS:
NEW JERSEY HIGHLANDS ACT
AND REGIONAL MASTER PLAN
PLACEWORKS


MAP 4
MUNICIPAL CLASSIFICATION FRAMEWORK
NORTHERN NEW JERSEY
EMPLOYMENT DENSITY
FISCAL IMPACT ANALYSIS:
NEW JERSEY HIGHLANDS ACT
AND REGIONAL MASTER PLAN
PLACEWORKS


MAP 5
MUNICIPAL CLASSIFICATION FRAMEWORK
NORTHERN NEW JERSEY MUNICIPAL CLASSIFICATIONS
FISCAL IMPACT ANALYSIS: NEW JERSEY HIGHLANDS ACT AND REGIONAL MASTER PLAN
PLACEWORKS


MAP 6
MUNICIPAL CLASSIFICATION FRAMEWORK
NORTHERN NEW JERSEY
& REGIONAL MUNICIPAL
CLASSIFICATIONS
FISCAL IMPACT ANALYSIS:
NEW JERSEY HIGHLANDS ACT
AND REGIONAL MASTER PLAN
PLACEWORKS

Part 1:
Regional Economic Evaluation

The purpose of this part is to analyze the past economic performance of the Highlands Region and determine the degree to which, if any, the Act and the RMP have had a measurable impact on the regional economy. To provide context for the Region's economic performance, the analysis provides comparisons with adjacent regions. Given the nature and extent of the data used in the analysis and given the depth of the analysis, other important information and findings are highlighted.

Chapter 2 New Jersey Economic Analysis

This chapter evaluates the economic performance of areas in New Jersey. Section 2.1 compares the Highlands Region to the area of Highlands county-municipalities that are not in the Highlands Region and to Northern New Jersey, as described in Section 0 on page 3. Section 2.2 compares economic performance among the various subareas of the Highlands Region. Sections 2.3 and 2.4 explore in more detail the structure of the economy in the Highlands Region and two comparisons regions and in the subareas of the Highlands Region. Conclusions of the New Jersey economic analysis are provided in the Section 2.5.

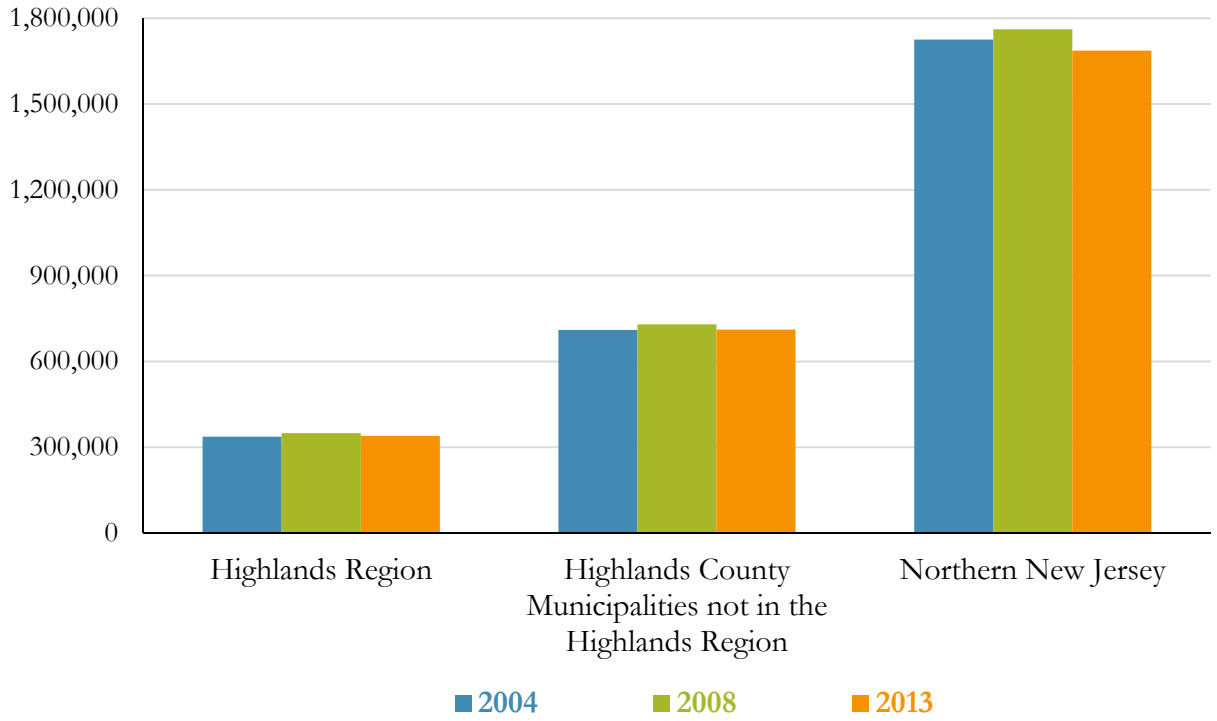
The chapter's analysis uses the QCEW's confidential employment data. This dataset provides the geographic location for each place of employment. It also provides data for 2004, 2008, and 2013, which was the most recent data available when the analysis commenced. The analysis looks at average annual employment, rates of change in employment, and the percentages of total jobs by economic sector. As a reminder, the data presented in this chapter do not include the data for the outlier municipalities but does include all employment data for all included municipalities.

2.1 Regional Employment Changes

Figure 1 shows the total employment in each region in 2004, 2008, and 2013. In general, the number of jobs in the Highlands Region has been slightly less than half the number in the Highlands county municipalities not in the Highlands Region. The Highlands Region accounted for about one-sixth of the jobs in Northern New Jersey. One should remain cognizant of the relative size of the economies in each of these regions when reviewing employment growth rates, as a percentage change in employment represents fewer jobs in the Highlands Region than it does in the other two regions. For example, a 1 percent change in total employment equates to about 3,400 jobs in the Highlands Region, 7,000 jobs in the Highlands county municipalities not in the Highlands Region, and 17,000 jobs in Northern New Jersey.

In looking at Figure 1, one should also note the magnitude of the changes in employment. Subsequent sections of the analysis refer to percentage changes in employment, which is necessary to compare changes in regions that have significantly different levels of employment. At the percentage level, changes in employment can appear dramatically different from one region to the next. From Figure 1, one can glean the amount of change relative to the amount of what did not change.

Figure 1: Average Monthly Employment, Highlands Region and Comparison Regions, 2004, 2008, and 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 2 provides data on the total number of jobs, the change in the number of jobs, and annual rate of employment change in each of the regions. From 2004 to 2008, the Highlands Region had the highest annual rate of employment growth. From 2008 to 2013, the employment growth rate in the Highlands Region was higher than that in Northern New Jersey and less than that in the Highlands county municipalities not in the Highlands Region.

The annual rates of change in employment from 2004 to 2008 and from 2004 to 2013 suggest that the Act has not had a negative economic impact at the regional level. That the Highlands Region's rate of change in employment from 2008 to 2013 was higher than that for Northern New Jersey also suggests that the Act and the RMP have not had a negative economic impact.

However, the Highlands Region's rate of employment change from 2008 to 2013 was lower than the rate for the Highlands county municipalities not in the Highlands Region. This difference could represent a possible economic impact of the Act and RMP: perhaps the economy across the Highlands Region counties generated better employment growth than the rest of Northern New Jersey, and, but for the Act and the RMP, the Highlands Region would have had slightly higher employment growth. Nevertheless, the difference is 0.04 percentage point per year, whereas the difference between the Highlands Region and Northern New Jersey was 0.30 percentage point. With the impact of the recession, it is perhaps too soon to see a significant difference in the employment growth rate between

the Highlands Region and the Highlands county municipalities not in the Highlands Region. The Highlands Council should monitor these employment growth rates going forward to determine if they are converging or diverging.

Table 2: Total Employment, Change in Employment, and Annual Rate of Change in Employment, Highlands Region and Comparison Regions, 2004, 2008, and 2013

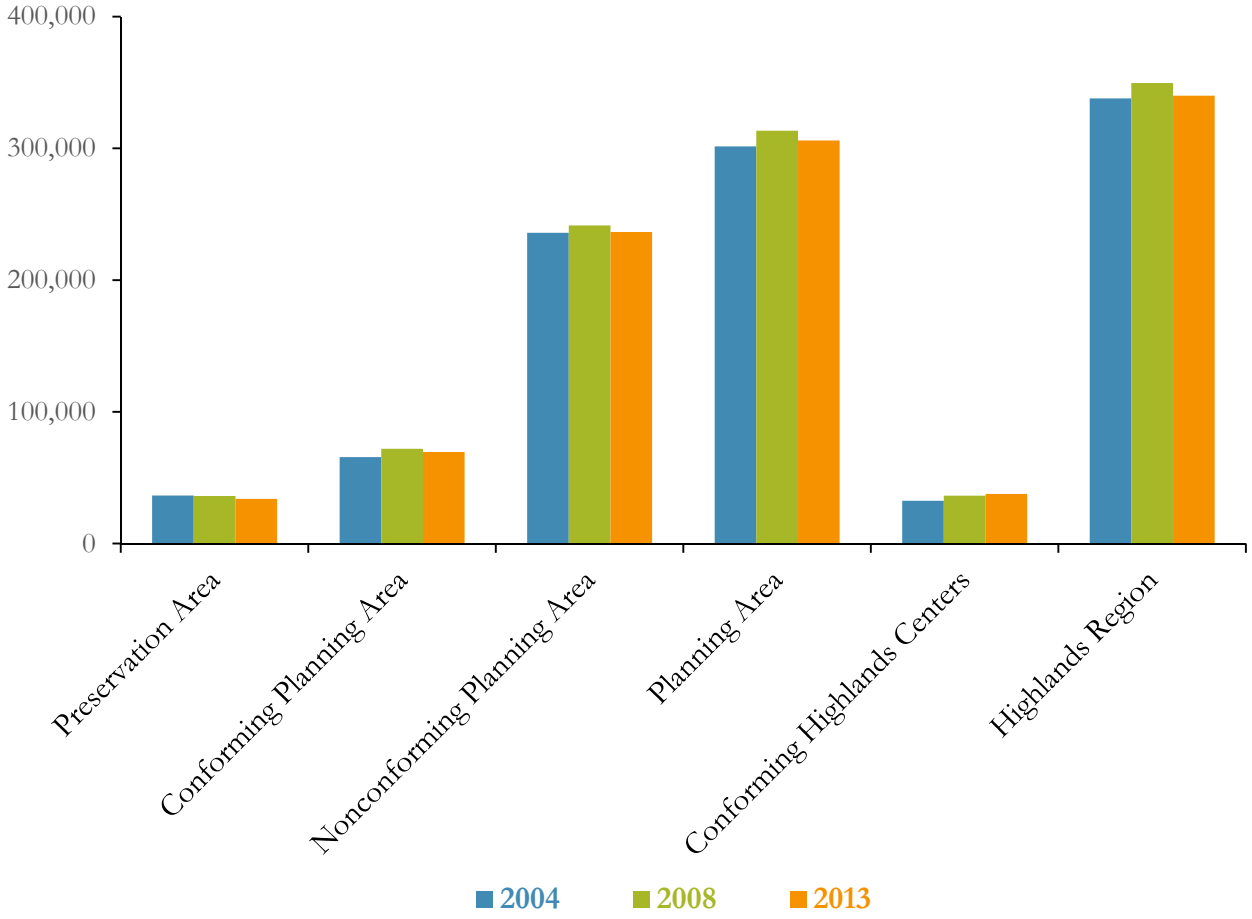
Time Frame	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
Average Monthly Employment			
2004	338,000	707,000	1,725,000
2008	350,000	727,000	1,761,000
2013	340,000	708,000	1,687,000
Change in Employment			
04 to 08	12,000	20,000	36,000
08 to 13	-10,000	-19,000	-74,000
04 to 13	2,000	1,000	-38,000
Annual Rate of Change in Employment			
04 to 08	0.86%	0.69%	0.52%
08 to 13	-0.56%	-0.52%	-0.86%
04 to 13	0.07%	0.02%	-0.25%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

2.2 Employment Changes in the Highlands Region

Within the Highlands Region, the total number of jobs and the rate of change in employment vary. Figure 2 shows the total employment in the various regulatory areas of the region. The majority of jobs in the Highlands Region are in the Planning Area. The Preservation Area generally accounted for about 10 to 11 percent of the total jobs in the region. The currently conforming Highlands Centers also accounted for about 10 to 11 percent of the region's jobs. Within the Planning Area, most of the jobs are in the currently nonconforming planning area. The currently conforming planning area accounts for about 22 to 23 percent of all Planning Area jobs.

Figure 2: Average Monthly Employment, Highland Region and Select Subareas, 2004, 2008, and 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 3 provides the data for total employment, change in employment, and annual rate of change for the Highlands Region and each of the subareas. Notably, the Preservation Area was the only subarea

to experience employment decline from 2004 to 2008, and the conforming Highlands Centers was the only subarea to have an increase in employment from 2008 to 2013.

The different rates of change in employment raise the question of whether or not the Act and RMP had a negative economic impact in the Preservation Area and a positive economic impact in the conforming Highlands Centers. The next two sections analyze the economic structure of the comparison regions and the economic structure of the areas within the Highlands Region, exploring how the economies changed and how those changes may have impacted overall employment.

Table 3: Total Employment, Change in Employment, and Annual Rate of Change in Employment, Highlands Region and Select Subareas, 2004, 2008, and 2013

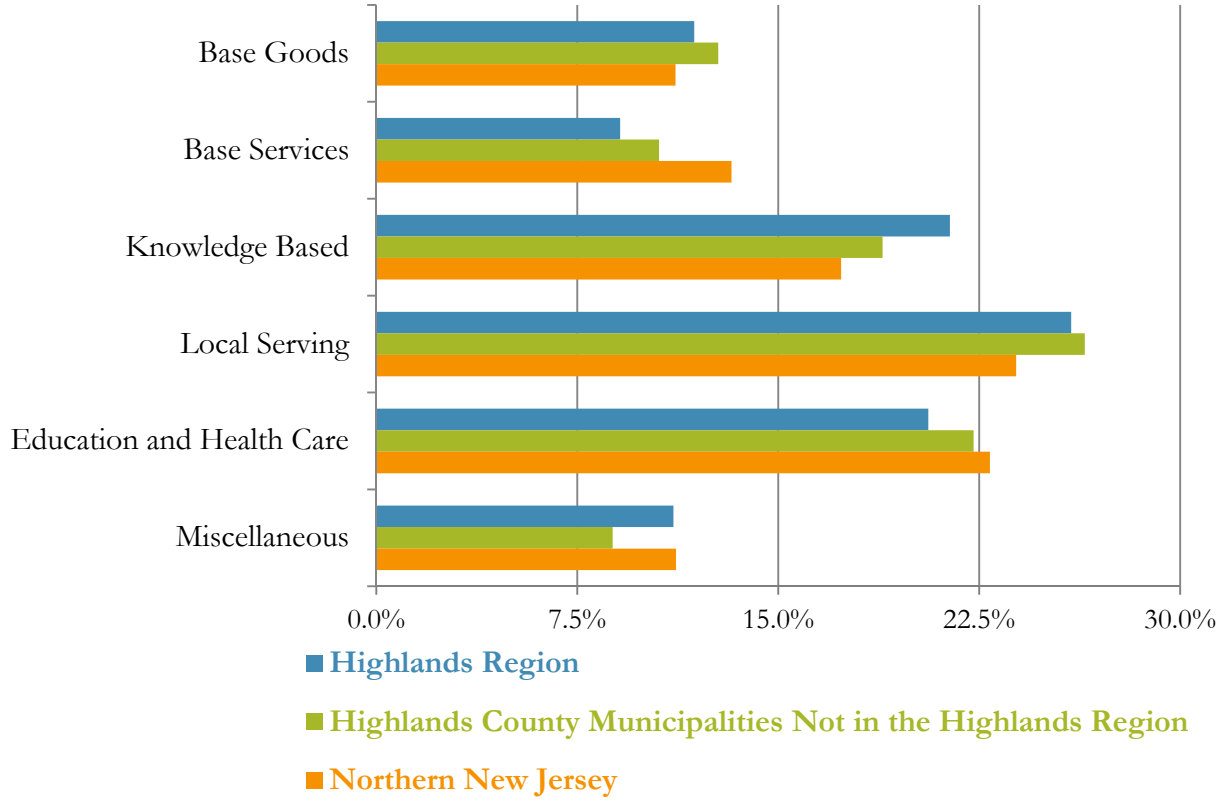
Time Period	Preservation Area	Conforming Planning Area	Non-Conforming Planning Area	Planning Area	Conforming Highlands Centers	Highlands Region
Average Monthly Employment						
2004	36,000	66,000	236,000	301,000	32,000	338,000
2008	36,000	72,000	241,000	313,000	36,000	350,000
2013	34,000	69,000	236,000	306,000	38,000	340,000
Change in Employment						
04 to 08	-300	6,000	6,000	12,000	4,000	12,000
08 to 13	-2,000	-2,000	-5,000	-7,000	1,000	-10,000
04 to 13	-2,400	4,000	1,000	5,000	5,000	2,000
Annual Rate of Change in Employment						
04 to 08	-0.18%	2.33%	0.59%	0.98%	2.83%	0.86%
08 to 13	-1.23%	-0.69%	-0.42%	-0.48%	0.74%	-0.56%
04 to 13	-0.77%	0.64%	0.03%	0.17%	1.67%	0.07%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

2.3 Regional Economic Structure

To understand the structure of local and regional economies, economists most often look at each economic sector's share of total jobs and how those shares change over time. Figure 3 shows the share of total employment in each major group of economic sectors in 2013. The description of the major groups of economic sectors is on page 11.

Figure 3: Employment in Major Groups of Economic Sector as a Share of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

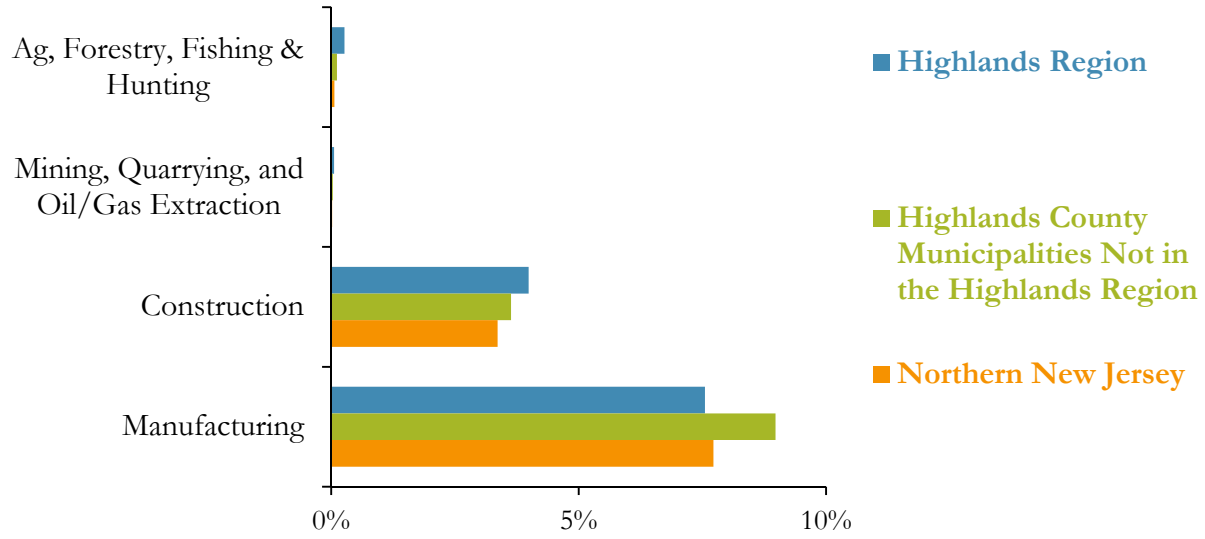
In 2013, the Highlands Region had a similar economic structure to the other two comparison regions, except in three categories in which the Highlands Region differed by more than 10 percent: base services, knowledge-based sectors, and miscellaneous sectors. These three exceptions held true in 2004 also. The following sections describe employment in subsectors within each of the six major groups of economic sectors.

Base Goods–Producing Sectors

Figure 4 shows the 2013 employment in the four sectors in this major group. The Highlands Region had similar percentages of jobs in agriculture and mining. The construction sector was a slightly larger

share of the economy in the Highlands Region than in the two comparison regions. Relative to the two comparison regions, the Highlands Region had a smaller share of its total jobs in the manufacturing sector, although its share was only one-tenth of a percentage point lower than the share in Northern New Jersey.

Figure 4: Base Goods–Producing Sectors Employment as a Percentage of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 4 shows the annual rate of change in employment by sector for 2004 to 2008, 2008 to 2013, and 2004 to 2013. Agriculture, forestry, fishing and hunting employment grew at a faster rate in the Highlands Region from 2004 to 2008. From 2008 to 2013, this sector added jobs in the Highlands Region and lost them in the two comparison regions. There are so few jobs in the mining, quarrying, and oil and gas extraction sector that the employment growth rate is not very meaningful. Even a small change in the number of jobs appears as a large percentage change. In the construction sector, the Highlands Region declined in employment in both time periods, and it declined at a faster rate. The manufacturing sector had positive job growth in the Highlands Region from 2004 to 2008, and then job declines, like the two comparison regions, from 2008 to 2013. Over the entire time frame, the rate of manufacturing employment change in the Highlands Region was similar to that in the Highlands county municipalities not in the Highlands Region, and both had a better rate than Northern New Jersey.

Table 4: Annual Rate of Change in Employment by Sector, Base Goods–Producing Group of Sectors, Highlands Region and Comparison Regions, 2004, 2008, and 2013

	04 to 08	08 to 13	04 to 13
Agriculture, Forestry, Fishing and Hunting			
Highlands Region	2.9%	2.7%	2.8%
Highlands County Municipalities Not in the Highlands Region	2.3%	-2.3%	-0.3%
Northern New Jersey	0.4%	-0.7%	-0.2%
Mining, Quarrying, and Oil and Gas Extraction			
Highlands Region	-7.7%	-3.6%	-5.5%
Highlands County Municipalities Not in the Highlands Region	27.8%	-14.4%	2.3%
Northern New Jersey	25.4%	-13.4%	2.1%
Construction			
Highlands Region	-0.2%	-4.2%	-2.4%
Highlands County Municipalities Not in the Highlands Region	1.1%	-3.7%	-1.6%
Northern New Jersey	0.5%	-3.5%	-1.7%
Manufacturing			
Highlands Region	0.9%	-4.7%	-2.2%
Highlands County Municipalities Not in the Highlands Region	-2.5%	-1.9%	-2.1%
Northern New Jersey	-3.8%	-4.2%	-4.0%

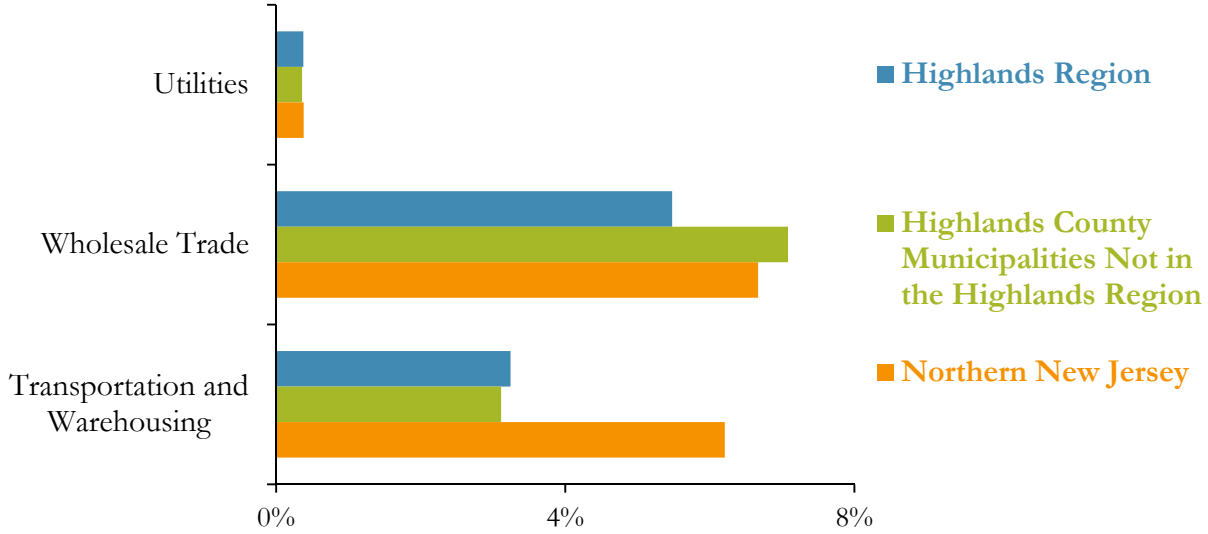
Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Base Services Sectors

Figure 5 shows the 2013 employment in the three sectors in this group. The Highlands Region had similar percentages of employment in utilities, 1.6 and 1.2 percentage points less employment in wholesale trade, and 1.5 and 4.2 percentages points less employment in transportation and warehousing. Wholesale trade and transportation and warehousing declined in the share of employment from 2004 to 2008 and from 2008 to 2013, but the declines were similar across all three regions.

Table 5 shows the annual rate of employment changes in each of these sectors in the Highlands Region and the two comparison regions. Over the entire time period, the Highlands Region had a negative growth rate in utilities while the two comparison regions posted overall increases. In the wholesale trade sector, all three regions posted negative job growth from 2004 to 2013, but the rate was slightly less severe in the Highlands Region. In the transportation and warehousing sector, all three regions had negative job growth from 2004 to 2013, but the Highlands Region had a greater decrease than the two comparison regions.

Figure 5: Base Services–Producing Sectors Employment as a Percentage of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 5: Annual Rate of Change in Employment by Sector, Base Services–Producing Group of Sectors, Highlands Region and Comparison Regions, 2004, 2008, and 2013

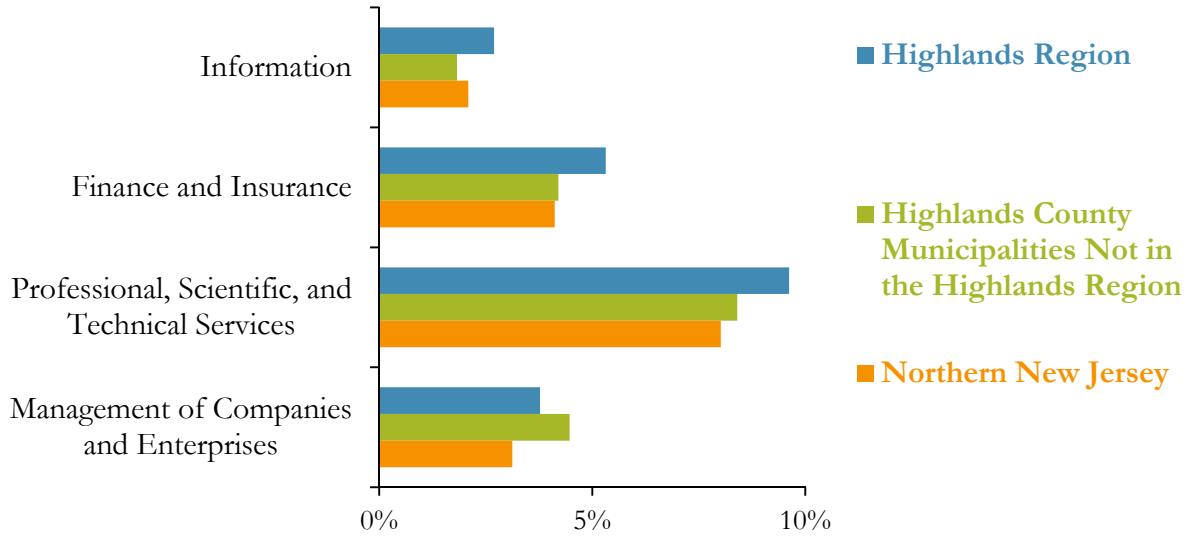
	04 to 08	08 to 13	04 to 13
Utilities			
Highlands Region	-0.5%	-0.5%	-0.5%
Highlands County Municipalities Not in the Highlands Region	1.5%	0.8%	1.1%
Northern New Jersey	-6.1%	2.2%	-1.6%
Wholesale Trade			
Highlands Region	-1.6%	-0.5%	-1.0%
Highlands County Municipalities Not in the Highlands Region	0.5%	-2.4%	-1.1%
Northern New Jersey	0.6%	-2.5%	-1.1%
Transportation and Warehousing			
Highlands Region	-1.7%	-1.8%	-1.8%
Highlands County Municipalities Not in the Highlands Region	-0.4%	-2.6%	-1.6%
Northern New Jersey	0.7%	-1.9%	-0.8%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Knowledge-Based Sectors

Figure 6 shows the 2013 share of total employment in the four sectors in this group. The Highlands Region has a higher share of employment in the knowledge-based sectors than the comparison regions, and this is shared across the sectors in this group, except in management of companies and enterprises. From 2004 to 2013, the information sector declined as a share of total employment across all three regions, but the decline was lowest in the Highlands Region. The finance and insurance sector also declined as a share of total employment across all three regions, but the decline was slightly larger in the Highlands Region. The professional, scientific, and technical services sector increased as a share of total employment at a similar proportion across all three regions. The management of companies and enterprises sector decreased as a share of total employment in the Highlands Region from 2004 to 2008 but increased from 2008 to 2013. Overall, from 2004 to 2013, this sector increased as a share of total employment at a similar proportion across all three regions.

Figure 6: Knowledge-Based Sectors Employment as a Percentage of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 6 shows the annual rate of employment changes in each of these sectors in the Highlands Region and the two comparison regions. In both time periods, the information sector had negative job growth in all three regions, but the decrease in jobs was smallest in the Highlands Region. The finance and insurance sector also had negative job growth in both periods in all three regions. For 2004 to 2008, the Highlands Region had the highest rate of job loss in this sector, and from 2008 to 2013, it had the lowest rate of jobs loss. In the professional, scientific, and technical services sector, the Highlands Region had a positive job growth rate from 2004 to 2008 and then a negative rate from 2008 to 2013. Overall, from 2004 to 2008, the rate of job growth in the sector was lower in Northern New Jersey than in the two other regions. In the management of companies and enterprises, the Highlands Region

had a negative job growth rate from 2004 to 2008, but from 2008 to 2013, the Highlands Region had a fairly robust job growth rate. Overall, from 2004 to 2013, this sector had s higher rate of growth then in the two other regions.

Table 6: Rate of Change in Employment by Sector, Knowledge-Based Group of Sectors, Highlands Region and Comparison Regions, 2004, 2008, and 2013

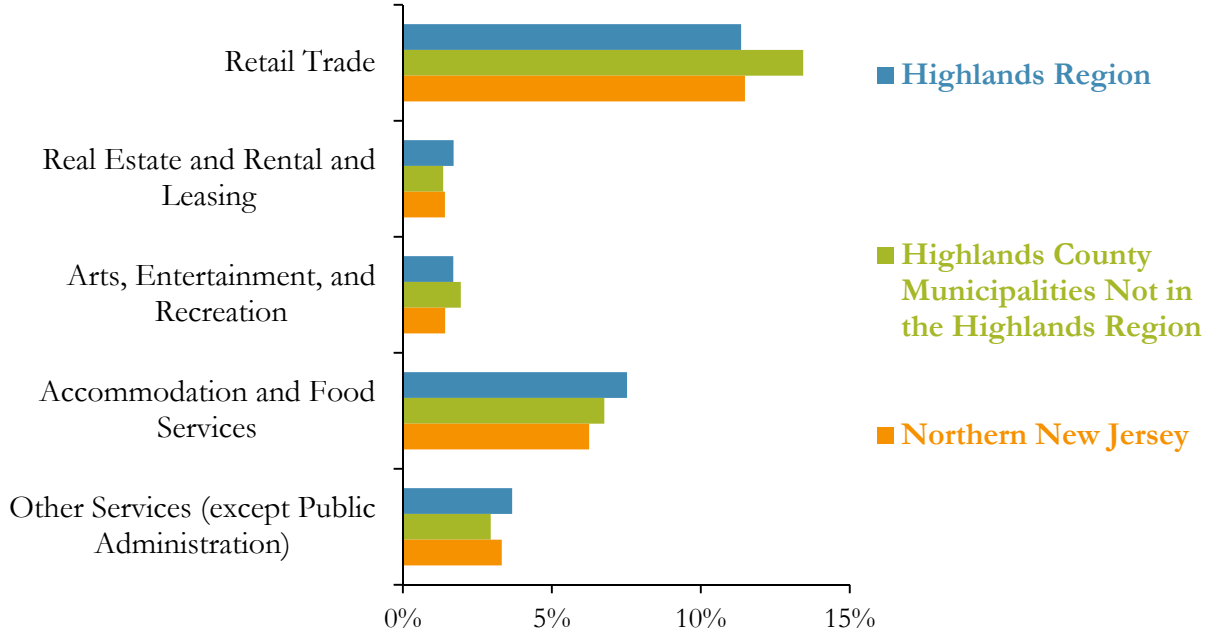
	04 to 08	08 to 13	04 to 13
Information			
Highlands Region	-0.8%	-3.0%	-2.0%
Highlands County Municipalities Not in the Highlands Region	-2.5%	-7.6%	-5.4%
Northern New Jersey	-3.6%	-4.2%	-3.9%
Finance and Insurance			
Highlands Region	-3.4%	-1.8%	-2.5%
Highlands County Municipalities Not in the Highlands Region	-0.4%	-2.2%	-1.4%
Northern New Jersey	-1.3%	-2.5%	-1.9%
Professional, Scientific, and Technical Services			
Highlands Region	4.7%	-0.5%	1.8%
Highlands County Municipalities Not in the Highlands Region	3.9%	0.2%	1.8%
Northern New Jersey	3.3%	-0.9%	1.0%
Management of Companies and Enterprises			
Highlands Region	-2.2%	5.1%	1.8%
Highlands County Municipalities Not in the Highlands Region	1.9%	1.6%	1.8%
Northern New Jersey	5.1%	1.3%	3.0%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Local-Serving Sectors

Figure 6 shows the 2013 share of total employment in the five sectors in this group. In 2013, the Highlands Region had about the same percentage of total employment in each of these sectors, except retail. At 11.4 percent, retail's share of total jobs in the Highlands Region was 2.1 percentage points below the share in the Highlands county municipalities not in the Highlands Region but about the same as the share across Northern New Jersey.

Figure 7: Local-Serving Sectors Employment as a Percentage of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 7 shows the annual rate of employment change in each of these sectors. From 2004 to 2013, the Highlands Region had a positive retail job growth rate while the two comparison regions had negative growth rates. All three regions had negative retail growth from 2008 to 2013, but in the Highlands Region the rate was only -0.01 percent. The real estate and rental and leasing sector grew from 2004 to 2008, and decreased from 2008 to 2013 across all three regions. The overall growth rate in this sector from 2004 to 2013 was negative for the three regions, with the largest decline in the Highlands Region. The arts, entertainment, and recreation sector and the accommodation and food services sector had a positive job growth rate for both time periods and across all three regions. For the arts, entertainment, and recreation sector, the Highlands Region annual rate of employment growth from 2004 to 2013 was less than the two comparison areas. For accommodation and food services, the annual rate of employment change from 2004 to 2013 in the Highlands was twice as high as the rates in the two comparison regions. Similarly, the other services sector had an annual growth rate in the Highlands Region more than twice as large as the rate in the two comparison areas.

Table 7: Rate of Change in Employment by Sector, Local-Serving Group of Sectors, Highlands Region and Comparison Regions, 2004, 2008, and 2013

	04 to 08	08 to 13	04 to 13
Retail Trade			
Highlands Region	0.8%	0.0%	0.4%
Highlands County Municipalities Not in the Highlands Region	-0.5%	-0.1%	-0.3%
Northern New Jersey	-0.4%	-0.5%	-0.4%
Real Estate and Rental and Leasing			
Highlands Region	0.1%	-1.8%	-0.9%
Highlands County Municipalities Not in the Highlands Region	3.8%	-3.6%	-0.4%
Northern New Jersey	2.6%	-3.2%	-0.7%
Arts, Entertainment, and Recreation			
Highlands Region	1.9%	0.1%	0.9%
Highlands County Municipalities Not in the Highlands Region	2.0%	1.1%	1.5%
Northern New Jersey	2.4%	1.3%	1.8%
Accommodation and Food Services			
Highlands Region	4.1%	2.3%	3.1%
Highlands County Municipalities Not in the Highlands Region	1.9%	0.4%	1.0%
Northern New Jersey	2.2%	0.9%	1.5%
Other Services (except Public Administration)			
Highlands Region	3.0%	1.5%	2.2%
Highlands County Municipalities Not in the Highlands Region	2.0%	-0.1%	0.8%
Northern New Jersey	2.1%	-0.2%	0.8%

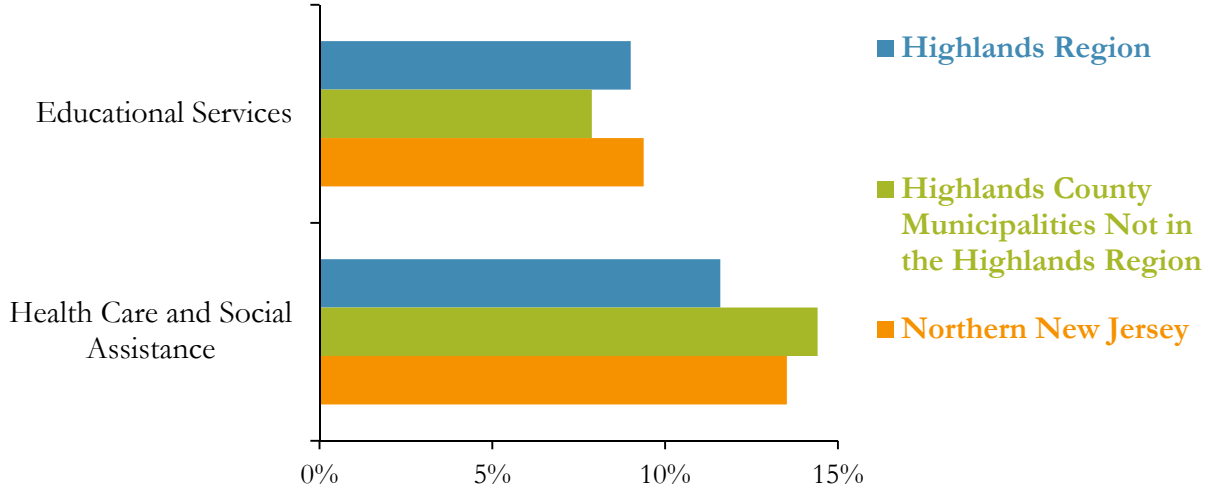
Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Education and Health Care

Figure 8 shows the 2013 share of total employment in the two sectors in this group. The educational services sector's share of total employment in the Highlands Region was in between the sector's share of employment in the two comparison regions. The Highlands Region had a lower share of total employment in health care and social assistance than the two comparison regions. Both sectors increased their share of total employment from 2004 to 2008 and from 2008 to 2013.

Table 7 shows the annual rate of employment change in each of these sectors. From 2004 to 2008, the educational services sector had a higher rate of job growth in the Highlands Region than in the two comparison regions. From 2008 to 2013, however, the education sector had slightly negative growth in the Highlands Region and slightly positive growth in the comparison regions. Similarly, in the health care and social services sector, the growth rate was higher in the Highlands Region from 2004 to 2008 and lower, although still positive, from 2008 to 2013. In both sectors, the growth rate from 2004 to 2013 was similar for the Highlands Region and Northern New Jersey, while slightly higher in the Highland county municipalities not in the Highlands Region.

Figure 8: Education and Health Care Sectors Employment as a Percentage of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 8: Rate of Change in Employment by Sector, Education and Health Care Group of Sectors, Highlands Region and Comparison Regions, 2004, 2008, and 2013

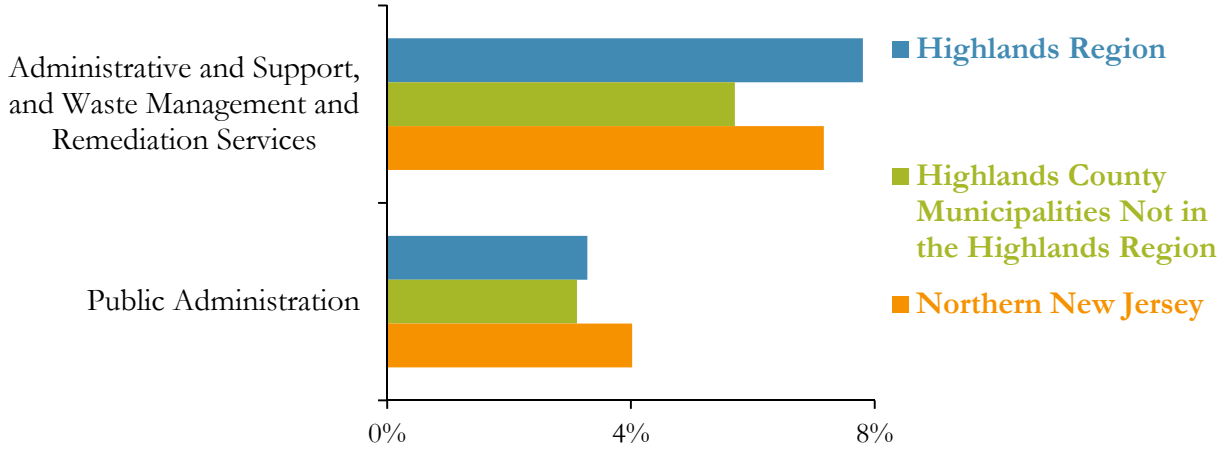
	04 to 08	08 to 13	04 to 13
Educational Services			
Highlands Region	3.1%	-0.3%	1.2%
Highlands County Municipalities Not in the Highlands Region	2.9%	0.3%	1.5%
Northern New Jersey	1.9%	0.5%	1.1%
Health Care and Social Assistance			
Highlands Region	3.1%	0.8%	1.8%
Highlands County Municipalities Not in the Highlands Region	2.8%	2.3%	2.5%
Northern New Jersey	2.4%	1.3%	1.8%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Miscellaneous Sectors

Figure 9 shows the 2013 share of total employment in the two sectors in this group. The Highlands Region had a higher share of its total employment in 2013 in the administrative and support, and waste management and remediation services sector than the comparison regions. In the public administration sector, the shares of total employment were similar for the Highlands Region and the Highlands county municipalities not in the Highlands region but somewhat lower than in Northern New Jersey. Over the entire time from 2004 to 2013, both sectors declined in their shares of total employment in the three regions.

Figure 9: Miscellaneous Sectors Employment as a Percentage of Total Employment, Highlands Region and Comparison Regions, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Table 9 shows the annual rate of employment change in each of these sectors. The administrative and support, and waste management and remediation services sector had negative job growth rates in all three regions from 2004 to 2008. From 2008 to 2013, this sector had positive growth rates, but the Highlands Region had the smallest among the three regions. In the public administration sector, the Highlands Region had the lowest growth rate in both time periods.

Table 9: Rate of Change in Employment by Sector, Miscellaneous Group of Sectors, Highlands Region and Comparison Regions, 2004, 2008, and 2013

	04 to 08	08 to 13	04 to 13
Administrative and Support, and Waste Management and Remediation Services			
Highlands Region	-1.6%	0.7%	-0.3%
Highlands County Municipalities Not in the Highlands Region	-2.3%	0.9%	-0.5%
Northern New Jersey	-0.8%	1.0%	0.2%
Public Administration			
Highlands Region	-0.9%	-2.4%	-1.7%
Highlands County Municipalities Not in the Highlands Region	0.6%	-1.4%	-0.5%
Northern New Jersey	0.6%	-1.2%	-0.4%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Regional Economic Structure Discussion

Generally, the economic structure of the Highlands Region, as measured by each economic sector's share of total employment, was similar to the economic structure in the Highlands county

municipalities not in the Highlands Region and the overall economic structure of Northern New Jersey. The notable differences are the Highland Region's larger share of total employment in the finance and insurance sector; the professional, scientific, and technical services sector; the administrative and support, and waste management and remediation services sector; and the educational services sector. To a lesser degree, the Highlands Region also had somewhat higher percentages of total employment in the information sector, the accommodation and food services sector, and the other services sector.

In contrast, the Highlands Region has a notably lower share of total employment in the manufacturing sector, the wholesale trade sector, the retail trade sector, and the health care and social assistance sector.

As discussed in Section 1.4, the base sectors of the economy are those sectors that typically sell their product or service outside of the region, thus bringing new dollars into the regional economy. The non-base sectors are those that primarily serve local resident and businesses, thus recirculating dollars that are already in the regional economy. In terms of the base sector of the economy, the lower share of jobs in manufacturing and wholesale trade sectors, coupled with the higher share of jobs in the information, finance, and professional services sectors, indicates that the Highlands Regional economy is less industrial and more office based than the economies of the Highlands county municipalities not in the Highlands Region and the overall Northern New Jersey region.

The non-base sectors, however, are a bit of a mixed bag. The Highlands Region has a higher share of total employment in education, accommodation and food service, and other services, but lower percentages in health care and retail. That data do not make it clear, but it might be the case that the Highlands Region sees more tourism spending at hotels and restaurants that does not materialize in additional spending at retail stores. Nevertheless, the non-base sectors, taken together, account for similar percentages of total jobs across all three regions.

The economic structure in 2013 reflects the jobs added and jobs lost from 2004 to 2013. The manufacturing sector, which had a moderate rate of job growth from 2004 to 2008, was the sector with the greatest number of jobs lost from 2008 to 2013. Wholesale trade and warehousing and transportation had job losses over both time periods. In the knowledge-based sectors, information and finance both had job losses from 2004 to 2013. Professional services had the highest total number of jobs added to the Highlands Regional economy from 2004 to 2008, and even though this sector declined from 2008 to 2013, it still added more total jobs from 2004 to 2013 than any other sector, except accommodation and food services. The management of companies sector also added a substantial number of jobs from 2008 to 2013. The net result was a regional economy that is less industrial and more office based than it was in 2004.

Among the non-base sectors, a substantial number of jobs were added in educational services, health care and social assistance, accommodation and food services, and, to a lesser extent, the other services

sector. The last three of these (health care and social assistance; accommodation and food services; and other services) added jobs in both time periods. Retail, on the other hand, added jobs from 2004 to 2008, while the two comparison regions were eliminating retail jobs. From 2008 to 2013, the Highlands Region had a small loss of retail jobs. These non-base sectors would be expected to grow in response to population growth. Although population growth patterns will be analyzed in the next phase of the FIA, the growth in the non-base sectors is indicative of a growing population. Because these non-base sectors tend to expand and diversify after population has grown in an area, these sectors' growth could still result for several years after the population stopped growing rapidly or even ceased to grow. What is not clear, however, is why the retail sector would not have similar levels of growth. The data are not clear, but the modest growth and then decline in retail jobs may be symptomatic of broader regional retail trends evident in the decline in retail jobs over both time periods in the two comparison regions.

2.4 Economic Structure in the Highlands Region

Analysis by economic sector becomes less meaningful with decreases in geographic size. Smaller areas tend to not have complete economies. Smaller areas may not have businesses in every sector. They may also have only one or a few businesses in a sector, and changes in that sector may reflect more about the nature of how those firms are managed than shifts in economic conditions. In addition, presenting data about smaller geographic area runs the risk of illegally disseminating information from the underlying confidential employment data. Therefore, this section analyzes the structure of the Highlands Region economy by major groups of economic sectors but does not break the groups down by individual sector.

Planning and Preservation Areas

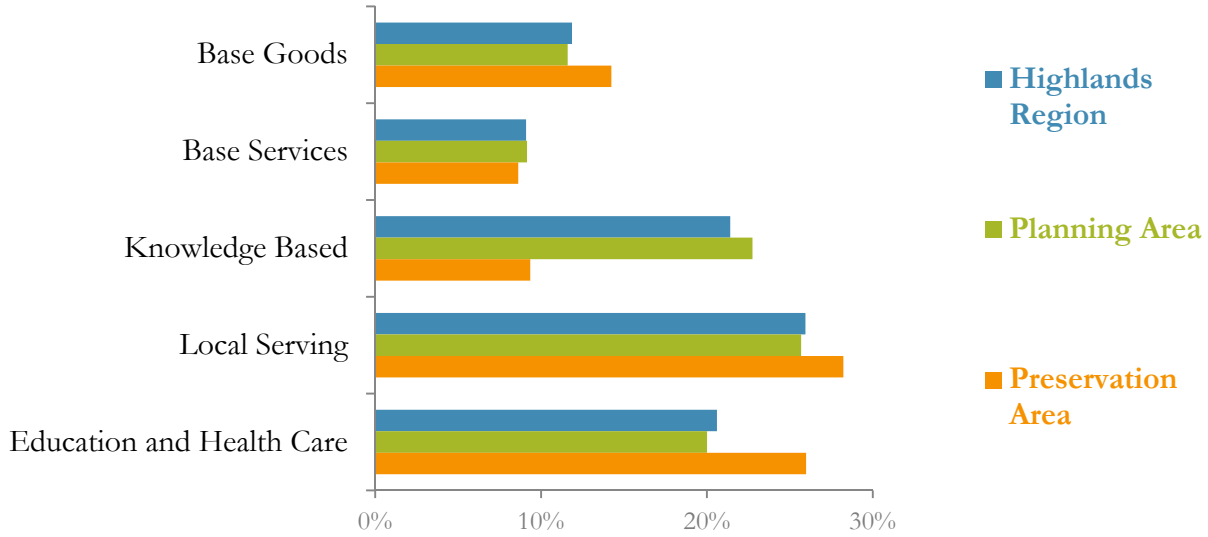
This section discusses the economic structure of the Highlands Act regulatory subareas in the Highlands Region using the major groups of economic sectors. It also highlights some of the major changes in these areas that are relevant to the analysis of impacts of the Act and the RMP.

Figure 10 shows the percentage share of total employment in each of the major groups of economic sectors in 2013 for the Highlands Region and the Planning and Preservation Areas. The Preservation Area has larger shares of employment in the non-base sectors (local serving and education and health). This differential is indicative of an area that does not have a fully developed economy. It is not that the area has too many local-serving sector jobs, but rather there are not enough base sector jobs to round out the economy.

The base goods–producing group accounts for a larger share of total jobs in the Preservation Area. The construction sector accounts for all of this difference and more, as the Planning Area has a larger share of employment in manufacturing. The construction sector is discussed in more detail below.

The two areas have similar shares of total jobs in the base services sector. In the knowledge-based sectors, however, the vast majority of the Highlands Region's jobs are in the Planning Area.

Figure 10: Employment in Major Groups of Economic Sector as a Share of Total Employment, Highlands Region and Planning and Preservation Areas, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Over the 2004 to 2013 time frame, the Preservation Area had substantially higher rates of job loss in the manufacturing, retail trade, information, professional services, accommodation and food services, and other services sectors. The Planning Area only fared worse in the finance and insurance sector. The largest numbers of jobs were lost in construction and manufacturing. The Preservation Area had notably high rates of employment growth in the management of companies, health care, and other services sectors. The Planning Area had larger employment growth rates in the professional services, educational services, and accommodation and food services sectors.

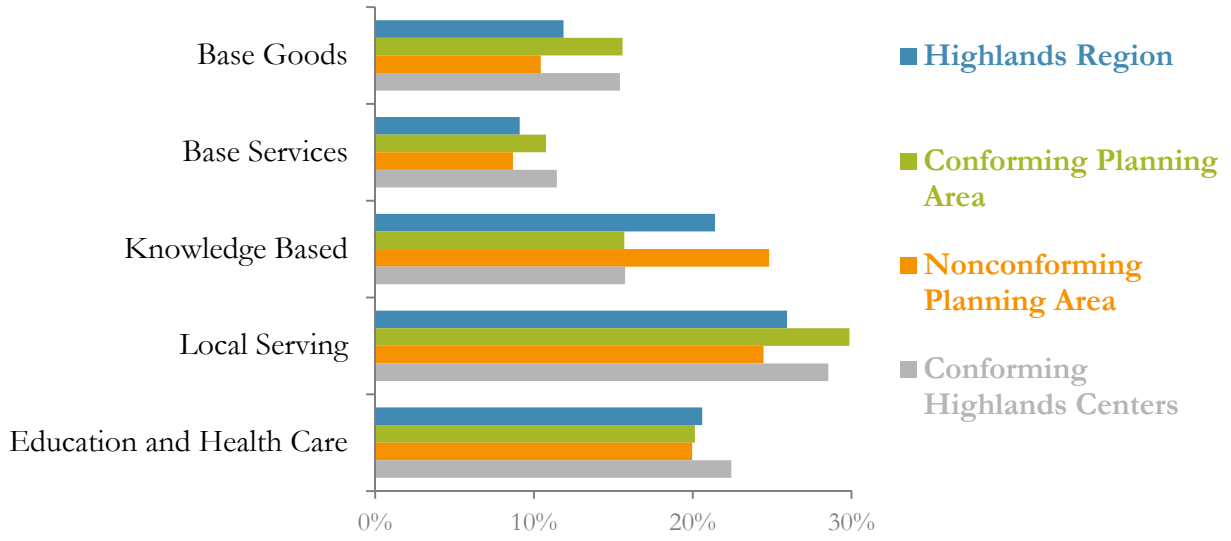
Conforming and Nonconforming Planning Areas and Conforming Highlands Centers

Figure 11 shows the percentage share of total employment in each of the major groups of economic sectors in 2013 in the conforming and nonconforming Planning Areas and the conforming Highlands Centers (see Appendix C for the list of conforming and nonconforming municipalities). The base goods and base services sectors account for a larger share of total employment in the conforming Planning Area and the conforming Highlands Centers. The difference lies in the manufacturing sector, as the shares of total employment in the other sectors in this group are similar across the various areas.

The knowledge-based sectors, however, account for a larger share of the total jobs in the nonconforming Planning Area. The nonconforming Planning Area has a larger share of total employment in each of these sectors relative to the conforming Planning Area. In total number of jobs, the most jobs in this group of sectors in the nonconforming Planning Area are in the professional services and the finance and insurance sectors.

The local-serving major group of sectors accounts for a larger percentage of total jobs in the conforming Planning Area and the conforming Highlands Centers. The difference lies almost exclusively in the retail sector; the other sectors in this group account for similar percentages of total employment across all the areas. The education and health care major group of sectors account for a slightly larger share of total jobs in the nonconforming Planning Areas, although the difference in both sectors is less than the differences in manufacturing, professional services, finance and insurance, and retail.

Figure 11: Employment in Major Groups of Economic Sectors as a Share of Total Employment, Highlands Region, Conforming and Non-Conforming Planning Areas, and Conforming Highlands Centers, 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

Construction Sector and the Preservation Area

The construction sector is a relatively large part of the Preservation Area economy. Even though this area accounted for 10 percent of the Highlands Region's jobs in 2013, it provided 20 percent of the region's construction jobs. In 2004, the Preservation Area construction sector accounted for slightly more than double the share of total jobs as in the Planning Area, the Highlands Region, the Highlands county municipalities not in the Highlands Region, and Northern New Jersey. With the sector's

growth from 2004 to 2008, construction accounted about 2.5 times the share of jobs in the Preservation Area than in the other areas and regions.

The 2008/09 recession hit the housing market and construction industry harder than most other sectors. The Census Bureau's housing completions data show that housing completions in the US peaked in March 2006. The LEHD employment data shows that construction employment in New Jersey peaked in 2006. Housing value data from Standard and Poor's Case-Schiller Index show that housing values began to decline in the summer of 2007. By January 2008, the national economy entered into recession. The LEHD data show that the number of construction jobs statewide dropped 27 percent from 2006 to 2011, the most recent year for which data are available.

In 2013, the Census Bureau's housing completions data show that the national housing market finally began what appears to be a sustainable growth cycle, but 2013's housing production was only about a third of the production at the market's peak. The construction sector is still years away from full recovery from the recession.

With this context, it would be reasonable to expect those areas or regions with higher concentrations of construction sector jobs to have suffered more overall job loss and to take longer to recover. The data show this in the Preservation Area. The data in Table 3 on page 27 show that the annual rate of job loss in the Preservation Area from 2008 to 2013 was larger than in any other area or region analyzed in this chapter. However, job losses in the construction sector represent 70 percent of the total job loss in the Preservation Area. Furthermore, the number of lost construction jobs in the Preservation Area equate to 43 percent of the construction job loss and 15 percent of the total job loss in the Highlands Region.

The construction job loss from 2008 to 2013 in the Preservation Area represented 3.9 percent of the total number of jobs in the area in 2004. This rate was 4 times higher than the rate in any of the comparison regions and any of the areas within the Highlands Region. For all of Northern New Jersey, the lost construction sector jobs only represented 0.8 percent of the total jobs. If the Preservation Area's construction job loss had only been 0.8 percent of the total jobs in 2004, then the overall annual rate of employment change from 2004 to 2008 would have been -0.5 percent—better than the rate for all of New Jersey and about the same as the rate in the Highlands county municipalities not in the Highlands Region

Across the other sectors, the differences between net and percentage job changes in the Preservation Area and the changes in the other Highlands Region areas and comparison regions are not nearly as large as in the construction sector. As a comparison of the magnitude of the construction sector's impact, one can look at the change in employment in three sectors with the next highest impact on total job loss (retail, wholesale trade, and education). If these three sectors' job loss as a percentage of total jobs in Preservation Area had been the same as in the Northern New Jersey region, then the rate of change of total employment would have been -0.7 percent, still higher than the rate of change in

the Highlands county municipalities not in the Highlands Region and in Northern New Jersey. Thus, the three sectors with the next highest impact on job loss from 2008 to 2013 cannot explain the difference in employment growth rates from 2008 to 2013.

It is a fair and reasonable conclusion that construction-sector employment declines are primarily responsible for the difference in the 2008 to 2013 rate of employment change in the Preservation Area and the rate in the other subareas of the Highlands Region and the two comparison regions.

Does this mean that provisions of the Act and the RMP that limit development potential in the regulated areas of the Highlands Region caused the larger percentage decrease in construction jobs in the Preservation Area? The Act and the RMP might well have had an effect on construction employment, but, due to the nature of how construction jobs are counted, the data do not directly connect land use and development regulation with construction employment.

State and federal statistics count construction jobs at the location of the contractor's or construction firm's office or facilities, regardless of the location of the construction projects that these workers work on. The degree to which the lost Preservation Area construction jobs worked on projects in the Preservation Area is the degree to which regulations affecting development potential in the Preservation Area might have had an effect. However, the degree to which the lost construction jobs worked on projects outside of the Preservation Area is the degree to which the Act and the RMP might not have an impact and the degree to which broader challenges in the housing market and construction sector are implicated.

Unfortunately, no data are available about the location of construction projects relative to the location of the contractor's or construction firm's office or facilities. Thus the relationship between the Act and the RMP and the construction job loss cannot be quantified in the present analysis. This issue is explored further in Chapter 5, which presents the results of the analysis to quantify the correlation among many economic factors, including construction jobs, overall job growth, and the boundaries of the Highlands Region. More importantly, though, the second phase of the FIA will analyze construction activity and should provide a better understanding of where construction activity declined most precipitously and where it has and has not rebounded. A final conclusion on the effect of the Act and the RMP will require additional analysis in the next phase of the FIA.

Manufacturing and Conforming Planning Areas and Highlands Centers

In 2004, the conforming Highlands Centers had the lowest percentage of total jobs in the construction sector and the highest percentage of jobs in the manufacturing sector. The conforming Planning Areas had the second highest concentration of manufacturing jobs in the Highlands Region. In both these areas, manufacturing was the largest industry. By 2013, the manufacturing sectors were less important in the economies of these areas, although they still had the highest concentrations of manufacturing in the Highlands Region.

In 2013, the conforming Planning Areas, which account for 20 percent of the total jobs in the Highlands Region, supply 32 percent of the region's manufacturing jobs. The conforming Highlands Centers, which account for 11 percent of the region's jobs, provide 20 percent of the total manufacturing jobs.

Since 1978, the national economy has generally been shedding manufacturing jobs. Since 1978, the national economy has generally been producing more and more value in manufacturing products. Through investments in facilities, automation, and other technology, the manufacturing sector has been able to produce more goods with fewer and fewer workers. Manufacturing is a growing sector, although one with declining employment. This sector may continue to play an important role in the economies in the conforming Planning Areas and the conforming Highlands Centers, but it might not be as helpful for employment.

From 2008 to 2013, manufacturing employment in the Conforming Highlands Centers declined. Indeed, this decline was even larger as a share of total jobs in the conforming Highlands Centers than the construction sector decline in the Preservation Area. Nevertheless, the conforming Highlands Centers managed to post an overall increase in jobs. This occurred through growth across a variety of sectors. The largest numbers of jobs were added in retail, professional services, management of companies, health care and social services, and accommodation and food services. Continued growth across a variety of sectors maybe be necessary for these areas to maintain their vitality.

The 2008 to 2013 growth in total employment in the conforming Highlands Centers is even more remarkable in that it happened despite a 31 percent decrease in the total number of manufacturing jobs. From an economic development perspective, further analysis may be warranted to understand the factors and conditions that influenced this job growth and to ascertain if there are lessons learned that could be transferred to conforming Planning Areas.

2.5 New Jersey Economic Analysis Conclusions

If the Act and the RMP had an effect on the economy, then the Highlands Region's economy should have performed better or worse than the economies in the two comparison regions. The data show that the Highlands Region had a higher annual rate of employment growth from 2004 to 2008 and from 2008 to 2013, relative to the Northern New Jersey regional economy.

The data also show that the Highland Region's annual employment growth rate was higher than the rate in the Highlands county municipalities not in the Highlands Region from 2004 to 2008. From 2008 to 2013, however, the growth rates in both regions were nearly identical.

Chapter 3 Interstate Regional Economic Analysis

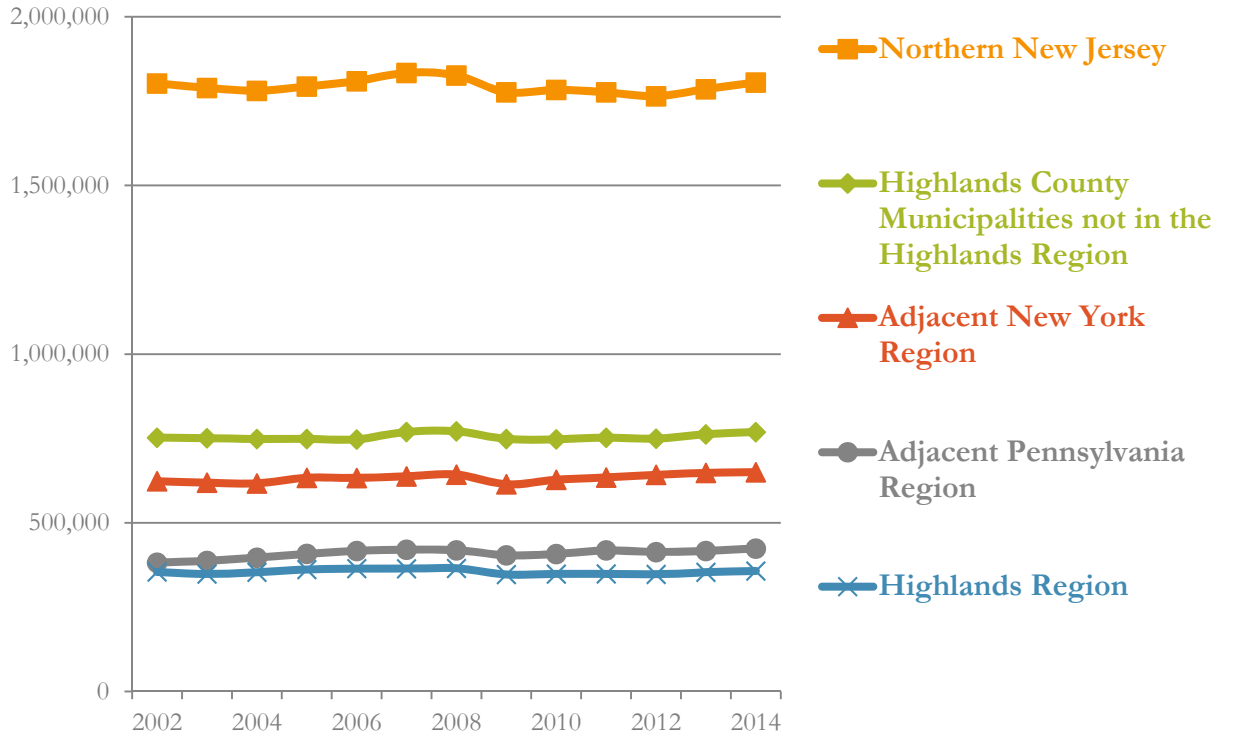
This chapter evaluates the economic performance in the three-state area. As described in the Introduction, the analysis compares the Highlands Region to the Highlands county municipalities not in the Highlands Region, Northern New Jersey, the adjacent region in New York, and the adjacent region in Pennsylvania. Because it covers areas outside of New Jersey, this analysis uses the LEHD employment data rather than the QCEW data.

Data from the Bureau of Labor Statistics show that the decline in national employment during the recession reached a low point in February 2010. By the May 2014, total employment had exceeded the prerecession peak. However, the same BLS data for New Jersey indicate that, even as of November 2016, the state has not returned to the total number of jobs prior to the recession. New York's total statewide employment exceed its prerecession peak in August 2012, and Pennsylvania in April 2015.

3.1 Regional Rates of Change in Employment

Figure 12 shows the total employment in each of the regions from 2002 to 2011. In 2006, the latest year before employment began declining, the number of jobs in the Highlands Region, 364,000, was about 20 percent of the number of jobs in the Northern New Jersey comparison region, 1,809,000. At the same time, the adjacent region in New York had about 70 percent more jobs than the Highlands Region, and the adjacent region in Pennsylvania had about 14 percent more.

Figure 12: Total Employment, Highlands Region and Interstate Comparison Regions, 2002 to 2014



Source: PlaceWorks, 2016, using employment data from the Longitudinal Employer-Household Dynamics Program (LEHD).

Table 10 shows the total employment and the annual rate of change in employment in each region from 2002 to 2011. It also shows the compound annual growth rate in employment for 2002 to 2004, 2004 to 2008, and from 2008 to 2014. From 2002 to 2004, the employment growth rate in the Highlands Region was lower than in the adjacent region in Pennsylvania but higher than in the other comparison regions. From 2004 to 2008, the Highlands Region's employment growth rate was lower than in the adjacent regions in New York and Pennsylvania but higher than in the two comparison regions in New Jersey. From 2008 to 2014, the Highlands Region had the lowest rate of growth among the regions.

If the Act and the RMP had an impact on the economy in the Highlands Region, one would expect the Region to have either a higher or lower rate of employment growth from 2004 to 2008 and from 2008 to 2014. The data show that the Highlands Region's growth rate from 2004 to 2008 was higher than the comparison regions in New Jersey and lower than the adjacent regions in New York and Pennsylvania, suggesting that the Act had neither a positive nor negative impact on the economy. From 2008 to 2014, the Highlands Region did have the lowest rate of employment growth among all the regions. However, this results from one year, the change from 2008 to 2008, when the Highlands Region has the highest rate of job growth. In each subsequent year, the region's annual job growth varied up and down relative to the comparison regions, but it was never again the lowest.

Table 10: Annual Employment—Total and Rate of Change, Highlands Region and Interstate Comparison Regions, 2002 to 2014

Time Period	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region
Total Employment					
2002	354,000	753,000	1,803,000	623,000	382,000
2003	348,000	751,000	1,789,000	619,000	387,000
2004	354,000	749,000	1,781,000	617,000	397,000
2005	362,000	749,000	1,793,000	634,000	408,000
2006	364,000	747,000	1,809,000	633,000	417,000
2007	364,000	770,000	1,834,000	638,000	420,000
2008	365,000	771,000	1,826,000	643,000	419,000
2009	347,000	749,000	1,776,000	614,000	404,000
2010	349,000	748,000	1,783,000	628,000	408,000
2011	349,000	752,000	1,776,000	634,000	418,000
2012	347,000	750,000	1,765,000	642,000	413,000
2013	354,000	763,000	1,785,000	648,000	417,000
2014	357,000	769,000	1,805,000	650,000	424,000
Percent Change in Total Employment from Previous Year					
2003	-1.7%	-0.2%	-0.7%	-0.7%	1.4%
2004	1.5%	-0.3%	-0.5%	-0.3%	2.5%
2005	2.3%	0.0%	0.7%	2.7%	2.8%
2006	0.7%	-0.2%	0.9%	-0.1%	2.2%
2007	-0.1%	3.0%	1.4%	0.8%	0.9%
2008	0.3%	0.2%	-0.4%	0.8%	-0.4%
2009	-5.0%	-2.9%	-2.7%	-4.5%	-3.6%
2010	0.5%	-0.2%	0.4%	2.2%	1.0%
2011	0.1%	0.6%	-0.4%	1.1%	2.6%
2012	-0.4%	-0.4%	-0.6%	1.2%	-1.2%
2013	1.9%	1.7%	1.2%	0.9%	0.8%
2014	1.0%	0.9%	1.1%	0.3%	1.7%
Compound Annual Growth Rate for Select Time Periods					
2002-04	-0.1%	-0.3%	-0.6%	-0.5%	1.9%
2004-08	0.8%	0.8%	0.6%	1.0%	1.4%
2008-14	-0.4%	0.0%	-0.2%	0.2%	0.2%

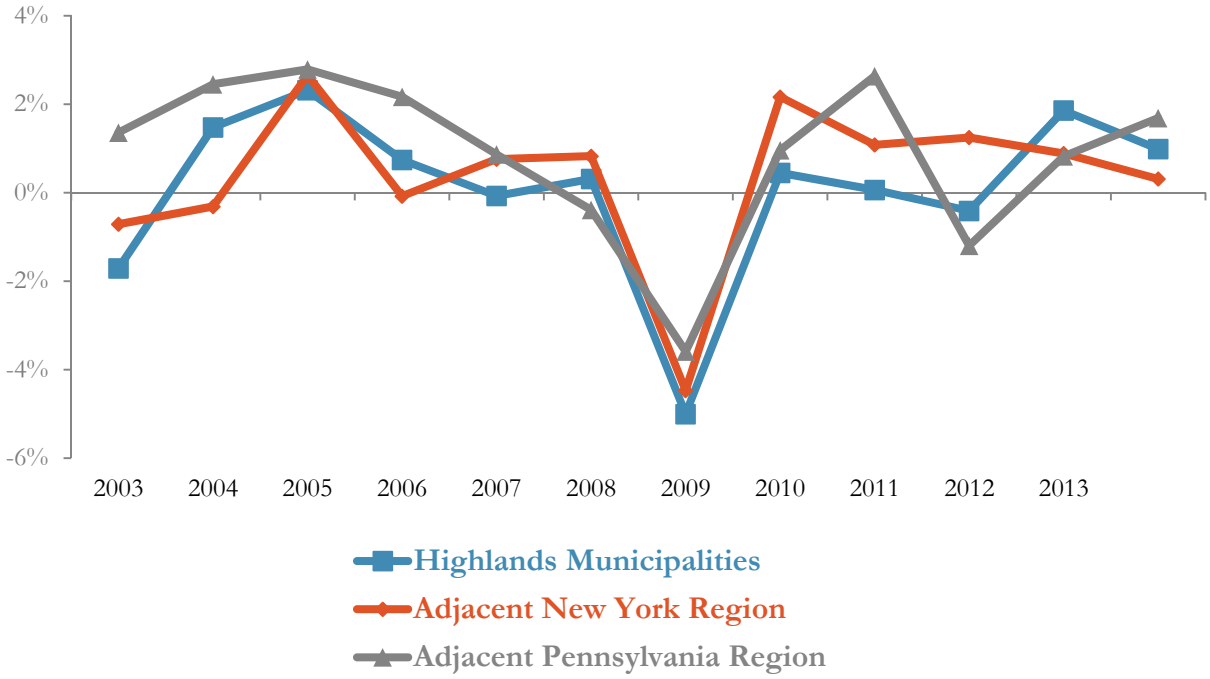
Source: PlaceWorks, 2016, using employment data from the LEHD program.

3.2 Regional Trends in Rates of Employment Change

Because the LEHD data is a time series, the analysis can show more detail than with the QCEW data. Figure 13 and Figure 14 show the percentage change in employment from one year to the next in each of the regions from 2002 to 2014.

At first glance, the data in these two figures may not appear to show a pattern. But these data show two different things. First, a data point above the 0% line represents an increase in employment from the previous year, and data points below the line indicate a decrease in jobs from the previous year. Furthermore, when one data point is higher than the previous data point, it indicates that the employment growth rate is improving, and a data point lower than the previous data point indicates that the employment growth rate is declining. The point at which the growth rate changes direction indicates an inflection point.

Figure 13: Percentage Change in Total Employment from Previous Year, Highlands Region and Adjacent Regions in New York and Pennsylvania, 2002 to 2014



Source: PlaceWorks, 2015, using employment data from the LEHD Program

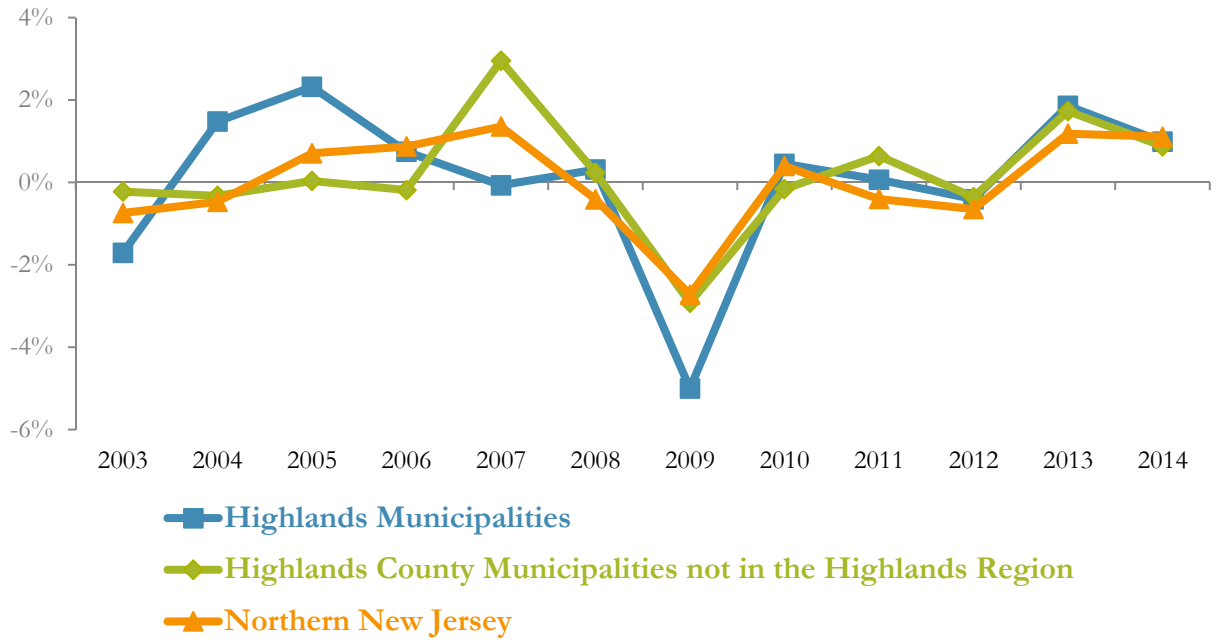
The pattern is more apparent in Figure 13. For all three regions, the employment growth rate was improving from 2002 through 2005. From 2005 to 2006, the rate of growth slowed, although only the adjacent region in New York had actual job loss. For these three regions, the large negative rate of employment growth from 2008 to 2009, the recession, was part of a larger trend that started with slowing employment growth from 2005 to 2006. For the adjacent region in Pennsylvania, the trend from 2005 to 2009 is quite clear. The Highlands Region and the adjacent region in New York had one

year that bucked the trend. For New York, it was 2006 to 2007, and for the Highlands Region it was 2007 to 2008. Even so, the trend for all three, from 2005 to 2009, was slowing growth followed by negative growth.

A similar pattern exists in the two comparison regions in New Jersey. For Northern New Jersey, the initial period of improving job growth rates extends one more year, running from 2002 to 2006. The employment growth rate for 2007 was still positive, but it was lower than the rate for 2006. Thus, for Northern New Jersey, the major job loss from 2008 to 2009 was the culmination of a trend of decreasing job growth rates that began in 2006 to 2007.

The pattern in the Highlands county municipalities not in the Highlands Region is more complicated. In this region, the employment growth rate was getting worse from 2002 to 2005. This data is not available prior to 2002, so it is not clear if this represents a continuation of a trend related to the 2001 recession, or if, instead, it was a new trend that started with 2002. Either way, the inflection point was 2005. Whereas the other regions showed a trend of improving employment growth rates from 2002 forward, the positive trend in this region started in 2005, and it peaked after two years, in 2007. The larger recession job losses in this region were the culmination of a shorter two-year trend.

Figure 14: Percentage Change in Total Employment from Previous Year, Highlands Region and Two New Jersey Comparison Regions, 2002 to 2014



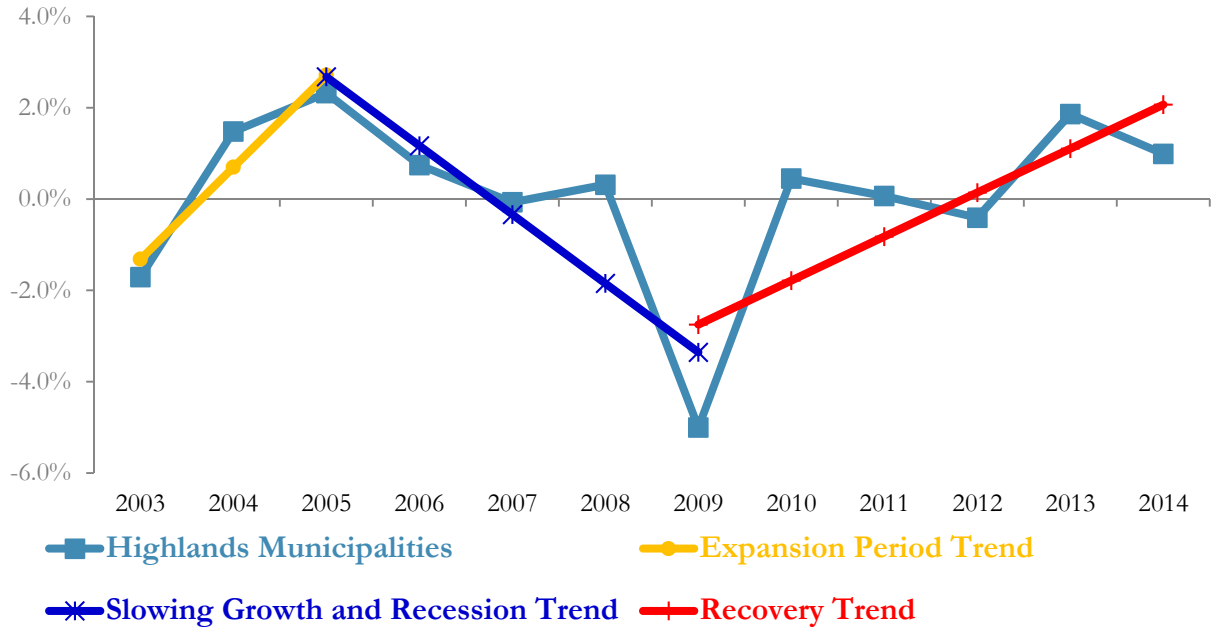
Source: PlaceWorks, 2015, using employment data from the LEHD Program

The meaning of the data shown in Figure 13 and Figure 14 for this report is somewhat esoteric—relative change in employment growth rates—but meaningful nonetheless. The Highlands Region provides a starting-point example. The Highlands Region experienced an expansion period of

increasing employment growth rates. This period started with the growth rate from 2002 to 2003 and ended with the growth rate from 2004 to 2005. The Region then experienced a slowing growth and recession period of declining growth rates, which eventually turned negative. This period began with the growth rate from 2004 to 2005 and ended with the growth rate from 2008 to 2009. Finally, the Highlands Region experienced an early recovery period of increasing employment growth rates. This period began with the growth rate from 2008 to 2009 and ended with the growth rate from 2009 to 2011, although this trend presumably extended past the data cutoff point of 2011.

Figure 15 shows the employment growth rate data for the Highlands Region and the trend in employment growth rates for the three periods. The slopes of the three trend lines represent the net percentage point increase or decrease in the employment growth rate each year. Because each region had these three economic phases, albeit in slightly different years, the trend-line slopes for each region can be compared in each economic phase.

Figure 15: Annual Employment Growth Rate from Previous Year and Trend Growth Rate for Three Economic Phases, Highlands Region, 2002 to 2014



Source: PlaceWorks, 2015, using employment data from the LEHD Program

Table 11 compares the slope data (average percentage-point change in annual employment growth rates) for the three economic periods for each comparison region. Over the expansion period, the trend rate at which the Highlands Region's annual employment growth rate was accelerating was higher than the trend rate in each of the comparison regions.

During the slowing growth and recession period, the trend rate of decline in the annual employment growth rate in each of the comparison regions, except the adjacent region in New York, was a faster decline than in the Highlands Region. Finally, in the recovery and expansion period, the trend rate of increase in annual employment growth rate was about the same in the Highlands Region as in the two comparison regions in New Jersey. The trend rate was lower in the adjacent regions in New York and Pennsylvania.

Table 11: Average Percentage-Point Change in Annual Employment Growth Rate for Three Economic Phases, Highlands Region and Interstate Comparison Region, 2002 to 2011

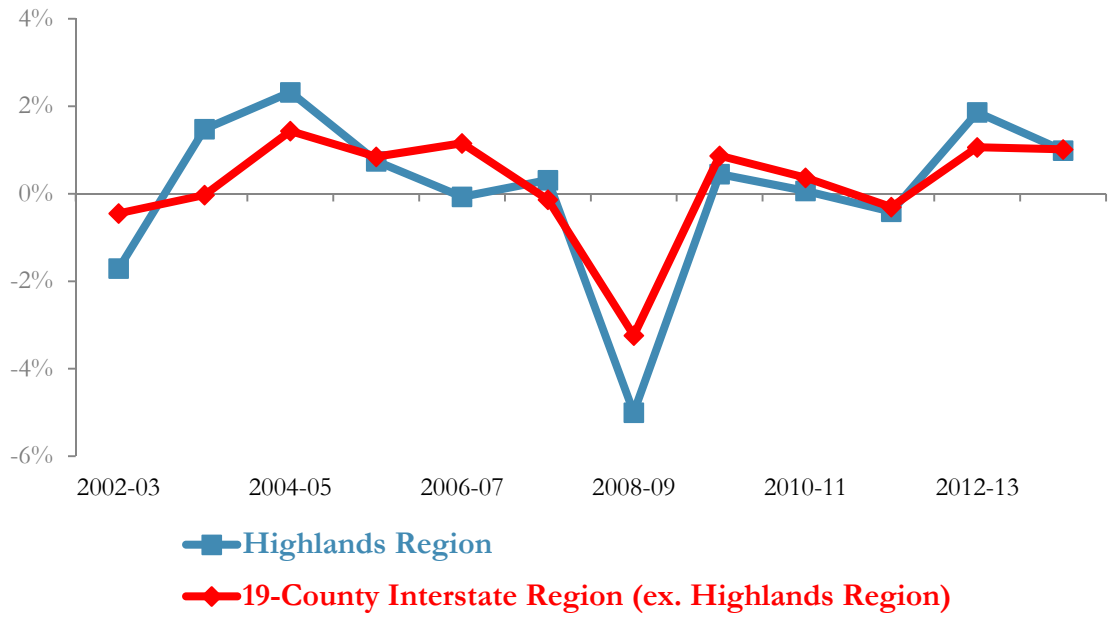
Highlands Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region
Expansion Period				
2002 to 05	2004 to 07	2002 to 06	2002 to 05	2002 to 05
2.0%	1.4%	0.3%	1.7%	0.7%
Slowing Growth and Recession Period				
2005 to 09	2007 to 09	2006 to 09	2005 to 09	2005 to 09
-0.8%	-1.6%	-2.0%	-0.7%	-0.9%
Recovery and Expansion Period				
2009 to 14	2009 to 14	2009 to 14	2009 to 14	2009 to 14
0.3%	0.3%	0.3%	-0.4%	0.0%

Source: PlaceWorks, 2015, using employment data from the LEHD Program.

One last trend warrants discussion. When the employment data across the eleven-county Northern New Jersey region (excluding the Highlands Region Municipalities), the adjacent four-county region in New York, and the adjacent four-county region in Pennsylvania, excluding all outlier municipalities, are combined and growth rates are calculated, the same trend results. As shown in Figure 16, the entire region under analysis had a three-year expansion period of increasing employment growth rates from 2002 to 2005; a four-year slowing growth and recession period with declining employment growth rates from 2005 to 2009; and a five-year economic recovery and expansion period with a trend of increasing employment growth rates from 2009 to 2014.

Two conclusions may be drawn from the regional trends in rates of employment growth. First, the Highlands Region's trend in each economic phase was more or less similar to the other regions. It was never the extreme value. This suggests that the Act and the RMP did not have a significant economic impact on the Highlands Region.

Figure 16: Percentage Change in Total Employment from Previous Year, Highlands Region and 19-County Interstate Region, 2002 to 2014



Source: PlaceWorks, 2015, using employment data from the Longitudinal Employer-Household Dynamics Program

More importantly, though, the trends show that recession-related job losses were the culmination of a four-year trend of declining rate of employment growth that commenced in the Highlands Region in 2005. The adjacent regions in New York and Pennsylvania showed the same trend starting in 2005. Furthermore, the entire 19-county region under analysis had the same four-year trend starting in 2005. In this light, the economic trend in the Highlands Region appears to be tied to the overall regional economy rather than a result of the Act and the RMP. In contrast, the employment growth rate trends in the Highlands county municipalities not in the Highlands Region appear to the somewhat out of sync with the broader regional economy. The data, however, do not provide an explanation of why this one region diverged from the broader trend.

Chapter 4 Municipal-Level Analysis

This chapter analyzes employment growth at the municipal level, comparing municipalities of similar population and employment densities. The Introduction explains the classification system used in the analysis. Appendix A lists the municipalities in each category. There are no Highlands Region municipalities in the low-population and high-employment density category, and the high-population and low-employment density category. Accordingly, these two categories are not included in the following analysis.

To provide an accurate picture of employment changes and potential economic impacts, this analysis uses the QCEW data, which extend to 2013. However, use of the QCEW data restricts the analysis to Northern New Jersey.

The analysis compares the total annual rate of change in employment for all the municipalities in the region for each category. Take, for example, the Highlands Region municipalities with low-population and low-employment density. The analysis adds the total employment in each of these municipalities for each year, 2004, 2008, and 2013. It then calculates the percentage change in total employment from 2004 to 2008 and from 2008 to 2013. These results are not an average of growth rates, but rather the growth rates for the sum of employment.

4.1 Low-Population and Low-Employment Density Municipalities

This category includes 13 municipalities in the Highlands Region, 13 in the Highlands county municipalities not in the Highlands Region, and 13 in Northern New Jersey. This category includes no municipalities that are not in one of the seven Highlands counties. Table 12 and Figure 17 provide the annual rate of employment change for the three regions.

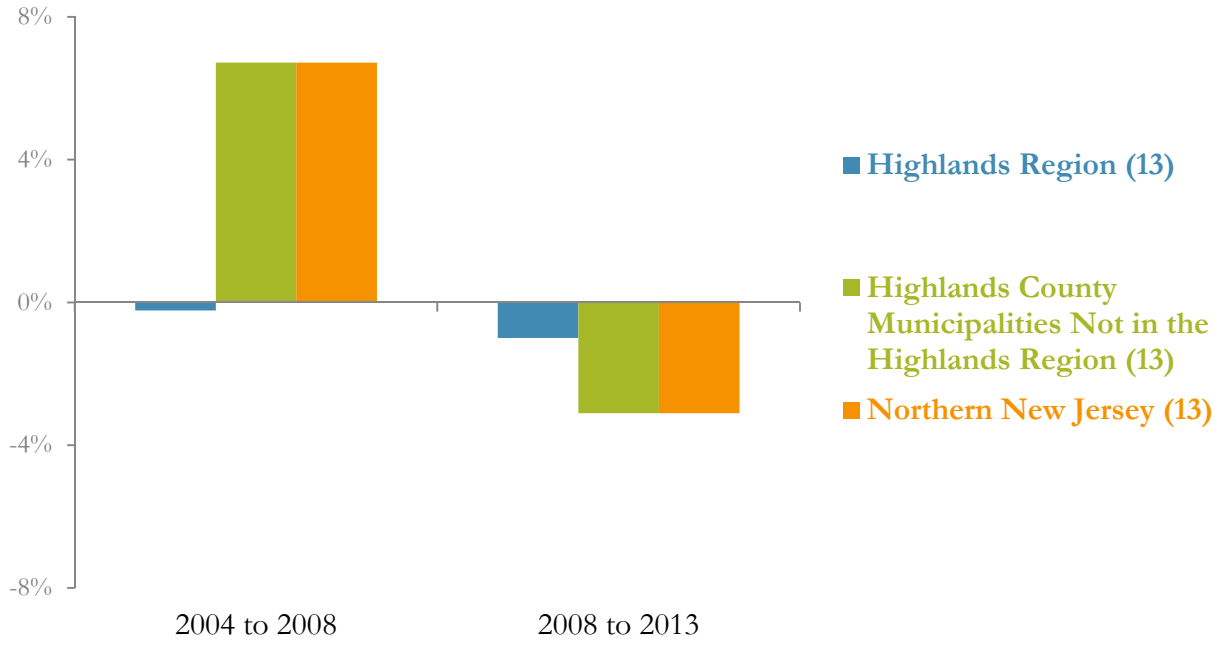
Table 12: Annual Rate of Employment Growth, Low-Population and Low-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Period	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	-0.2%	6.7%	6.7%
08 to 13	-1.0%	-3.1%	-3.1%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had a substantially lower rate of change in employment from 2004 to 2008, but a higher rate of change in employment from 2008 to 2013.

Figure 17: Annual Rate of Employment Growth, Low-Population and Low-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.2 Low-Population and Medium-Employment Density Municipalities

This category includes 3 municipalities in the Highlands Region, 3 in the Highlands county municipalities not in the Highlands Region, and 4 in Northern New Jersey. This is too small of a group to draw any strong inferences from the analysis. In this category, Northern New Jersey includes one municipality that is not in one of the seven Highlands counties. Table 13 and Figure 18 provide the annual rate of employment change for the three regions.

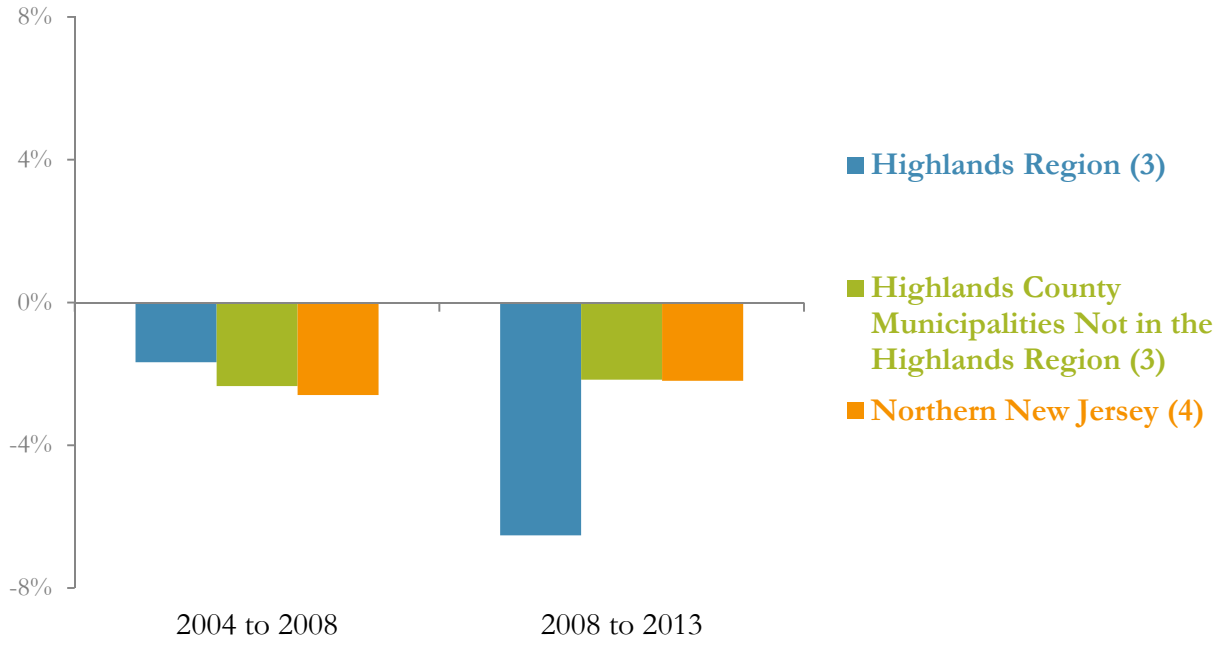
Table 13: Annual Rate of Employment Growth, Low-Population and Medium-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Frame	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	-1.7%	-2.3%	-2.6%
08 to 13	-6.5%	-2.2%	-2.2%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had a higher rate of change in employment from 2004 to 2008 and a lower rate from 2008 to 2013.

Figure 18: Annual Rate of Employment Growth, Low-Population and Medium-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.3 Medium-Population and Low-Employment Density Municipalities

This category includes 4 municipalities in the Highlands Region, 1 in the Highlands county municipalities not in the Highlands Region, and 1 in Northern New Jersey. This category includes no municipalities that are not in one of the seven Highlands counties. This is too small of a group to draw any strong inferences from the analysis. Table 14 and Figure 19 provide the annual rate of employment change for the three regions.

Table 14: Annual Rate of Employment Growth, Medium-Population and Low-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Period	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	5.4%	4.1%	4.1%
08 to 13	-7.0%	-5.2%	-5.2%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had a higher rate of change in employment from 2004 to 2008 and a lower rate from 2008 to 2013.

Figure 19: Annual Rate of Employment Growth, Medium-Population and Low-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.4 Medium-Population and Medium-Employment Density Municipalities

This category includes 47 municipalities in the Highlands Region, 27 in the Highlands county municipalities not in the Highlands Region, and 33 in Northern New Jersey. This category includes 6 municipalities that are not in one of the seven Highlands counties. Table 15 and Figure 20 provide the annual rate of employment change for the three regions.

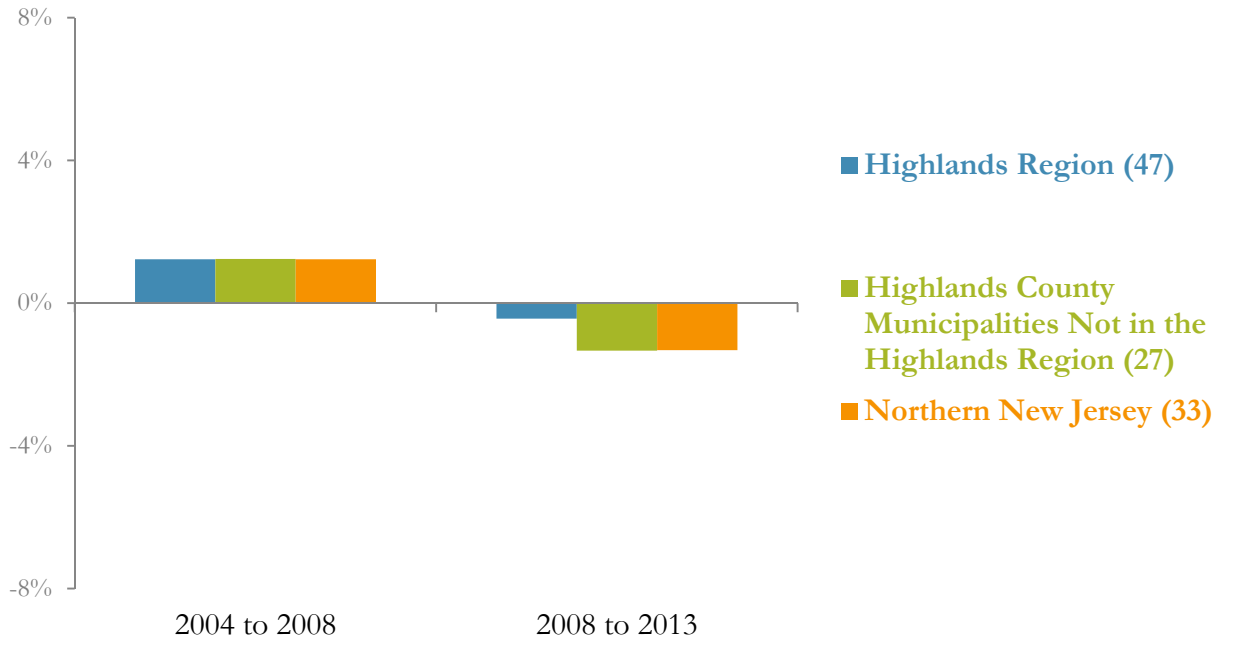
Table 15: Annual Rate of Employment Growth, Medium-Population and Medium-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Period	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	1.2%	1.2%	1.2%
08 to 13	-0.4%	-1.3%	-1.3%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had the same rate of change in employment as the other regions from 2004 to 2008, and a higher rate from 2008 to 2013.

Figure 20: Annual Rate of Employment Growth, Medium-Population and Medium-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.5 Medium-Population and High-Employment Density Municipalities

This category includes 7 municipalities in the Highlands Region, 10 in the Highlands county municipalities not in the Highlands Region, and 16 in Northern New Jersey. This category includes 6 municipalities that are not in one of the seven Highlands counties. Table 16 and Figure 21 provide the annual rate of employment change for the three regions.

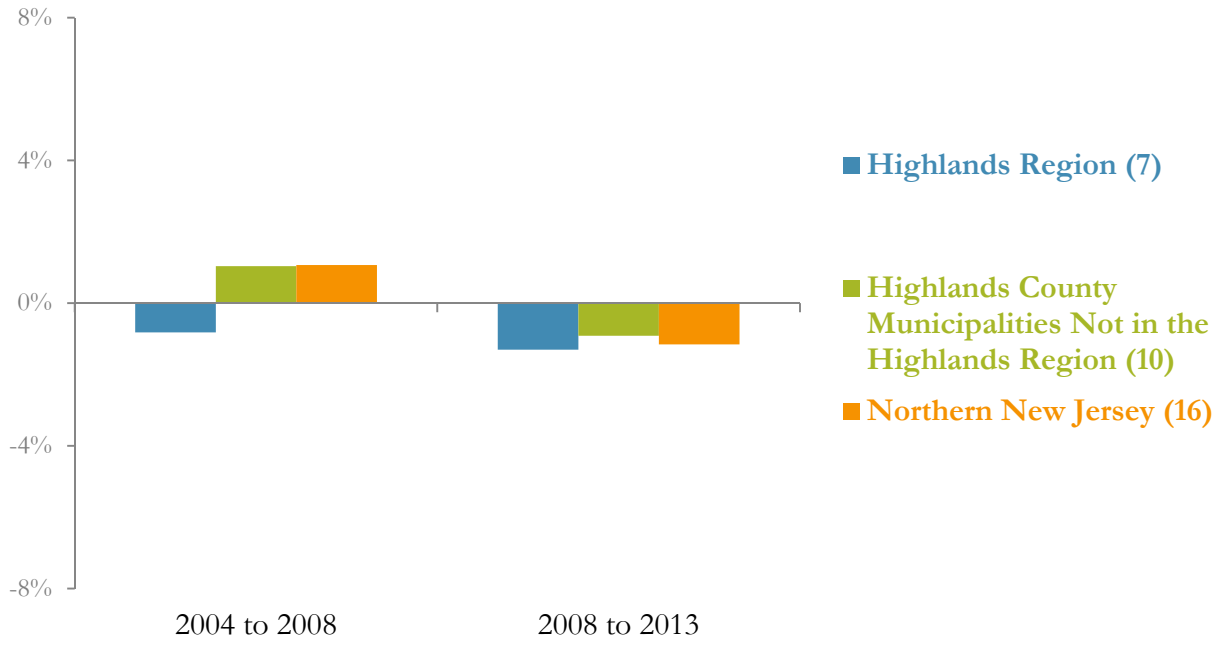
Table 16: Annual Rate of Employment Growth, Medium-Population and High-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Period	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	04 to 08	-0.8%	1.0%
08 to 13	08 to 13	-1.3%	-0.9%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had a lower rate of change in employment from 2004 to 2008 and a lower rate from 2008 to 2013.

Figure 21: Annual Rate of Employment Growth, Medium-Population and High-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.6 High-Population and Medium-Employment Density Municipalities

This category includes 4 municipalities in the Highlands Region, 17 in the Highlands county municipalities not in the Highlands Region, and 23 in Northern New Jersey. This category includes 6 municipalities that are not in one of the seven Highlands counties. Table 17 and Figure 22 provide the annual rate of employment change for the three regions.

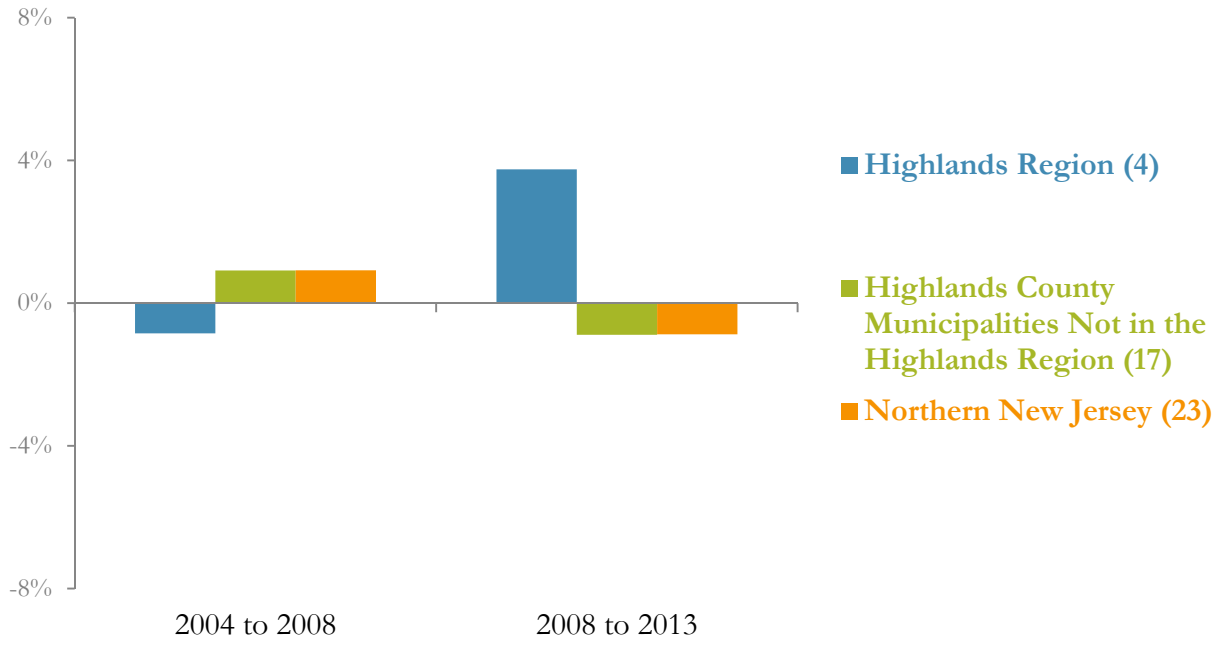
Table 17: Annual Rate of Employment Growth, High-Population and Medium-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Period	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	-0.9%	0.9%	0.9%
08 to 13	3.7%	-0.9%	-0.9%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had a lower rate of change in employment from 2004 to 2008 and a higher rate from 2008 to 2013.

Figure 22: Annual Rate of Employment Growth, High-Population and Medium-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.7 High-Population and High-Employment Density Municipalities

This category includes 10 municipalities in the Highlands Region, 50 in the Highlands county municipalities not in the Highlands Region, and 100 in Northern New Jersey. This category includes 52 municipalities that are not in one of the seven Highlands counties. Table 18 and Figure 23 provide the annual rate of employment change for the three regions.

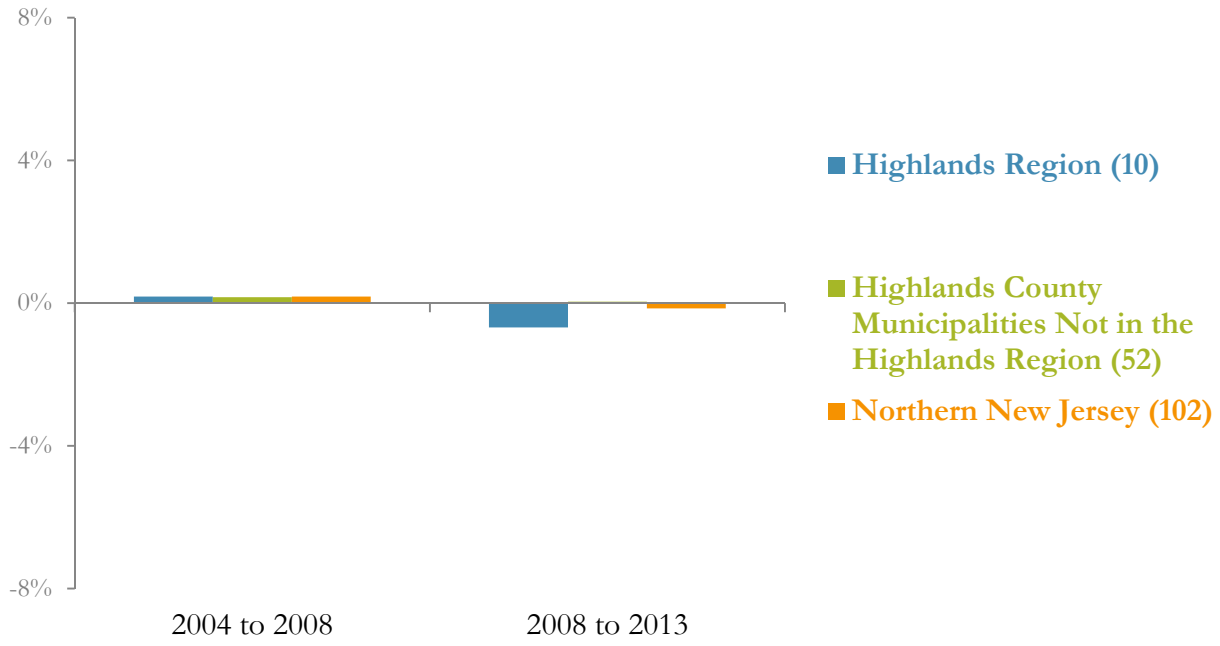
Table 18: Annual Rate of Employment Growth, High-Population and High-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013

Time Period	Highlands Region	Highlands County Municipalities Not in the Highlands Region	Northern New Jersey
04 to 08	0.2%	0.2%	0.2%
08 to 13	-0.7%	0.0%	-0.2%

Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

The data show that the Highlands Region had the same rate of change in employment as the two comparison region from 2004 to 2008 and a lower rate from 2008 to 2013.

Figure 23: Annual Rate of Employment Growth, High-Population and High-Employment Density Municipalities, 2004 to 2008 and 2008 to 2013



Source: PlaceWorks, 2015, using QCEW data from the NJ Department of Labor.

4.8 Municipal Level Analysis Summary

This chapter's analysis compared the rate of change in employment growth among the three regions in New Jersey for each municipal population and employment density classification. The intent was to determine if there was a consistent economic impact from the Act and the RMP. Table 19 summarizes the results. The results demonstrate that there was no clear pattern, and thus, there is no basis to conclude that the Act and the RMP had an impact on the Highlands Regional economy.

Table 19: Annual Rate of Employment Growth of Highlands Region Municipalities as Lower, Higher, or Same as the Rate in the Two Comparison Regions, 2004 to 2008 and 2008 to 2013

Municipal Classification	2004 to 08	2008 to 13	Number of Highlands Region Municipalities	Total Number of Municipalities
Low-Population and Low-Employment	Lower	Higher	13	26
Low-Population and Medium-Employment*	Higher	Lower	3	7
Medium-Population and Low-Employment*	Higher	Lower	4	5
Medium-Population and Medium-Employment	Same	Higher	47	80
Medium-Population and High-Employment	Lower	Lower	7	23
High-Population and Medium-Employment	Lower	Higher	4	27
High-Population and High-Employment	Same	Lower	10	112

**Small number of municipalities limits the usefulness of the comparison.*

Source: PlaceWorks, 2015.

Chapter 5 Employment Growth Correlations

The final analysis of this report explores the degree to which there is a statistically significant correlation between the annual rate of change in employment and whether or not a municipality was in the Highlands Region, especially when controlling for other factors that may influence economic growth.

This analysis uses the QCEW data. A statistical analysis is conducted on the set of municipalities in Northern New Jersey, except for the outlier municipalities. Unless stated otherwise, the dependent variable is the municipality's annual rate of employment change. An analysis was conducted for the change from 2004 to 2008 and the change from 2008 to 2013.

The first single linear regression analysis used a single independent Boolean indicator variable: a 1 if the municipality was in the Highlands Region and a 0 if not. Second, single linear regression analyses were run on a wide variety of other factors, described below, to determine which ones had a statistically significant correlation with the annual rate of employment change. Third, a first run of a multiple linear regression analysis used the variables with significant correlation and the Boolean indicator variable for location in the Highlands Region. Because some of the variables are found not to be significant in the multiple linear regression analysis, it is run a second time using only the significant variables and the Boolean indicator variable for location in the Highlands Region.

The statistical output from each of the analyses described in Sections 5.1, 5.2, and 5.3 is provided in Appendix D. The following descriptions provide a summary of key information from each of the analyses.

5.1 Factors that May Contribute to Economic Growth

Density

At times density correlates with economic growth and development. At times growth and development flow to lower density areas, and at other times they may flow to more dense areas. The analysis evaluated population density and employment density to determine if there were trends related density during the relevant time periods.

Population Density

Population density was measured as the 2000 Census population and the modified acreage of municipalities, as described in Section 1.5 beginning on page 12. The analysis found the population density in 2000 was negatively correlated with the rate of employment change from 2004 to 2008. That is, less densely populated municipalities in Northern New Jersey tended to have higher

employment growth rates (which could mean less negative) than more densely populated areas. In contrast, from 2008 to 2013, population density was positively correlated with employment growth: more densely populated areas had higher employment growth rates.

Employment Density

Employment density was measured as the total employment in 2004 and the modified acreage of municipalities, as described in Section 1.5. The analysis found that employment density in 2004 was negatively correlated with the employment growth rate from 2004 to 2008. The analysis did not find a statistically significant correlation with employment density and the employment growth rate from 2008 to 2013.

Age

Age may influence economic growth in a variety of ways. Areas with larger concentrations of older workers may have higher rates of retirement, which may result in lower employment growth rates. In contrast, some types of jobs may flow to areas with younger labor forces, in part based on the perception that such a workforce may be less expensive.

The analysis considered four different indicators of age: median age, percentage of the population age 18 and under (areas with more children may experience more retail sales and employment), percentage of the population age 65 and older (areas with a larger percentage may have fewer employed persons per household), and percentage of the population between ages 18 and 65. The age variables were based on data from the 2000 and 2010 Census and the 2013 ACS 5-year estimates. The ACS did not become available for jurisdictions with less than 20,000 residents until 2009. The 2000 Census is used as an approximation for age in 2004, and the 2010 census is used as an approximation for 2008. The 2013 ACS represents age in 2013.

Median Age

The analysis looks at median age in 2000 and 2010, and the percentage change in median age from 2000 to 2010 and from 2010 to 2013. The analysis found no statistically significant correlation between median age and the rate of change in employment from 2004 to 2008. The analysis found that median age in 2010 and the percentage change in median age from 2010 to 2013 were negatively correlated with the rate of change in employment from 2008 to 2013. That is, the larger the increase in a municipality's median age, the lower the rate of employment growth. The stronger of the correlations was median age in 2010, with an R^2 value of 0.0208. This was also the strongest correlation of all the age variables, and it is the one used in the subsequent multiple linear regression analysis.

Percentage of the Population under the Age of 18

The analysis found no statistically significant correlation between the percentage of the population age 18 and under and the rate of employment change in either time period.

Percentage of the Population Age 65 and Older

For this factor, the analysis found only one statistically significant correlation. The percentage of the population age 65 and older in 2010 was negatively correlated with the rate of employment change from 2008 to 2013.

Percentage of the Population between the Ages of 18 and 65

The analysis found no statistically significant correlation between this age group and the rate of employment change.

Education

Education is often thought of as a proxy for the overall skills and qualification of the labor force and is often correlated with economic growth. The analysis considered four different indicators of educational attainment: percentage of the population aged 25 and older with no high school diploma; percentage with a high school diploma but no additional education; percentage with some college or an Associate's degree; and percentage with a Bachelor's degree or higher education. Increasing levels of education are correlated with lower rates of unemployment and shorter duration of unemployment

Percentage of the Population with No High School Diploma

The analysis found that the percentage of the population with no high school diploma in 2000 was negatively correlated with rate of change in employment from 2004 to 2008, with an R^2 of 0.0222. It also found that the net change in the percentage of the population with no high school diploma from 2000 to 2010 was positively correlated with the rate of employment growth from 2004 to 2008, with an R^2 of 0.0176.

The analysis found that the percentage of the population with no high school diploma in 2010 was positively correlated with the rate of change in employment from 2008 to 2013, with an R^2 of 0.0327. The analysis also found that the percentage change in the percentage of the population with no high school diploma from 2010 to 2013 was negatively correlated with the rate of employment growth from 2008 to 2013, with an R^2 of 0.0208.

Percentage of the Population with Only a High School Diploma

The analysis found that the percentage change in the percentage of the population with only a high school diploma from 2000 to 2010 was negatively associated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0351. The analysis found no other statistically significant correlations between the percentage of the population with only a high school diploma and the rate of employment change.

Percentage of the Population with Some College or an Associate's Degree

The analysis found no statistically significant correlation between this level of education and the rate of employment change.

Percentage of the Population with a Bachelor's Degree or Higher Education

The analysis found that the net change in the percentage of the population with a BA degree or more education was positively correlated with the rate of change in employment from 2008 to 2013, with an R^2 of 0.0140.

Economic Structure

The structure of the economy (measured as the percentage of total jobs in each of the 20 major economic sectors) often influences economic growth. For instance, as the manufacturing sector has declined in employment since 1978, the old manufacturing centers in the US have struggled to salvage their economies and rebuild themselves. When the financial services sector struggles or suffers, the effects ripple through the New York-Newark metropolitan area.

The analysis considers economic structure on two levels. First, the analysis evaluates the correlation between the share of total employment in each individual sector and the rate of change in employment. Because many smaller jurisdictions do not have businesses in every sector, this approach may miss some nuances in local economies. The second approach is to evaluate the correlation between the share of total employment in each of the major groups of economic sectors and the rate of change in employment. For both approaches, the analysis evaluates only the percentage of jobs in 2004 and in 2008. The analysis does not evaluate the correlation between the change in the percentage of jobs in a sector and the rate of change in total employment. Such comparisons are problematic because the dependent and independent variables may have a high degree of collinearity. Large losses of jobs in one sector are more likely to occur when there are large job losses overall.

For the individual sectors, the analysis found no statistically significant correlation between the rate of change in employment and these sectors: agriculture, forestry, fishing, and hunting; mining, quarrying, and oil and gas extraction; utilities; wholesale trade; transportation and warehousing; finance and insurance; real estate, rental, and leasing; professional, scientific, and technical services; management

of companies; administration and support, and waste management and remediation; educational services; arts, entertainment, and recreation; accommodation and food services; other services (excluding public administration); and public administration. For the major groups of economic sectors, the analysis found no statistically significant correlation between the rate of change in employment and these sectors: base services–producing group of sectors; knowledge-based group of major economic sectors; local-serving group of major economic sectors; and the miscellaneous major group of economic sectors.

Construction

The analysis did not find a statistically significant correlation between the construction sector's share of total jobs in 2004 and the rate of employment change from 2004 to 2008. The analysis did find that the construction sector's share of total jobs in 2008 was positively correlated with the change in employment rate from 2008 to 2013, with an R^2 of 0.1294. This means that municipalities with higher percentages of total jobs in the construction sector in 2008 tended to have high rates of job growth from 2008 to 2013.

Manufacturing

The analysis found that manufacturing's share of total employment in 2004 was positively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0148. The analysis did not find a statistically significant correlation between the share of jobs in manufacturing in 2008 and the rate of employment change from 2008 to 2013.

Retail Trade

The analysis found that the retail sector's share of total jobs in 2004 was negatively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0197. The analysis found no statistically significant correlation between the share of total jobs in retail and the rate of change in employment from 2008 to 2013.

Information

The analysis found that the information sector's share of total employment in 2004 was positively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0213. The analysis did not find a statistically significant correlation between the share of total jobs in information in 2008 and the rate of change in employment from 2008 to 2013.

Health Care and Social Services

The analysis found that the health care and social services sector's share of total jobs in 2004 was positively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0163. The analysis also found that this sector's share of total jobs in 2008 was positively correlated with the rate of change in employment from 2008 to 2013, with an R^2 of 0.0164.

Base Goods–Producing Sectors

The analysis found that the share of total employment in this major group of economic sectors in 2004 was positively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0200. The analysis also found that the share of employment in this major group of sectors in 2008 was positively correlated with the rate of employment change from 2008 to 2013, with an R^2 of 0.0183.

Education and Health Care Sectors

The analysis found that the share of total employment in this major group of economic sectors in 2004 was negatively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0217. The analysis did not find a statistically significant correlation between the share of employment in this major group of economic sectors in 2008 and the rate of change in employment from 2008 to 2013.

Average Household Income

Household income may influence economic growth, especially among local-serving sectors. The analysis uses inflation-adjusted average household incomes, expressed in 2014 dollars.

Inflation-Adjusted Average Household Income

The analysis found that the percentage change in average household income from 2000 to 2010 was positively correlated with the rate of change in employment from 2004 to 2008, with an R^2 of 0.0155. The analysis found no statistically significant correlation between household income and the rate of change in employment from 2008 to 2013.

5.2 Analysis of the Rate of Change in Employment from 2004 to 2008

Boolean Indicator Variable Analysis

The first test for the rate of change in employment from 2004 to 2008 is a simple linear regression analysis in which the dependent variable is the rate of employment change and the independent variable is Boolean indicator variable: a 0 for municipalities that are not in the Highlands Region and

a 1 for those that are in the Region. The analysis found that there was not a statically significant correlation between a municipality's being the Highlands Region and its rate of employment change in 2004 to 2008.

Multiple Linear Regression Analysis

The second test is a multiple linear regression analysis using the factors that may influence economic growth and that have a statistically significant correlation with the rate of employment change from 2004 to 2008. It could be the case that, when these variables are introduced, the Boolean indicator variable for location in the Highlands Region then has some explanatory power.

The analysis uses the variable with the strongest R^2 value for each factor that may influence economic growth. Specifically this analysis uses:

- Population density in 2000
- Employment density in 2004
- Percentage change in portion of population with only a high school diploma 2000 to 2010
- Manufacturing sector's share of total jobs in 2004
- Retail sector's share of total jobs in 2004
- Information sector's share of total jobs in 2004
- Health care sector's share of total jobs in 2004

This analysis also uses the Boolean indicator variable to indicate whether a municipality is located in the Highlands Region.

The results of the multiple linear regression analysis are that the significant variables are population density in 2000 (correlated negatively), percentage change in the portion of population with only a high school diploma 2000 to 2010 (negatively correlated), and manufacturing sector's share of total jobs in 2004 (positively correlated). The remaining variables no longer have a statistically significant correlation with the rate of employment change. Most importantly, under this model, location in the Highlands Region does not have a statistically significant correlation with employment growth from 2004 to 2008. This model has an R^2 of 0.1210.

Final Analysis

The analysis is run one last time, using only the statistically significant variables from the first multiple linear regression analysis and the Boolean indicator variable representing location in the Highlands Region. The results of this third analysis are the same: location in the Highlands Region does not have a statistically significant correlation with the rate of change in employment growth from 2004 to 2008.

5.3 Analysis of the Rate of Change in Employment from 2008 to 2013

Boolean Indicator Variable Analysis

The analysis first evaluates the rate of change in employment from 2008 to 2013 using the Boolean indicator variable for location in the Highlands Region. The analysis found that there was not a significantly significant correlation between a municipality's being in the Highlands Region and its rate of employment change from 2008 to 2013.

Multiple Linear Regression Analysis

The multiple linear regression analysis uses the variables that had a statistically significant correlation with the rate of growth in employment from 2008 to 2013. There are far fewer of these variables than there were in the analysis for 2004 to 2008. Specifically, the analysis uses these variables:

- Population density in 2000
- Percentage change in median age from 2010 to 2013
- Portion of population with no high school diploma in 2010
- Construction sector share of total jobs in 2008
- Health care sector share of total jobs in 2008

Once again, the analysis uses the Boolean indicator variable to represent location in the Highlands Region.

The results of this analysis are that the significant variables are percentage change in median age from 2010 to 2013 (negative correlation) and construction sector's share of total jobs in 2008 (positive correlation). The remaining variables are not statistically significant. Under this model, location in the Highlands Region does not have a statistically significant correlation with the rate of employment change from 2008 to 2013.

Final Analysis

The analysis is run one last time, using only the statistically significant variables from the first multiple linear regression analysis and the Boolean indicator variable representing location in the Highlands Region. The results of this third analysis are the same: location in the Highlands Region does not have a statistically significant correlation with the rate of change in employment growth from 2008 to 2013.

5.4 Employment Growth Correlation Conclusion

Previous chapters sought to evaluate the economic impact of the Act and the RMP by comparing employment growth rates in the Highlands Region to the other similar regions. In contrast, this chapter sought to statistically quantify the relationship between a municipality being in or out of the Highlands Region and the annual rate of change in employment, after accounting for a variety of factors that may influence economic growth. This analysis was conducted at the municipal level and reflected the changes in employment and socioeconomic conditions across 280 municipalities in Northern New Jersey.

The results of this analysis are clear. There is no statistically significant relationship between a municipality's location in or outside of the Highlands Region and its rate of change in employment from 2004 to 2008 and from 2008 to 2013.

Construction

The analysis did, however, uncover one unresolved contradiction. Chapter 2 analyzed the changes in employment in the Preservation Area relative to other subareas of the Highlands. It found that the rate of jobs loss in Preservation Area from 2008 to 2013 was greater than in any other region. It also attributed this to a large decline in construction jobs. In contrast, this analysis found that there was a positive correlation between the construction sector's share of total jobs in 2008 and the rate of change in employment from 2008 to 2013. Based on this analysis, one should expect that municipalities with higher concentrations of construction would have had higher rates of job growth.

There are differences between the two analyses, however. Chapter 2 compared the Preservation Area, a large area with 36,000 jobs, to other large areas with even more jobs. This analysis focused on individual municipalities. The difference between the two findings may simply represent the 2008 distribution of construction jobs and that the impact of those jobs losses may be diluted when combined with the other jobs in the Planning Area portions of municipalities. The data analyzed for this report cannot adequately explain this difference.

Chapter 6 Regional Economic Analysis Findings

The primary purpose of this report is to analyze the past performance of the Highlands Region economy and determine the degree to which, if any, the Act and the RMP may have had an economic impact.

Several relevant findings result from the regional-scale economic analysis:

- When looking at the regional scale in New Jersey, the analysis found that the Highlands Region had: higher rates of change in employment than Northern New Jersey in both time periods; a higher rate of change than the Highlands county municipalities not in the Highlands Region from 2004 to 2008; and a similar rate from 2008 to 2013. This finding suggests that the RMP did not have an economic impact on the Highlands Region.

- When looking at the interstate regional scale, the analysis found that the Highlands Region had higher rates of change in employment than the comparison regions in New Jersey but lower than the adjacent regions in New York and Pennsylvania from 2004 to 2008. This finding suggests that the Act did not have an economic impact on the Highlands Region from 2004 to 2008.

- When looking at the interstate regional scale, the analysis found that, from 2008 to 2011, the Highlands Region had the lowest rate of change in employment. Yet two years later, in 2013, the Highlands Region growth rate had surpassed Northern New Jersey and evened up with the Highlands county municipalities not in the Highlands Region. This finding suggests that the Act and the RMP could have contributed to the pace, through 2011, at which the Highlands Region replaced jobs lost during the recession.

- When looking at the interstate regional scale, the analysis found that the annual changes in the employment growth rate in the Highlands Region were consistent in timing, direction, and magnitude with the trends in the adjacent regions in New York and Pennsylvania, Northern New Jersey, and the entire 19-county area being analyzed. The analysis also found that the annual changes in the employment growth rate in the Highlands county municipalities not in the Highlands Region were inconsistent with the trends across the other regions. These findings suggest that employment changes in the Highlands Region were part of broad regional trends and not the result of the Act and the RMP.

6.1 Municipal-Level Findings

The municipal-level analysis found a mixed-record on employment growth. For the period from 2004 to 2008, 24 of the 88 Highlands Region municipalities, with 46,300 jobs in 2004, were in groups that had a lower rate of employment growth than their peer municipalities in the two comparison regions

in New Jersey. Fifty-seven municipalities, with 259,000 jobs in 2004, were in groups that had about the same rate of employment growth, and 7 municipalities, with 6,200 jobs in 2004, were in groups with a rate of employment growth higher than their peers.

From 2008 to 2013, the results are a bit different. During this period, there were no groups in which the Highlands Region municipalities had about the same level of employment growth. Twenty-four municipalities, with 142,000 jobs in 2008, were in groups in which the growth rate was lower than their peers, and 54 municipalities, with 177,000 jobs in 2008, were in groups in which the Highlands Region municipalities had higher a growth rate than their peers in the two comparison regions.

Although these are mixed results, the findings suggest that when Highlands Region municipalities are compared directly with similar municipalities, the majority were in groups with the same or a higher employment growth rate over both periods. The mix of results suggests that the findings are not strong enough to support a conclusion that the Act and the RMP had a beneficial economic impact, but they do imply that the Act and the RMP did not have a negative economic impact.

6.2 Employment Growth Correlations Findings

The analysis of employment growth correlations provides two clear findings:

- The location of a municipality in the Highlands Region did not have a statistically significant correlation with the rate of change in employment growth from 2004 to 2008.
- The location of a municipality in the Highlands Region did not have a statistically significant correlation with the rate of change in employment growth from 2008 to 2013.

6.3 Findings Summary

These findings, taken together, do not support a definite conclusion. The regional economic analysis revealed no statistically relevant basis to find that the Act or the RMP had a positive or negative impact on economic growth in the Highlands Region.

Part 2:
Demographic and Real Estate Analysis

The purpose of this part is to analyze patterns of development based on the issuance of building permits, socioeconomic trends, and real estate sales to provide an understanding of the trends affecting and driving development. As with the Part 1, this part compares the trends in the Highlands Region to the trends in adjacent regions. Finally, the report analyzes the degree to which, if any, the Act and the RMP have had a measurable impact on development and real estate sales values.

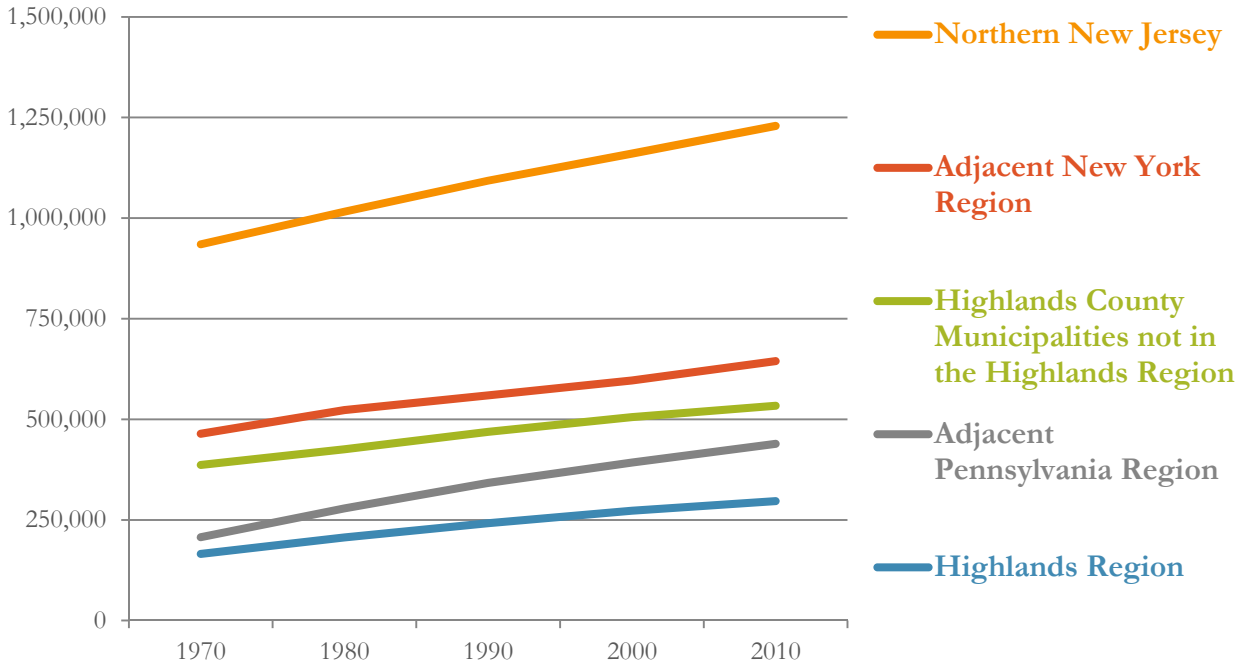
Chapter 7 Building Permits

This chapter analyzes building permit data to determine if there has been a decline in the amount of construction in the Highlands Region since the adoption of the Act and the RMP and the degree to which, if any, the Act and the RMP have affected the amount of construction.

7.1 Total Housing

The section of the report uses the decennial census to analyze the total number of housing units by decade. Figure 24 shows the data graphically. In general, the regions exhibited rather similar trends of increasing numbers housing over the four decades.

Figure 24: Total Number of Housing Units, Highlands Region and Comparison Regions, 1970 to 2010



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Change in Housing by Decade

Table 20 provides the change in the total number of housing units by decade. The data show that, in each decade, the Highlands Region has constructed fewer housing units than in the previous decade. The Highlands Region shares this four-decade trend of declining housing construction with the adjacent region in Pennsylvania. The Highlands county municipalities not in the Highlands Region constructed more housing in 1980 to 1990 than in 1970 to 1980, but this area has since been part of the declining housing construction trend. Northern New Jersey and the adjacent region in New York experienced a decline in the number of housing units constructed in the first three decades, but from 2000 to 2010 the number of units constructed increased over the previous decade. Finally, the very

high-density New Jersey municipalities provide an informative context. These municipalities experienced a sharp decline in the number of housing units constructed in 1980 to 1990 relative to the previous decade. However, these municipalities have experienced a reinvigoration in housing construction. In the last decade, these 18 municipalities accounted for 24 percent of all housing constructed in Northern New Jersey.

Table 20: Change in the Total Number of Housing Units by Decade, Highlands Region and Comparison Regions, 1970 to 2010

	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Very High Density New Jersey Municipalities
1970–80	40,787	39,015	80,799	58,958	71,569	8,584
1980–90	35,597	43,173	77,446	36,319	63,608	3,633
1990–00	30,940	36,602	67,026	37,171	50,465	12,041
2000–10	23,873	28,423	68,943	47,989	46,509	29,289

Source: PlaceWorks, using data from the U.S. Census Bureau.

Rate of Change in Total Housing

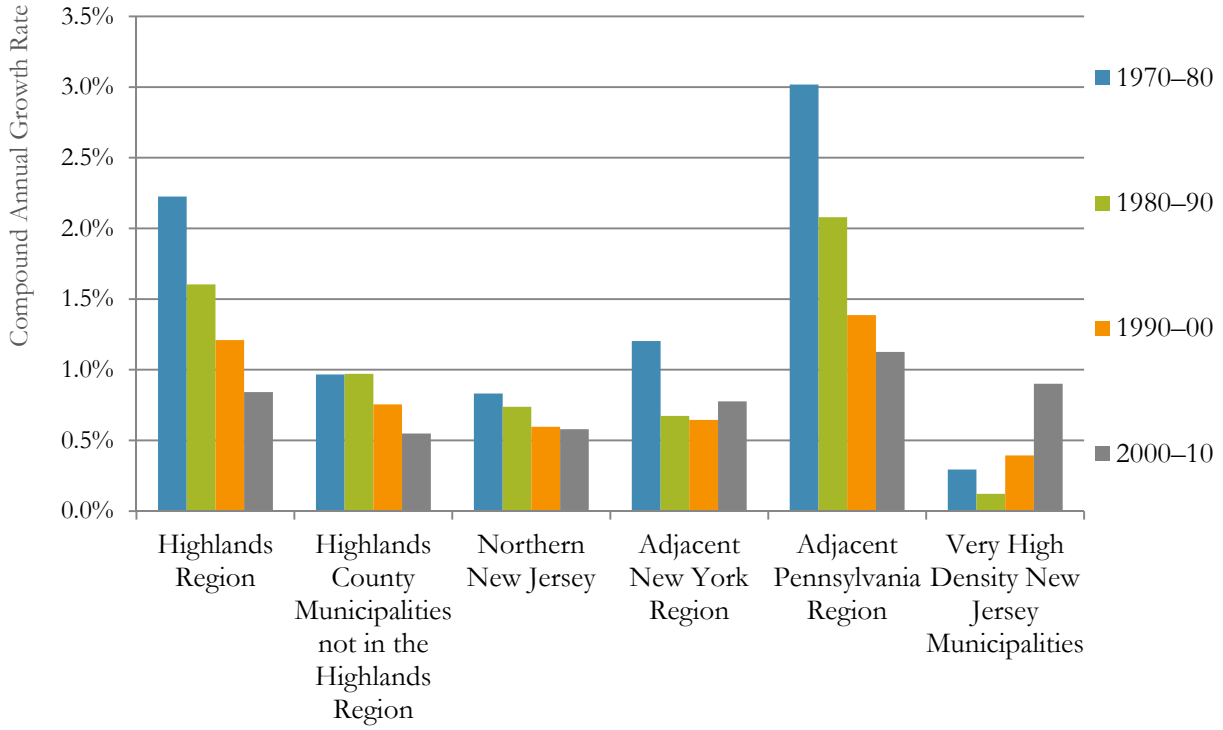
Comparing the annual rate of change in total housing units provides an understanding of the relative magnitude of changes in housing construction. Figure 2 shows this data graphically. Once again, the four-decade decline in the rate of housing construction is evident in the Highlands Region, Northern New Jersey, and the adjacent region in Pennsylvania.

Across all four decades, the annual rates of growth in total housing relative to the previous decade was higher in the Highlands Region than in the two comparison regions in New Jersey and the adjacent region in New York. The adjacent region in Pennsylvania consistently had the highest rate of growth. However, the Highland Region also experienced the sharpest declines in the rate of growth in total housing in each decade as its rate of change in housing construction dropped to a level similar to, although still slightly higher than, the other comparison regions (with the exception of Pennsylvania).

From the 1990s to the 2000s, the Highlands Region experienced a 3.8 percent decline in its housing growth rate. The declines in the other regions were: 3.1 percent in the Highlands county municipalities not in the Highlands Region; 0.3 percent decline in Northern New Jersey; 2.1 percent decline in the adjacent region in Pennsylvania; and increases of 1.9 percent in the adjacent region in New York and 8.6 percent in the high-density municipalities in New Jersey. It is true that the Highlands region experienced a decline in housing construction during the period that might have been affected by the Act, but the decline was almost the same magnitude as the decline in the Highlands county

municipalities not in the Highlands Region. This suggests that the decline in housing construction is attributable to factors other than the Act.

Figure 25: Annual Rate of Change in Total Number of Housing Units by Decade, Highlands Region and Comparison Regions, 1970 to 2010

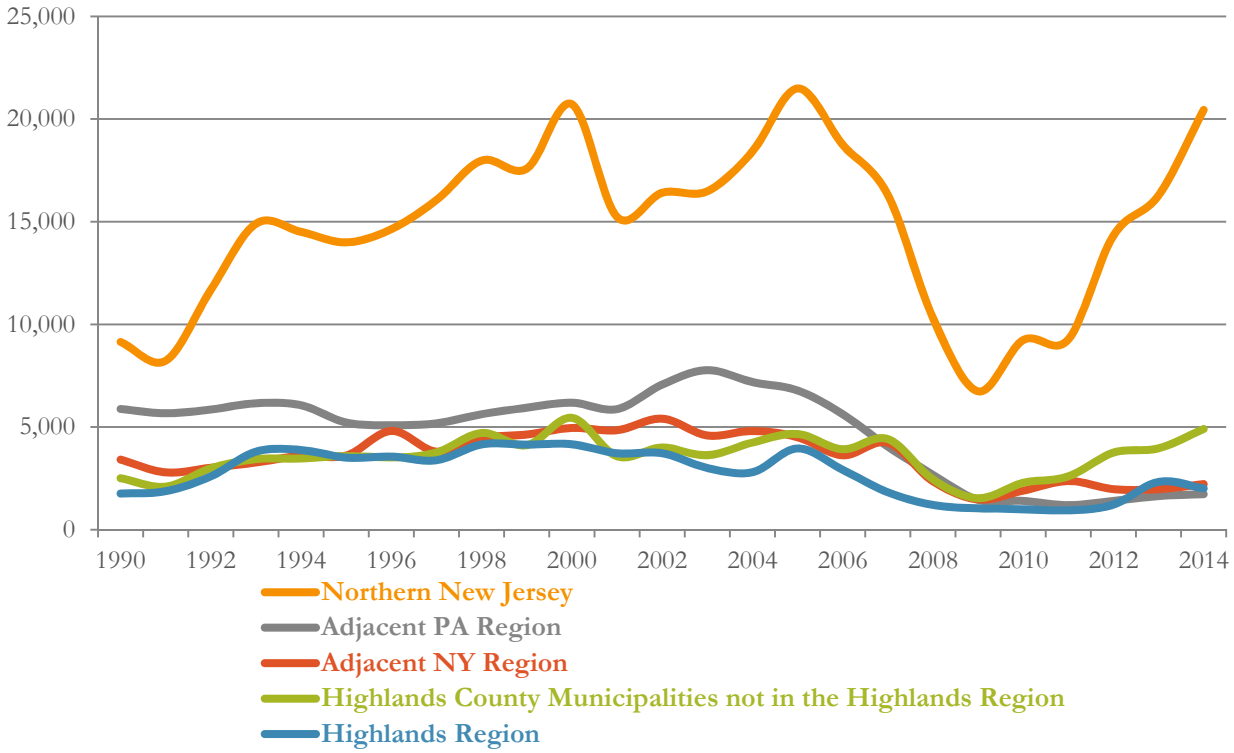


Source: PlaceWorks, using data from the U.S. Census Bureau.

7.2 Building Permits for Residential Construction

This section of the report uses the residential building permit data reported by the Census Bureau to analyze the trends in construction annually since 1990. Figure 26 shows this data graphically. The total number of housing units authorized by building permit in the Highlands Region peaked at 4,150 in 1998, and has generally declined since then. There was a noticeable jump in 2005, with permits issued for 3,960 housing units. Permits declined from 2005 and through the recession, reaching a low of 940 housing units in 2011. Across the comparison regions, permits for housing construction peaked in 2000 and then entered a one- or two-year decline as a result of the 2001 recession and the effects of 9/11. However, what is different is that in the Highlands Region and in the Highlands county municipalities not in the Highlands Region, the number of building permits for housing never returned to the level reached in 1998 and 2000.

Figure 26: Housing Units Authorized by Building Permit, Highlands Region and Comparison Regions, 1990 to 2014

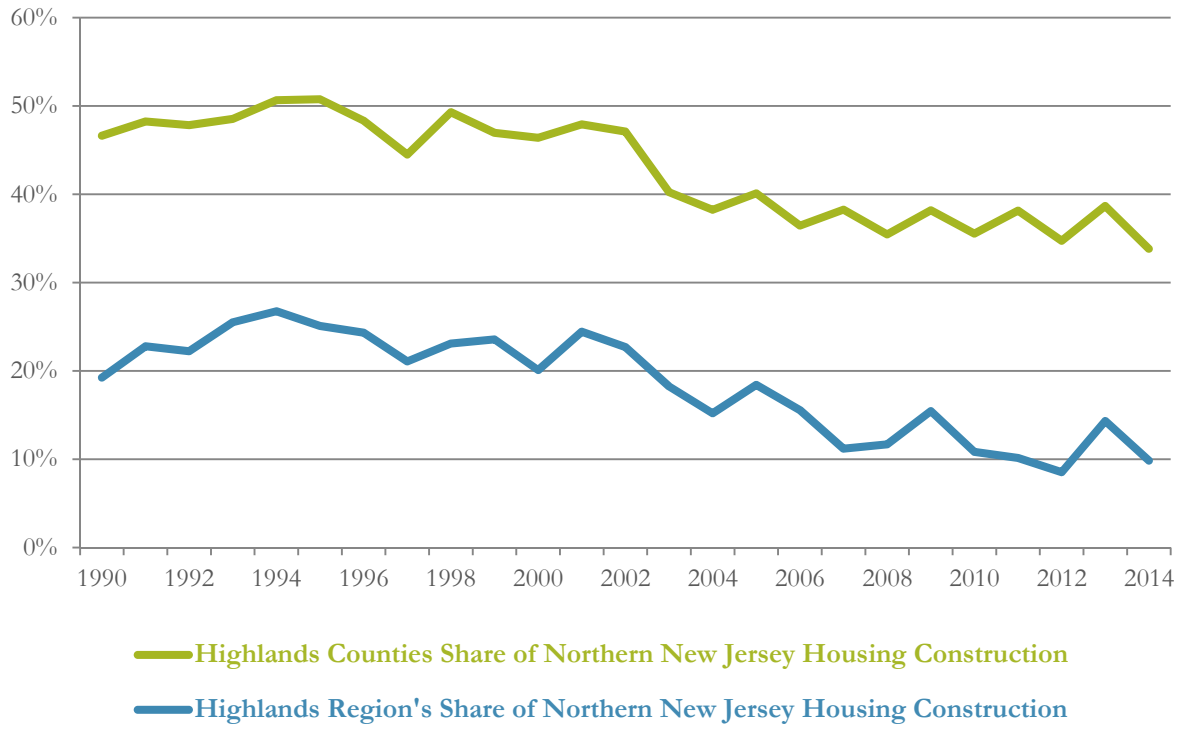


Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Not only did the Highlands Region experience a long decline in the number of housing units constructed, starting well before the Act and the RMP, it has also experienced an even longer decline in its share of the total housing constructed across Northern New Jersey (including the Highlands Region but excluding the high-density municipalities). Figure 27 shows the Highlands Region's share of housing construction.

In the early-1990s, the Highlands Region accounted for nearly 25 percent of the building permits issued in Northern New Jersey, and the Highlands counties (inclusive of the Highlands Region municipalities) accounted for close to 50 percent. The share of new housing began to decline around 1994 to 1995. Although there were some years with increases, the Highlands Region's share of Northern New Jersey housing construction generally declined, from a high of 26.8 percent in 1994 to a low of 8.5 percent in 2012. The share of housing construction for the Highlands counties also declined, reaching a low of 33.8 percent in 2014. These trends suggest that the Highlands Region is participating less and less in housing growth in Northern New Jersey, and they also suggest that this decline dates back to at least 2001, if not 1994.

Figure 27: Highlands Region Share of Northern New Jersey Housing Construction, 1990 to 2014



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

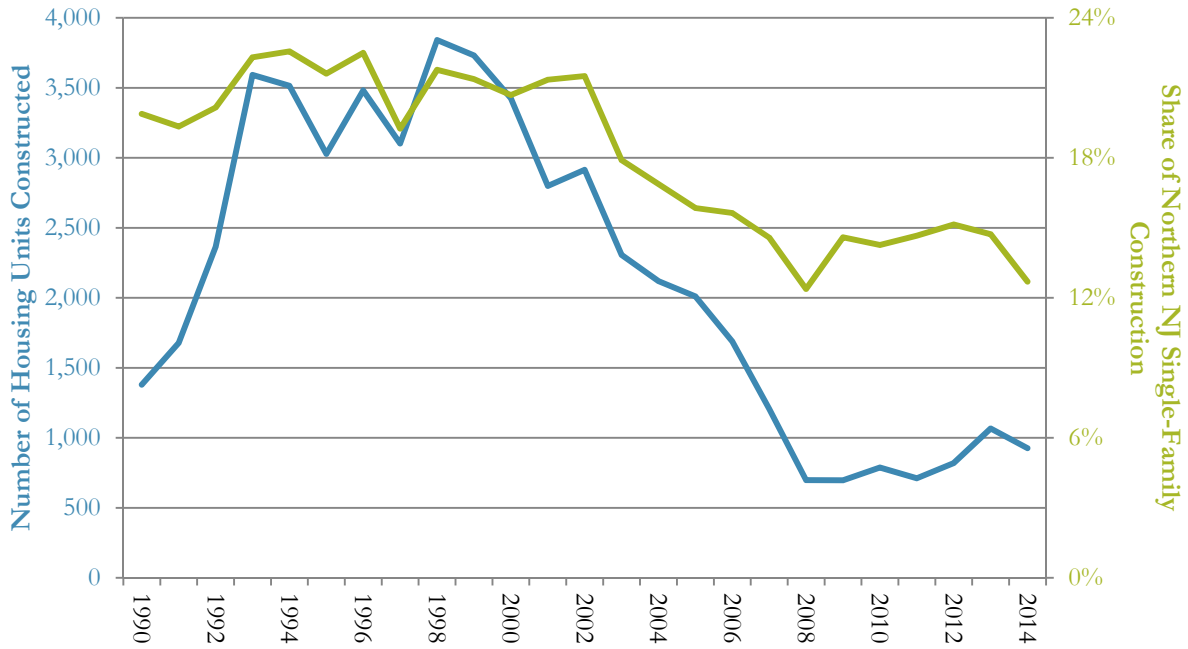
7.3 Housing Construction by Type

This section analyzes the trends in housing construction by type of housing. It uses a basic dichotomy of single-family detached housing and multifamily, which includes all forms of attached housing, such as duplexes, townhouses, and apartments.

Single-Family Housing

Figure 28 shows the trends in single-family construction in the Highlands Region from 1990 to 2014. Single-family construction in the Highlands Region increased from 1,380 units in 1990 to 3,590 in 1994. From 1994 to 1998, the number of units constructed averaged 3,430 per year. From a high of 3,840 in 1998, the number of single-family units constructed in the Highlands Region began a long period of decline, culminating in a low during the recession of 700 units in 2009. On average from 1994 to 1998, the Highlands Region accounted for 21.5 percent of the single-family housing constructed in Northern New Jersey (including the Highlands Region but excluding the high-density municipalities). Since the low in 2008, the region has accounted for 14.3 percent of the single-family housing constructed.

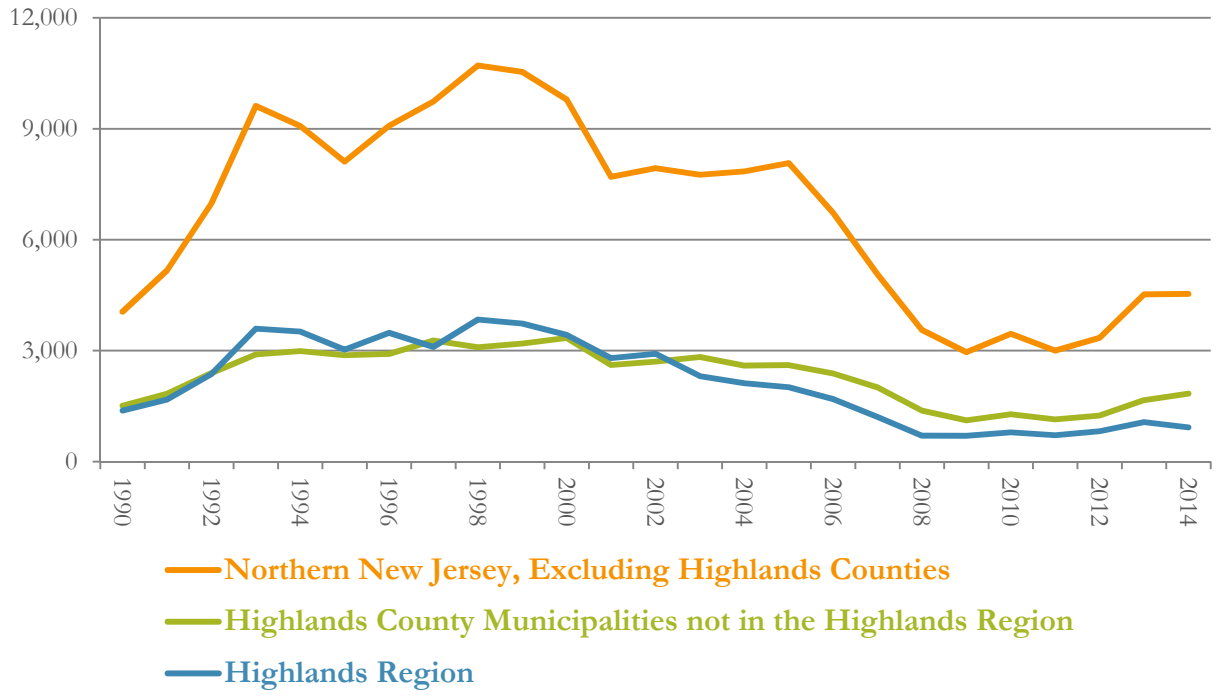
Figure 28: Single-Family Housing Construction Trend, Highlands Region, 1990 to 2014



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

The Highlands Region's trend in single-family construction is similar to the trend in Northern New Jersey, as shown in Figure 29. In this figure, the data for Northern New Jersey excludes the municipalities in the Highlands counties (as well as the high density municipalities that are always excluded). The three regions experienced a decline in housing construction leading up to and through the 2001 recession. The primary difference in the trends is what happed in the post-2001-recession recovery. For the Highlands Region, there was no recovery. The decline that began in the lead-up to the 2001 recession simply continued through the end of the 2008/09 recession. In contrast, the Northern New Jersey municipalities (excluding those in the Highlands counties) experienced the boom in single-family housing construction that affected most housing markets across the country. The Highlands county municipalities not in the Highlands Region experienced a trend similar to the Highlands Region, except that single-family housing did show some growth in 2002 and 2003 before beginning the long decline through the 2009 recession.

Figure 29: Single-Family Construction Trends, Highlands Region and Comparison Regions in New Jersey, 1990 to 2014



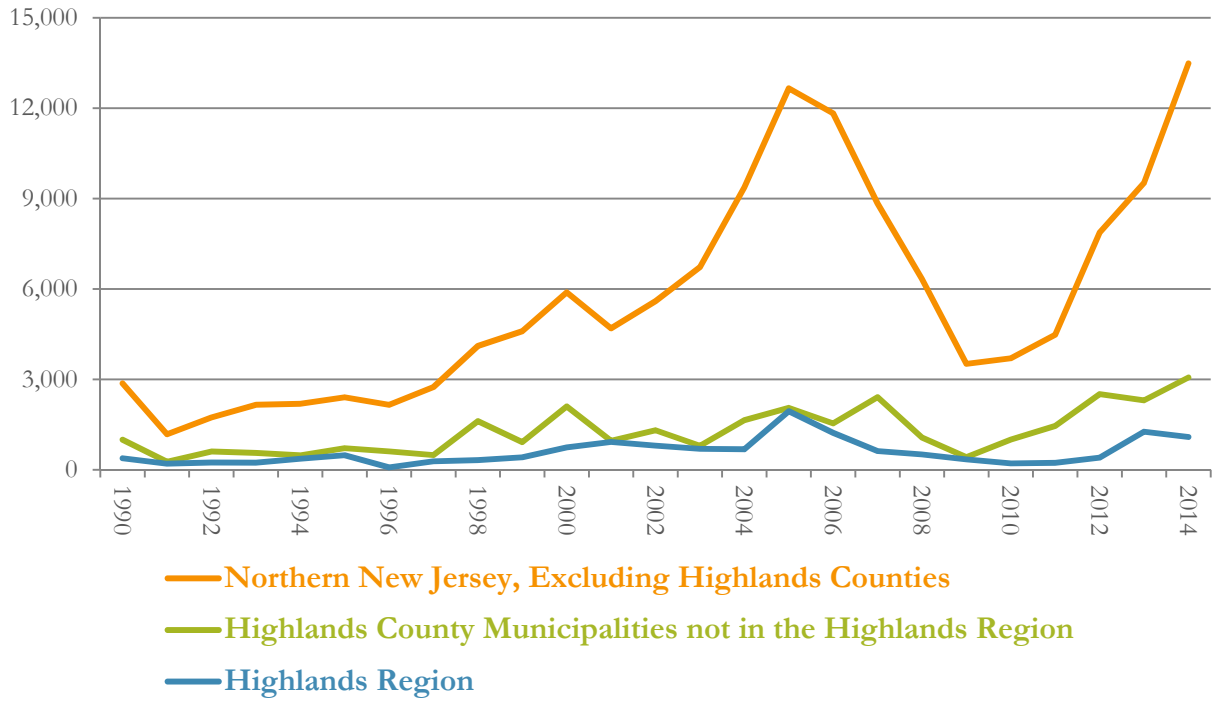
Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Multifamily Housing Construction Trend

In contrast to single-family housing, the multifamily housing construction trend in the Highlands Region is clearly different from the trend in Northern New Jersey (excluding the Highlands counties), as shown in Figure 7.

From 1990 to 1995, the Highlands Region had about 318 multifamily units constructed each year, and this accounted for about 10.7 percent of the multifamily housing constructed in all of Northern New Jersey (including the Highlands Region but excluding the high-density municipalities). From 1996 to 2001, the Highlands Region averaged 460 multifamily housing units per year but only a 7.6 percent share of the construction across Northern New Jersey. From 2002 to 2006, multifamily housing construction began a rapid growth across Northern New Jersey. The number of units constructed in the Highlands Region averaged 1,070 per year, and its share increased slightly to 9.0 percent. The multifamily market reached its recession trough in 2010. From 2010 to 2014, the Highlands Region has had an average of 640 multifamily housing units built, but its share of Northern New Jersey declined to 5.5 percent on average.

Figure 30: Multifamily Housing Construction Trends, Highlands Region and Comparison Regions in New Jersey, 1990 to 2014



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Housing Market Transformation

Table 21 shows the change in types of housing constructed in the Highlands Region and in the comparison regions in New Jersey. From 1990 to 2002, the Northern New Jersey housing market (including the Highlands counties) was predominantly single-family, which accounted for 75.9 percent of all new units constructed, on average. At the same time, the Highlands Region was even more specialized: single-family housing accounted for 87.4 percent of units constructed. From 2003 to 2014, however, the housing market in Northern New Jersey transformed to predominantly multifamily housing. In 2005 more than half of units constructed were multifamily, and in 2014, 70.7 percent were.

The housing market in the Highlands Region also moved in the direction of more multifamily housing, and from 2012 to 2013, multifamily housing increased from 31.1 percent of housing units constructed to 54.2 percent. Nevertheless, from 2003 to 2014, multifamily housing only accounted for 36.3 percent of housing units built in the Highlands Region, and the region only provided 9.4 percent of the multifamily housing units constructed across Northern New Jersey (including the Highlands counties).

Table 21: Change in Types of Housing Constructed, Highlands Region and Comparison Regions in New Jersey, 1990–2002 and 2003–2014

	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey, Including Highlands Counties	Very High-Density Municipalities in Northern NJ	Northern New Jersey, Excluding Highlands Counties
Single-Family Housing Share of All Housing Constructed, by Region					
1990–2002	87.4%	76.3%	75.9%	31.0%	72.6%
2003–2014	63.7%	53.6%	44.1%	25.6%	39.0%
Multifamily Housing Share of All Housing Constructed, by Region					
1990–2002	12.6%	23.7%	24.1%	69.0%	27.4%
2003–2014	36.3%	46.4%	55.9%	74.4%	61.0%

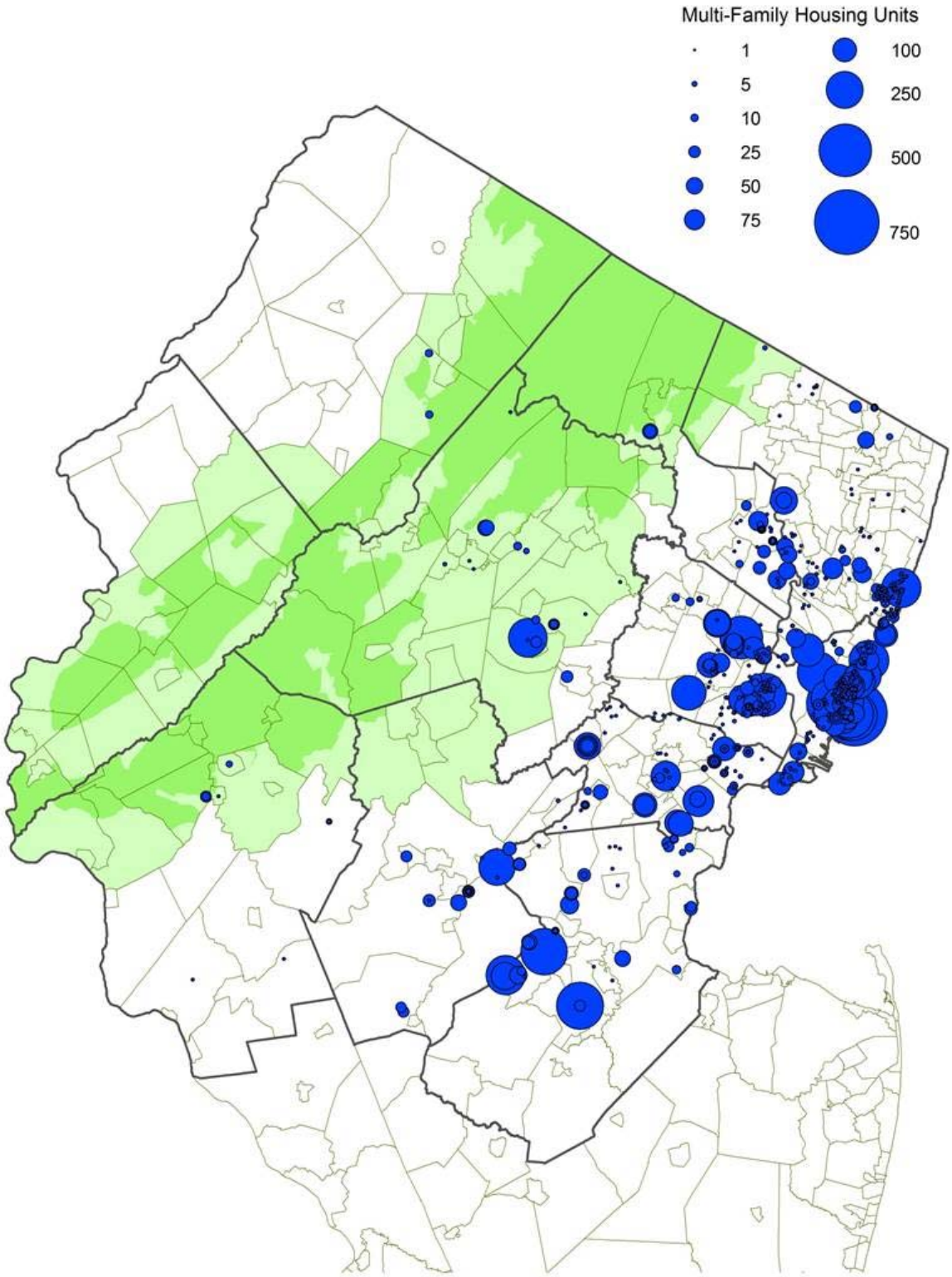
Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Geography of Multifamily Construction

The data in Table 21 indicate that the Highlands county municipalities not in the Highlands Region are more actively involved in the transformation to a predominantly multifamily housing market, which might imply that the Act or RMP could be affecting the Highlands Region. Figure 31 shows the location of multifamily housing projects that commenced construction in 2013 and 2014, by the number of units in each project. The development of multifamily housing in the Highlands county municipalities not in the Highlands Region is primarily in Bergen and Passaic counties. The farther an area is from New York and the I-95 corridor, the fewer multifamily housing units were constructed during this time frame.

The location of recent multifamily developments suggests that lower levels of urbanization, population and employment density, and public transit probably have a far greater impact on the amount of multifamily housing constructed in the Highlands Region than do the Act and the RMP.

Figure 31: Location of Multifamily Housing Construction by Number of Units in Project, Northern New Jersey, 2013 and 2014



Source: PlaceWorks, 2015, using data from the NJ Department of Consumer Affairs.

7.4 Building Permits Findings

The analysis presented in this chapter demonstrates that the Highlands Region experienced a decline in residential development since the Act and the RMP were adopted. However, it also shows that the decline is part of a longer-term trend. In each decade from the 1970s through the 2000s, the Highlands Region saw fewer new housing units constructed. From the 1990s to the 2000s, the magnitude of the decrease in new housing construction was similar to decrease in the Highlands county municipalities not in the Highlands Region. If the Act and the RMP had had an effect on residential development, one would expect the Highlands Region to have had a larger decrease in new housing construction.

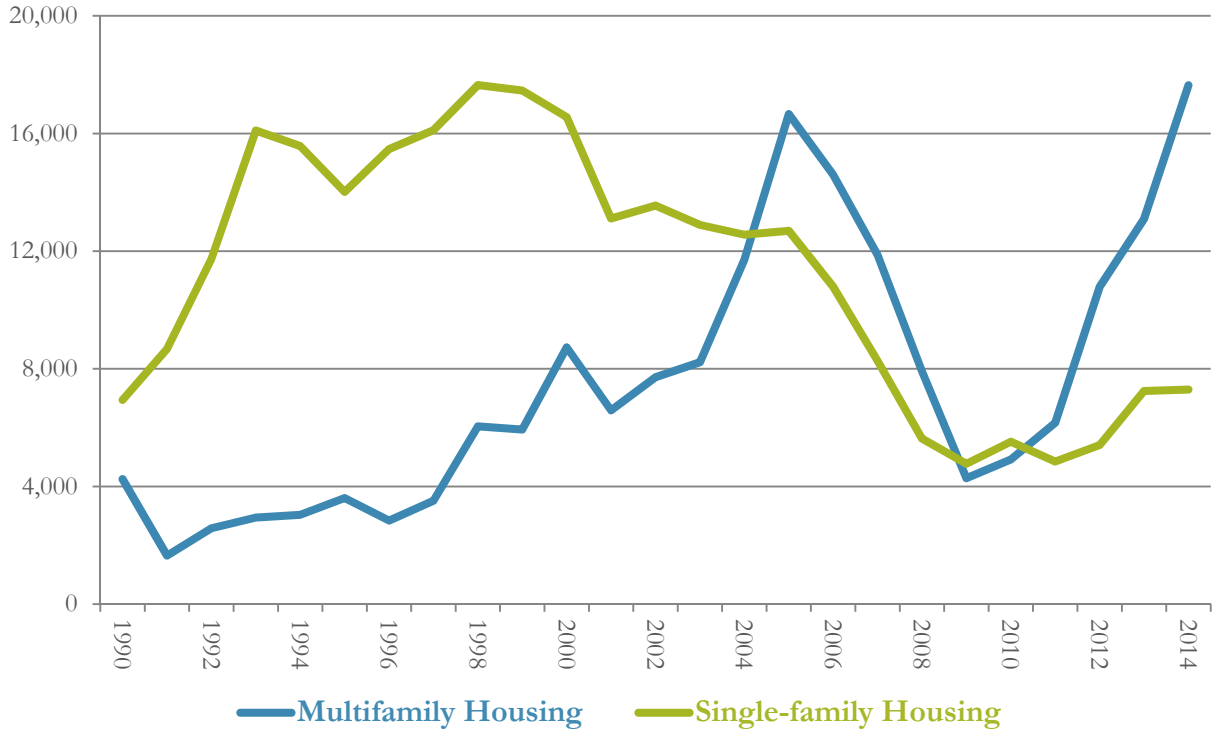
The analysis also demonstrates that housing construction in the Highlands Region peaked in 1998, The housing market never fully recovered from the 2001 recession and, instead, began a long period of decline. With the exception of a bump in the number of multifamily housing units constructed in 2005, the total amount of housing constructed declined each year from 1998 to 2011.

The clearest explanation for this decline in housing construction is the shift in market demand from single-family to multifamily housing. As shown in Figure 32, the number of single-family housing units constructed in Northern New Jersey peaked in 1998, the same year that the total housing constructed in the Highlands Region peaked. The number of multifamily housing units constructed began to increase rapidly in 1997.

In 2004, before the Act was adopted, only about 23 percent of the Highlands Region was zoned to allow for multifamily development. In contrast about 56 percent was zoned to allow single-family development. The housing market in the Highlands Region has been slow to capitalize on the rapid growth in multifamily housing taking place in Northern New Jersey. However, in 2013 and 2014, multifamily housing accounted for the majority of housing units constructed in the Highlands Region.

The building permits analysis finds that the long-term transition in market demand across Northern New Jersey has driven the long-term decline in housing construction in the Highlands Region.

Figure 32: Number of Housing Units Authorized by Building Permits by Type of Housing, Northern New Jersey, 1990 to 2014



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Chapter 8 Socioeconomic Characteristics

This chapter analyzes socioeconomic characteristics of the Highlands Region's population and changes in these characteristics over time. It compares the region's characteristics and changes to those in comparison regions in Northern New Jersey and the adjacent regions in New York and Pennsylvania. The intent is to quantify the degree to which, if any:

- The Highlands Region's socioeconomic characteristics differ from the comparison regions
- The Highlands Region's socioeconomic characteristics correlate with economic and employment changes
- Differences between the Highlands Region's socioeconomic characteristics and those in the comparison regions are correlated with the adoption of the Highlands Act and the RMP

The analysis of socioeconomic characteristics is intended to provide an understanding of factors that may influence development patterns. The analysis does not explore whether or not the Act and the RMP may affect demographic trends in the Highlands Region.

8.1 Number of Households

A household is a group of people living together in a single housing unit. A household may be one family, an extended family, more than one family, or unrelated individuals. Because housing tends to be the single largest expenditure for most households, the household often is the basic unit of analysis in economic research. The household is also an important unit of analysis in planning research because households make choices on where to live, and housing often has the longest lifetime of real estate development products. The analysis in this section uses data from the decennial censuses and the 2013 American Community Survey (ACS) five-year estimates.

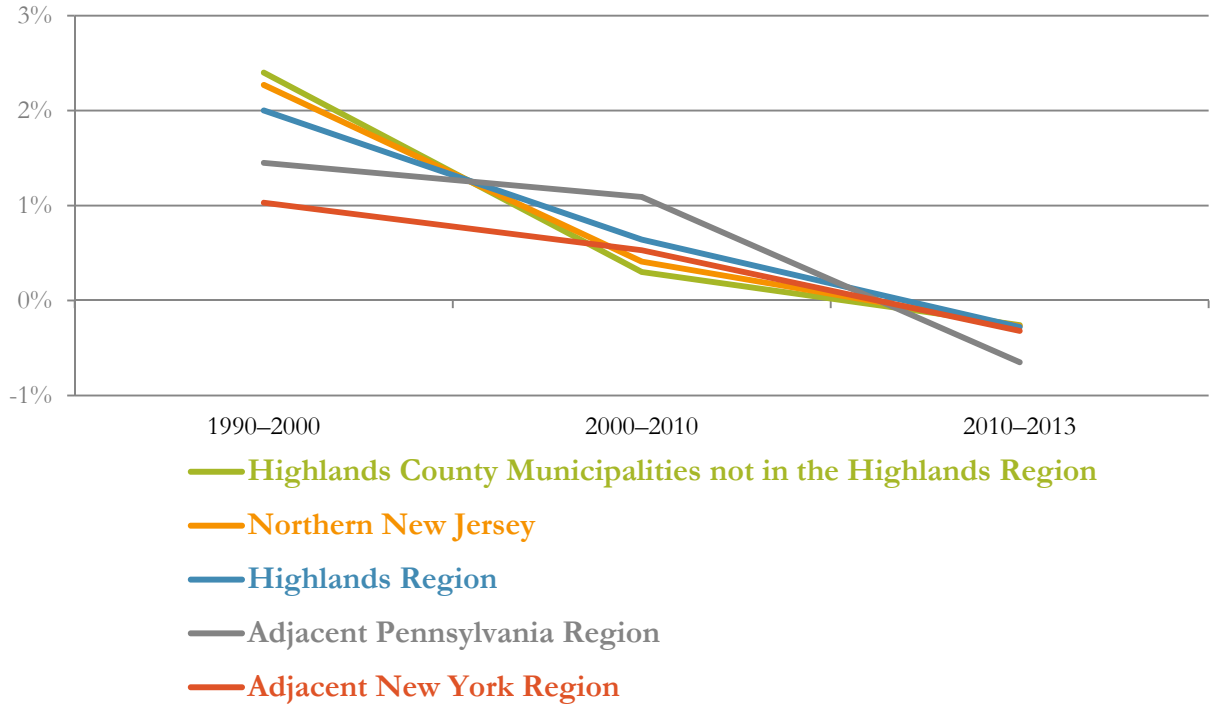
From 1990 to 2000, the average annual rate of growth in the number of households in the Highlands Region was lower than in the two comparison regions in New Jersey but higher than the rate in the adjacent regions in New York and Pennsylvania. From 2000 to 2010, the period in which one should expect to see an effect of the Act, the annual rate of household growth in the Highlands Region was higher than in the comparison regions in New Jersey and the adjacent region in New York but lower than the rate in the adjacent region in Pennsylvania. Finally, from 2010 to 2013, the data indicate that all the regions had a decline in the number of households. However, the annual rate of decline in the Highlands Region was surpassed by the annual rate of decline in the comparison regions in New Jersey and the adjacent region in New York. Table 22 provides the data on the annual rate of change in the number of households, and Figure 33 shows the relative change for the regions graphically.

Table 22: Compound Annual Growth Rate in the Number of Households, Highlands Region and Comparison Regions, 1990 to 2013

Time Period	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region
1990–00	2.00%	2.40%	2.27%	1.03%	1.45%
2000–10	0.64%	0.30%	0.41%	0.53%	1.09%
2010–13	-0.28%	-0.26%	-0.27%	-0.32%	-0.65%
2000–13	0.43%	0.17%	0.25%	0.33%	0.69%

Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Figure 33: Annual Rate of Change in the Number of Households, Highlands Region and Comparison Regions, 1990–2000 to 2010–2013



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

If the Act and RMP had an effect on household growth it should be apparent in the growth rates. However, the Highlands Region had similar or higher household growth rates than the two comparison regions in New Jersey and the adjacent New York region in all the time periods except from 1990 to 2000.

A statistical analysis was conducted for the household growth rates in municipalities for each of the municipal population- and employment-density classifications during the period from 2000 to 2013. The statistical analysis results show that there is no statistical relationship between the rate of household growth and whether or not a municipality was in the Highlands Region.

8.2 Household Size

The average household size is the average number of people residing in each household, regardless of household type, although the types of households certainly influence the average household size. There are a variety of factors that lead to increase in decreases in average household size over time. Generally, increasing size is often associated with increases in fertility rates and in-migration of younger households with children. In contrast, decreasing household size is often associated with in-migration of young singles and retirees and with older households aging into an empty-nest stage of life. Section 8.3, Household Type, analyzes changes in the types of households in the Highlands Region. The analysis in this section covers household size, using data from the decennial censuses and the 2013 American Community Survey (ACS) five-year estimates.

From 2000 to 2010, the average households size in the Highlands Region decreased by -2.0 percent, from 2.71 persons per household to 2.65. The adjacent region in Pennsylvania was the only other region to experience a decrease in household size, although at a smaller magnitude of -0.14 percent. The average household size increased in the other comparison regions: 0.6 percent in the Highlands county municipalities not in the Highlands Region; 0.3 percent in Northern New Jersey; and 0.2 percent in the adjacent region in New York.

Table 23: Average Household Size, Highlands Region and Comparison Regions, 2000 and 2010

	2000	2010
Highlands Region	2.71	2.65
Non-Highlands Municipalities	2.68	2.70
Northern New Jersey	2.71	2.72
Adjacent New York Region	2.76	2.76
Adjacent Pennsylvania Region	2.65	2.61

Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

A statistical analysis for the correlation between average households size and whether or not a municipality is in the Highlands Region identified a number of statistically significant relationships. Relative to average household size in 2010 and population- and employment density classification of municipalities, the analysis finds that, among low-population and low-employment density municipalities, those in the Highlands Region had an average household size 5.8 percent larger than those in the comparisons regions.

A second regression analyzed the correlation between the change in average household size from 2000 to 2013 and the population- and employment-density classification. Medium-population and medium employment density municipalities in the Highlands Region had a 4.7 percent larger decrease in average household size than did the municipalities in the comparison regions. Among the medium-population and high-employment density municipalities, those in the Highlands Region had a 21.3 percent larger decrease in household size. However, there are only seven Highlands Region municipalities in the category. Among the high-population and high-employment density municipalities, those in the Highlands Region had a 3.8 percent higher decline in average household size. Finally, a statistical analysis of all the municipalities, without regard to density, finds that Highlands Region municipalities had a 2.8 percent larger decline in average household size relative to the municipalities in the comparison regions.

The statistical analysis results indicate that there is a statistically significant difference between the decline in average household size in the Highlands Region and the increase in household size in the comparison regions. The statistical analysis only evaluates what happened in the past; it does not indicate how household size might change in the future. Nevertheless, this is a trend that the Council should monitor because household size can be related to demand for different housing products.

8.3 Household Type

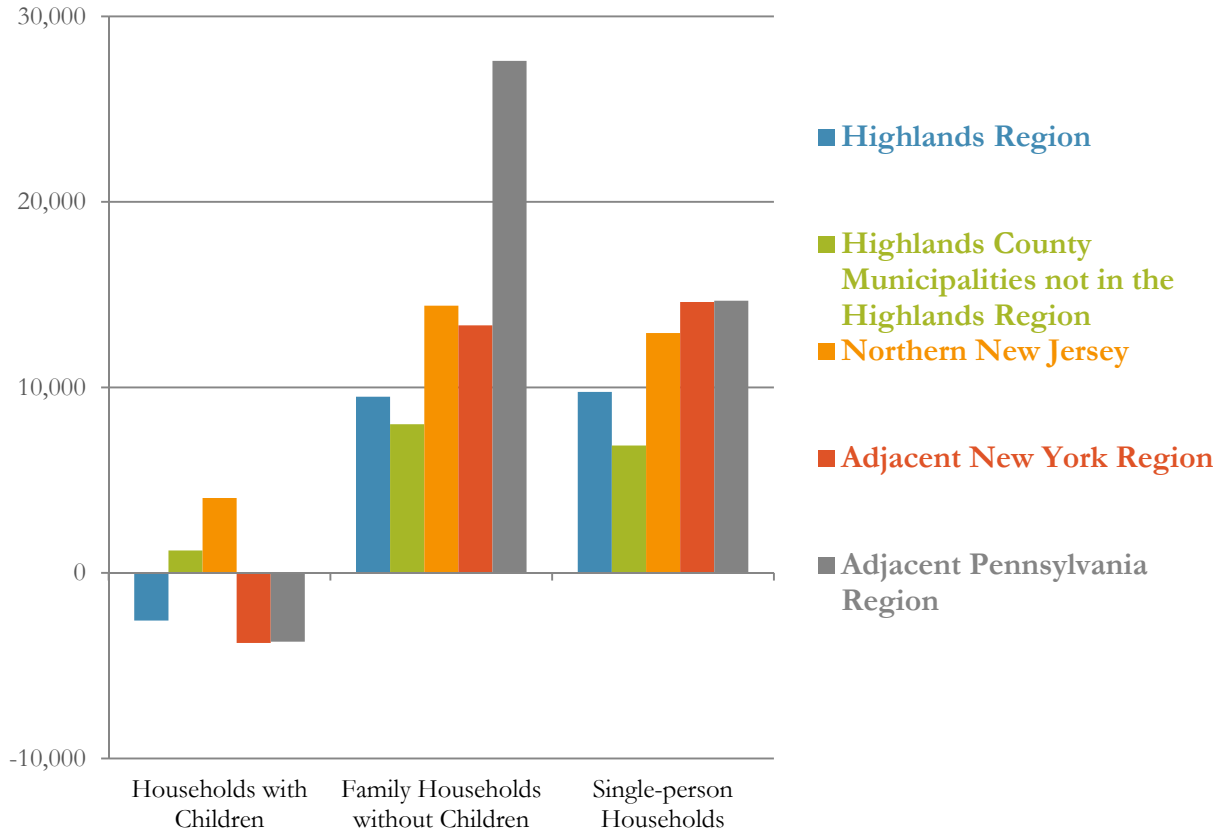
The terminology used for household type can be confusing. The term "household" has supplanted the term "family" in demographics in recent decades, responding to changes in the ways Americans live. Technically, a household is one or more people living in a single housing unit. A family is a subset of households, and it refers to a group of people, related by blood, marriage, or adoption, living together in a single housing unit. The term family does not necessarily refer only to married spouses with children but also to married spouses with no children living at home, single-parents with children, adults living with parents and parents living with adult children, and grandchildren living with grandparents. The terms "child" and "children" refer to people under the age of 18. The term "adult children" is sometimes used to refer to people over the age of 18 living with their parents.

Although there are numerous ways to view families and households, the analysis in this section in concerned with three in particular: 1) households with one or more children living at home; 2) family households with no children living at home; 3) single-person households (the remainder, a small percentage, includes non-family households with no children living at home). Changes over time in the number of households in each of these categories can transform the market demand for different types of housing.

From 2000 to 2010, the Highlands Region, like all the comparison regions, experienced growth in the total number of households. However, the number of households with children declined by 2,570 households, a decrease of 2.5 percent. In contrast, the number of family households with no children

increased by 9,500, or 9.0 percent, and the number of single-person households grew by 9,750, or 16.0 percent. Figure 34 shows the net change in households for each of the three types of households analyzed.

Figure 34: Net Change in Households by Select Household Types, Highlands Region and Comparison Regions, 2000 to 2010



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Over the ten-year period, the Highlands Region and the adjacent regions in New York and Pennsylvania experienced a decline in the number of households with children living at home. The Highlands county municipalities not in the Highlands Region and Northern New Jersey had a net increase of 1,210 and 4,040 households with children, respectively. The Highlands Region and the adjacent region in New York had the largest household increase among single-person households, with increases of 9,750 and 14,600. The Highlands county municipalities not in the Highlands Region, Northern New Jersey, and the adjacent region in Pennsylvania had their largest increases among family households with no children living at home. The growth was 8,010, 14,100, and 27,600, respectively.

A statistical analysis of the change in households by type of household across the municipalities in each region indicates that there is no statistical difference between the net changes in the number of households with children at home and the number of family households with no children for the

municipalities in the Highlands Region. However, there is a small but statistically relevant difference in the category of single-person households. Municipalities in the Highlands Region had a 1.8 percent larger increase in these households than what occurred in the comparison regions.

It is important to note that these data reflect net increases. This does not mean that these households were the ones specifically moving to each region. Over a ten-year period, many households may have had children grow up and move out (thereby becoming family households with no children at home), and new households with children may have moved to the region. Nevertheless, the net effect across all of the regions was a slight shift in the overall percentages of households in each category. For the Highlands Region, the percentage of all households that had children living at home decreased from 36.7 percent in 2000 to 33.6 percent in 2010.

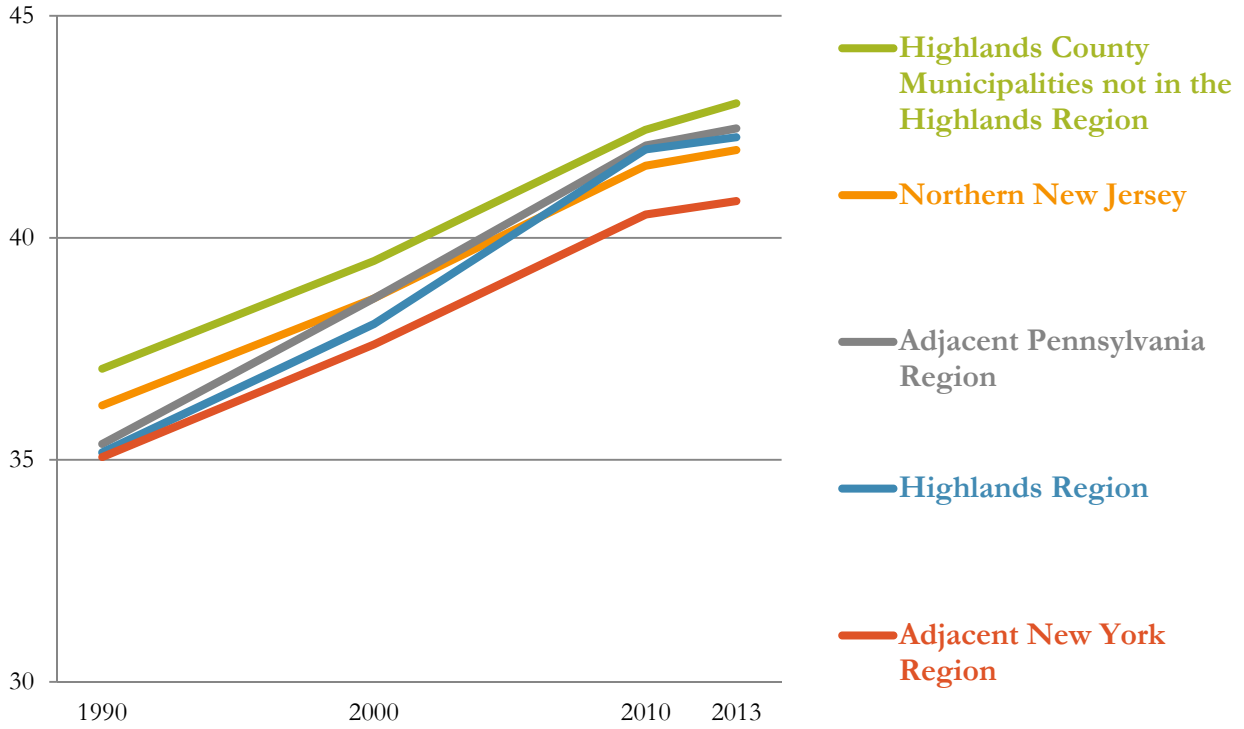
There is not necessarily a direct relationship between changes in the types of households and the demand for housing. Some households choose to downsize when the kids move out, but many do not. However, if these trends continue over time, they will eventually lead to changes in housing demand.

8.4 Median Age

There are several methods to analyze and compare age structures across regions. Part 1 of this report analyzed the correlation between economic growth and age as measured by median age, the percentage of the population under the age of 18, the percentage of the population age 65 and older, and the percentage of the population between the ages of 18 and 65. That analysis found that median age had the strongest correlation to differences in economic growth in the Highlands Region and the comparison regions. Therefore, this analysis focuses on median age as the measure to determine if there are significant age differences.

The average median age across the Highlands Region municipalities increased from 35.2 in 1990, to 38.1 in 2000, to 42.0 in 2010, and 42.3 in 2013. Over this time period, the Highlands Region and the adjacent region in Pennsylvania had the largest increase in median age, 7.1 years. The smallest increase was 5.7 years, in Northern New Jersey. Figure 35 shows the changes in median age for each of the regions from 1990 to 2013.

Figure 35: Change in Median Age, Highlands Region and Comparison Regions, 1990 to 2013



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

A statistical analysis of the change in median age from 2000 to 2010 and from 2000 to 2013 had statistically significant results. The analysis indicates the Highlands Region municipalities aged about 3.0 percent faster than municipalities in the comparison regions from 2000 to 2010, and 1.5 percent faster from 2000 to 2013. The analysis of changes in median age by the density classification of municipalities also had a statistically significant result. The medium-population- and high-employment-density municipalities in the Highlands Region are aging 8.9 percent faster than similar density municipalities in the comparison regions.

To provide an understanding of why the median age is increasing significantly faster in the Highlands Region, additional analyses were conducted on the change in the percentage of the population under the age of 18 and over the age of 64 from 2000 to 2013. This analysis indicates that the percentage of the population under the age of 18 is declining 1.8 percent faster in Highlands Region municipalities than in the municipalities in the comparison regions. Furthermore, the percentage of the population age 65 and older is increasing 1.9 percent faster in the Highlands Region municipalities than in the municipalities in the comparison regions.

These changes in the Highlands Region's age structure are related to the changes in the types of households. The number of children as a share of the total population is decreasing and the number

of people age 65 and older as a share of the population is increasing, leading to a decline in the number of households with children and an increase in the number of family households without children living at home and, perhaps, an increase in the number of single-person households.

8.5 Race and Ethnicity

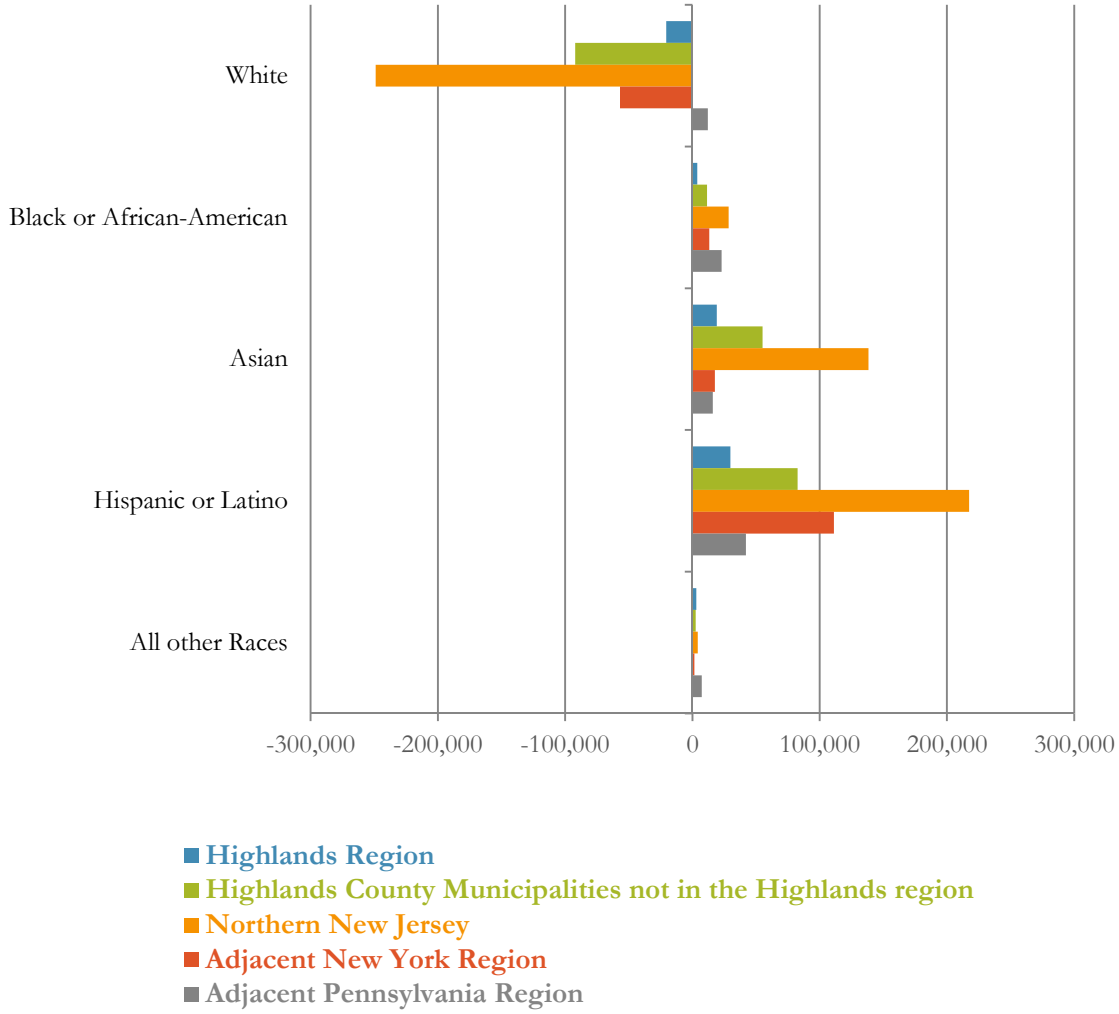
The Census Bureau and other data sources have and continue to modify how the data on race and ethnicity are collected and reported. In previous decades, ethnicity (primarily Hispanic or Latino) was separate and distinct from racial categories. However, this can lead to confusion and erroneous reporting on surveys. In addition, the nation is becoming not only more racially diverse but also becoming more multiracial. This report analyzes race and ethnicity using common Census Bureau categories. Hispanic and Latino population is a single category, regardless of race. The common racial categories reflect those reporting a single race. These racial categories are: white; black or African-American; American Indian and Alaska native; Asian; and native Hawaiian and other Pacific Islander. Finally, the other category groups together other unspecified races and all combinations of races.

In 2010, the white population accounted for 79.6 percent of the population in the Highlands Region. Only the adjacent region in Pennsylvania had whites as a higher share of the population, 82.7 percent. Hispanics and Latinos comprised 9.5 percent of the population, Asians were 6.5 percent, and blacks and African-Americans were 2.7 percent in the Highlands Region. The remaining racial categories accounted for the remaining 1.6 percent of the population.

Figure 36 shows the change in population by race and ethnicity categories for the Highlands Region and the comparison regions, from 2000 to 2010. Northern New Jersey grew in this period. However, an 11.4 percent decrease in the white population was offset by growth among the other racial and ethnic categories, especially Hispanics and Latinos, a 217,000-person increase, Asians, a 138,400-person increase, and blacks and African-Americans, a 28,500-person increase. With the exception of the adjacent region in Pennsylvania, all the comparison regions had a net loss of white population from 2000 to 2010 and relatively high rates of population growth among Asians and Hispanics and Latinos.

The statistical analysis found no statistically significant differences for race and ethnicity for the Highlands Region.

Figure 36: Change in Population by Race and Ethnic Categories, Highlands Region and Comparison Regions, 2000 to 2010



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

8.6 Education

The Phase 1 report analyzed the correlation between education and economic growth. That analysis found that the most statistically relevant measure of education was the percentage of the population without a high school diploma. This report analyzes that measure and the percentage of the population with a bachelor's degree or higher education.

The Highlands Region is well educated. In 2000 and 2010, the region had the highest percentage share of population with a bachelor's degree or more education and the lowest percentage without a high school diploma. Table 24 provides the data on the educational attainment of the population in the Highlands Region and in the comparison regions.

Table 24: Educational Attainment as a Percentage of the Population Age 25 and Older, Highlands Region and Comparison Regions, 2000 and 2010

	2000		2010	
	Population without a High School Diploma	Population with a Bachelor's Degree or More Education	Population without a High School Diploma	Population with a Bachelor's Degree or More Education
Highlands Region	9.8%	39.2%	6.7%	44.7%
Highlands County Municipalities not in the Highlands region	12.6%	38.5%	7.9%	45.4%
Northern New Jersey	16.9%	33.7%	11.4%	39.9%
Adjacent New York Region	16.4%	36.0%	12.4%	40.5%
Adjacent Pennsylvania Region	14.1%	26.7%	8.5%	31.1%

Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

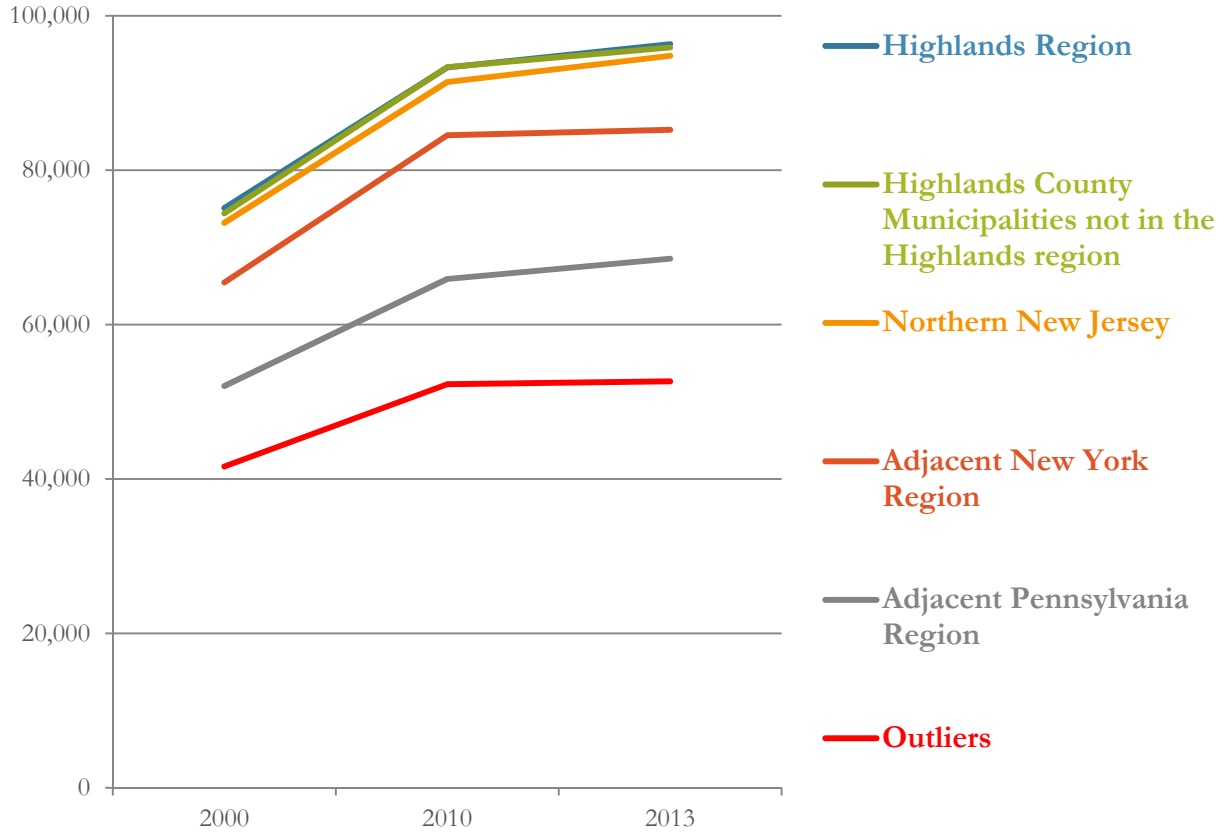
A statistical analysis of educational attainment data found that there is a statistically significant difference between the education of the population in the Highlands Region and the population in the comparison regions. The analysis determined that municipalities in the Highlands Region had a 5.1 percent lower share of the population without a high school diploma in 2000 than municipalities in the comparison regions, although the difference declined to 2.7 percent in 2010. Similarly, Highlands Region municipalities had a 1.4 percent higher share of the population with a college degree or more education, and that difference declined to 1.1 percent in 2010.

8.7 Median Household Income

In 2000 and in 2013, the municipalities in the Highlands Region had higher average median household incomes than municipalities in the comparison regions. In 2010, the median income in the Highlands Region was $41 lower than the median income in the Highlands county municipalities not in the Highlands Region. In contrast, the lowest household income was in the adjacent region in Pennsylvania, where the median household income trails that in Northern New Jersey by about 28 to 29 percent. Figure 37 shows the median household income for the comparison regions in 2000, 2010, and 2013, and Table 25 provides the underlying data.

The analysis found no statistically significant difference between the median household income in the Highlands Region municipalities and the municipalities in the comparison regions.

Figure 37: Median Household Income in Current Dollars, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Table 25: Median Household Income in Current Dollars, Highlands Region and Comparison Regions, 2000 to 2013

	2000	2010	2013
Highlands Region	75,087	93,297	96,340
Highlands County Municipalities not in the Highlands egion	74,408	93,338	95,887
Northern New Jersey	73,179	91,410	94,825
Adjacent New York Region	65,451	84,508	85,230
Adjacent Pennsylvania Region	52,039	65,906	68,536
Outliers	41,617	52,269	52,640

Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

8.8 Socioeconomic Summary

Across many socioeconomic measures, the Highlands Region is similar to the comparison regions. However, there are a few statistically significant differences, which may influence future growth and development patterns in the Highlands.

The analysis finds that there is a statistically significant difference between the Highlands Region and the comparison regions in the change in average household size. While the comparison regions have remained about the same or increased in household size, the Highlands Region has had a decreasing average household size. In part, the decrease in household size reflects two other changes: the Highlands Region has had a decrease in the percentage of households with children living at home and an increase in single-person households.

The median age in the Highlands Region is increasing faster than the median age in the comparison regions. The percentage of the population under the age of 18 has decrease faster and the percentage over 65 has increased faster than the percentages in the comparison regions.

On average, the Highlands Region has a smaller percentage of its population without a high school diploma and a higher percentage of its population with a college degree or higher education. The Highlands Region also has the highest median household income, on average. However, these differences are not statistically significant.

The characteristics in which the Highlands Region has statistically significant differences with the comparison region–smaller households, fewer households with children, more households with residents over the age of 65–may reflect effects of the recession and impacts on household mobility, or they may reflect long-term differences. In addition, these differences of households getting smaller and residents getting older faster, could have consequences for housing demand and development patterns if they continue. The Council should monitor these characteristics through the RMP Monitoring Program.

Chapter 9 Real Estate Analysis

This Chapter analyzes the real estate market—the number of sales and the average sales value per transaction—to describe how trends in the Highlands Region are similar to or different from trends in the comparison regions. Where the trends differ, this Chapter assesses whether or not the Act and the RMP may have affected the property transactions and sales values.

As used in this report, the term "value" is intended to refer to fair market value, which is the price at which knowledgeable, willing, and unpressured owners are willing to sell property and the price at which knowledgeable, willing, and unpressured buyers are willing to purchase property.

The value of property changes over time for many reasons, but a key driver of value is the number of market participants. When there are more buyers than sellers in a particular area, buyers may have to outbid other potential buyers, thereby driving prices up (sometimes referred to as putting upward pressure on prices). Similarly, when there are more sellers than buyers, sellers may have to underbid other sellers, thereby driving prices down (sometimes referred to as downward pressure on prices). In such cases, the mismatch between the numbers of buyers and sellers is a failure of the perfect market conditions assumed for fair market value: the buyers (in the first case) and the sellers (in the second case) are not necessarily unpressured.

The composition of market participants may also affect the value of property. Since the recession, investor-purchasers (who purchase housing to rent or to improve and sell rather than to live in themselves) have increased in number and in the percentage of all buyers. Investors purchasing many properties have more knowledge than buyers seeking a single property and sellers selling a single property. With more knowledge of the market and market conditions, investors are able to seek out and negotiate lower prices, thereby putting downward pressure on sales values. The increase in investor-purchasers since the recession is also a failure of the perfect market conditions assumed for fair market value.

This report is able to analyze the number of sales and the average sales value of transactions. However, there is no available data on the number and composition of market participants. Thus, the analysis cannot determine the degree to which each property transaction represents perfect market conditions and thus true fair market value. Because the analysis evaluates the Highlands Region in relation to the comparison regions, the impact of less than perfect market conditions is reduced to the degree that these conditions applied across the regions.

It is also important to note that this type of analysis only summarizes the sales price of property transactions. Property may have other value that is not necessarily captured in sales price. Property may have sentimental value to an owner or former owner. Property may provide environmental benefits, such as wildlife habitat or water quality protection. Property may have aesthetic benefits that

accrue to other nearby properties. A property on which a business operates may generate economic benefits for the broader community. However, these values usually are not reflected in a sales price.

The report uses annual MOD-IV assessing data as the basis for the analysis. To facilitate property appraisals, the data indicate sales values that do not reflect market prices (typically these have values of $1 or $100). The report's analysis excludes those records that do not reflect market prices. The analysis uses assessing data for 2001 to 2014, reflecting sales that occurred from 2000 to 2013. Each year's assessing data includes only the most recent sale. In the uncommon event that an individual lot or parcel was sold twice in the same calendar year, only the most recent sale will be captured in the analysis.

9.1 Single Family Housing Market Assessment

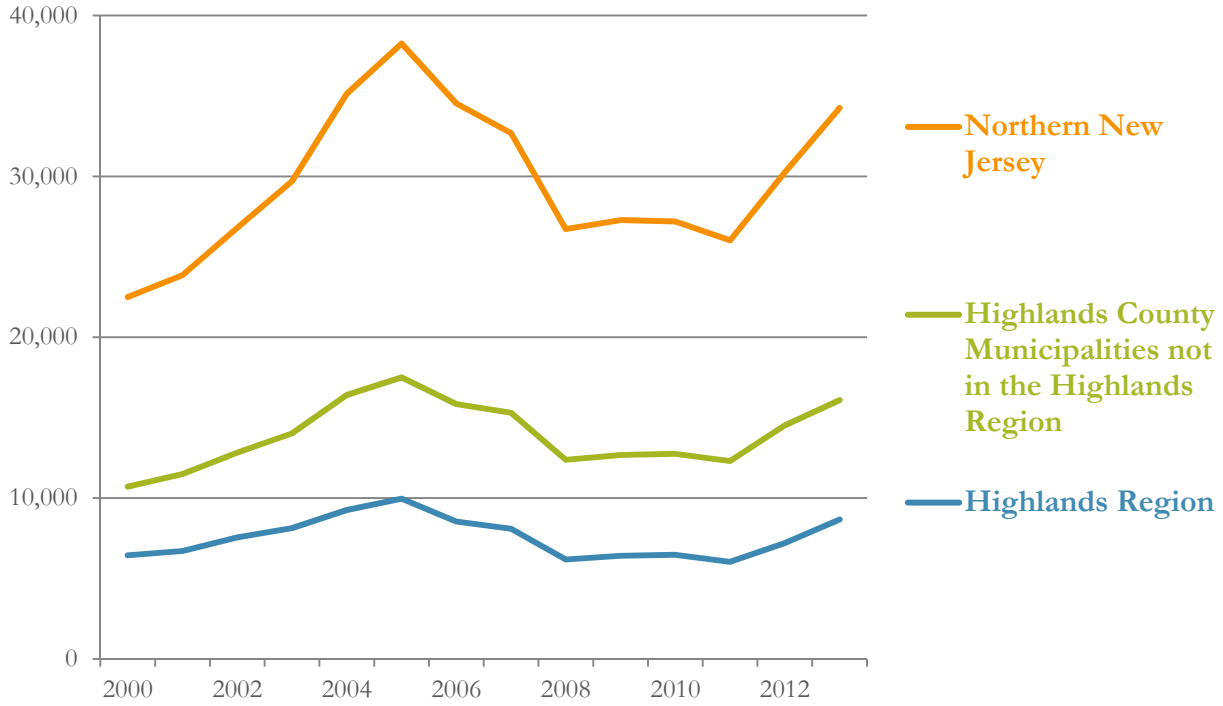
For assessing purposes, property class 2 includes single family detached housing as well as buildings with up to four dwelling units. Records indicating that the property has duplexes, row houses, townhouses, apartments, and mobile homes have been excluded from the analysis.

Sales of Single-Family Houses

The number of sales of new and existing single-family housing in the Highlands Region increased each year from 2000 through 2005. From 2005, the number of sales declined, reaching a low in 2011, and has risen since then. Figure 38 compares the number of single-family sales in the Highlands Region to the Highlands county municipalities not in the Highlands Region and to Northern New Jersey. The pattern of housing sales parallels the pattern nationally, as shown in Figure 39.

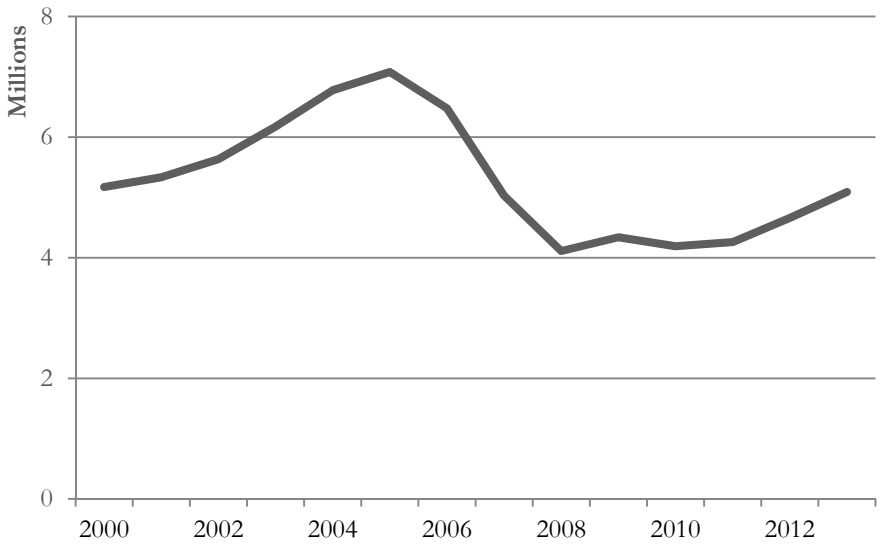
There is substantial difference between the trends in housing construction and housing sales. The number of single-family houses constructed in the Highlands Region declined from 1998 to 2009 (see Section 7.3 starting on page 79). However, the sales of single-family houses increased from 2000 to 2005, and even though the number of sales declined leading up and through the recession, the number had almost returned to the pre-recession high by 2013.

Figure 38: Number of Single-Family Housing Sales, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Figure 39: Existing Home Sales, United States, 2000 to 2013



Source: PlaceWorks, 2015, using data from the National Association of Realtors and the St. Louis Federal Reserve Bank.

Table 26 provides the growth rates for single-family sales for each region. During the upward growth cycle in the housing market from 2000 to 2005, the annual number of single-family sales in the Highlands Region increased at a rate of 9.1 percent per year, slightly less than the rates for the two comparison regions. During the period leading up to and into the recession, from 2005 to 2008, the annual number of sales in the Highlands Region decreased at a rate of -14.7 percent per year, a somewhat larger annual decline than in the comparison regions. During the recession and before the housing market recovered, from 2008 to 2011, the number of sales in the Highlands Region declined at a rate of -0.8 percent per year, a larger decline than in the Highlands county municipalities not in the Highlands Region but less than the decline across Northern New Jersey. During the housing market recovery, from 2011 to 2013, the number of single-family sales in the Highlands Region increased by 19.8 percent per year, faster than the rate of growth in the two comparison regions.

Table 26: Annual Rate of Change in the Number of Single-Family Housing Sales, Highlands Region and Comparison Regions, Select Time Periods, 2000 to 2013

Time Period	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey
2000–2005	9.1%	10.3%	11.2%
2005–2008	-14.7%	-10.9%	-11.3%
2008–2011	-0.8%	-0.2%	-0.9%
2011–2013	19.8%	14.4%	14.7%
2000–2004	9.5%	11.3%	11.8%
2004–2008	-9.6%	-6.8%	-6.6%
2008–2013	7.0%	5.4%	5.1%

Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

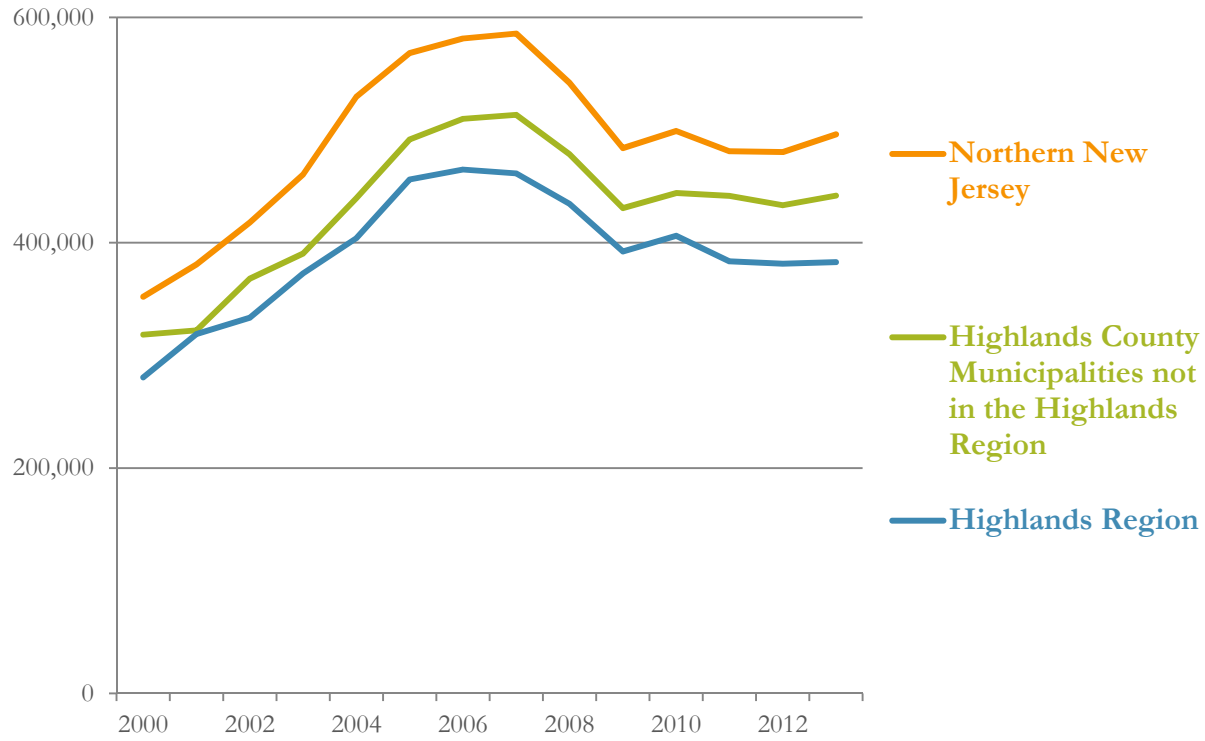
In addition to data about these periods of growth and decline, Table 26 provides the average annual rate of change in the number of single-family housing sales for the period before the Act was adopted (2000 to 2004), the period from when the Act was adopted in 2004 to when the RMP was adopted in 2008, and the period from 2008 through 2013.

From 2000 to 2004, the rate of growth in single-family housing sales was slightly lower in the Highlands Region, 9.5 percent per year, than in the two comparison regions, 11.3 and 11.8 percent. From 2004 to 2008, the number of sales declined more in the Highlands Region, -9.6 percent per year, than in the Highlands county municipalities not in the Highlands Region, -6.8 percent, and in Northern New Jersey, -6.6 percent. However, from 2008 to 2013, housing sales increased faster in the Highlands Region, 7.0 percent per year, than in the two comparison regions. As measured by the rate of change in the number of single-family housing sales, there is no indication that the Act and the RMP had a positive or negative impact.

Average Sales Values

Based on average sales value trend in Northern New Jersey as shown in Figure 40, the housing market had three phases: a growth period from 2000 to 2007, a period of decline from 2007 to 2009, and a period of relative stagnation from 2009 to 2013. During the growth period, average sales value in the Highlands Region grew at an annual rate of 7.4 percent, slightly higher than the growth rate in the Highlands county municipalities not in the Highlands Region, 7.1 percent, and somewhat less than the growth rate in Northern New Jersey, 7.5 percent. From 2007 to 2009, the average sales value in the Highlands Region declined by 7.8 percent per year, which was less of a decline than in the two comparison regions. From 2009 to 2013, though, the Highlands Region's average sales value declined -0.6 percent per year while the average sales values in the Highlands county municipalities not in the Highlands Region and in Northern New Jersey municipalities increased 0.6 percent per year. Table 27 provides the data for the rate of change in average sales values.

Figure 40: Average Single-Family Sales Values, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

In the period prior to the Act, 2000 to 2004, the rate of change in average sales value in the Highlands Region, 9.6 percent, was higher than the rate in the Highlands county municipalities not in the Highlands Region, 8.4 percent, but lower than the rate in Northern New Jersey, 10.7 percent. From 2004 to 2008, the two comparison regions traded places at the top and bottom, and the Highlands Region remains in the middle, with a 1.8 percent per year increase in average sales value. However,

from 2008 to 2013, the Highlands Region had the largest decline in the rate of change in average sales value, -2.5 percent per year, compared to -1.6 percent in the Highlands county municipalities not in the Highlands Region and -1.7 percent per year in Northern New Jersey.

Because the Highlands Region's relative rate of change was between the Highlands county municipalities not in the Highlands Region and Northern New Jersey in the 2000 to 2004 period and in the 2004 to 2008 period, it does not appear that the Act had an impact on the average value of sales.

From 2008 to 2013, the period following adoption of the RMP, the Highlands Region had the largest decline in the average sales value rate of change. However, the main difference between the Highlands Region and the two comparison regions occurs in two years. From 2010 to 2011, the average value declined by 5.6 percent in the Highlands Region, compared to declines of 0.6 percent in the Highland county municipalities not in the Highlands Region and 3.6 percent in Northern New Jersey. From 2012 to 2013, the average value increased by 0.4 percent, compared to an increase of 2.0 percent in the Highlands county municipalities not in the Highlands Region and 3.3 percent in Northern New Jersey. In contrast, the Highlands Region had the least decline from 2008 to 2009 and the largest increase from 2009 to 2010. If the RMP were having an effect on the sales value for single-family houses, one would expect that effect to be consistent rather than being positive in some years and negative in other years.

Table 27: Annual Rate of Change in the Average Value of Single-Family Housing Sales, Highlands Region and Comparison Regions, Select Time Periods, 2000 to 2013

Time Period	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey
2000–2007	7.4%	7.1%	7.5%
2007–2009	-7.8%	-8.4%	-9.1%
2009–2013	-0.6%	0.6%	0.6%
2000–2004	9.6%	8.4%	10.7%
2004–2008	1.8%	2.2%	0.6%
2008–2013	-2.5%	-1.6%	-1.7%

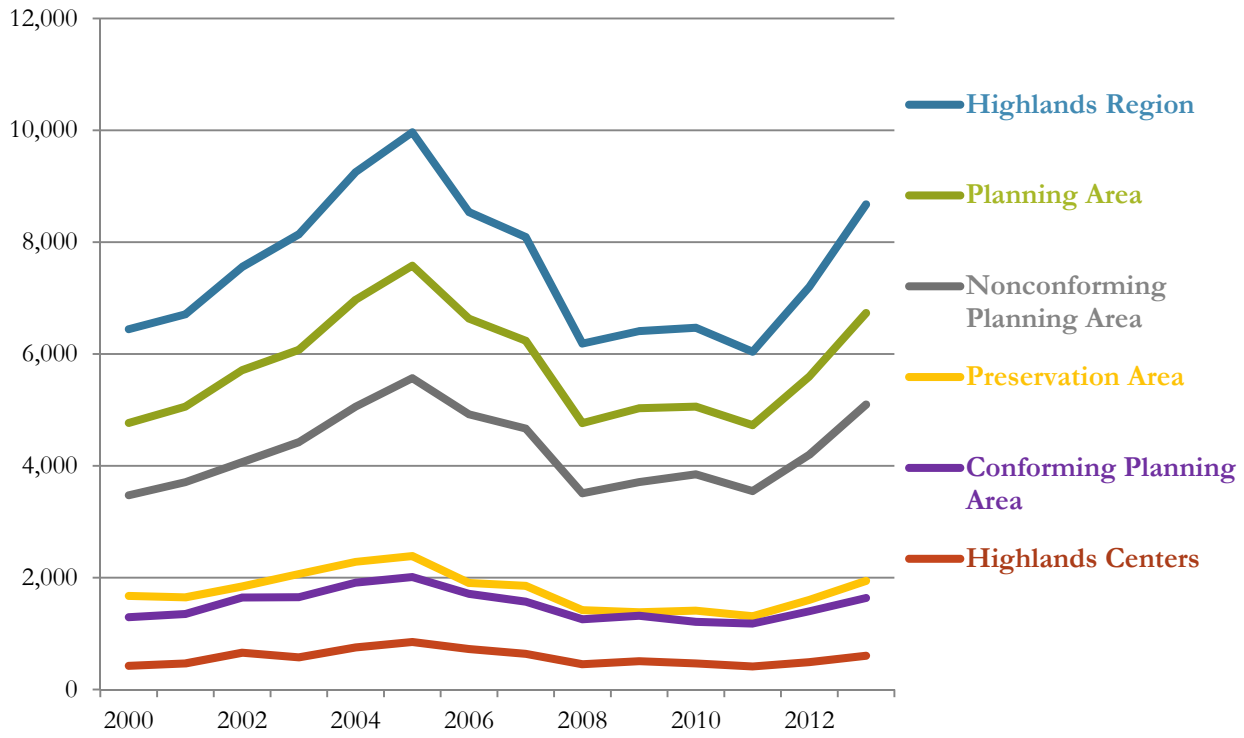
Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Single-Family Sales Trends within the Highlands Region

Each of the subareas of the Highlands Region exhibits similar trends in the number of sales of single-family housing, each had increasing sales from 2001 to 2005, declining sales from 2005 to 2008, three years of steady sales, then a rebound in sales growth from 2011 to 2013. Figure 41 shows the annual number of single-family sales in the Highlands Region and the subareas from 2000 to 2013. The trend in the number of sales is similar to the national trend, as shown previously in Figure 39.

The data in Table 28 are the annual rate of change in the number of housing sales for each of the subareas. From 2000 to 2005, the Highlands Centers had the highest annual growth rate in housing sales. During the decline and early recession, from 2005 to 2008, all the subareas had large decreases in housing sales, with the largest decline in the Highlands Centers followed by the Preservation Area. From 2008 to 2011, all the subareas, except the nonconforming Planning Area, had decreases in the number of housing units sold, and once again, the largest declines were in the Highlands Centers and the Preservation Area. During the early recovery period, from 2011 to 2013, the Preservation Area and the conforming Planning Areas had the highest annual rate of growth in housing sales.

Figure 41: Number of Single-Family Housing Sales, Highlands Region and Subareas, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

To understand possible impacts of the Act and the RMP, the annual rate of change in housing sales can be viewed for the relevant time periods. From 2000 to 2004, all the subareas had increasing housing sales, with the highest rate of increase in the Highland Centers and the lowest rate in the Preservation Area. From 2004, when the Act was adopted, to 2008, when the RMP was adopted, all the subareas exhibited negative annual growth. The least negative growth rate was in the nonconforming Planning Areas, and the most negative was in the Highlands Centers. Since 2008, all the subareas had positive growth in the number of sales and similar rates of growth. The lowest growth rate was in the conforming Planning Area and the highest was in the nonconforming Planning Area.

Table 28: Annual Rate of Change in Number of Housing Sales, Highlands Region and Subareas, Select Time Periods from 2000 to 2013

	Highlands Region	Planning Area	Conforming	Nonconforming	Preservation Area	Highlands Centers
2000–2005	9.1%	9.7%	9.2%	9.9%	7.3%	14.9%
2005–2008	-14.7%	-14.3%	-14.5%	-14.3%	-15.9%	-19.0%
2008–2011	-0.8%	-0.3%	-2.1%	0.4%	-2.6%	-3.0%
2011–2013	19.8%	19.3%	17.9%	19.8%	21.7%	21.1%
2000–2004	9.5%	10.0%	10.3%	9.9%	8.0%	15.4%
2004–2008	-9.6%	-9.1%	-10.0%	-8.8%	-11.2%	-12.0%
2008–2013	7.0%	7.2%	5.5%	7.8%	6.5%	6.0%

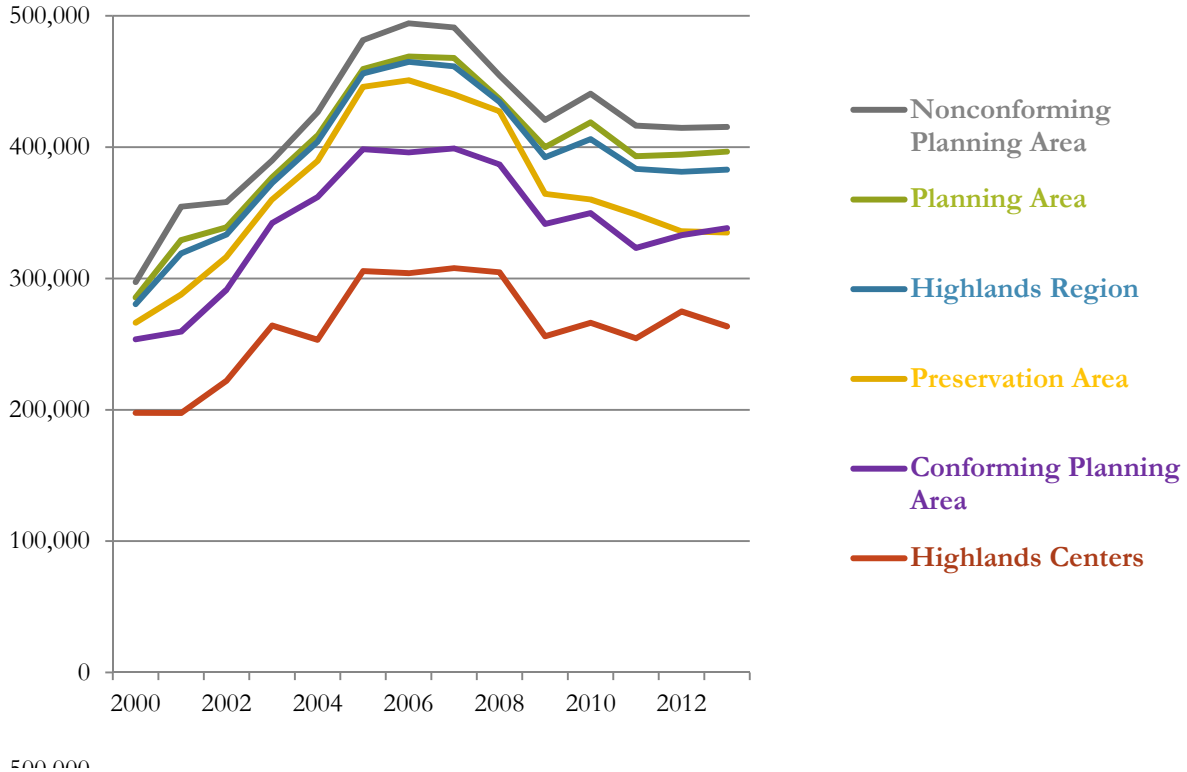
Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Single-Family Sales Values within the Highlands Region

Each of the subareas followed roughly the same basic trend in single-family sales values from 2000 to 2013. There was a period of growing average sales values from 2000 to 2007, followed by two years of declining values from 2007 to 2009, and from 2009 to 2013 the average sales value has remained relatively stable. Figure 42 shows these trends in average single-family sales values.

Table 29 provides the data for the rate of change in average sales value for the Highlands Region and subareas. During the period of growth from 2000 to 2007, the average sales value in the Highlands Region increased at a rate of 7.37 percent per year. Among the subareas, the Preservation Area and the nonconforming Planning Area had the highest rate of change at 7.4 percent, and the Highlands Centers had the lowest rate at 6.5 percent. From 2007 to 2009, the average sales value in the Highlands Region declined at a rate of -7.8 percent per year. During this period, the largest rate of decline was 9.0 percent in the Preservation Area and the least decline was -7.4 percent in the nonconforming Planning Area. In the final period from 2009 to 2013, the annual rate of change in the Highlands Region was -0.6 percent per year. The largest decline was -2.1 percent in the Preservation Area, and the smallest was 0.2 percent in the conforming Planning Area.

Figure 42: Average Single-Family Sales Values, Highlands Region and Subareas, 2000 to 2013



In the period prior to adoption of the Act, 2000 to 2004, average sales value in the Highlands Region increased at a rate of 9.6 percent per year. The largest increase was 10.0 percent in the Preservation Area, and the lowest was 6.4 percent in the Highlands Centers. From 2004 to 2008, the Highlands Region had a 1.8 percent per year rate of change in average sales value. The largest rate of change was 4.7 percent in the Highlands Centers, and the lowest was 1.6 percent in the nonconforming Planning Area. From 2008 to 2013, the average sales value in the Highlands Region declined at a rate of -2.5 percent per year. The largest decline, -4.7 percent, was in the Preservation Area, and the smallest decline, -1.8 percent, was in the nonconforming Planning Area. Table 29 provides the data on annual rate of change in average sales values.

The evaluation of changes in average sales value in the Highlands Region relative to the comparison regions indicated that the data do not demonstrate the Act or the RMP having an effect on the Region. Within the Region, however, the trend in average sales value in the Preservation Area has differed from the trend in the other areas. From 2006 to 2013, the Preservation has had an annual rate of change of -4.2 percent per year, and the rate in the Planning Area was -2.4 percent per year. However, statistical analysis of the difference in growth rates between the Planning Area and the Preservation Area, for the periods from 2000 to 2013, 2004 to 2013, and 2008 to 2013, indicate that the difference is not statistically significant. A similar regression of the difference in growth rates between the Preservation Area and Northern New Jersey also indicate that the difference is not statistically

significant. Nevertheless, if the difference continues and widens, it could become significant. The Council should continue to track and monitor this over time.

Table 29: Average Annual Change in Single-Family Sales Values, Highlands Region and Subareas, 2000 to 2013

	Highlands Region	Planning Area	Conforming	Nonconforming	Preservation Area	Highland Centers
2000–2007	7.4%	7.3%	6.7%	7.4%	7.4%	6.5%
2007–2009	-7.8%	-7.5%	-7.5%	-7.4%	-9.0%	-8.8%
2009–2013	-0.6%	-0.2%	-0.2%	-0.3%	-2.1%	0.7%
2000–2004	9.6%	9.4%	9.3%	9.4%	10.0%	6.4%
2004–2008	1.8%	1.7%	1.7%	1.6%	2.3%	4.7%
2008–2013	-2.5%	-1.9%	-2.6%	-1.8%	-4.7%	-2.9%

Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

9.2 Commercial Properties Market Assessment

The MOD-IV assessing data does not provide building size for many commercial and industrial properties, making it difficult to determine which properties are improved. The analysis excludes all commercial lots and parcels with an improvement value under $10,000 to eliminate vacant property and property that may have minor improvements, such as fences or signs.

The preferred methodology for a market analysis is to evaluate the total value per square foot of building space, either gross floor area or gross leasable area. However, this data is not available. Therefore, the report analyzes commercial and industrial properties based on the value per acre. This is an imprecise measurement of value, because different size buildings can be situated on similarly sized lots. In general, in less urbanized areas, commercial properties tend to have smaller floor-to-area ratios (FARs), especially if they have onsite wastewater disposal (i.e. septic drainfields). Nevertheless, using the value per acre is the best measure that can be employed under the data constraints.

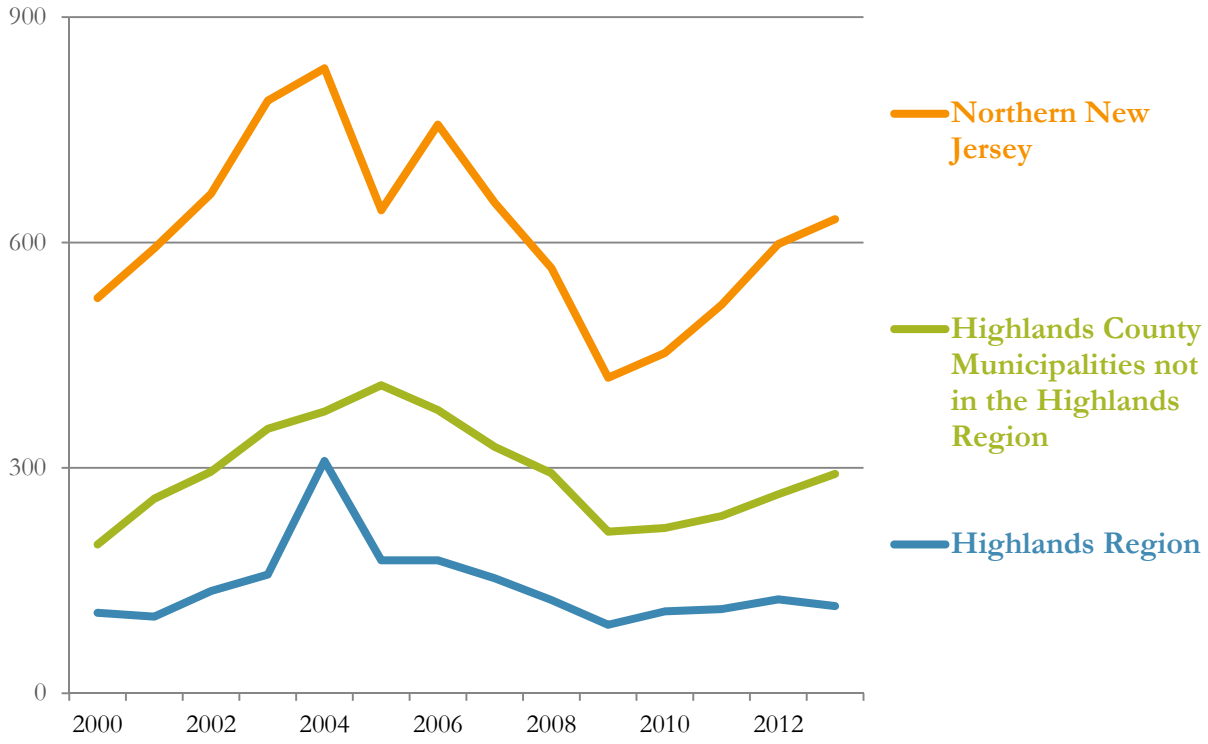
Regional Comparison of the Number of Sales

The number of commercial property sales increased from 2000 to 2004. The number then began to decline leading up to and through the recession, reaching a low in 2009. Since then, the number of sales has increased. Figure 43 shows the sales trends for the Highlands Region and the comparison regions.

From 2000 to 2004, the number of commercial property sales in the Highlands Region increased at an annual rate of 30.4 percent per year, nearly double the rate of growth in the two comparison regions. However, from 2004 to 2009, the number of sales in the Highlands Region declined at an annual rate

of -21.7 percent per year, which is double the rate in the Highlands county municipalities not in the highlands region and 70 percent higher than the rate for Northern New Jersey. Since 2009, the number of sales in the Highlands Region at a rate of 6.3 percent per year, somewhat lower than the growth rate in the Highlands county municipalities not in the Highlands Region, 8.0 percent, and in Northern New Jersey, 10.7 percent. A statistical analysis indicates that the difference in growth rates between the Highlands Region and Northern New Jersey are not statistically significant.

Figure 43: Number of Improved Commercial Property Sales, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Regional Comparison of Sales Values

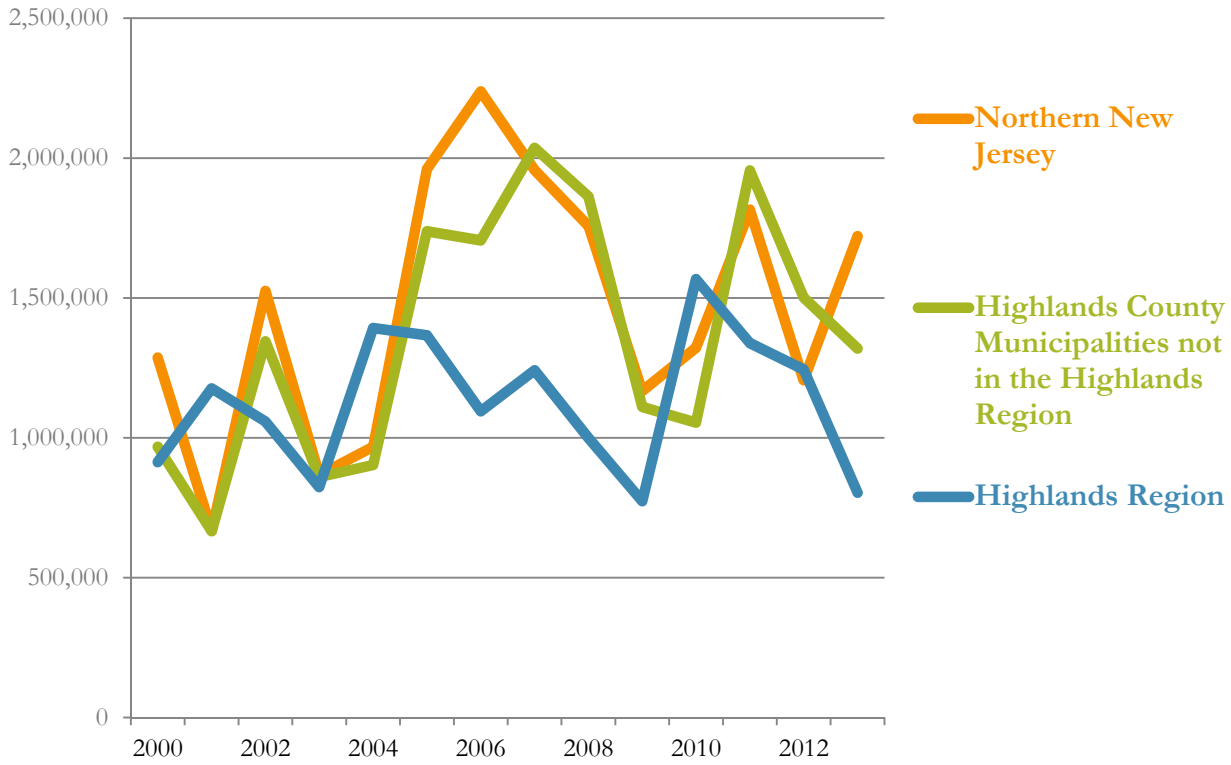
Because the number of sales is in the hundreds and because the sales value is based on lot size (which is inherently variable because different size buildings can be situated on the same amount of land) the sales value data has a higher degree of variability than the residential sales data. It can show large swings from one year to the next, which makes it difficult to characterize the underlying trends. Figure 44 shows the average sales values for improved commercial properties in the Highlands Region and the comparison regions.

The average sales value of improved commercial property in the Highlands Region reached a pre-recession peak in 2004, in Northern New Jersey in 2005, and in the Highlands county municipalities not in the Highlands Region in 2007. The average sales value in the Highlands Region and in Northern

New Jersey reached a recession-low in 2009, and the value in the Highlands county municipalities not in the Highlands Region reached its low in 2010.

The trend from 2000 to 2013 for each region is increasing. The trend rate of growth for the Highlands Region is 0.6 percent per year, which is somewhat lower than the trend for the Highlands county municipalities not in the Highlands Region, 3.6 percent, and for Northern New Jersey, 2.1 percent per year. A statistical analysis indicates that the difference in the rate of change in average sales value between the Highlands Region and Northern New Jersey is not significant in the time periods relevant to the Act and the RMP.

Figure 44: Average Sales Value per Acre for Improved Commercial Properties, Highlands Region and Comparison Regions, 2000 to 2013



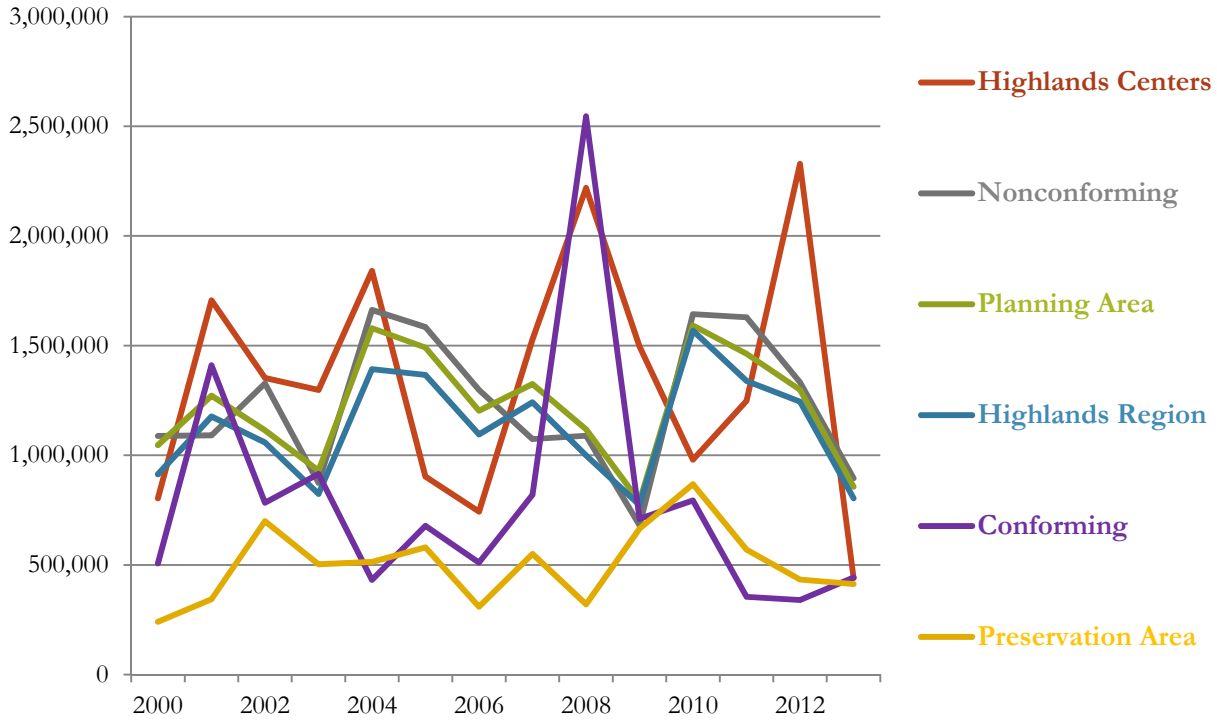
Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Subarea Comparison of Sales Value

Figure 45 shows the average sales value per acre for improved commercial properties in the Highlands Region and subareas. There are even fewer sales per year, so the price swings from one year to the next are even more dramatic than in the regional comparison. The trend in average sales value per acre from 2000 to 2013 is increasing in each of the subareas except the conforming Planning Area. The highest trend growth rate is 2.1 percent per year in the Preservation Area, and the lowest is a declining rate of -0.27 percent in the conforming Planning Area. A statistical analysis of the differences in the rate of growth in the average sales value per acre in the Planning Area and the Preservation

Area indicates that the differences are not statistically significant in the time periods relevant to the Act and the RMP.

Figure 45: Average Sales Value per Acre for Improved Commercial Properties, Highlands Region and Subareas, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

9.3 Industrial Properties Market Assessment

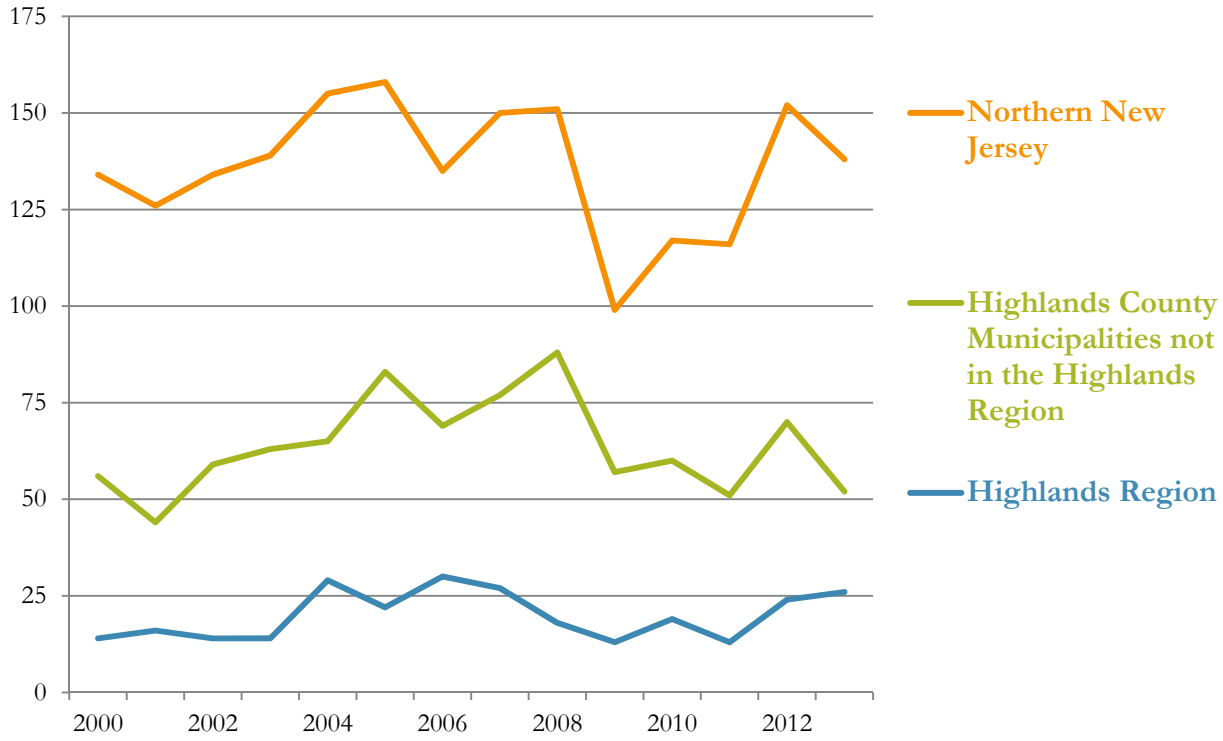
As with the commercial properties, the industrial properties market assessment uses the MOD-IV assessing data, excluding sales of properties with improved values of less than $10,000 and bases the value on the value per acre.

Regional Comparison of the Number of Sales

Figure 46 shows the trends in the number of sales of improved industrial properties in the Highlands Region and the comparison regions. In the Highlands Region, the number of sales of improved industrial property was generally increasing from 2000 to 2006, then declined through 2009, and then generally increased through 2013. The two comparison regions had a trend of increasing numbers of sales from 2001 to 2008, and both had a steep decline from 2008 to 2009. The number of sales in Northern New Jersey has generally increased since then, but the number of sales in the Highlands county municipalities not in the Highlands Region has mostly stagnated since 2009, with a one year jump in 2012.

From 2000 in the Highlands Region and 2001 in the two comparison regions to the prerecession peak (2006 in the Highlands Region and 2008 in the two comparison regions), the Highlands Region had a higher annual rate of change in the number of improved industrial property sales, 13.5 percent per year, than the Highlands county municipalities not in the Highlands Region, 10.4 percent per year, and Northern New Jersey, 2.6 percent per year. From the prerecession peak to the recession trough in 2009, the annual rate of change in annual sales in the Highlands Region, -24.3 percent, was between the rate in the two comparison regions, -35.2 percent and -9.8 percent. Since 2009, the number of sales in the Highlands Region has grown at an annual rate of 18.9 percent. Sales in Northern New Jersey grew at slower rate of 8.7 percent, and sales in the Highlands county municipalities not in the Highlands Region decreased -2.3 percent per year. A statistical analysis of the difference in the rate of growth in the number of sales of improved industrial properties between the Highlands Region and Northern New Jersey indicates that the differences are not statistically significant in the time periods relevant to the Act and the RMP.

Figure 46: Number of Sales for Improved Industrial Properties, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

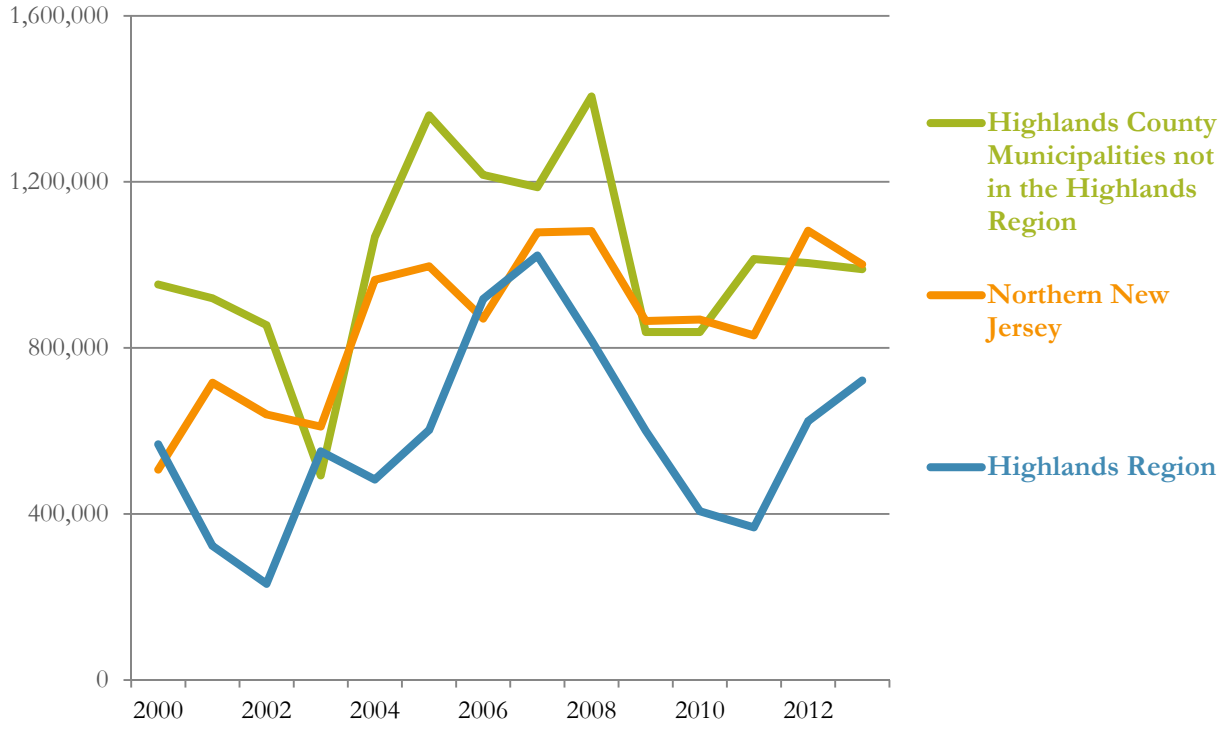
Regional Comparison of the Average Sales Value

Figure 47 shows the average sales value per acre for improved industrial properties in the Highlands Region and the comparison regions. The average sales value in Northern New Jersey generally

increased from 2000 to 2007. The value then decreased from 2007 to 2010, before beginning to grow again.

The trend rate of growth for all three regions was increasing from 2000 to 2013. The compound annual growth rate in the Highlands Region was 1.9 percent per year, which was higher than the rate in the Highlands county municipalities not in the Highlands Region, 0.3 percent, and somewhat less than the rate for Northern New Jersey, 5.4 percent. A statistical analysis of the difference in the rate of growth in average sales value per year for the Highlands Region and Northern New Jersey indicates that the differences are not statistically significant for the time periods relevant to the Act and the RMP.

Figure 47: Average Sales Value per Acre for Improved Industrial Properties, Highlands Region and Comparison Regions, 2000 to 2013



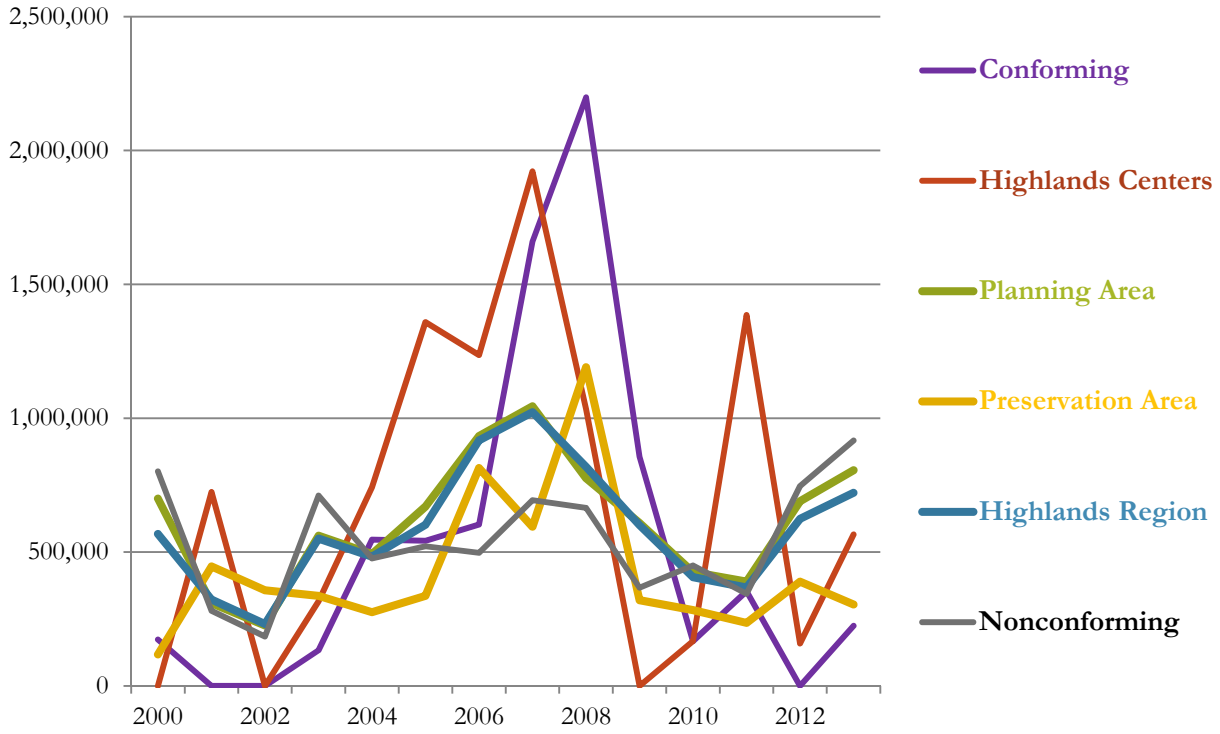
Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Subarea Comparison of Sales Value

Figure 48 shows the average sales value per acre for improved industrial property in the Highlands Region and the subareas for 2000 to 2013. During this time period, the trend rate of growth in average value per acre for the Highlands Region was 2.6 percent per year. Among the subareas, the trend rate of growth ranged from a low of 1.5 percent in the Planning Area to a high of 4.8 percent in the conforming Planning Area. A statistical analysis of the difference in the rate of growth of average sales

value per acre for the Preservation Area and the Planning Area indicates that the differences are not statistically significant for the time periods relevant to the Act and the RMP.

Figure 48: Average Sales Value per Acre for Improved Industrial Property, Highlands Region and Subareas, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

9.4 Farm Properties Market Assessment

The evaluation of the farm properties market analyzes all farmland sales, improved and unimproved, regardless of size.

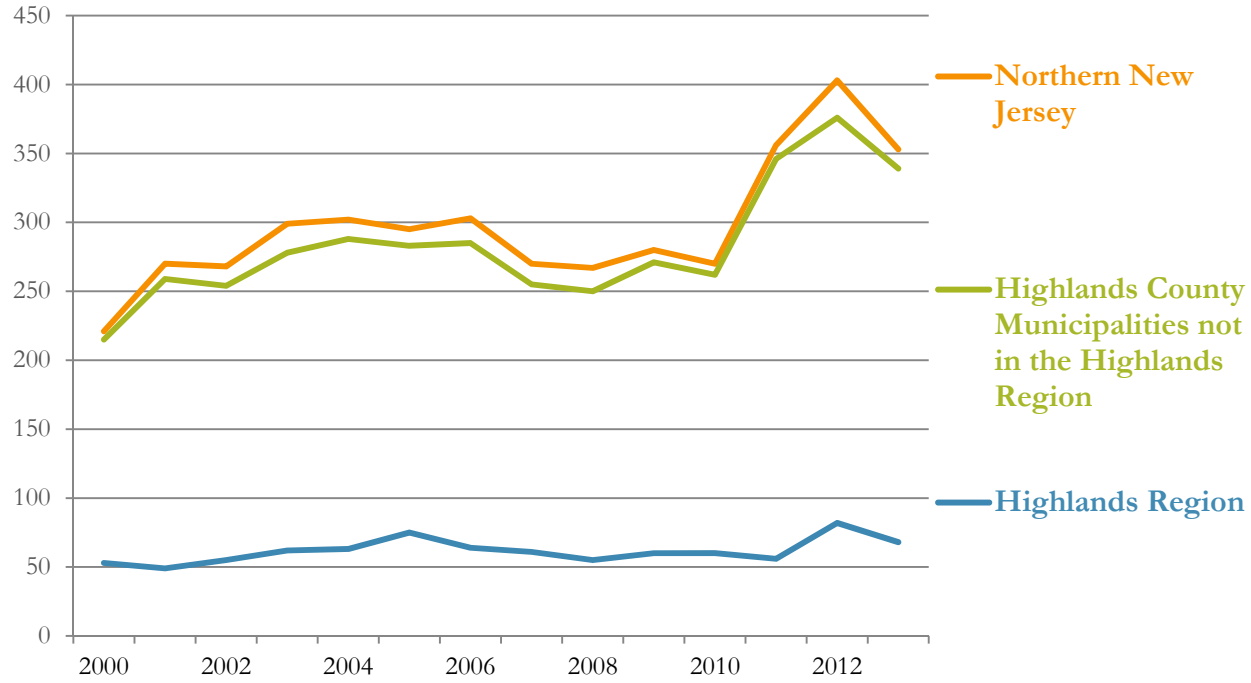
Regional Comparison of the Number of Sales

Figure 49 shows the number of sales of farmland in the Highlands Region and the comparison regions from 2000 to 2013. Generally, throughout Northern New Jersey the number of sales increased from 2000 to 2005, followed by three years of deceasing sales, two years of relatively stable sales, and finally growth in sales from 2009 to 2013.

During the growth period from 2000 to 2005, the number of farmland sales in the Highlands Region increased by 7.2 percent per year, slightly faster than in the comparison regions. However, from 2005 to 2008, the number of sales in the Highlands Region decreased by -9.8 percent per year, more than double the rate of decline in the comparison regions. From 2008 to 2010, sales in the Highlands

Region increased by 4.4 percent per year, higher than the rate of growth in the Highlands county municipalities not in the Highlands Region, 2.4 percent per year, and in Northern New Jersey, 0.6 percent. From 2010 to 2013, the rate of increase in farmland sales in the Highlands region, 4.3 percent per year, was less than half the rate in the two comparison regions. A statistical analysis of the difference in the rate of change in the number of sales for the Highlands Region and Northern New Jersey indicates that the differences are not statistically significant for the time periods relevant to the Act and the RMP.

Figure 49: Number of Sales of Farmland Properties, Highlands Region and Comparison Region, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

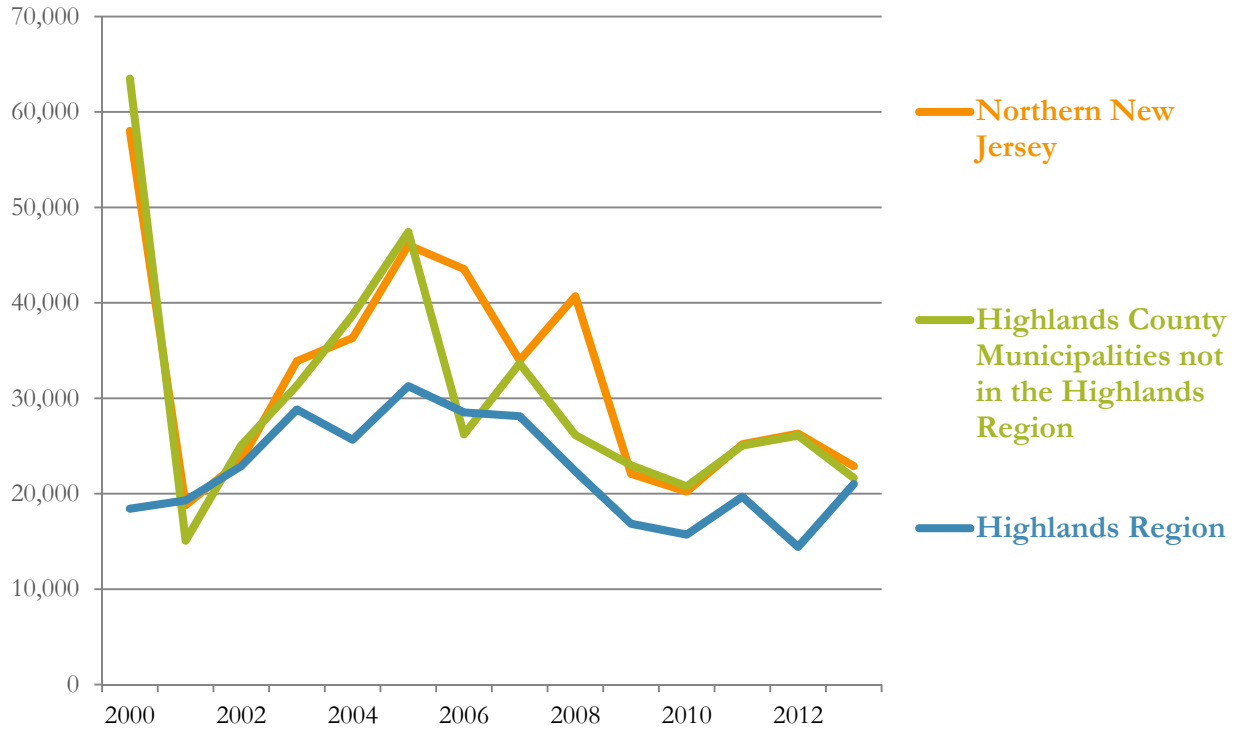
Regional Comparison of Average Sales Value

Figure 50 shows the average sales value per acre for farmland in the Highlands Region and the comparison regions from 2000 to 2013. The average sales values were generally increasing to 2005. From 2005 to 2010, the average value per acre generally decreased, with a slightly increasing trend since 2010.

During the initial growth period, the average sales value per acre in the Highlands Region increased at an annual rate of 11.2 percent per year, which was somewhat less than the rates in the Highlands county municipalities not in the Highlands Region, 33.2 percent, and Northern New Jersey, 25.1 percent. During the period of decreasing sales value, the Highlands Region's rate of decline, -12.8

percent per year, was less than the rate in the other two regions, -15.2 percent per year. In the final three-years, the growth rate in the Highlands Region, 10.1 percent per year, was substantially higher than the rates in the comparison regions, 1.4 percent and 4.2 percent, respectively. A statistical analysis of the difference in the rate of change for average sales value per acre for the Highlands Region and Northern New Jersey indicates that the differences are not statistically significant for the time periods relevant to the Act and the RMP.

Figure 50: Average Sales Value per Acre for Farmland, Highlands Region and Comparison Region, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

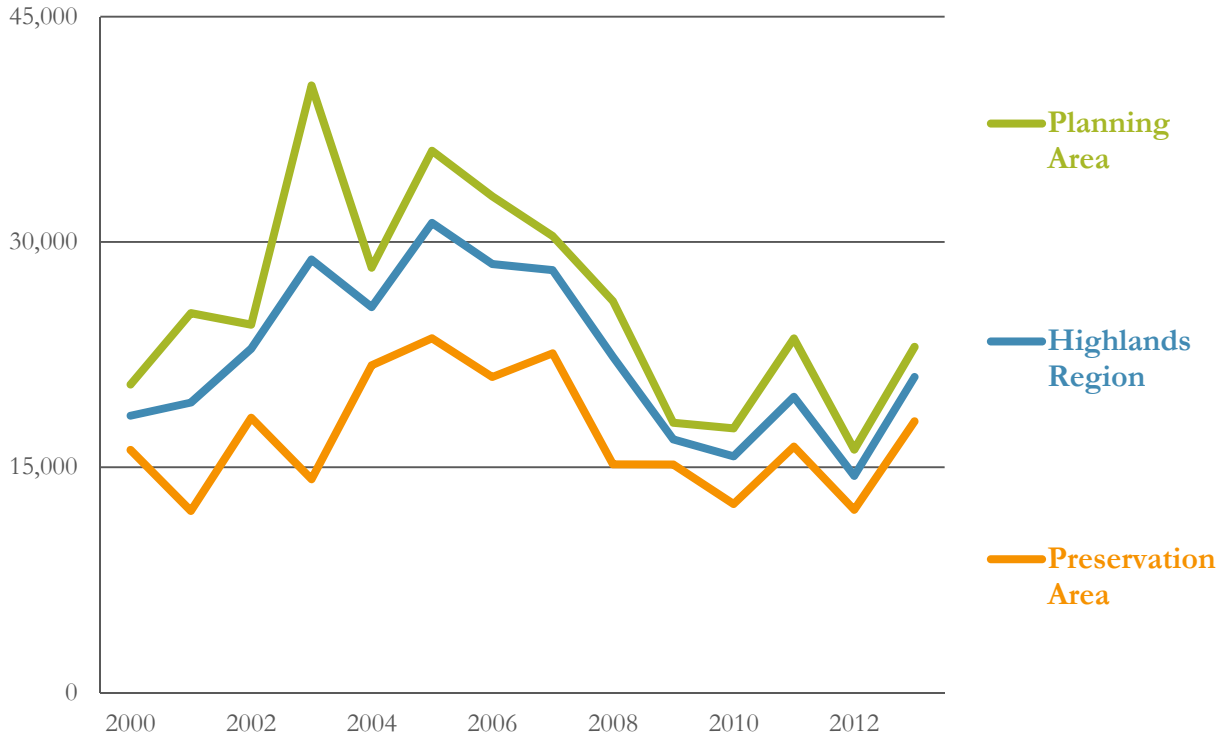
Subarea Comparison of Sales Value

Figure 51 shows the average sales value per acre for farmland for the Highlands Region, the Planning Area and the Preservation Area. Most of the other subareas did not have sufficient sales in every year to warrant presentation in this section. With the exception of a sharp difference in 2003, the Planning Area and Preservation Area have followed the same general trends: increased average sales value per acre to 2005, declining value from 2005 to 2010, and, since 2010, year-to-year fluctuations but on average stagnant prices.

To evaluate whether the Act and the RMP had an impact on the average value per acre for farmland sales, a statistical analysis was conducted on the differences in growth rates between the Planning Area

and the Preservation Area. The analysis indicates that differences in annual rates of change are not statistically significant.

Figure 51: Average Sales Value per Acre for Farmland, Highlands Region and Subareas, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

9.5 Vacant Land Sales

Evaluating the market for vacant land sales is challenging because there are two basic types of vacant land transaction. One is the sale of lots that have been subdivided and have been approved for residential construction. The second is larger parcels of land that could potentially be subdivided. Given a theoretical 10 acres of land subdivided into 10 one-acre lots and another 10 acres of undivided land, one would expect the ten lots to have a greater value per acre than the single 10-acre parcels. To get the value of 10 residential lots out of the single parcel, the purchaser will have to invest additional money to obtain approval for subdividing and developing 10 house lots.

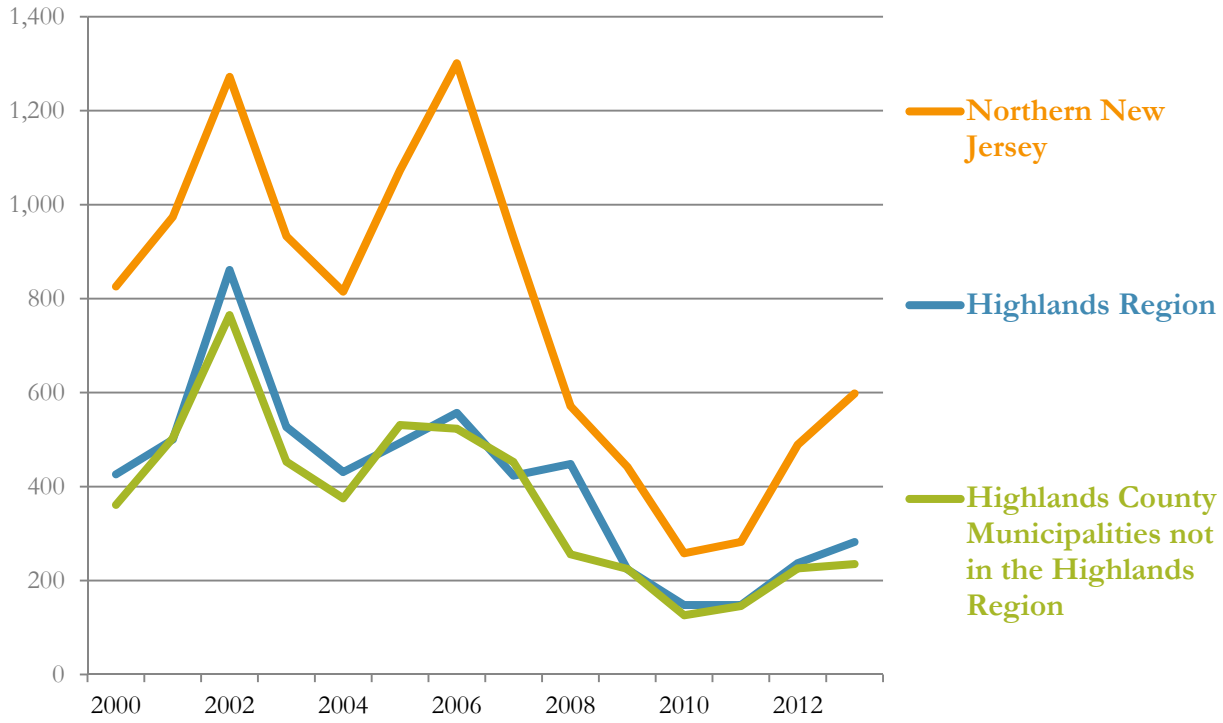
To better understand this dynamic, the report analyzes two scenarios for vacant land. In the first scenario, the data set include all vacant land sales that are 0.15 acres or larger. This cutoff helps eliminate the transfers of small strips of land that have little to no real value in and of themselves. The second scenario excludes all land sales under five acres. In these sections below the first scenario is referred to as "vacant land, small lots included" and the second as "vacant land, small lots excluded."

Regional Comparison of Number of Sales, Vacant Land, Small Lots Included

Figure 52 shows the number of sales of vacant land, including small lots, in the Highlands Region and the comparison regions. From 2000 to 2013, the trend in average sales value per acre was declining in all the regions, and at very similar rates: -3.1 percent per year in the Highlands Region, -3.2 percent in the Highlands county municipalities not in the Highlands Region, and -2.5 percent in Northern New Jersey. The average size of vacant land that was sold in this period was 3.5 acres in the Highlands, 2.5 acres in the Highlands county municipalities not in the Highlands Region, and 4.1 acres in Northern New Jersey. The size of vacant land being sold was also declining from 2000 to 2013.

A statistical analysis was used to evaluate the differences in the rate of change for the number of vacant land sales for the Highlands Region and Northern New Jersey. The analysis indicated that the differences are not statistically significant for the time periods relevant to the Act and the RMP.

Figure 52: Number of Vacant Land Sales, Small Lots Included, Highlands Region and Comparison Regions, 2000 to 2013



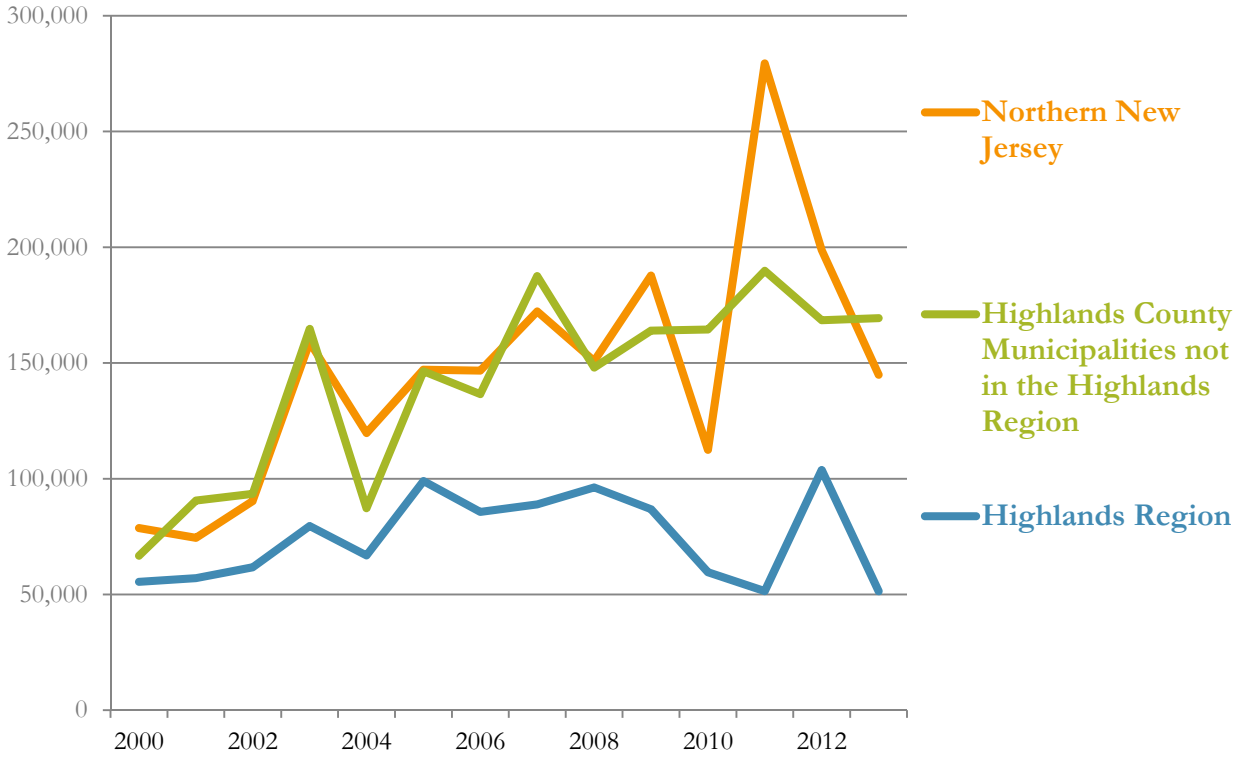
Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Regional Comparison of Average Sales Value, Vacant Land, Small Lots Included

Figure 53 shows the average sales value per acre for vacant land, including small lots, for the Highlands Region and the comparison regions. With the exception of 2004, the average sales value in the

Highlands county municipalities not in the Highlands Region was higher than the value in Northern New Jersey, which was higher than the value in the Highlands Region. During this period, the trend in the average sales value per acre was increasing. The rate of increase in the Highlands Region was 1.0 percent per year. In the Highlands county municipalities not in the Highlands Region, the rate was 8.4 percent per year, and in Northern New Jersey it was 5.9 percent per year.

Figure 53: Average Sales Value per Acre for Vacant Land, Small Lots Included, Highlands Region and Comparison Regions, 2000 to 2013



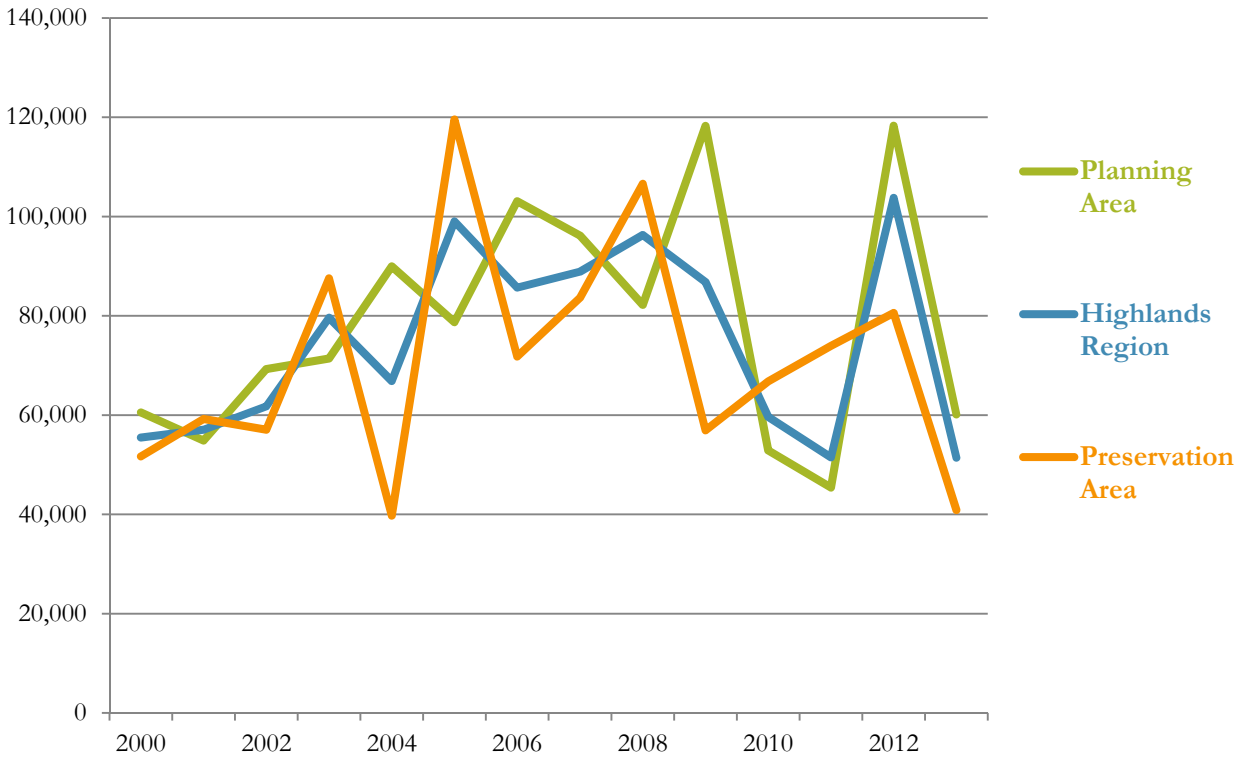
Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Subarea Comparison of Average Sales Value per Acre, Vacant Land, Small Lots Included

Figure 54 shows the average sales value per acre for the Highlands Region and the subareas. The three areas demonstrate a generally similar trend, increasing from 2000 to about 2007 and then declining through 2013. During the growth period, the three areas had a very similar annual rate of growth. However, from 2007 to 2013 the rate of decline in the Preservation Area, -11.3 percent, was larger than the decline in the Planning Area, -7.5 percent, and the decline in the Highlands Region, -8.7 percent.

A statistical analysis was conducted to evaluate the differences in the annual rate of change in the average sales value for the Planning Area and the Preservation Area. The analysis indicates that the differences are not statistically significant for the periods relevant to the Act and the RMP.

Figure 54: Average Sales Value per Acre for Vacant Land, Small Lots Included, Highlands Region and Subareas, 2000 to 2013

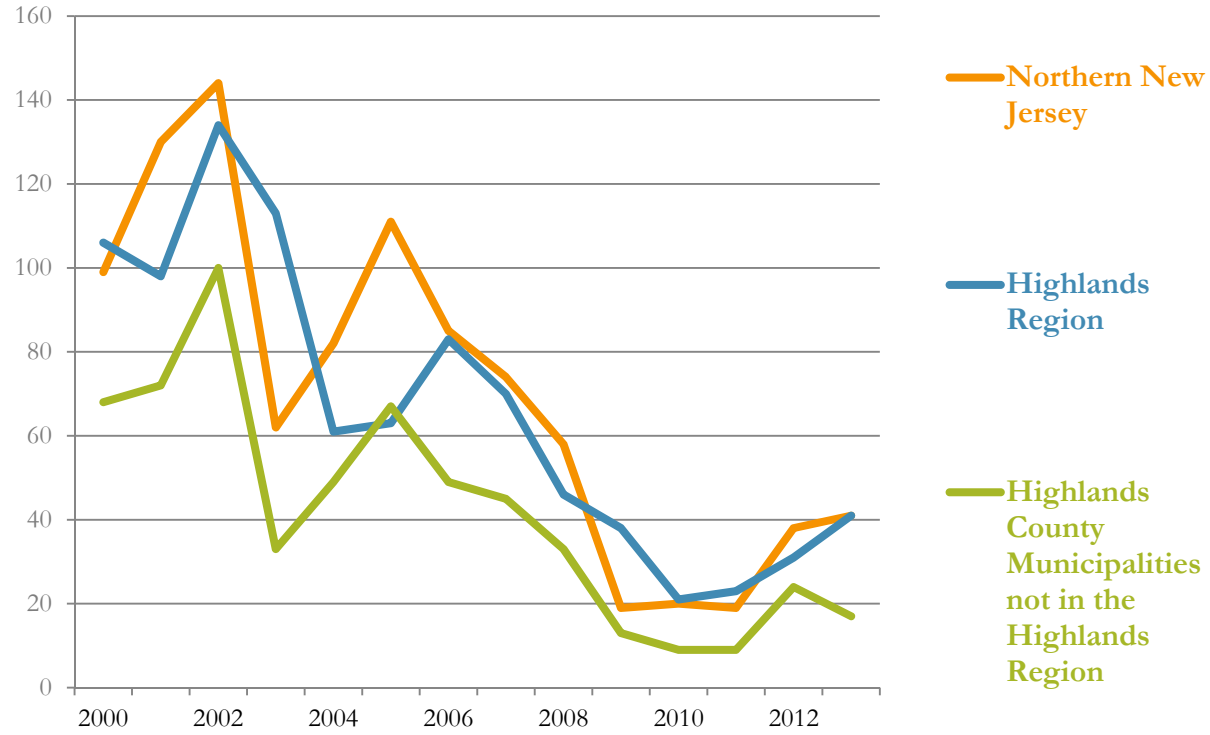


Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Regional Comparison of Number of Sales, Small Lots Excluded

The data used for this comparison exclude all lots less than five acres in size. Figure 55 shows the number of sales for vacant land in the Highlands Region and the comparison regions. From 2002 to about 2009–2010, all three regions had a trend of declining numbers of vacant land sales. The trends leveled off for about two years, with some growth since 2011. A statistical analysis was conducted to evaluate the differences in the annual growth rate for the Highlands Region and Northern New Jersey. The analysis indicates that the differences are not statistically significant for the time periods relevant to the Act and the RMP.

Figure 55: Number of Vacant Land Sales, Small Lots Excluded, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

Regional Comparison of Average Sales Value for Vacant Land, Small Lots Excluded

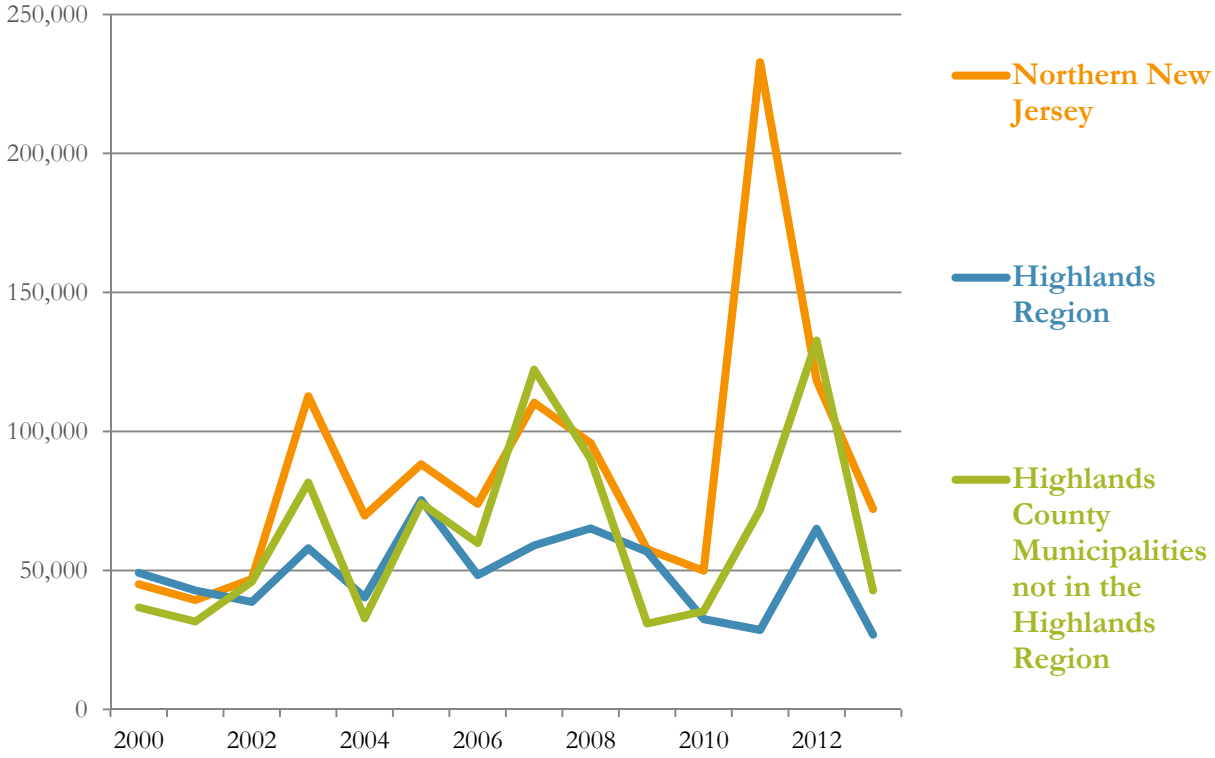
Figure 56 shows the average sales price per acre for vacant land when small lots are excluded. Without these small lots, the average size of vacant property sold during this period increases from 3.6 acres to 16.6 in the Highlands Region, from 2.6 acres to 14.6 acres in the Highlands county municipalities not in the Highlands Region, and from 2.2 acres to 16.6 acres in Northern New Jersey.

In addition, when the small lots are excluded, the trend in average sales value declines in the three regions from the trend in average sales value when small lots are included. In the Highlands Region, the compound annual growth rate falls from a decline of 0.6 percent per year to 4.5 percent. In the Highlands county municipalities not in the Highlands Region, the growth rate decreases from 7.4 to 1.2 percent per year. In Northern New Jersey, the trend rate decreases from 4.8 to 3.7 percent per year.

To evaluate the possible impacts of the Act and the RMP, a statistical analysis was conducted on the differences in the annual rate of change in average sales value, one analysis for the Highlands Region and Northern New Jersey and a second for the Highlands Region and the Highlands county

municipalities not in the Highlands Region. Even though the trend in the Highlands Region is decreasing while the other regions' trends are increasing, the analysis indicates that, with the high degree of variability in the underlying data for each region, the differences are not statistically significant. However, if these trends continue in this direction, the difference could become significant. The Council should continue to track and monitor these trends.

Figure 56: Average Sales Value per Acre for Vacant Land, Small Lots Excluded, Highlands Region and Comparison Regions, 2000 to 2013



Source: PlaceWorks, 2015, using data from the NJ Department of Treasury.

9.6 Real Estate Analysis Findings

This Chapter analyzed trends in the number of sales and the average sales value for 2000 to 2013 for single family housing, improved commercial property, improved industrial property, farmland, and vacant land. For each of these, the report analyzed the Highlands Region relative to the Highlands county municipalities not in the Highlands Region and Northern New Jersey, and it analyzed the subareas within the Highlands Region, especially the Planning Area and the Preservation Area.

Regression analyses were conducted for each property for the regional comparisons and for the subarea comparisons. The regression evaluated the periods from 2000 to 2013, 2004 to 2013, and 2008 to 2013. The analyses did not find any differences that were statistically significant.

However, the report does identify several trends that are diverging and that warrant tracking and monitoring. From 2008 to 2013, the average sales value of single-family houses in the Preservation Area declined at a faster rate than the other subareas. If this trend continues, it could become statistically significant in time.

When lots less than five acres are removed from the analysis, the trend in average sales value per acre in the Highlands Region changes from a growth trend to a declining trend. In the comparison regions, the growth rate declines, but it remains positive. While the difference is not yet significant, it could become significant if the trends continue. The Council should track and monitor these trends.

Part 3:
Fiscal and Financial Analysis

The purpose of this part is to determine the degree to which, if any, the Act and the RMP have had a measurable impact on the fiscal resources of the Highlands Region municipalities. This part assesses taxable property values and property tax revenues of the Highlands Region municipalities as compared to the Highlands county municipalities not in the Highlands Region and the municipalities in Northern New Jersey. It also presents the Cash Flow Timetable as required by the Highlands Water Protection and Planning Act.

Chapter 10 Municipal Revenues

This chapter analyzes the trends in property tax revenue among Highlands Region municipalities relative to other municipalities in Northern New Jersey. The analysis focuses on municipal revenues because consistent expenditure data going back in time is not readily available.

Property owners pay property taxes based on the tax rate (which varies among municipalities and from year to year) and the assessed value of their properties. The assessed value of properties need not reflect the true market value, but the proportion between assessed value and true market value should be consistent throughout out a municipality. Generally, assessed values may be adjusted when there are significant investments in additions or alterations. For the most part, though, new development is the primary component of changes in a municipality's assessed valuation. Thus, impacts of the Act and the RMP on land use and development could affect assessed valuation.

Over time, properties that have not changed hands and have not had significant reinvestment may have assessed values that vary from the true market value substantially more than other properties, especially in areas or regions that have experienced increases in development and escalation in property values. In such cases, a municipality, of its own volition or when ordered by the State, may undertake a comprehensive revaluation[1].

Property taxes also fund other public services, most notably county-provided facilities and services and public schools. The cost of county government and school districts serving more than one jurisdiction and the allocation of state school aid are allocated to property owners in each municipality based on the municipality's equalized property value. Equalization is an annual process that compares the ratio of assessed property values to sales values for properties that changed hands in the previous year. The municipality's total property value is accordingly adjusted so that the equalized value best represents the true market value of all taxable property in a jurisdiction.

It is important to note that equalization does not affect individual property owners. Responsibility for regional costs is allocated to municipalities based on total equalized value. However, each property owner's share of that responsibility is based on their share of the municipality's assessed valuation.

Because total equalized value best represents true market value, it is the most appropriate metric to explore changes that could reflect an impact of the Act or the RMP. Nevertheless, it is not without its limitations. Equalized value and assessed value exclude properties that are exempt from taxation.

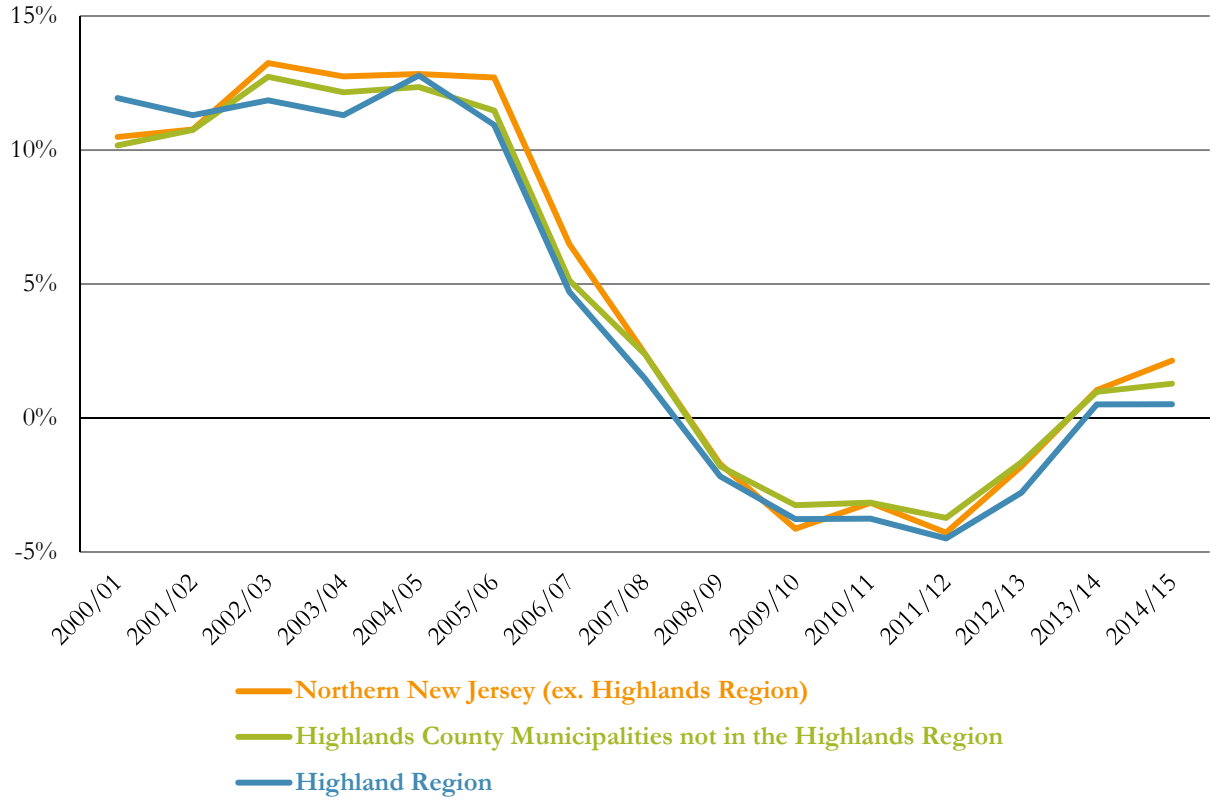
[1] The duty to determine whether a revaluation is required was assigned by the Legislature to the municipal assessor pursuant to the assessor's obligation under N.J.S.A. 54:4-23 to assess property at its "full and fair value," and to the County Board of Taxation pursuant to its supervisory authority over assessors, as per N.J.S.A. 54:3-16, and its obligations with respect to the equalization of property tax assessments in the county under N.J.S.A. 54:3-18 and N.J.S.A. 54:4-47. Whether a revaluation is necessary is determined pursuant to standards established by the Director, Division of Taxation. [N.J.S.A. 54:1-35.35, N.J.A.C. 18:12-4.1 et seq. and N.J.A.C. 18:12A-1.14(b)(1).]

Municipalities that had more land area preserved over time, such as land acquired by public entities for open space, may show a relative decrease in their share of equalized property valuation.

10.1 Regional Changes in Total Equalized Property Value

The total equalized property value in the Highlands Region increased 106 percent, from $74.4 billion in 2000 to a pre-recession high of $153.4 billion in 2008.[2] During the 2008–09 recession and its aftermath, the region's equalized value decreased by 15.9 percent, reaching a low of $129.1 billion in 2013. In the two years since, it has rebounded slightly, 1.0 percent, to $130 billion. Figure 57 shows the annual percent change in equalized property values in the Highlands Region and the comparison regions in New Jersey for the period from 2000–01 to 2014–15.

Figure 57: Percent Year-on-Year Change in Total Equalized Property Value, Highlands Region and Comparison Regions in New Jersey, 2000–01 to 2014–15



Source: PlaceWorks, 2016, using data from the N.J. Department of Treasury.

[2] Throughout this chapter, assessed and equalized values reflect the value as of October 1 of the year indicated. The value is the basis for property taxes levied in the following year.

All the regions had fairly high annual rates of growth in equalized property values in the early 2000s. The Highlands Region and the two comparison regions—the Highlands county municipalities not in the Highlands Region and Northern New Jersey (excluding the Highlands Region)—reached an inflection point in 2005. All the regions had several more years of increase in equalized value, but the rate of growth slowed each subsequent year. From 2008 to 2013, all the regions had decreases in total equalized value, and from 2013 to 2015, they all had growth in equalized value. Table 30 provides the annual rate of change in equalized property value for the Highlands Region and the two comparison regions during the periods of high rate of growth (2000 to 2005), slowing growth (2005 to 2008), declining equalized value (2008 to 2013), and recovery (2013 to 2015).

Table 30: Annual Regional Rate of Change in Total Equalized Property, Highlands Region and Comparison Regions in New Jersey, Select Time Periods from 2000 to 2015

	2000 to 2005	2005 to 2008	2008 to 2013	2013 to 2015
Highland Region	11.8%	5.6%	-3.4%	0.5%
Highlands County Municipalities not in the Highlands Region	11.6%	6.3%	-2.7%	1.1%
Northern New Jersey (ex. Highlands Region)	12.0%	7.1%	-3.0%	1.6%

Source: PlaceWorks, 2016, using data from the N.J. Department of Treasury.

During the period of rapid growth in equalized property value, the rate of growth in the Highlands Region was slightly above the rate in the Highlands county municipalities not in the Highlands Region and slightly lower than the rate for Northern New Jersey. The Highlands Region rate of change during the other three periods did not perform as well as the comparison regions.

10.2 Municipal-Level Changes in Equalized Property Value

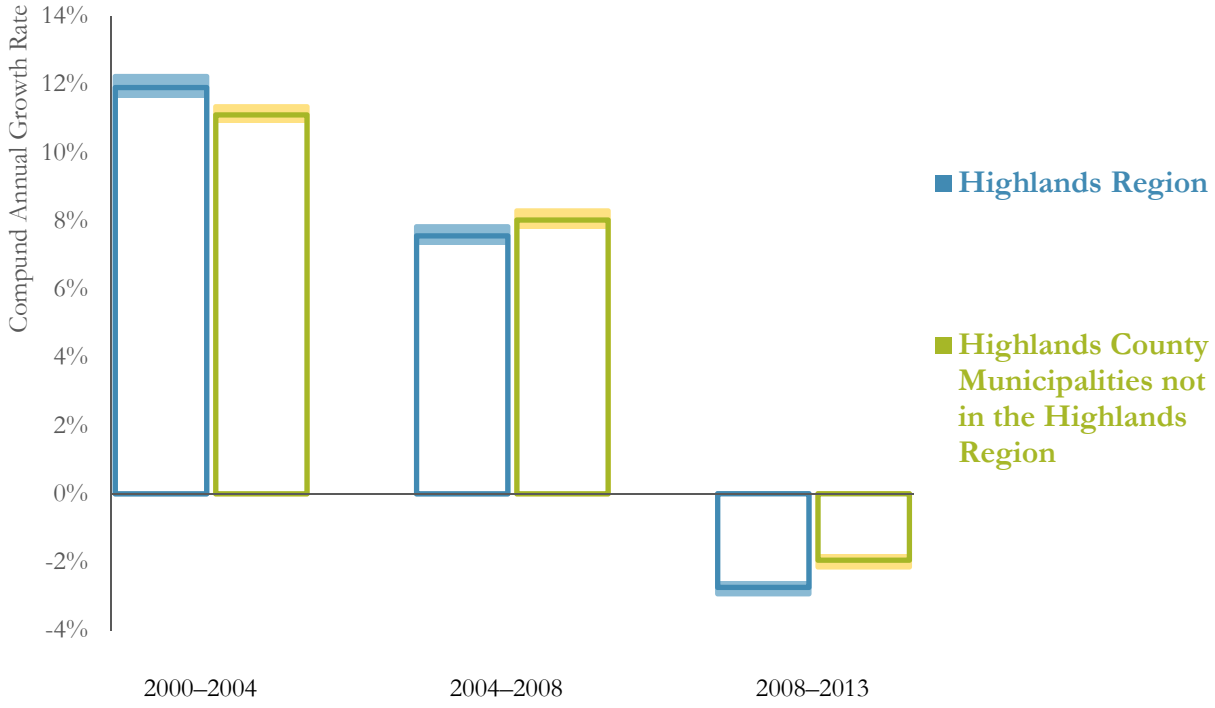
This section compares the average rate of change in equalized property values among the municipalities in the Highlands Region and those in the comparison regions. If the Act and the RMP had an impact on equalized property value, one would expect the impact to affect a wide range of municipalities in the Highlands Region.

The analysis considers the three time periods directly related to the Act and the RMP. The first period is the time prior to adoption of the Act, 2000 to 2004. The second covers the period after the Act's adoption but prior to the RMP, 2004 to 2008. The final period includes the time when both the Act and the RMP have been in effect, 2008 to 2015, which is the most recent year with equalized values.

Figure 58 shows the analysis results for the Highlands Region and the Highlands county municipalities not in the Highlands Region. Figure 59 shows the results for the Highlands Region and Northern New Jersey. In both figures, the solid line represents the average annual change in equalized value

among the municipalities in each region. The shaded area shows the 95 percent confidence interval. Where the shaded areas overlap, the difference in the average values are not statistically significant. Where the shaded areas do not overlap, the results are statistically significant.

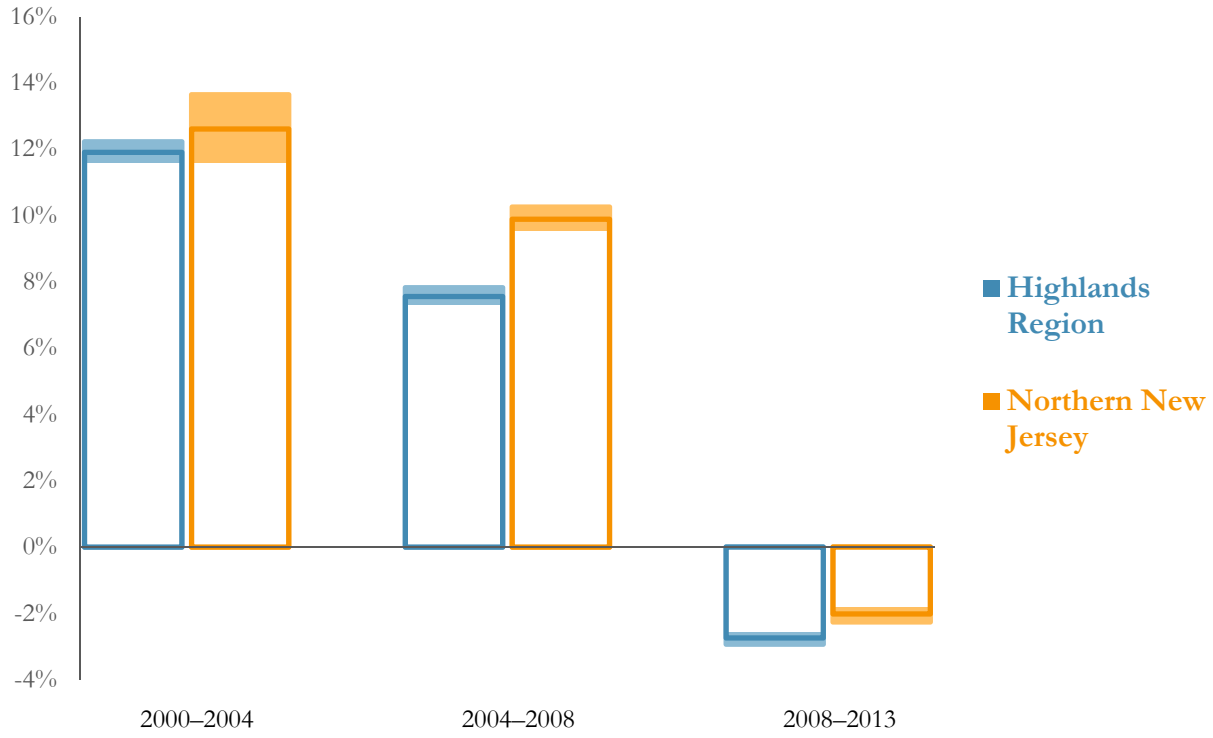
Figure 58: Average Annual Change in Municipal Equalized Value, Highlands Region and Highlands County Municipalities not in the Highlands Region, 2000 to 2015



Note: Solid line represents the average value; the shaded area represents the 95 percent confidence interval.
Source: PlaceWorks, 2016, using data from the NJ Department of Treasury.

Relative to the Highlands county municipalities not in the Highlands Region, the average equalized property value among municipalities in the Highlands Region increased at a faster rate prior to 2004 and at a slower rate after 2004. The differences were statistically significant in the 2000 to 2004 and 2008 to 2015 periods. Relative to Northern New Jersey, the average equalized property values among municipalities in the Highlands Region grew at a slower rate in all three periods. The differences were statistically significant in the 2004 to 2008 and the 2008 to 2015 periods.

Figure 59: Average Annual Change in Municipal Equalized Value, Highlands Region and Northern New Jersey, 2000 to 2015



Note: Solid line represents the average value; the shaded area represents the 95 percent confidence interval.
Source: PlaceWorks, 2016, using data from the NJ Department of Treasury.

10.3 Equalized Value Discussion

The analysis of the changes in equalized property values demonstrated that a municipality's being in the Highlands Region has had a negative impact on the rate of change in equalized value from 2008 to 2013 relative to both comparison regions. The Highlands Region had a statistically significant positive impact from 2000 to 2004 relative to one comparison region but not the other. And it had a statistically significant negative impact from 2004 to 2008 relative to one comparison region, but not the other.

The analysis explored the possible impact of other factors using data analyzed elsewhere in this report: public ownership of land, undevelopable land area, and agricultural easements. However, this additional analysis provided no further explanation for the significant differences in the annual rate of change in equalized property values. Although beyond the scope for this report, further statistical analysis could be conducted if there is desire to better understand the factors that have driven the differences in the average annual changes in equalized value.

The extent of the analysis conducted for this report does, however, support a finding that the Act, or at least the RMP, which was approved in 2008, could have had a statistically significant, negative impact on equalized property values in municipalities in the Highlands Region since 2008.

It is important to note the equalized property value does not directly affect the amount of property tax that a property owner pays–property tax liability is based on assessed value. It also does not affect the property tax revenue a municipality receives. Equalized property value is only used to allocate county and school district costs and state school aid among municipalities.

10.4 Regional Changes in Total Real Property Assessed Value

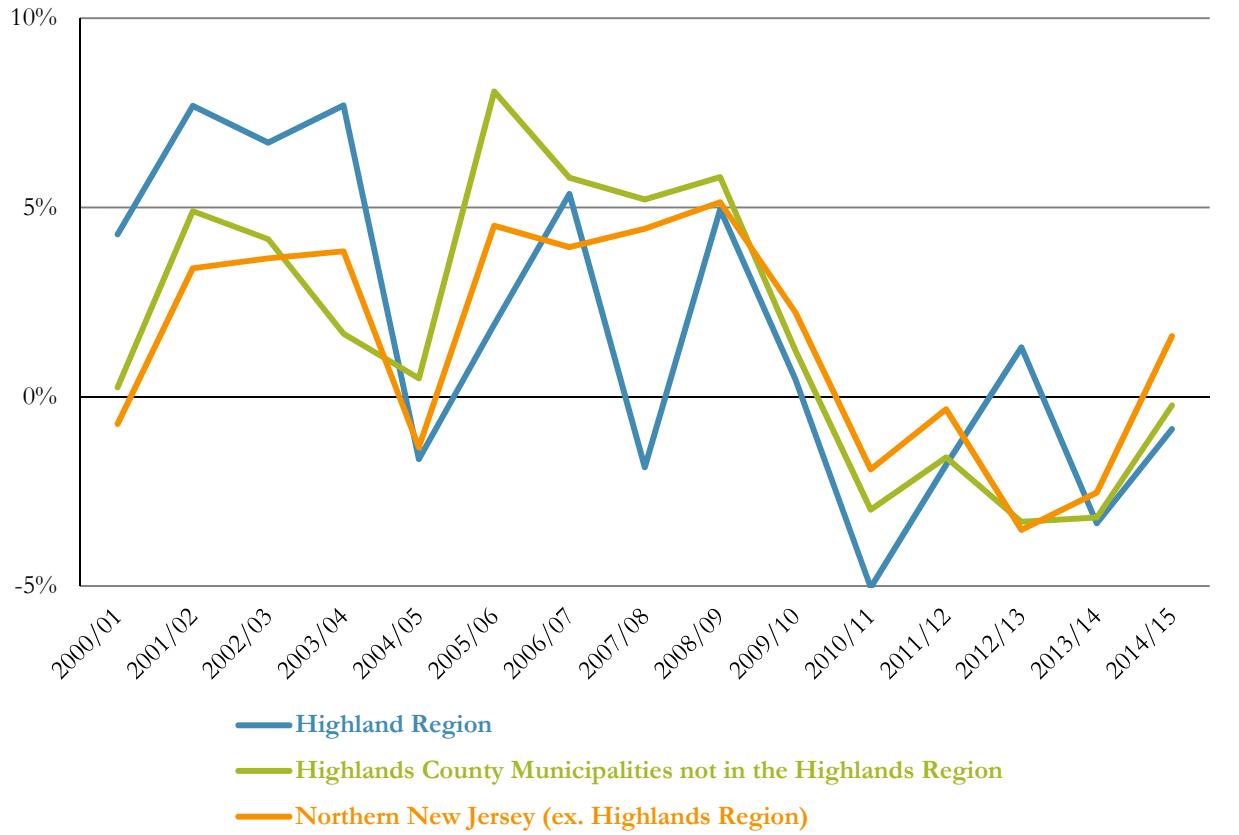
The total assessed value of real property in the Highlands Region increased 104 percent, from $57.5 billion in 2000 to a high of $117.1 billion in 2010. The total value declined 2.1 percent the next year, then increased 3.4 percent from 2011 to 2013. The total assessed value declined 1.8 percent from 2013, ending at $116.4 billion in 2015, 0.6 percent below the 2010 peak. Figure 60 shows the annual percentage change in total real property assessed value for the Highlands Region, the Highlands county municipalities not in the Highlands Region, and Northern New Jersey (excluding the Highlands Region).

Municipalities may undertake a revaluation or reassessment in any given year. From 2002 to 2010, about 64 municipalities statewide conducted a revaluation or reassessment in each year. However, the property tax information from the DCA does not indicate what portion of the increase in assessed value resulted from the revaluation or reassessment and what portion resulted from new development. Without this data, adjusting a municipality's assessed value over time to reflect the real changes in the physical tax base is problematic. Also, the DCA's property tax tables indicate no revaluations or reassessments since 2010. This analysis has not been able to account for revaluations.

Assessed value is important because it is the tax base that generates most of the revenue for municipal government. Municipalities with stagnant or declining real property assessed value may not be able to keep pace with inflation without higher tax rates. Municipalities with increasing assessed value may see revenues growing each year.

The impacts of two key factors are important when considering changes in the tax base as measured by real property assessed value. First, as long as assessed value increases by at least the rate of inflation, the municipality can expect the same tax rate to provide the same purchasing power in revenue each year. Second, as long as assessed value increases by at least the rate of household growth, the municipality can generally expect the same tax rate to generate property tax revenues that keep pace increasing demands for public services. There are exceptions, of course. Local government is very labor intensive, and when costs, such as health care, rise faster than inflation, assessed value growth at the rate of inflation may not be enough. Nevertheless, looking at changes in the tax base over time without considering inflation and household growth provides an incomplete picture.

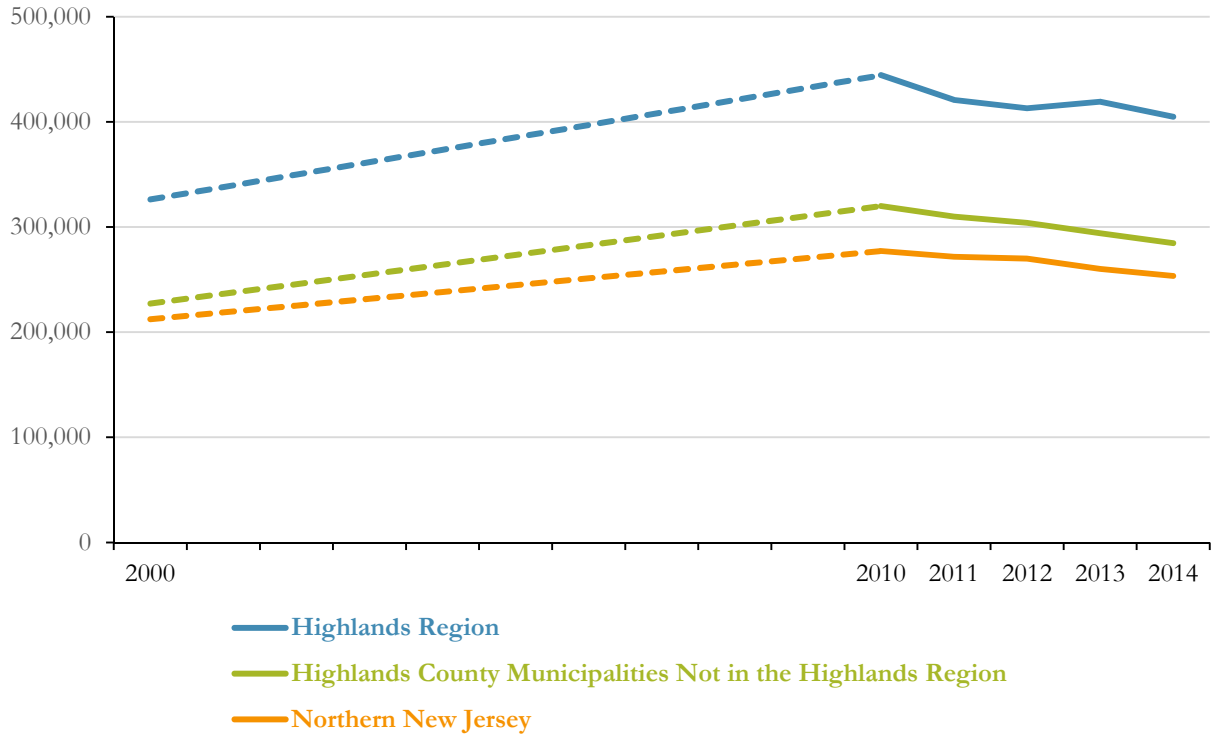
Figure 60: Percent Year-on-Year Change in Total Real Property Assessed Value, Highlands Region and Comparison Region in New Jersey, 2000–01 to 2014–15



Source: PlaceWorks, 2016, using data from the NJ Department of Treasury.

Figure 61 shows the real (inflation-adjusted) total real property assessed value on a per household basis for the Highlands Region, the Highlands county municipalities not in the Highlands Region, and Northern New Jersey. Data for the number of households is only available from the decennial censuses in 2000 and 2010 and for each year starting in 2010 from the American Community Survey. The dashed lines from 2000 to 2010 symbolize that we do not know the data points in between the two censuses. The assessed values have been adjusted for inflation using the U.S. Bureau of Economic Analysis' State and local implicit price deflator.

Figure 61: Real Per-Household Assessed Value, Highlands Region and Comparison Regions in New Jersey, 2000 and 2010 to 2014



Source: PlaceWorks, 2016, using assessed value data from the NJ Department of Treasury, inflation adjustment data from the U.S. Bureau of Economic Analysis, and household data from the U.S. Census Bureau.

Figure 61 shows that all three regions are better off today than in 2000 in terms of their real property tax base, and that all three are worse off today than they were in 2010. In the Highlands Region, the real per-household assessed value was 24.1 percent higher in 2015 than in 2000, but it has declined 8.9 percent since 2010. The Highlands county municipalities not in the Highlands Region had the largest increase over the 2000 value and the largest decrease since 2010. Table 31 provides the specific data for each region.

Because household data is not available for 2004 and 2008, this information does not provide a basis for directly evaluating the possible impact of the Act and the RMP. It does, however, provide some useful context for the next section, which analyzes the changes in assessed value by municipality. The information in Table 31 suggests that municipalities are better off than they were in 2000, even if slightly worse off than in 2010. However, this applies only to property tax revenue generated from assessed real property value. It does not take into account state aid and other sources of municipal revenue. Changes in other revenue sources since 2000 may well have outweighed increases in the tax base. This report does not evaluate other revenue sources because consistent data going back to 2000, or even 2004, is not available.

Table 31: Percent Change in Real, Per-Household Real Property Assessed Value, Highlands Region and Two Comparison Regions, 2000, 2010, and 2015

	2010 to 2015	2000 to 2015
Highlands Region	-8.9%	24.1%
Highlands County Municipalities not in the Highlands Region	-11.0%	25.3%
Northern New Jersey	-8.6%	19.3%

Source: PlaceWorks, 2016.

10.5 Municipal-Level Changes in Real Property Assessed Value

This section compares the average rate of change in real property assessed values among the municipalities in the Highlands Region and those in the comparison regions. If the Act and the RMP had an impact on assessed property value, one would expect the impact to affect a wide range of municipalities in the Highlands Region. Because there are no clear trends in changes in assessed value at the regional level as shown in Figure 60, this analysis only covers the time periods relative to the Act and the RMP. Figure 62 shows the comparison of the Highlands Region to the Highlands county municipalities not in the Highlands Region, and Figure 63 shows the comparison to Northern New Jersey.

In the period prior to the adoption of the Act, from 2000 to 2004, the average annual rate of change in real assessed property values among municipalities in the Highlands Region was 7.7 percent per year. This was higher than the average rate of change among the Highlands county municipalities not in the Highlands Region, 4.1 percent per year, and among the municipalities in the Northern New Jersey comparison region, 4.5 percent. The differences were statistically significant for both comparison regions.

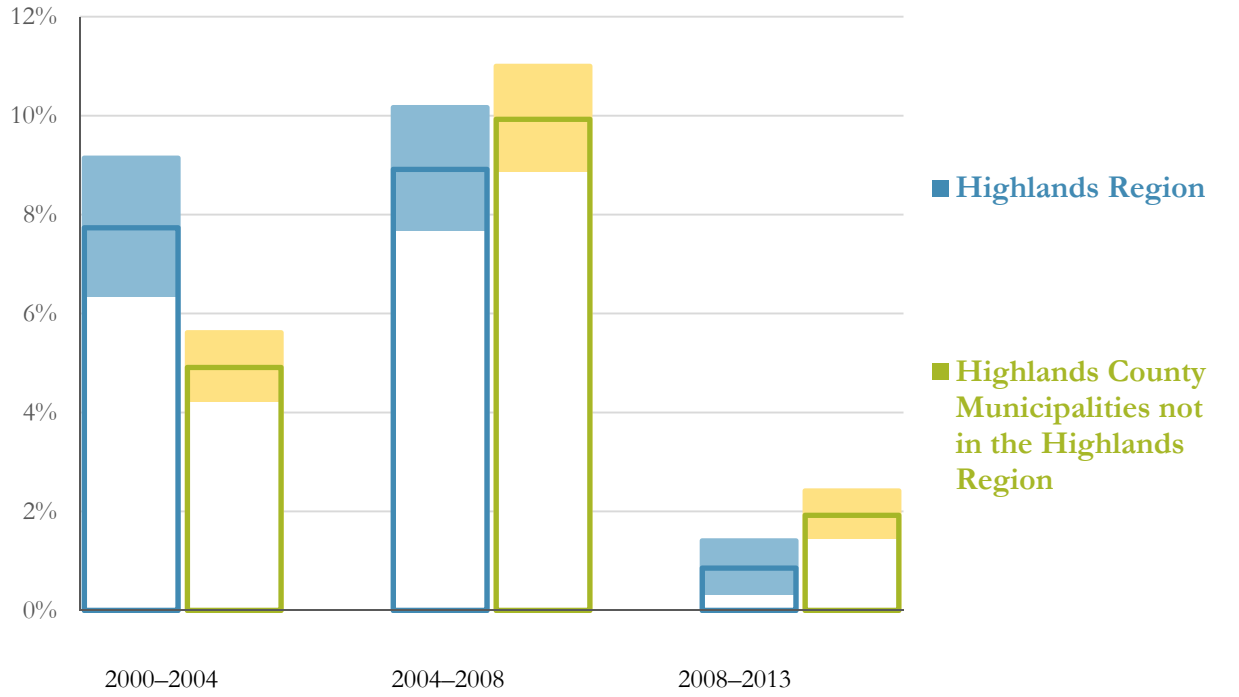
In the period after the Act was adopted and prior to approval of the RMP, 2004 to 2008, the annual rate of change in assessed values averaged across the municipalities in the Highlands Region was 8.9 percent. This was lower than the rate of changed averaged across the Highlands county municipalities not in the Highlands Region, 9.9 percent per year, and the rate of changed average across the municipalities in the Northern New Jersey comparison region, 10.8 percent. The differences between the average rates of change were not statistically significant.

The final period analyzed, 2008 to 2015, was when the Act and the RMP were in effect, and also when the recession occurred. During this period, the average annual rate of change in assessed value among the municipalities in the Highlands Region was 0.9 percent. This was lower than the average rate of change among the Highlands county municipalities not in the Highlands Region, 1.9 percent, but the difference was not statistically significant. The rate in the Highlands Region was also lower than the

average rate among the municipalities in the Northern New Jersey comparison region, 2.5 percent, and this difference was statistically significant.

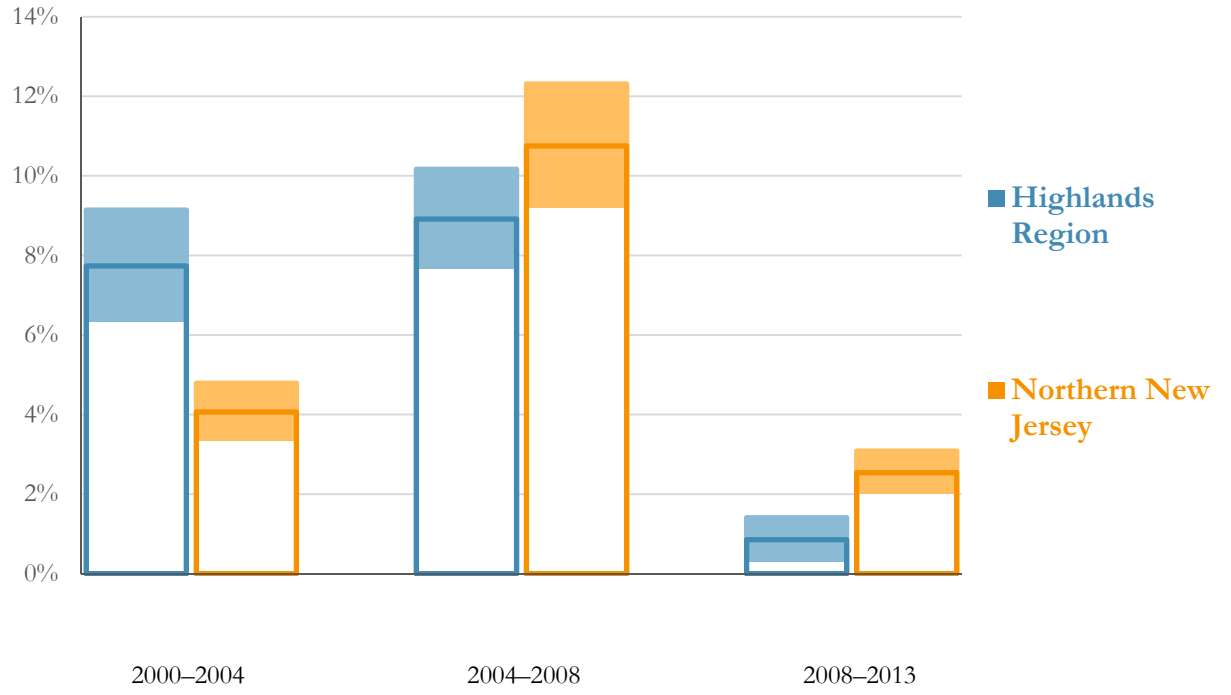
Because assessed values were increasing at a faster rate in the Highlands Region prior to the adoption of the Act in 2004 and then were changing at about the same rate over the four years after adoption, the Act may have had a negative impact on assessed property values. During the period from 2008 to 2015, there was no statistically significant difference in assessed property values between the Highlands Region and the Highland county municipalities not in the Highlands Region even though there was a significant difference with the municipalities in Northern New Jersey. Therefore the analysis does not support a finding regarding the impact of approval of the RMP in 2008.

Figure 62: Average Annual Municipal Rates of Change in Real Property Assessed Values, Highlands Region and the Highlands County Municipalities not in the Highlands Region, Select Time Periods Related to the Act 2000 to 2015



Note: Solid line represents the average value; the shaded area represents the 95 percent confidence interval.
Source: PlaceWorks, 2016, using data from the NJ Department of Treasury and the US Bureau of Economic Analysis.

Figure 63: Average Annual Municipal Rates of Change in Real Property Assessed Values, Highlands Region and Northern New Jersey, Select Time Periods Related to the Act 2000 to 2015



Note: Solid line represents the average value; the shaded area represents the 95 percent confidence interval.
Source: PlaceWorks, 2016, using data from the NJ Department of Treasury and the US Bureau of Economic Analysis.

10.6 Municipal Property Tax Revenues

Municipalities do not directly set a tax rate and then establish a budget based on anticipated revenues; rather, the municipality establishes a budget, and then allocates the costs not covered by other sources across taxable properties based on assessed value. Property tax revenues need to be understood in the context of inflation and the demands for service, represented by the number of households. Because household data is not available for the years between 2000 and 2010, it is not possible to analyze inflation-adjusted per-household property tax revenues for the specific years relevant to the Act and the RMP. Table 32 provides the real property tax revenues per household for each of the regions in 2000, 2010, and 2014. The data reflect only property taxes paid on real property.

Table 32: Total Real Municipal Property Tax Revenues per Household, Highlands Region and Two Comparison Regions, 2000, 2010, and 2014

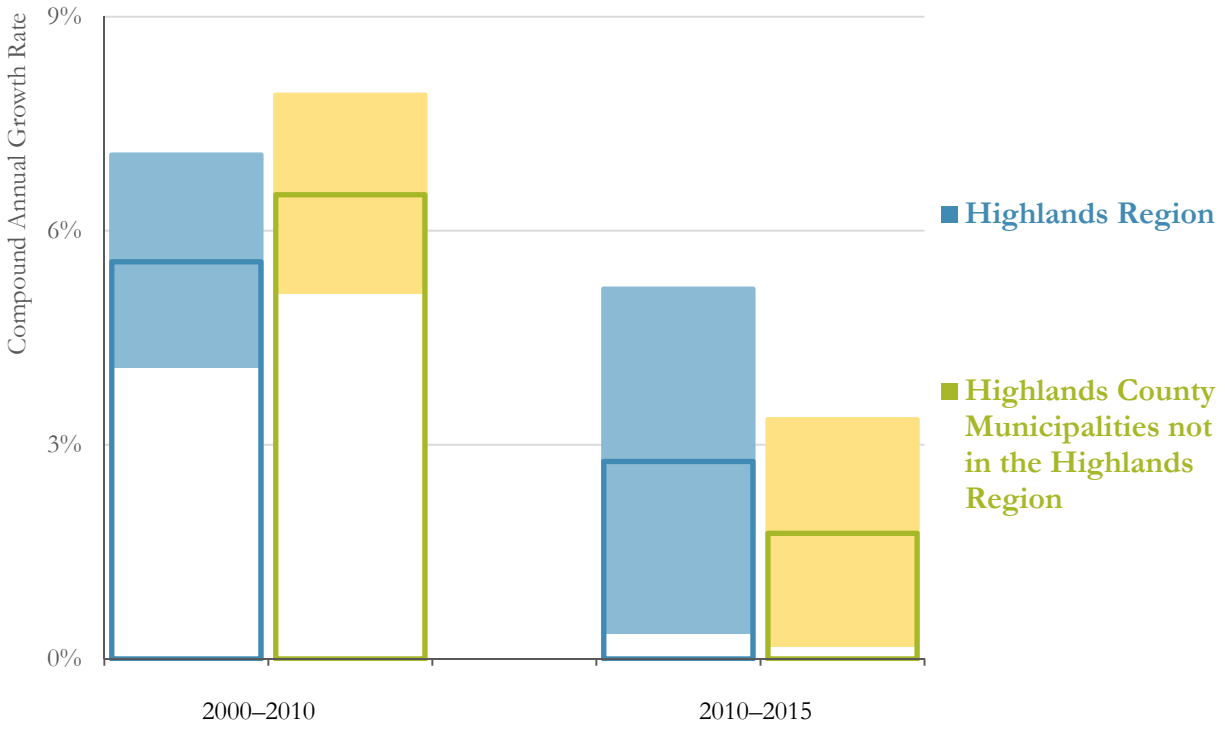
	2000	2010	2014	2000 to 2010	2010 to 2014
Highlands Region	1,642	2,407	2,473	46.6%	2.7%
Highlands County Municipalities not in the Highlands Region	1,962	2,931	2,995	49.3%	2.2%
Northern New Jersey	1,877	2,872	3,006	53.0%	4.7%

Source: PlaceWorks, 2016.

From 2000 to 2010, total real per household property tax revenues across the Highlands Region increased 46.6 percent, rising from $1,642 to $2,407 for each household. Total real assessed property value per household increased by 3.1 percent per year and real municipal property tax revenues increased by 3.9 percent per year. From 2010 to 2015, inflation-adjusted per household property tax revenues increased 0.7 percent. During this period, real assessed property value per household decreased by 2.3 percent per year. This difference between assessed value and property tax revenues from 2010 to 2015 suggests property tax rates were increasing.

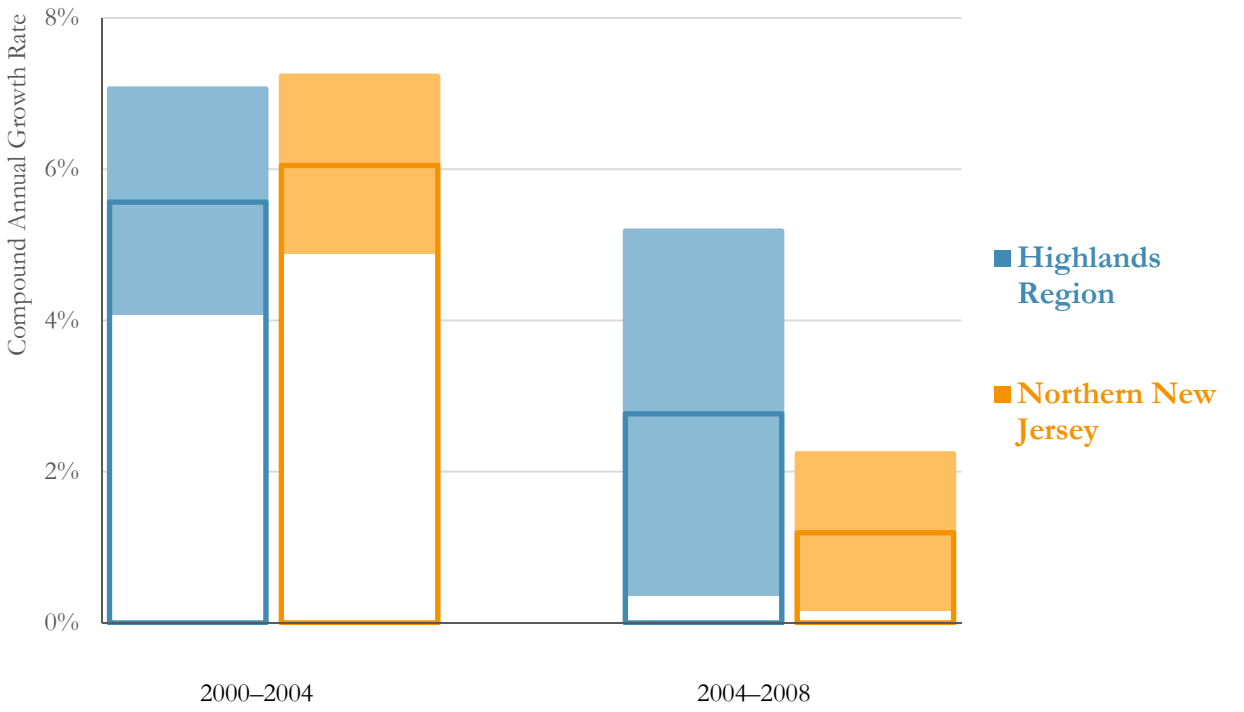
Figure 64 and Figure 65 show the average annual rate of change in inflation-adjusted property tax revenue per household for the municipalities in the Highlands Region compared to the Highland county municipalities not in the Highlands Region and Northern New Jersey. In both cases, the Highlands Region had a lower average rate of change from 2000 to 2010 and a higher average rate of change from 2010 to 2015. However, none of the differences are statistically significant. This suggests that the Act and the RMP did not have an effect on property tax revenues, although the data constraints do not allow for measuring the changes in the year that the Act was adopted or the year in which the RMP was approved.

Figure 64: Average Annual Rate of Change in Real Municipal Property Tax Revenues per Household, Highlands Region and Highland County Municipalities not in the Highlands Region, 2000, 2010, and 2015



Note: Solid line represents the average value; the shaded area represents the 95 percent confidence interval.
Source: PlaceWorks, 2016, using data from the NJ Department of Treasury and the US Bureau of Economic Analysis.

Figure 65: Average Annual Rate of Change in Real Municipal Property Tax Revenues per Household, Highlands Region and Northern New Jersey, 2000, 2010, and 2015



Note: Solid line represents the average value; the shaded area represents the 95 percent confidence interval.
Source: PlaceWorks, 2016, using data from the NJ Department of Treasury and the US Bureau of Economic Analysis.

10.7 Municipal Revenues Discussion

This chapter analyzed changes in equalized property values, assessed property values, and property tax revenue.

Equalized Property Value

Equalized property values do not directly affect an individual property owner. The total equalized value of a jurisdiction is used to determine the fair share amount of the costs for regional services (primarily counties and some school districts) that should be borne by property owners in that jurisdiction. That fair share cost, however, is then allocated to individual owners of taxable property based on their property's assessed value and its relative share of the total assessed value in the jurisdiction.

Changes in equalized value do not directly change the total amount of property tax revenue available for regional services. Over time, however, property owners in municipalities with higher rates of growth in equalized value will see their relative share of the costs for regional services increase, and

those in municipalities with lower rates of growth in equalized value will see their relative share decrease. To the degree that the Act and the RMP influenced equalized property values, its impact would be limited to this shift in the relative share of responsibility for the cost of regional services.

Equalized property values are supposed to represent the true market value of all taxable property in a jurisdiction. The values are equalized using an equalization ratio that represents the average difference between the assessed value and the sales value for each property that changed hands in a market transaction during the previous year. The ratio is applied to all the taxable properties that did not change hands in a market transaction, and then all these values are added up. The sum total is an estimate of the true market value. There are numerous qualifications that apply to the use of equalized value to represent true market value. Suffice it to say, equalized value is not a perfect estimate of true market value, but it is the best estimate that is readily available. It is equalized property value's role as an estimate of true market value that is most important to the FIA.

The analysis' finding that the Highlands Region had a statistically significant larger decline in equalized property values from 2008 to 2015 suggests that the RMP may have had a negative impact on the market value of property in the Highlands Region. However, because property owners' property tax liability is based on assessed valuation and not equalized value, this finding alone does not suggests that the Act or RMP affected municipal property tax revenue.

Real Property Assessed Value

From 2000 to 2004, real property assessed value grew at a faster rate among the municipalities in the Highlands Region than among the municipalities in the comparison regions, and the differences were statistically significant. From 2004 to 2008 and from 2008 to 2015, assessed values grew more slowly in the Highlands Region than in the two comparison regions. However, these differences were not statistically significant.

The charts in Figure 62 and Figure 63 show that the difference between the 2000–2004 and 2004–2008 periods is that, in the second period, the rate of change in assessed values in the two comparison regions rose dramatically, catching up to and surpassing the rate of change in the Highlands Region. The average rate of change in the Highlands increased only slightly from the first period to the next. It is not clear from the data, whether the Highlands Region would have had a similarly large increase in the growth rate of assessed value in the absence of the Act or if there was something unique driving the increases in the comparison regions.

All three regions experienced a decline in the assessed value growth rate from 2004–2008 to 2008–2015. However, the differences among the regions in each period is not statistically significant. Nevertheless, the Council should continue to monitor assessed value to determine whether the assessed value growth rates change at about the same rate in the Highlands Region as the rate at which the change in the two comparison regions.

Because the analysis of assessed value used inflation-adjusted per household rates, the differences in the earliest period represent a real increase in the ability of the average Highlands Region municipality to generate property tax revenue over and above the ability of the average municipality in the comparison regions. Since 2004, all three regions have experienced continued growth in real per-household assessed value, indicating the municipalities continue to have positive tax base growth. However, the data do not indicate whether these increases are sufficient to keep up with increasing demands for public facilities and services.

Property Tax Revenues

Adjusted for inflation, real per household property tax revenues have increased since 2000, both as a total and when averaged across municipalities, for the Highlands Region and both comparison regions. The analysis found that there was no statistically significant difference in the percentage change among municipalities in the Highlands Region and the municipalities in the two comparison regions.

Although data are not available to analyze the specific time periods relative to the Act and the RMP, the fact that municipalities in the Highlands Region had larger percentage increases in real per household property tax revenues (although not significant) than in the comparison regions from 2000 to 2010 and 2010 to 2015, would suggest that the Act and the RMP did not negatively impact the ability of the Region's municipalities to collect property tax revenues to pay for public facilities and services. Property tax revenue is the largest source of municipal revenues, but not the only source. The availability of data for other municipal sources of revenue was not consistently available for the time periods examined in this report.

Chapter 11 Cash Flow Table

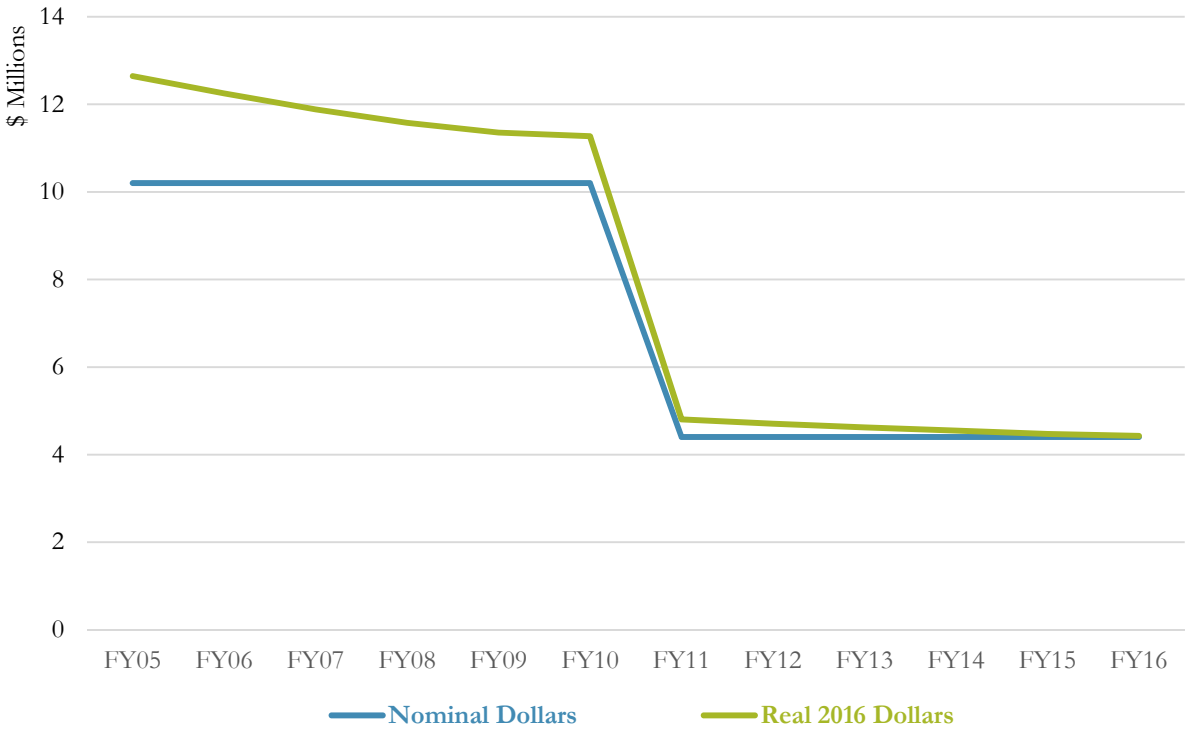
This chapter provides a brief overview of the revenues that have been appropriated for the Act and the RMP. It is intended to illustrate past cash flow and is not intended to predict or request future appropriations. The New Jersey Highlands Council implements the Act and the RMP; it does not establish state budget priorities.

11.1 Highlands Protection Fund

The State established the Highlands Protection Fund within the Department of Treasury primarily to provide State Aid financial assistance to support new aid and planning grant programs as well as the reinstitution of prior year programs, such as Watershed Moratorium Offset Aid. The planning grant programs provide financial assistance to Highlands municipalities and counties to implement the RMP and promote the goals of the Act. The fund included the Pinelands Property Tax Stabilization Fund, which was discontinued in FY2011. This analysis excludes the Pinelands fund because it does not directly relate to the Act and the RMP. Figure 66 shows the level of appropriations from the fiscal year ended in 2005 to the fiscal year ending in 2016 in both nominal and inflation-adjusted terms.

The Appropriations Act for FY2011 transferred $2.2 million from Incentive Planning Aid to Watershed Moratorium Offset Aid. In FY2012, RMP Compliance Aid and Incentive Planning Aid were combined into Planning Grants. The overall appropriations for the Highlands Protection Fund were level from FY2005 through FY2010. The appropriations were lowered but have remained level since FY2011.

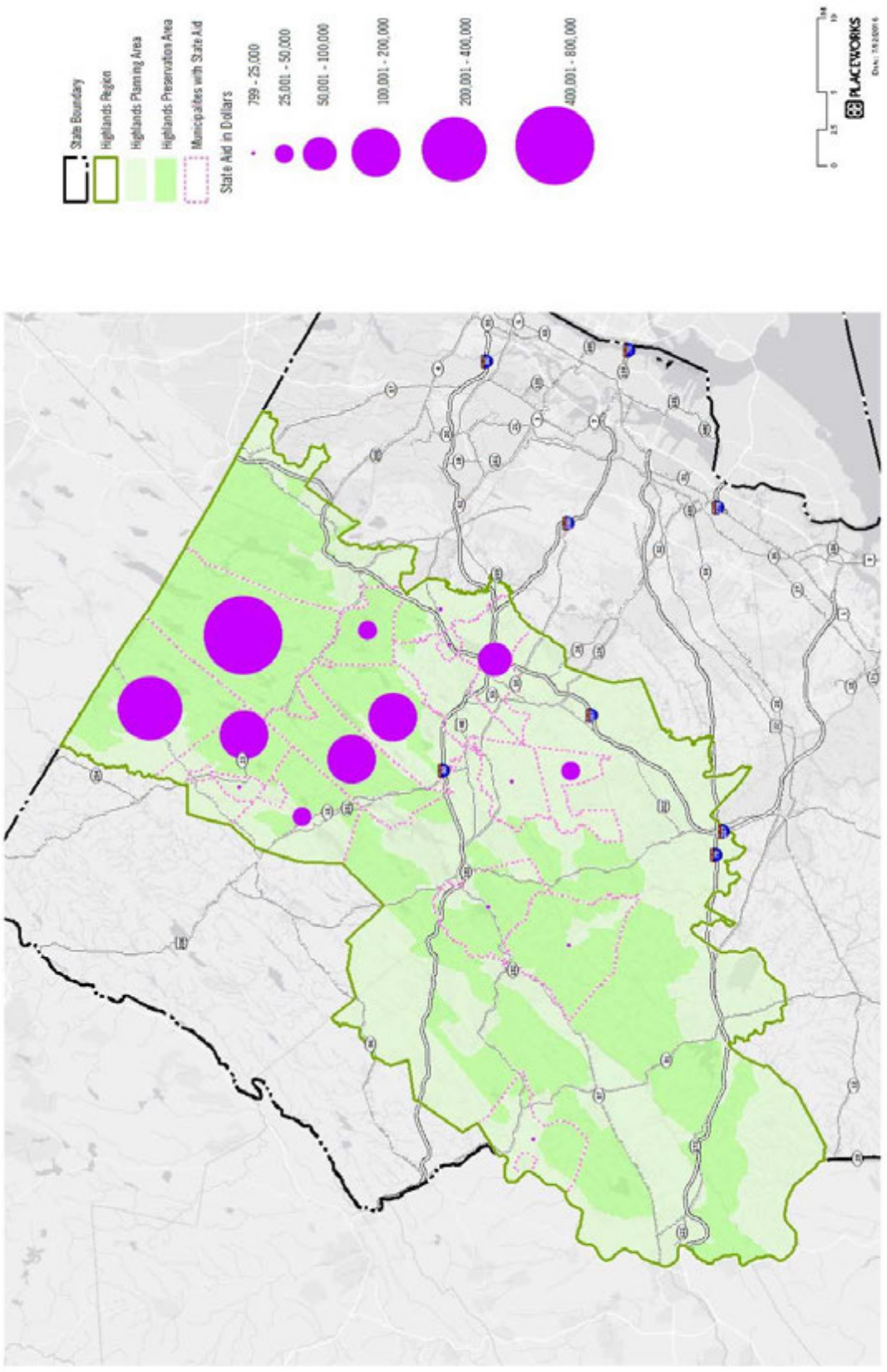
Figure 66: Annual Appropriations for the Highlands Protection Fund in Nominal and Real 2016 Dollars, FY05 to FY16



Source: PlaceWorks, 2016, using appropriations data from the NJ Highlands Council and inflation adjustment data from the US Bureau of Economic Analysis GDP Price Deflator.

11.2 Watershed Moratorium Offset Aid

The data show the relative dollar amounts that the state provides to certain municipalities through Watershed Moratorium Offset Aid. In the Highlands Region, 17 municipalities receive these funds and 71 municipalities do not. There are 39 New Jersey municipalities not in the Highlands Region receiving approximately 17 percent of these funds. The amount provided to each jurisdiction has remained the same each year. The dollar amount of Watershed Moratorium Offset Aid is included in the appropriations to the Highlands Protection Fund shown on the previous figure.


State Boundary
Highlands Region
Highlands Planning Area
Highlands Preservation Area
Municipalities with State Aid
State Aid in Dollars
799 - 25,000
25,001 - 50,000
50,001 - 100,000
100,001 - 200,000
200,001 - 400,000
400,001 - 800,000
PLACEWORKS

Chapter 12 Recommendations

Based on the analysis presented in this report, the Council should consider monitoring the following indicators as part of the RMP Monitoring Program:

- Changes in total employment
- Construction employment
- Other key sectors, including tourism, pharmaceuticals, and agriculture
- Building permits and construction completions, especially the balance between single-family housing and multifamily
- Demographic shifts, especially those related to housing demand—median age, seniors, children, and household size
- Housing sales values
- Vacant land sales values
- Equalized property values
- Real, per household assessed property values

Appendix A: Municipal Classifications

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Bergen	Allendale Borough		•	•									•	
Bergen	Alpine Borough		•	•						•				
Bergen	Bergenfield Borough		•	•									•	
Bergen	Bogota Borough		•	•									•	
Bergen	Carlstadt Borough		•	•							•			
Bergen	Cliffside Park Borough		•	•										•
Bergen	Closter Borough		•	•								•		
Bergen	Cresskill Borough		•	•								•		
Bergen	Demarest Borough		•	•								•		
Bergen	Dumont Borough		•	•								•		
Bergen	East Rutherford Borough		•	•									•	
Bergen	Edgewater Borough		•	•									•	
Bergen	Elmwood Park Borough		•	•									•	
Bergen	Emerson Borough		•	•									•	
Bergen	Englewood City		•	•									•	
Bergen	Englewood Cliffs Borough		•	•									•	
Bergen	Fair Lawn Borough		•	•									•	
Bergen	Fairview Borough		•	•										•
Bergen	Fort Lee Borough		•	•										•
Bergen	Franklin Lakes Borough		•	•						•				
Bergen	Garfield City		•	•										•
Bergen	Glen Rock Borough		•	•									•	
Bergen	Hackensack City		•	•									•	
Bergen	Harrington Park Borough		•	•								•		

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Bergen	Hasbrouck Heights Borough		•	•									•	
Bergen	Haworth Borough		•	•						•				
Bergen	Hillsdale Borough		•	•								•		
Bergen	Ho-Ho-Kus Borough		•	•						•				
Bergen	Leonia Borough		•	•									•	
Bergen	Little Ferry Borough		•	•									•	
Bergen	Lodi Borough		•	•									•	
Bergen	Lyndhurst Township		•	•									•	
Bergen	Mahwah Township	•									•			
Bergen	Maywood Borough		•	•									•	
Bergen	Midland Park Borough		•	•									•	
Bergen	Montvale Borough		•	•							•			
Bergen	Moonachie Borough		•	•							•			
Bergen	New Milford Borough		•	•								•		
Bergen	North Arlington Borough		•	•									•	
Bergen	Northvale Borough		•	•									•	
Bergen	Norwood Borough		•	•								•		
Bergen	Oakland Borough	•								•				
Bergen	Old Tappan Borough		•	•						•				
Bergen	Oradell Borough		•	•									•	
Bergen	Palisades Park Borough		•	•										•
Bergen	Paramus Borough		•	•							•			
Bergen	Park Ridge Borough		•	•									•	
Bergen	Ramsey Borough		•	•									•	
Bergen	Ridgefield Borough		•	•									•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Bergen	Ridgefield Park Village		•	•									•	
Bergen	Ridgewood Village		•	•									•	
Bergen	River Edge Borough		•	•									•	
Bergen	River Vale Township		•	•								•		
Bergen	Rochelle Park Township		•	•									•	
Bergen	Rockleigh Borough		•	•							•			
Bergen	Rutherford Borough		•	•									•	
Bergen	Saddle Brook Township		•	•									•	
Bergen	Saddle River Borough		•	•						•				
Bergen	South Hackensack Township		•	•									•	
Bergen	Teaneck Township		•	•									•	
Bergen	Tenafly Borough		•	•								•		
Bergen	Teterboro Borough		•	•										
Bergen	Upper Saddle River Borough		•	•						•				
Bergen	Waldwick Borough		•	•									•	
Bergen	Wallington Borough		•	•									•	
Bergen	Washington Township		•	•								•		
Bergen	Westwood Borough		•	•									•	
Bergen	Woodcliff Lake Borough		•	•							•			
Bergen	Wood-Ridge Borough		•	•									•	
Bergen	Wyckoff Township		•	•						•				
Essex	Belleville Township			•									•	
Essex	Bloomfield Township			•									•	
Essex	Caldwell Borough			•									•	
Essex	Cedar Grove Township			•									•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Essex	City of Orange Township			•										•
Essex	East Orange City			•										•
Essex	Essex Fells Borough			•						•				
Essex	Fairfield Township			•							•			
Essex	Glen Ridge Borough			•								•		
Essex	Irvington Township			•										•
Essex	Livingston Township			•							•			
Essex	Maplewood Township			•									•	
Essex	Millburn Township			•									•	
Essex	Montclair Township			•									•	
Essex	Newark City			•									•	
Essex	North Caldwell Borough			•						•				
Essex	Nutley Township			•									•	
Essex	Roseland Borough			•							•			
Essex	South Orange Village Township			•									•	
Essex	Verona Township			•									•	
Essex	West Caldwell Township			•									•	
Essex	West Orange Township			•									•	
Hudson	Bayonne City			•									•	
Hudson	East Newark Borough			•										•
Hudson	Guttenberg Town			•										•
Hudson	Harrison Town			•									•	
Hudson	Hoboken City			•										•
Hudson	Jersey City			•										•
Hudson	Kearny Town			•									•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Hudson	North Bergen Township			•										•
Hudson	Secaucus Town			•									•	
Hudson	Union City			•										•
Hudson	Weehawken Township			•										•
Hudson	West New York Town			•										•
Hunterdon	Alexandria Township	•					•							
Hunterdon	Bethlehem Township	•					•							
Hunterdon	Bloomsbury Borough	•								•				
Hunterdon	Califon Borough	•								•				
Hunterdon	Clinton Town	•									•			
Hunterdon	Clinton Township	•								•				
Hunterdon	Delaware Township		•	•			•							
Hunterdon	East Amwell Township		•	•			•							
Hunterdon	Flemington Borough		•	•									•	
Hunterdon	Franklin Township		•	•			•							
Hunterdon	Frenchtown Borough		•	•						•				
Hunterdon	Glen Gardner Borough	•								•				
Hunterdon	Hampton Borough	•								•				
Hunterdon	High Bridge Borough	•								•				
Hunterdon	Holland Township	•					•							
Hunterdon	Kingwood Township		•	•			•							
Hunterdon	Lambertville City		•	•								•		
Hunterdon	Lebanon Borough	•								•				
Hunterdon	Lebanon Township	•					•							
Hunterdon	Milford Borough	•								•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Hunterdon	Raritan Township		•	•						•				
Hunterdon	Readington Township		•	•						•				
Hunterdon	Stockton Borough		•	•						•				
Hunterdon	Tewksbury Township	•					•							
Hunterdon	Union Township	•								•				
Hunterdon	West Amwell Township		•	•			•							
Middlesex	Carteret Borough			•									•	
Middlesex	Cranbury Township			•				•						
Middlesex	Dunellen Borough			•									•	
Middlesex	East Brunswick Township			•							•			
Middlesex	Edison Township			•									•	
Middlesex	Helmetta Borough			•								•		
Middlesex	Highland Park Borough			•									•	
Middlesex	Jamesburg Borough			•									•	
Middlesex	Metuchen Borough			•									•	
Middlesex	Middlesex Borough			•									•	
Middlesex	Milltown Borough			•									•	
Middlesex	Monroe Township			•						•				
Middlesex	New Brunswick City			•									•	
Middlesex	North Brunswick Township			•									•	
Middlesex	Old Bridge Township			•						•				
Middlesex	Perth Amboy City			•									•	
Middlesex	Piscataway Township			•									•	
Middlesex	Plainsboro Township			•							•			
Middlesex	Sayreville Borough			•								•		

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Middlesex	South Amboy City			•									•	
Middlesex	South Brunswick Township			•						•				
Middlesex	South Plainfield Borough			•									•	
Middlesex	South River Borough			•								•		
Middlesex	Spotswood Borough			•									•	
Middlesex	Woodbridge Township			•									•	
Morris	Boonton Town	•											•	
Morris	Boonton Township	•								•				
Morris	Butler Borough	•											•	
Morris	Chatham Borough		•	•									•	
Morris	Chatham Township		•	•						•				
Morris	Chester Borough	•								•				
Morris	Chester Township	•								•				
Morris	Denville Township	•								•				
Morris	Dover Town	•											•	
Morris	East Hanover Township		•	•							•			
Morris	Florham Park Borough		•	•							•			
Morris	Hanover Township	•									•			
Morris	Harding Township	•						•						
Morris	Jefferson Township	•								•				
Morris	Kinnelon Borough	•								•				
Morris	Lincoln Park Borough		•	•								•		
Morris	Long Hill Township		•	•						•				
Morris	Madison Borough		•	•									•	
Morris	Mendham Borough	•								•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Morris	Mendham Township	•							•					
Morris	Mine Hill Township	•								•				
Morris	Montville Township	•								•				
Morris	Morris Plains Borough	•									•			
Morris	Morris Township	•								•				
Morris	Morristown Town	•											•	
Morris	Mount Arlington Borough	•									•			
Morris	Mount Olive Township	•								•				
Morris	Mountain Lakes Borough	•								•				
Morris	Netcong Borough	•											•	
Morris	Parsippany-Troy Hills Township	•											•	
Morris	Pequannock Township	•								•				
Morris	Randolph Township	•								•				
Morris	Riverdale Borough	•									•			
Morris	Rockaway Borough	•											•	
Morris	Rockaway Township	•								•				
Morris	Roxbury Township	•								•				
Morris	Victory Gardens Borough	•										•		
Morris	Washington Township	•								•				
Morris	Wharton Borough	•										•		
Passaic	Bloomingdale Borough	•								•				
Passaic	Clifton City		•	•									•	
Passaic	Haledon Borough		•	•									•	
Passaic	Hawthorne Borough		•	•									•	
Passaic	Little Falls Township		•	•									•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Passaic	North Haledon Borough		•	•						•				
Passaic	Passaic City		•	•										•
Passaic	Paterson City		•	•										•
Passaic	Pompton Lakes Borough	•										•		
Passaic	Prospect Park Borough		•	•								•		
Passaic	Ringwood Borough	•								•				
Passaic	Totowa Borough		•	•							•			
Passaic	Wanaque Borough	•								•				
Passaic	Wayne Township		•	•							•			
Passaic	West Milford Township	•								•				
Passaic	Woodland Park Borough		•	•									•	
Somerset	Bedminster Township	•								•				
Somerset	Bernards Township	•								•				
Somerset	Bernardsville Borough	•								•				
Somerset	Bound Brook Borough		•	•									•	
Somerset	Branchburg Township		•	•						•				
Somerset	Bridgewater Township		•	•						•				
Somerset	Far Hills Borough	•					•							
Somerset	Franklin Township		•	•						•				
Somerset	Green Brook Township		•	•						•				
Somerset	Hillsborough Township		•	•						•				
Somerset	Manville Borough		•	•									•	
Somerset	Millstone Borough		•	•					•					
Somerset	Montgomery Township		•	•						•				
Somerset	North Plainfield Borough		•	•								•		

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Somerset	Peapack-Gladstone Borough	•								•				
Somerset	Raritan Borough		•	•									•	
Somerset	Rocky Hill Borough		•	•						•				
Somerset	Somerville Borough		•	•									•	
Somerset	South Bound Brook Borough		•	•								•		
Somerset	Warren Township		•	•						•				
Somerset	Watchung Borough		•	•						•				
Sussex	Andover Borough		•	•						•				
Sussex	Andover Township		•	•						•				
Sussex	Branchville Borough		•	•						•				
Sussex	Byram Township	•							•					
Sussex	Frankford Township		•	•				•						
Sussex	Franklin Borough	•								•				
Sussex	Fredon Township		•	•			•							
Sussex	Green Township	•					•							
Sussex	Hamburg Borough	•										•		
Sussex	Hampton Township		•	•				•						
Sussex	Hardyston Township	•								•				
Sussex	Hopatcong Borough	•								•				
Sussex	Lafayette Township		•	•			•							
Sussex	Montague Township		•	•			•							
Sussex	Newton Town		•	•									•	
Sussex	Ogdensburg Borough	•								•				
Sussex	Sandyston Township		•	•			•							
Sussex	Sparta Township	•								•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Sussex	Stanhope Borough	•									•			
Sussex	Stillwater Township		•	•			•							
Sussex	Sussex Borough		•	•								•		
Sussex	Vernon Township	•								•				
Sussex	Walpack Township		•	•										•
Sussex	Wantage Township		•	•			•							
Union	Berkeley Heights Township			•						•				
Union	Clark Township			•									•	
Union	Cranford Township			•									•	
Union	Elizabeth City			•									•	
Union	Fanwood Borough			•									•	
Union	Garwood Borough			•									•	
Union	Hillside Township			•									•	
Union	Kenilworth Borough			•									•	
Union	Linden City			•									•	
Union	Mountainside Borough			•							•			
Union	New Providence Borough			•									•	
Union	Plainfield City			•									•	
Union	Rahway City			•									•	
Union	Roselle Borough			•									•	
Union	Roselle Park Borough			•									•	
Union	Scotch Plains Township			•								•		
Union	Springfield Township			•									•	
Union	Summit City			•									•	
Union	Union Township			•									•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Union	Westfield Town			•									•	
Union	Winfield Township			•								•		
Warren	Allamuchy Township	•								•				
Warren	Alpha Borough	•								•				
Warren	Belvidere Town	•								•				
Warren	Franklin Township	•					•							
Warren	Frelinghuysen Township	•					•							
Warren	Greenwich Township	•								•				
Warren	Hackettstown Town	•											•	
Warren	Harmony Township	•					•							
Warren	Hope Township	•					•							
Warren	Independence Township	•							•					
Warren	Liberty Township	•					•							
Warren	Lopatcong Township	•								•				
Warren	Mansfield Township	•					•							
Warren	Oxford Township	•								•				
Warren	Phillipsburg Town	•											•	
Warren	Pohatcong Township	•						•						
Warren	Washington Borough	•											•	
Warren	Washington Township	•							•					
Warren	White Township	•						•						
New York Municipalities														
Orange	Blooming Grove Town				•					•				
Orange	Chester Town				•					•				
Orange	Cornwall Town				•					•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Orange	Crawford Town				•		•							
Orange	Deerpark Town				•		•							
Orange	Goshen Town				•			•						
Orange	Greenville Town				•		•							
Orange	Hamptonburgh Town				•		•							
Orange	Highlands Town				•					•				
Orange	Middletown City				•								•	
Orange	Minisink Town				•		•							
Orange	Monroe Town				•					•				
Orange	Montgomery Town				•					•				
Orange	Mount Hope Town				•		•							
Orange	New Windsor Town				•					•				
Orange	Newburgh City				•								•	
Orange	Newburgh Town				•					•				
Orange	Port Jervis City				•								•	
Orange	Tuxedo Town				•		•							
Orange	Wallkill Town				•					•				
Orange	Warwick Town				•					•				
Orange	Wawayanda Town				•			•						
Orange	Woodbury Town				•					•				
Rockland	Clarkstown Town				•					•				
Rockland	Haverstraw Town				•							•		
Rockland	Orangetown Town				•						•			
Rockland	Ramapo Town				•					•				
Rockland	Stony Point Town				•					•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Sullivan	Bethel Town				•		•							
Sullivan	Callicoon Town				•		•							
Sullivan	Cochecton Town				•		•							
Sullivan	Delaware Town				•		•							
Sullivan	Fallsburg Town				•		•							
Sullivan	Forestburgh Town				•		•							
Sullivan	Fremont Town				•		•							
Sullivan	Highland Town				•		•							
Sullivan	Liberty Town				•		•							
Sullivan	Lumberland Town				•		•							
Sullivan	Mamakating Town				•		•							
Sullivan	Neversink Town				•		•							
Sullivan	Rockland Town				•		•							
Sullivan	Thompson Town				•			•						
Sullivan	Tusten Town				•		•							
Westchester	Bedford Town				•					•				
Westchester	Cortlandt Town				•					•				
Westchester	Eastchester Town				•								•	
Westchester	Greenburgh Town				•								•	
Westchester	Harrison Town				•						•			
Westchester	Lewisboro Town				•					•				
Westchester	Mamaroneck Town				•								•	
Westchester	Mount Kisco Town				•								•	
Westchester	Mount Pleasant Town				•					•				
Westchester	Mount Vernon City				•									•

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Westchester	New Castle Town				•					•				
Westchester	New Rochelle City				•								•	
Westchester	North Castle Town				•					•				
Westchester	North Salem Town				•			•						
Westchester	Ossining Town				•							•		
Westchester	Peekskill City				•								•	
Westchester	Pelham Town				•								•	
Westchester	Pound Ridge Town				•		•							
Westchester	Rye City				•								•	
Westchester	Rye Town				•								•	
Westchester	Scarsdale Town				•							•		
Westchester	Somers Town				•					•				
Westchester	White Plains City				•								•	
Westchester	Yonkers City				•								•	
Westchester	Yorktown Town				•					•				
Pennsylvania Municipalities														
Bucks	Bedminster					•	•							
Bucks	Bensalem					•							•	
Bucks	Bridgeton					•	•							
Bucks	Bristol Borough					•							•	
Bucks	Bristol City					•						•		
Bucks	Buckingham					•				•				
Bucks	Chalfont					•				•				
Bucks	Doylestown Borough					•							•	
Bucks	Doylestown Township					•				•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Bucks	Dublin					•						•		
Bucks	Durham					•	•							
Bucks	East Rockhill					•				•				
Bucks	Falls					•				•				
Bucks	Haycock					•	•							
Bucks	Hilltown					•				•				
Bucks	Hulmeville					•				•				
Bucks	Ivyland					•					•			
Bucks	Langhorne					•							•	
Bucks	Langhorne Manor					•				•				
Bucks	Lower Makefield					•				•				
Bucks	Lower Southampton					•							•	
Bucks	Middletown					•				•				
Bucks	Milford Township					•		•						
Bucks	Morrisville					•						•		
Bucks	New Britain Borough					•					•			
Bucks	New Britain Township					•				•				
Bucks	New Hope					•					•			
Bucks	Newtown Borough					•							•	
Bucks	Newtown Township					•				•				
Bucks	Nockamixon					•	•							
Bucks	Northampton Township					•				•				
Bucks	Penndel					•							•	
Bucks	Perkasie					•						•		
Bucks	Plumstead					•				•				

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Bucks	Quakertown					•							•	
Bucks	Richland					•				•				
Bucks	Richlandtown					•						•		
Bucks	Riegelsville					•			•					
Bucks	Sellersville					•						•		
Bucks	Silverdale					•				•				
Bucks	Solebury					•	•							
Bucks	Springfield					•	•							
Bucks	Telford					•							•	
Bucks	Tinicum					•	•							
Bucks	Trumbauersville					•					•			
Bucks	Tullytown					•					•			
Bucks	Upper Makefield					•			•					
Bucks	Upper Southampton					•				•				
Bucks	Warminster					•						•		
Bucks	Warrington					•				•				
Bucks	Warwick					•				•				
Bucks	West Rockhill					•		•						
Bucks	Wrightstown					•		•						
Bucks	Yardley					•							•	
Monroe	Barrett					•	•							
Monroe	Chestnuthill					•				•				
Monroe	Coolbaugh					•			•					
Monroe	Delaware Water Gap					•				•				
Monroe	East Stroudsburg					•							•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Monroe	Eldred					•	•							
Monroe	Hamilton					•	•							
Monroe	Jackson					•	•							
Monroe	Middle Smithfield					•	•							
Monroe	Mt Pocono					•				•				
Monroe	Paradise					•	•							
Monroe	Pocono					•		•						
Monroe	Polk					•	•							
Monroe	Price					•	•							
Monroe	Ross					•	•							
Monroe	Smithfield					•		•						
Monroe	Stroud					•				•				
Monroe	Stroudsburg					•							•	
Monroe	Tobyhanna					•	•							
Monroe	Tunkhannock					•	•							
Northampton	Allen					•	•							
Northampton	Bangor					•						•		
Northampton	Bath					•						•		
Northampton	Bethlehem City					•						•		
Northampton	Bethlehem Township					•				•				
Northampton	Bushkill					•	•							
Northampton	Chapman					•			•					
Northampton	East Allen					•		•						
Northampton	East Bangor					•				•				
Northampton	Easton					•							•	

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Northampton	Forks					•				•				
Northampton	Freemansburg					•				•				
Northampton	Glendon					•			•					
Northampton	Hanover					•					•			
Northampton	Hellertown					•						•		
Northampton	Lehigh					•			•					
Northampton	Lower Mt Bethel					•	•							
Northampton	Lower Nazareth					•				•				
Northampton	Lower Saucon					•				•				
Northampton	Moore					•	•							
Northampton	Nazareth					•							•	
Northampton	North Catasauqua					•						•		
Northampton	Northampton Borough					•						•		
Northampton	Palmer					•				•				
Northampton	Pen Argyl					•						•		
Northampton	Plainfield					•	•							
Northampton	Portland					•				•				
Northampton	Roseto					•				•				
Northampton	Stockertown					•				•				
Northampton	Tatamy					•				•				
Northampton	Upper Mt Bethel					•	•							
Northampton	Upper Nazareth					•				•				
Northampton	Walnutport					•				•				
Northampton	Washington					•	•							
Northampton	West Easton					•						•		

County	Municipality	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey	Adjacent New York Region	Adjacent Pennsylvania Region	Low-Population, Low-Employment Density	Low-Population, Medium Employment Density	Medium-Population, Low-Employment Density	Medium-Population, Medium-Employment Density	Medium-Population, High-Employment Density	High-Population, Medium Employment Density	High-Population, High-Employment Density	Very High-Density or Other Outlier
Northampton	Williams					•	•							
Northampton	Wilson					•							•	
Northampton	Wind Gap					•				•				
Pike	Blooming Grove					•	•							
Pike	Delaware					•	•							
Pike	Dingman					•	•							
Pike	Greene					•	•							
Pike	Lackawaxen					•	•							
Pike	Lehman					•	•							
Pike	Matamoras					•						•		
Pike	Milford Borough					•					•			
Pike	Milford Township					•	•							
Pike	Palmyra					•	•							
Pike	Porter					•	•							
Pike	Shohola					•	•							
Pike	Westfall					•	•							

Appendix B:
Descriptions of the NAICS Two-Digit Economic Sectors

Economic Sector Descriptions

This section provides the Census Bureau's descriptions of each major economic sector, based on the 2012 North American Industrial Classification System (NAICS). NAICS is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. The following website provides more information about NAICS: http://www.census.gov/eos/www/naics/.
NAICS was developed under the auspices of the Office of Management and Budget and adopted in 1997 to replace the Standard Industrial Classification system. It was developed jointly by the U.S. Economic Classification Policy Committee, Statistics Canada, and Mexico's Instituto Nacional de Estadistica, Geografia e Informatica, to allow for a high level of comparability in business statistics among the North American countries.

NAICS classifies economic activity into sectors identified with a 6-digit code. Each business location, regardless of the activity of the parent company, is classified by the primary activity undertaken at that location. For example, a Fortune 500 company might have one business location, say the corporate headquarters, primarily engaged in management. It might have another location, say a factory, engaged in manufacturing. It might have yet another location for warehousing and distribution. Each location would have a different NAICS code.

The first two digits of each 6-digit code represent the major economic sector. The following sections of this appendix provide the Census Bureau description of each major sector.

Sector 11 – Agriculture, Forestry, Fishing and Hunting

The Agriculture, Forestry, Fishing and Hunting sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats.

The establishments in this sector are often described as farms, ranches, dairies, greenhouses, nurseries, orchards, or hatcheries. A farm may consist of a single tract of land or a number of separate tracts which may be held under different tenures. For example, one tract may be owned by the farm operator and another rented. It may be operated by the operator alone or with the assistance of members of the household or hired employees, or it may be operated by a partnership, corporation, or other type of organization. When a landowner has one or more tenants, renters, croppers, or managers, the land operated by each is considered a farm.

The sector distinguishes two basic activities: agricultural production and agricultural support activities. Agricultural production includes establishments performing the complete farm or ranch operation, such as farm owner-operators, tenant farm operators, and sharecroppers. Agricultural support activities include establishments that perform one or more activities associated with farm operation, such as soil preparation, planting, harvesting, and management, on a contract or fee basis.

Excluded from the Agriculture, Forestry, Hunting and Fishing sector are establishments primarily engaged in agricultural research and establishments primarily engaged in administering programs for regulating and conserving land, mineral, wildlife, and forest use. These establishments are classified in Industry 54171, Research and Development in the Physical, Engineering, and Life Sciences; and Industry 92412, Administration of Conservation Programs, respectively.

Sector 21 – Mining

The Mining sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. The term mining is used in the broad sense to include quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparation customarily performed at the mine site, or as a part of mining activity.

The Mining sector distinguishes two basic activities: mine operation and mining support activities. Mine operation includes establishments operating mines, quarries, or oil and gas wells on their own account or for others on a contract or fee basis. Mining support activities include establishments that perform exploration (except geophysical surveying) and/or other mining services on a contract or fee basis (except mine site preparation and construction of oil/gas pipelines).

Establishments in the Mining sector are grouped and classified according to the natural resource mined or to be mined. Industries include establishments that develop the mine site, extract the natural resources, and/or those that beneficiate (i.e., prepare) the mineral mined. Beneficiation is the process whereby the extracted material is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. The operations that take place in beneficiation are primarily mechanical, such as grinding, washing, magnetic separation, and centrifugal separation. In contrast, manufacturing operations primarily use chemical and electrochemical processes, such as electrolysis and distillation. However, some treatments, such as heat treatments, take place in both the beneficiation and the manufacturing (i.e., smelting/refining) stages. The range of preparation activities varies by mineral and the purity of any given ore deposit. While some minerals, such as petroleum and natural gas, require little or no preparation, others are washed and screened, while yet others, such as gold and silver, can be transformed into bullion before leaving the mine site.

Mining, beneficiating, and manufacturing activities often occur in a single location. Separate receipts will be collected for these activities whenever possible. When receipts cannot be broken out between mining and manufacturing, establishments that mine or quarry nonmetallic minerals, beneficiate the nonmetallic minerals into more finished manufactured products are classified based on the primary activity of the establishment. A mine that manufactures a small amount of finished products will be classified in Sector 21, Mining. An establishment that mines whose primary output is a more finished manufactured product will be classified in Sector 31-33, Manufacturing.

Sector 22 – Utilities

The Utilities sector comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal. Within this sector, the specific activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution; steam supply includes provision and/or distribution; water supply includes treatment and distribution; and sewage removal includes collection, treatment, and disposal of waste through sewer systems and sewage treatment facilities.

Excluded from this sector are establishments primarily engaged in waste management services classified in Subsector 562, Waste Management and Remediation Services. These establishments also collect, treat, and dispose of waste materials; however, they do not use sewer systems or sewage treatment facilities.

Sector 23 – Construction

The construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Establishments primarily engaged in the preparation of sites for new construction and establishments primarily engaged in subdividing land for sale as building sites also are included in this sector.

Construction work done may include new work, additions, alterations, or maintenance and repairs. Activities of these establishments generally are managed at a fixed place of business, but they usually perform construction activities at multiple project sites. Production responsibilities for establishments in this sector are usually specified in (1) contracts with the owners of construction projects (prime contracts) or (2) contracts with other construction establishments (subcontracts).

Establishments primarily engaged in contracts that include responsibility for all aspects of individual construction projects are commonly known as general contractors, but also may be known as design-builders, construction managers, turnkey contractors, or (in cases where two or more establishments jointly secure a general contract) joint-venture contractors. Construction managers that provide oversight and scheduling only (i.e., agency) as well as construction managers that are responsible for the entire project (i.e., at risk) are included as general contractor type establishments. Establishments of the "general contractor type" frequently arrange construction of separate parts of their projects through subcontracts with other construction establishments.

Establishments primarily engaged in activities to produce a specific component (e.g., masonry, painting, and electrical work) of a construction project are commonly known as specialty trade contractors. Activities of specialty trade contractors are usually subcontracted from other construction establishments but, especially in remodeling and repair construction, the work may be done directly for the owner of the property.

Establishments primarily engaged in activities to construct buildings to be sold on sites that they own are known as operative builders, but also may be known as speculative builders or merchant builders. Operative builders produce buildings in a manner similar to general contractors, but their production processes also include site acquisition and securing of financial backing. Operative builders are most often associated with the construction of residential buildings. Like general contractors, they may subcontract all or part of the actual construction work on their buildings.

There are substantial differences in the types of equipment, work force skills, and other inputs required by establishments in this sector. To highlight these differences and variations in the underlying production functions, this sector is divided into three subsectors.

Subsector 236, Construction of Buildings, comprises establishments of the general contractor type and operative builders involved in the construction of buildings. Subsector 237, Heavy and Civil Engineering Construction, comprises establishments involved in the construction of engineering projects. Subsector 238, Specialty Trade Contractors, comprises establishments engaged in specialty trade activities generally needed in the construction of all types of buildings.

Force account construction is construction work performed by an enterprise primarily engaged in some business other than construction for its own account and use, using employees of the enterprise. This activity is not included in the construction sector unless the construction work performed is the primary activity of a separate establishment of the enterprise. The installation and the ongoing repair and maintenance of telecommunications and utility networks is excluded from construction when the establishments performing the work are not independent contractors. Although a growing proportion of this work is subcontracted to independent contractors in the Construction Sector, the operating units of telecommunications and utility companies performing this work are included with the telecommunications or utility activities.

Sector 31-33 – Manufacturing

The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction.

Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this

sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing.

The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying as well as products of other manufacturing establishments. The materials used may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another, under the same ownership.

The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semi-finished to become an input for an establishment engaged in further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminum; primary aluminum is the input to an aluminum wire drawing plant; and aluminum wire is the input for a fabricated wire product manufacturing establishment.

The subsectors in the Manufacturing sector generally reflect distinct production processes related to material inputs, production equipment, and employee skills. In the machinery area, where assembling is a key activity, parts and accessories for manufactured products are classified in the industry of the finished manufactured item when they are made for separate sale. For example, a replacement refrigerator door would be classified with refrigerators and an attachment for a piece of metal working machinery would be classified with metal working machinery. However, components, input from other manufacturing establishments, are classified based on the production function of the component manufacturer. For example, electronic components are classified in Subsector 334, Computer and Electronic Product Manufacturing and stampings are classified in Subsector 332, Fabricated Metal Product Manufacturing.

Manufacturing establishments often perform one or more activities that are classified outside the Manufacturing sector of NAICS. For instance, almost all manufacturing has some captive research and development or administrative operations, such as accounting, payroll, or management. These captive services are treated the same as captive manufacturing activities. When the services are provided by separate establishments, they are classified to the NAICS sector where such services are primary, not in manufacturing.

The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. The establishments in the manufacturing sector are engaged in the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective. As clarification, the following activities are considered manufacturing in NAICS:

- Milk bottling and pasteurizing;

- Water bottling and processing;
- Fresh fish packaging (oyster shucking, fish filleting);
- Apparel jobbing (assigning of materials to contract factories or shops for fabrication or other contract operations) as well as contracting on materials owned by others;
- Printing and related activities;
- Ready-mixed concrete production;
- Leather converting;
- Grinding of lenses to prescription;
- Wood preserving;
- Electroplating, plating, metal heat treating, and polishing for the trade;
- Lapidary work for the trade;
- Fabricating signs and advertising displays;
- Rebuilding or remanufacturing machinery (i.e., automotive parts) Ship repair and renovation;
- Machine shops; and
- Tire retreading.

Conversely, there are activities that are sometimes considered manufacturing, but which for NAICS are classified in another sector (i.e., not classified as manufacturing). They include:

1. Logging, classified in Sector 11, Agriculture, Forestry, Fishing and Hunting is considered a harvesting operation;
2. The beneficiating of ores and other minerals, classified in Sector 21, Mining, is considered part of the activity of mining;
3. The construction of structures and fabricating operations performed at the site of construction by contractors, is classified in Sector 23, Construction;
4. Establishments engaged in breaking of bulk and redistribution in smaller lots, including packaging, repackaging, or bottling products, such as liquors or chemicals; the customized assembly of computers; sorting of scrap; mixing paints to customer order; and cutting metals to customer order, classified in Sector 42, Wholesale Trade or Sector 44-45, Retail Trade, produce a modified version of the same product, not a new product; and
5. Publishing and the combined activity of publishing and printing, classified in Sector 51, Information, perform the transformation of information into a product where as the value of the product to the consumer lies in the information content, not in the format in which it is distributed (i.e., the book or software diskette).

Sector 42 – Wholesale Trade

The Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The merchandise

described in this sector includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing.

The wholesaling process is an intermediate step in the distribution of merchandise. Wholesalers are organized to sell or arrange the purchase or sale of (a) goods for resale (i.e., goods sold to other wholesalers or retailers), (b) capital or durable non-consumer goods, and (c) raw and intermediate materials and supplies used in production.

Wholesalers sell merchandise to other businesses and normally operate from a warehouse or office. These warehouses and offices are characterized by having little or no display of merchandise. In addition, neither the design nor the location of the premises is intended to solicit walk-in traffic. Wholesalers do not normally use advertising directed to the general public. Customers are generally reached initially via telephone, in-person marketing, or by specialized advertising that may include Internet and other electronic means. Follow-up orders are either vendor-initiated or client-initiated, generally based on previous sales, and typically exhibit strong ties between sellers and buyers. In fact, transactions are often conducted between wholesalers and clients that have long-standing business relationships.

This sector comprises two main types of wholesalers: merchant wholesalers that sell goods on their own account and business to business electronic markets, agents, and brokers that arrange sales and purchases for others generally for a commission or fee.

(1) Establishments that sell goods on their own account are known as wholesale merchants, distributors, jobbers, drop shippers, and import/export merchants. Also included as wholesale merchants are sales offices and sales branches (but not retail stores) maintained by manufacturing, refining, or mining enterprises apart from their plants or mines for the purpose of marketing their products. Merchant wholesale establishments typically maintain their own warehouse, where they receive and handle goods for their customers. Goods are generally sold without transformation, but may include integral functions, such as sorting, packaging, labeling, and other marketing services.

(2) Establishments arranging for the purchase or sale of goods owned by others or purchasing goods, generally on a commission basis are known as business to business electronic markets, agents and brokers, commission merchants, import/export agents and brokers, auction companies, and manufacturers' representatives. These establishments operate from offices and generally do not own or handle the goods they sell.

Some wholesale establishments may be connected with a single manufacturer and promote and sell the particular manufacturers' products to a wide range of other wholesalers or retailers. Other wholesalers may be connected to a retail chain, or limited number of retail chains, and only provide a variety of products needed by that particular retail operation(s). These wholesalers may obtain the

products from a wide range of manufacturers. Still other wholesalers may not take title to the goods, but Act as agents and brokers for a commission.

Although, in general, wholesaling normally denotes sales in large volumes, durable non-consumer goods may be sold in single units. Sales of capital or durable non-consumer goods used in the production of goods and services, such as farm machinery, medium and heavy duty trucks, and industrial machinery, are always included in wholesale trade.

Sector 44-45 – Retail Trade

The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and non-store retailers.

1. Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. These include establishments, such as office supply stores, computer and software stores, building materials dealers, plumbing supply stores, and electrical supply stores. Catalog showrooms, gasoline services stations, automotive dealers, and mobile home dealers are treated as store retailers.

In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation. For example, new automobile dealers, electronic and appliance stores, and musical instrument and supply stores often provide repair services. As a general rule, establishments engaged in retailing merchandise and providing after-sales services are classified in this sector.

The first eleven subsectors of retail trade are store retailers. The establishments are grouped into industries and industry groups typically based on one or more of the following criteria:

(a) The merchandise line or lines carried by the store; for example, specialty stores are distinguished from general-line stores.

(b) The usual trade designation of the establishments. This criterion applies in cases where a store type is well recognized by the industry and the public, but difficult to define strictly in terms of commodity lines carried; for example, pharmacies, hardware stores, and department stores.

(c) Capital requirements in terms of display equipment; for example, food stores have equipment requirements not found in other retail industries.

(d) Human resource requirements in terms of expertise; for example, the staff of an automobile dealer requires knowledge in financing, registering, and licensing issues that are not necessary in other retail industries.

2. Non-store retailers, like store retailers, are organized to serve the general public, but their retailing methods differ. The establishments of this subsector reach customers and market merchandise with methods, such as the broadcasting of "infomercials," the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls (street vendors, except food), and distribution through vending machines. Establishments engaged in the direct sale (non-store) of products, such as home heating oil dealers and home delivery newspaper routes are included here.

The buying of goods for resale is a characteristic of retail trade establishments that particularly distinguishes them from establishments in the agriculture, manufacturing, and construction industries. For example, farms that sell their products at or from the point of production are not classified in retail, but rather in agriculture. Similarly, establishments that both manufacture and sell their products to the general public are not classified in retail, but rather in manufacturing. However, establishments that engage in processing activities incidental to retailing are classified in retail. This includes establishments, such as optical goods stores that do in-store grinding of lenses, and meat and seafood markets.

Wholesalers also engage in the buying of goods for resale, but they are not usually organized to serve the general public. They typically operate from a warehouse or office and neither the design nor the location of these premises is intended to solicit a high volume of walk-in traffic. Wholesalers supply institutional, industrial, wholesale, and retail clients; their operations are, therefore, generally organized to purchase, sell, and deliver merchandise in larger quantities. However, dealers of durable non-consumer goods, such as farm machinery and heavy duty trucks, are included in wholesale trade even if they often sell these products in single units.

Sector 48-49 – Transportation and Warehousing

The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline.

The Transportation and Warehousing sector distinguishes three basic types of activities: subsectors for each mode of transportation, a subsector for warehousing and storage, and a subsector for establishments providing support activities for transportation. In addition, there are subsectors for establishments that provide passenger transportation for scenic and sightseeing purposes, postal services, and courier services.

A separate subsector for support activities is established in the sector because, first, support activities for transportation are inherently multimodal, such as freight transportation arrangement, or have multimodal aspects. Secondly, there are production process similarities among the support activity industries.

One of the support activities identified in the support activity subsector is the routine repair and maintenance of transportation equipment (e.g., aircraft at an airport, railroad rolling stock at a railroad terminal, or ships at a harbor or port facility). Such establishments do not perform complete overhauling or rebuilding of transportation equipment (i.e., periodic restoration of transportation equipment to original design specifications) or transportation equipment conversion (i.e., major modification to systems). An establishment that primarily performs factory (or shipyard) overhauls, rebuilding, or conversions of aircraft, railroad rolling stock, or a ship is classified in Subsector 336, Transportation Equipment Manufacturing according to the type of equipment.

Many of the establishments in this sector often operate on networks, with physical facilities, labor forces, and equipment spread over an extensive geographic area.

Warehousing establishments in this sector are distinguished from merchant wholesaling in that the warehouse establishments do not sell the goods.

Excluded from this sector are establishments primarily engaged in providing travel agent services that support transportation and other establishments, such as hotels, businesses, and government agencies. These establishments are classified in Sector 56, Administrative and Support and Waste Management and Remediation Services. Also, establishments primarily engaged in providing rental and leasing of transportation equipment without operator are classified in Subsector 532, Rental and Leasing Services.

Sector 51 – Information

The Information sector comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data.

The main components of this sector are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound

recording industries; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; the industries known as Internet service providers and web search portals, data processing industries, and the information services industries.

The expressions "information age" and "global information economy" are used with considerable frequency today. The general idea of an "information economy" includes both the notion of industries primarily producing, processing, and distributing information, as well as the idea that every industry is using available information and information technology to reorganize and make themselves more productive.

For the purpose of developing NAICS, it is the transformation of information into a commodity that is produced and distributed by a number of growing industries that is at issue. The Information sector groups three types of establishments: (1) those engaged in producing and distributing information and cultural products; (2) those that provide the means to transmit or distribute these products as well as data or communications; and (3) those that process data. Cultural products are those that directly express attitudes, opinions, ideas, values, and artistic creativity; provide entertainment; or offer information and analysis concerning the past and present. Included in this definition are popular, mass-produced, products as well as cultural products that normally have a more limited audience, such as poetry books, literary magazines, or classical records.

The unique characteristics of information and cultural products, and of the processes involved in their production and distribution, distinguish the Information sector from the goods-producing and service-producing sectors. Some of these characteristics are:

1. Unlike traditional goods, an "information or cultural product," such as a newspaper online or television program, does not necessarily have tangible qualities, nor is it necessarily associated with a particular form. A movie can be shown at a movie theater, on a television broadcast, through video-on-demand or rented at a local video store. A sound recording can be aired on radio, embedded in multimedia products, or sold at a record store.

2. Unlike traditional services, the delivery of these products does not require direct contact between the supplier and the consumer.

3. The value of these products to the consumer lies in their informational, educational, cultural, or entertainment content, not in the format in which they are distributed. Most of these products are protected from unlawful reproduction by copyright laws.

4. The intangible property aspect of information and cultural products makes the processes involved in their production and distribution very different from goods and services. Only those possessing the rights to these works are authorized to reproduce, alter, improve, and distribute them. Acquiring and

using these rights often involves significant costs. In addition, technology is revolutionizing the distribution of these products. It is possible to distribute them in a physical form, via broadcast, or on-line.

5. Distributors of information and cultural products can easily add value to the products they distribute. For instance, broadcasters add advertising not contained in the original product. This capacity means that unlike traditional distributors, they derive revenue not from sale of the distributed product to the final consumer, but from those who pay for the privilege of adding information to the original product. Similarly, a directory and mailing list publisher can acquire the rights to thousands of previously published newspaper and periodical articles and add new value by providing search and software and organizing the information in a way that facilitates research and retrieval. These products often command a much higher price than the original information.

The distribution modes for information commodities may either eliminate the necessity for traditional manufacture, or reverse the conventional order of manufacture-distribute: A newspaper distributed on-line, for example, can be printed locally or by the final consumer. Similarly, it is anticipated that packaged software, which today is mainly bought through the traditional retail channels, will soon be available mainly on-line. The NAICS Information sector is designed to make such economic changes transparent as they occur, or to facilitate designing surveys that will monitor the new phenomena and provide data to analyze the changes.

Many of the industries in the NAICS Information sector are engaged in producing products protected by copyright law, or in distributing them (other than distribution by traditional wholesale and retail methods). Examples are traditional publishing industries, software and directory and mailing list publishing industries, and film and sound industries. Broadcasting and telecommunications industries and information providers and processors are also included in the Information sector, because their technologies are so closely linked to other industries in the Information sector.

Sector 52 – Finance and Insurance

The Finance and Insurance sector comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions. Three principal types of activities are identified:

1. Raising funds by taking deposits and/or issuing securities and, in the process, incurring liabilities. Establishments engaged in this activity use raised funds to acquire financial assets by making loans and/or purchasing securities. Putting themselves at risk, they channel funds from lenders to borrowers and transform or repackage the funds with respect to maturity, scale, and risk. This activity is known as financial intermediation.

2. Pooling of risk by underwriting insurance and annuities. Establishments engaged in this activity collect fees, insurance premiums, or annuity considerations; build up reserves; invest those reserves; and make contractual payments. Fees are based on the expected incidence of the insured risk and the expected return on investment.

3. Providing specialized services facilitating or supporting financial intermediation, insurance, and employee benefit programs.

In addition, monetary authorities charged with monetary control are included in this sector.

The subsectors, industry groups, and industries within the NAICS Finance and Insurance sector are defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. In addition, the way in which these establishments acquire and allocate financial capital, their source of funds, and the use of those funds provides a third basis for distinguishing characteristics of the production process. For instance, the production process in raising funds through deposit-taking is different from the process of raising funds in bond or money markets. The process of making loans to individuals also requires different production processes than does the creation of investment pools or the underwriting of securities.

Most of the Finance and Insurance subsectors contain one or more industry groups of (1) intermediaries with similar patterns of raising and using funds and (2) establishments engaged in activities that facilitate, or are otherwise related to, that type of financial or insurance intermediation. Industries within this sector are defined in terms of activities for which a production process can be specified, and many of these activities are not exclusive to a particular type of financial institution. To deal with the varied activities taking place within existing financial institutions, the approach is to split these institutions into components performing specialized services. This requires defining the units engaged in providing those services and developing procedures that allow for their delineation. These units are the equivalents for finance and insurance of the establishments defined for other industries.

The output of many financial services, as well as the inputs and the processes by which they are combined, cannot be observed at a single location and can only be defined at a higher level of the organizational structure of the enterprise. Additionally, a number of independent activities that represent separate and distinct production processes may take place at a single location belonging to a multi-location financial firm. Activities are more likely to be homogeneous with respect to production characteristics than are locations, at least in financial services. The classification defines activities broadly enough that it can be used both by those classifying by location and by those employing a more top-down approach to the delineation of the establishment.

Establishments engaged in activities that facilitate, or are otherwise related to, the various types of intermediation have been included in individual subsectors, rather than in a separate subsector

dedicated to services alone because these services are performed by intermediaries, as well as by specialist establishments, the extent to which the activity of the intermediaries can be separately identified is not clear.

The Finance and Insurance sector has been defined to encompass establishments primarily engaged in financial transactions; that is, transactions involving the creation, liquidation, change in ownership of financial assets; or in facilitating financial transactions. Financial industries are extensive users of electronic means for facilitating the verification of financial balances, authorizing transactions, transferring funds to and from transactors' accounts, notifying banks (or credit card issuers) of the individual transactions, and providing daily summaries. Since these transaction processing activities are integral to the production of finance and insurance services, establishments that principally provide a financial transaction processing service are classified to this sector, rather than to the data processing industry in the Information sector.

Legal entities that hold portfolios of assets on behalf of others are significant and data on them are required for a variety of purposes. Thus for NAICS, these funds, trusts, and other financial vehicles are the fifth subsector of the Finance and Insurance sector. These entities earn interest, dividends, and other property income, but have little or no employment and no revenue from the sale of services. Separate establishments and employees devoted to the management of funds are classified in Industry Group 5239, Other Financial Investment Activities.

Sector 53 – Real Estate and Rental and Leasing

The Real Estate and Rental and Leasing sector comprises establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services. The major portion of this sector comprises establishments that rent, lease, or otherwise allow the use of their own assets by others. The assets may be tangible, as is the case of real estate and equipment, or intangible, as is the case with patents and trademarks.

This sector also includes establishments primarily engaged in managing real estate for others, selling, renting and/or buying real estate for others, and appraising real estate. These activities are closely related to this sector's main activity, and it was felt that from a production basis they would best be included here. In addition, a substantial proportion of property management is self-performed by lessors.

The main components of this sector are the real estate lessors industries; equipment lessors industries (including motor vehicles, computers, and consumer goods); and lessors of nonfinancial intangible assets (except copyrighted works).

Excluded from this sector are real estate investment trusts (REITS) and establishments primarily engaged in renting or leasing equipment with operators. REITS are classified in Subsector 525, Funds,

Trusts, and Other Financial Vehicles, because they are considered investment vehicles. Establishments renting or leasing equipment with operators are classified in various subsectors of NAICS depending on the nature of the services provided (e.g., transportation, construction, agriculture). These activities are excluded from this sector because the client is paying for the expertise and knowledge of the equipment operator, in addition to the rental of the equipment. In many cases, such as

Sector 54 – Professional, Scientific, and Technical Services

The Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. The establishments in this sector specialize according to expertise and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services.

This sector excludes establishments primarily engaged in providing a range of day-to-day office administrative services, such as financial planning, billing and recordkeeping, personnel, and physical distribution and logistics. These establishments are classified in Sector 56, Administrative and Support and Waste Management and Remediation Services.

Sector 55 – Management of Companies and Enterprises

The Management of Companies and Enterprises sector comprises (1) establishments that hold the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions or (2) establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision-making role of the company or enterprise. Establishments that administer, oversee, and manage may hold the securities of the company or enterprise.

Establishments in this sector perform essential activities that are often undertaken, in-house, by establishments in many sectors of the economy. By consolidating the performance of these activities of the enterprise at one establishment, economies of scale are achieved.

Government establishments primarily engaged in administering, overseeing, and managing governmental programs are classified in Sector 92, Public Administration. Establishments primarily engaged in providing a range of day-to-day office administrative services, such as financial planning, billing and recordkeeping, personnel, and physical distribution and logistics are classified in Industry 56111, Office Administrative Services.

Sector 56 – Administrative and Support and Waste Management and Remediation Services

The Administrative and Support and Waste Management and Remediation Services sector comprises establishments performing routine support activities for the day-to-day operations of other organizations. These essential activities are often undertaken in-house by establishments in many sectors of the economy. The establishments in this sector specialize in one or more of these support activities and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

The administrative and management activities performed by establishments in this sector are typically on a contract or fee basis. These activities may also be performed by establishments that are part of the company or enterprise. However, establishments involved in administering, overseeing, and managing other establishments of the company or enterprise, are classified in Sector 55, Management of Companies and Enterprises. These establishments normally undertake the strategic and organizational planning and decision making role of the company or enterprise. Government establishments engaged in administering, overseeing, and managing governmental programs are classified in Sector 92, Public Administration.

Sector 61 – Educational Services

The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. They may also offer food and accommodation services to their students.

Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means. It can be adapted to the particular needs of the students, for example sign language can replace verbal language for teaching students with hearing impairments. All industries in the sector share this commonality of process, namely, labor inputs of instructors with the requisite subject matter expertise and teaching ability.

Sector 62 – Health Care and Social Assistance

The Health Care and Social Assistance sector comprises establishments providing health care and social assistance for individuals. The sector includes both health care and social assistance because it is sometimes difficult to distinguish between the boundaries of these two activities. The industries in this sector are arranged on a continuum starting with those establishments providing medical care exclusively, continuing with those providing health care and social assistance, and finally finishing with those providing only social assistance. The services provided by establishments in this sector are delivered by trained professionals. All industries in the sector share this commonality of process, namely, labor inputs of health practitioners or social workers with the requisite expertise. Many of the industries in the sector are defined based on the educational degree held by the practitioners included in the industry.

Excluded from this sector are aerobic classes in Subsector 713, Amusement, Gambling and Recreation Industries and nonmedical diet and weight reducing centers in Subsector 812, Personal and Laundry Services. Although these can be viewed as health services, these services are not typically delivered by health practitioners.

Sector 71 – Arts, Entertainment, and Recreation

The Arts, Entertainment, and Recreation sector includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. This sector comprises (1) establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and (3) establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

Some establishments that provide cultural, entertainment, or recreational facilities and services are classified in other sectors. Excluded from this sector are: (1) establishments that provide both accommodations and recreational facilities, such as hunting and fishing camps and resort and casino hotels are classified in Subsector 721, Accommodation; (2) restaurants and night clubs that provide live entertainment in addition to the sale of food and beverages are classified in Subsector 722, Food Services and Drinking Places; (3) motion picture theaters, libraries and archives, and publishers of newspapers, magazines, books, periodicals, and computer software are classified in Sector 51, Information; and (4) establishments using transportation equipment to provide recreational and entertainment services, such as those operating sightseeing buses, dinner cruises, or helicopter rides are classified in Subsector 487, Scenic and Sightseeing Transportation.

Sector 72 – Accommodation and Food Services

The Accommodation and Food Services sector comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption. The sector includes both accommodation and food services establishments because the two activities are often combined at the same establishment.

Excluded from this sector are civic and social organizations; amusement and recreation parks; theaters; and other recreation or entertainment facilities providing food and beverage services.

Sector 81 – Other Services (except Public Administration)

The Other Services (except Public Administration) sector comprises establishments engaged in providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.

Private households that engage in employing workers on or about the premises in activities primarily concerned with the operation of the household are included in this sector.

Excluded from this sector are establishments primarily engaged in retailing new equipment and also performing repairs and general maintenance on equipment. These establishments are classified in Sector 44-45, Retail Trade.

Sector 92 – Public Administration

The Public Administration sector consists of establishments of federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions within a given area. These agencies also set policy, create laws, adjudicate civil and criminal legal cases, provide for public safety and for national defense. In general, government establishments in the Public Administration sector oversee governmental programs and activities that are not performed by private establishments. Establishments in this sector typically are engaged in the organization and financing of the production of public goods and services, most of which are provided for free or at prices that are not economically significant.

Government establishments also engage in a wide range of productive activities covering not only public goods and services but also individual goods and services similar to those produced in sectors typically identified with private-sector establishments. In general, ownership is not a criterion for classification in NAICS. Therefore, government establishments engaged in the production of private-

sector-like goods and services should be classified in the same industry as private-sector establishments engaged in similar activities.

As a practical matter, it is difficult to identify separate establishment detail for many government agencies. To the extent that separate establishment records are available, the administration of governmental programs is classified in Sector 92, Public Administration, while the operation of that same governmental program is classified elsewhere in NAICS based on the activities performed. For example, the governmental administrative authority for an airport is classified in Industry 92612, Regulation and Administration of Transportation Programs, while operating the airport is classified in Industry 48811, Airport Operations. When separate records are not available to distinguish between the administration of a governmental program and the operation of it, the establishment is classified in Sector 92, Public Administration.

Examples of government-provided goods and services that are classified in sectors other than Public Administration include: schools, classified in Sector 61, Educational Services; hospitals, classified in Subsector 622, Hospitals; establishments operating transportation facilities, classified in Sector 48-49, Transportation and Warehousing; the operation of utilities, classified in Sector 22, Utilities; and the Government Printing Office, classified in Subsector 323, Printing and Related Support Activities.

Appendix C
Plan Conformance Acreage and Petition Status

MUNICIPALITY	PLANNING AREA	PRESERVATION AREA	TOTAL ACREAGE
BERGEN COUNTY			
Mahwah Township*	7,083	9,481	16,564
Oakland Borough	3,006	2,605	5,612
Total Acres for Bergen County	**10,089**	**12,087**	**22,176**
HUNTERDON COUNTY			
Alexandria Township	15,038	2,721	17,760
Bethlehem Township	1,141	12,146	13,287
Bloomsbury Borough	0	632	632
Califon Borough	0	629	629
Clinton Town	777	141	918
Clinton Township	21,064	643	21,706
Glen Gardner Borough	0	991	991
Hampton Borough	136	835	971
High Bridge Borough	1,555	0	1,555
Holland Township	13,352	1,973	15,324
Lebanon Borough	577	0	577
Lebanon Township	6	20,264	20,270
Milford Borough	818	0	818
Tewksbury Township	6,857	13,469	20,326
Union Township	2,667	10,502	13,169
Total Acres for Hunterdon County	**63,989**	**64,945**	**128,934**
MORRIS COUNTY			
Boonton Town	1,590	0	1,590
Boonton Township	4,943	493	5,437
Butler Borough	1,318	0	1,318
Chester Borough	1,020	0	1,020
Chester Township	2,906	15,789	18,695
Denville Township	8,144	7	8,151
Dover Town	1,745	0	1,745
Hanover Township	6,878	0	6,878
Harding Township	13,162	0	13,162
Jefferson Township	3,303	24,080	27,384
Kinnelon Borough	325	11,985	12,309
Mendham Borough	3,826	0	3,826
Mendham Township	11,527	0	11,527
Mine Hill Township	1,918	0	1,918
Montville Township	8,792	3,440	12,232
Morris Township	10,118	0	10,118

Blue highlighting indicates petitions **submitted**. **Orange** highlighting indicates petitions **approved** by Council.
*Approved center(s)
Note: Acreage has been rounded resulting in some calculation anomalies

MUNICIPALITY	PLANNING AREA	PRESERVATION AREA	TOTAL ACREAGE
Morris Plains Borough	1,657	0	1,657
Morristown Town	1,924	0	1,924
Mountain Lakes Borough	1,861	0	1,861
Mount Arlington Borough	1,663	132	1,795
Mount Olive Township	4,133	15,859	19,992
Netcong Borough	611	0	611
Parsippany-Troy Hills Township	16,223	0	16,223
Pequannock Township	4,074	475	4,549
Randolph Township*	12,961	581	13,542
Riverdale Borough	1,323	0	1,323
Rockaway Borough	1,357	0	1,357
Rockaway Township	11,582	17,789	29,371
Roxbury Township	9,738	4,303	14,041
Victory Gardens Borough	93	0	93
Washington Township*	3,491	25,235	28,726
Wharton Borough*	1,362	0	1,362
Total Acres for Morris County	**155,569**	**120,167**	**275,736**
PASSAIC COUNTY			
Bloomingdale Borough	1,762	4,155	5,917
Pompton Lakes Borough	2,000	0	2,000
Ringwood Borough	0	18,230	18,230
Wanaque Borough	1,303	4,665	5,968
West Milford Township	0	51,848	51,848
Total Acres for Passaic County	**5,065**	**78,897**	**83,963**
SOMERSET COUNTY			
Bedminster Township	15,866	1,009	16,875
Bernards Township	15,570	0	15,570
Bernardsville Borough	8,265	0	8,265
Far Hills Borough	3,149	0	3,149
Peapack-Gladstone Borough	3,696	0	3,696
Total Acres for Somerset County	**46,546**	**1,009**	**47,555**
SUSSEX COUNTY			
Byram Township*	236	14,300	14,536
Franklin Borough	2,833	0	2,833
Green Township	10,169	260	10,429
Hamburg Borough	747	0	747
Hardyston Township	8,281	12,603	20,885
Hopatcong Borough*	5,333	2,615	7,948

Blue highlighting indicates petitions **submitted**. **Orange** highlighting indicates petitions **approved** by Council.

*Approved center(s)

Note: Acreage has been rounded resulting in some calculation anomalies

MUNICIPALITY	PLANNING AREA	PRESERVATION AREA	TOTAL ACREAGE
Ogdensburg Borough	1,240	197	1,437
Sparta Township	13,335	11,488	24,822
Stanhope Borough	1,341	0	1,341
Vernon Township	15,464	29,305	44,769
Total Acres for Sussex County	**58,980**	**70,769**	**129,749**
WARREN COUNTY			
Allamuchy Township	7,695	5,278	12,973
Alpha Borough*	1,098	0	1,098
Belvidere Town	950	0	950
Franklin Township	11,288	3,763	15,051
Frelinghuysen Township	15,275	0	15,275
Greenwich Township	5,994	786	6,780
Hackettstown Town*	2,171	203	2,374
Harmony Township	7,003	8,413	15,416
Hope Township	11,706	0	11,706
Independence Township	6,510	6,276	12,786
Liberty Township	543	7,090	7,633
Lopatcong Township*	3,672	1,049	4,721
Mansfield Township	5,969	13,032	19,001
Oxford Township*	1,672	2,206	3,878
Phillipsburg Town*	2,133	0	2,133
Pohatcong Township*	1,208	7,571	8,780
Washington Borough	1,259	0	1,259
Washington Township	7,953	3,595	11,547
White Township	9,993	7,800	17,793
Total Acres for Warren County	**104,093**	**67,062**	**171,155**
Total Acres for Highlands Region	**444,332**	**414,936**	**859,267**

Blue highlighting indicates petitions **submitted**. **Orange** highlighting indicates petitions **approved** by Council.

*Approved center(s)

Note: Acreage has been rounded resulting in some calculation anomalies

Appendix D
Statistical Output for Regional Economic Evaluation

Percentage Change in Total Municipal Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.063597854	1.67786362	1.09011344
M	6.8%	12.9%	8.0%
SD	0.252186149	1.295323751	1.044084977
N	88	122	191
df		208	277
t		-0.5051	-0.1567
2008 to 2013			
VAR	83.17541742	0.080866686	0.085150222
M	97.0%	0.5%	-0.6%
SD	9.120055779	0.284370684	0.291805109
N	88	122	191
df		208	277
t		0.9925	1.0037

Percentage Change in Agriculture, Forestry, Fishing and Hunting Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	12.55323041	0.967637106	1.499480002
M	61.5%	-22.0%	-3.4%
SD	3.543053825	0.983685471	1.224532565
N	34	39	57
df		71	89
t		1.3304	1.0315
2008 to 2013			
VAR	0.578228609	1.238483327	2.640375611
M	1.0%	-13.3%	11.7%
SD	0.760413446	1.112871658	1.624923263
N	30	34	52
df		62	80
t		0.6069	-0.4068

Percentage Change in Mining, Quarrying, and Oil and Gas Extraction Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.225535714	0.256874766	3.068950812
M	-46.3%	-66.9%	11.2%
SD	0.474906006	0.506828143	1.751842119
N	8	9	17
df		15	23
t		0.8673	-1.2568
2008 to 2013			
VAR	0.297895408	0.509604612	0.376359233
M	-13.9%	-14.4%	-44.1%
SD	0.545797955	0.713865962	0.613481241
N	5	7	18
df		10	21
t		0.0131	1.0633

Percentage Change in Utilities Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	2.740866181	0.6740976	0.993854931
M	28.5%	-5.9%	-6.7%
SD	1.655556155	0.82103447	0.996922731
N	22	26	51
df		46	71
t		0.8856	0.9268
2008 to 2013			
VAR	1.640916153	0.111858883	1352.747394
M	26.6%	-8.7%	544.7%
SD	1.280982495	0.33445311	36.77971443
N	24	23	43
df		45	65
t		1.3047	-0.9227

Percentage Change in Construction Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.83494618	0.12991527	0.197596489
M	19.6%	6.5%	5.8%
SD	0.913753895	0.360437609	0.444518266
N	57	90	138
df		145	193
t		1.0342	1.0922
2008 to 2013			
VAR	34.385815	0.337786013	0.257965597
M	60.4%	-7.9%	-8.3%
SD	5.863941934	0.581193611	0.507903137
N	57	91	139
df		146	194
t		0.8776	0.8834

Percentage Change in Manufacturing Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.592146308	0.198514503	0.382051144
M	8.4%	-4.0%	-0.4%
SD	0.769510434	0.445549664	0.618102859
N	55	88	134
df		141	187
t		1.0875	0.7520
2008 to 2013			
VAR	2.755610071	1.380014174	1.22596654
M	12.6%	11.7%	5.4%
SD	1.660003033	1.174740045	1.107233733
N	53	89	135
df		140	186
t		0.0345	0.2909

Percentage Change in Wholesale Trade Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.81728255	0.382687752	31.20230793
M	8.9%	13.7%	54.9%
SD	0.904036808	0.618617614	5.585902607
N	56	90	137
df		144	191
t		-0.3480	-0.9338
2008 to 2013			
VAR	19.45923381	3.547232883	2.36559421
M	84.1%	14.2%	6.8%
SD	4.411262156	1.883409908	1.538048832
N	53	90	137
df		141	188
t		1.0963	1.2457

Percentage Change in Retail Trade Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.970246113	0.173729216	0.138450251
M	15.3%	2.0%	-0.3%
SD	0.985010717	0.416808368	0.372089036
N	56	92	139
df		146	193
t		0.9596	1.1545
2008 to 2013			
VAR	1.407658956	0.293059829	0.446779241
M	29.1%	3.8%	3.3%
SD	1.186448042	0.541350006	0.66841547
N	56	92	139
df		146	193
t		1.5042	1.5311

Percentage Change in Transportation and Warehousing Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	7.080298129	1.57753609	1.197512641
M	73.3%	28.6%	25.8%
SD	2.66088296	1.256000036	1.094309207
N	57	92	139
df		147	194
t		1.1889	1.3027
2008 to 2013			
VAR	0.993549824	1.028091479	0.796285879
M	4.0%	2.4%	1.6%
SD	0.996769695	1.01394846	0.892348519
N	54	92	139
df		144	191
t		0.0968	0.1587

Percentage Change in Information Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.982064585	64.08725345	41.67756716
M	5.7%	93.6%	58.2%
SD	0.990991718	8.005451483	6.455816537
N	45	86	133
df		129	176
t		-1.0042	-0.9070
2008 to 2013			
VAR	2.14839308	0.980274814	1.968605956
M	2.5%	-12.6%	-0.1%
SD	1.465739772	0.990088286	1.403070189
N	44	86	132
df		128	174
t		0.6164	0.1028

Percentage Change in Finance and Insurance Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.80201491	0.178199224	0.188819838
M	21.0%	-0.2%	-4.6%
SD	0.895552852	0.422136499	0.434534046
N	54	87	134
df		139	186
t		1.6271	**2.0079**
2008 to 2013			
VAR	0.49435509	0.599312814	0.415273475
M	1.0%	3.2%	-3.4%
SD	0.703103897	0.774152966	0.644417159
N	55	87	134
df		140	187
t		-0.1754	0.3952

Percentage Change in Real Estate and Rental and Leasing Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.359809025	0.829657227	0.699514184
M	11.6%	33.2%	26.0%
SD	0.599840833	0.910855217	0.836369646
N	49	89	136
df		136	183
t		-1.6748	-1.2950
2008 to 2013			
VAR	1.316077707	0.208285383	0.272994372
M	7.3%	-10.1%	-4.0%
SD	1.1472043	0.456382935	0.522488633
N	53	89	137
df		140	188
t		1.0525	0.6895

Percentage Change in Professional, Scientific, and Technical Services Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	1.693758622	0.169752191	0.147909284
M	42.8%	12.7%	11.0%
SD	1.301444821	0.41200994	0.384589761
N	57	92	139
df		147	194
t		1.6968	1.8115
2008 to 2013			
VAR	0.52189114	0.531891982	0.753966297
M	7.9%	15.9%	18.4%
SD	0.722420335	0.72930925	0.868312327
N	56	91	138
df		145	192
t		-0.6485	-0.8600

Percentage Change in Management of Companies and Enterprises Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	4.4847583	475.2961147	373.1290824
M	55.8%	435.6%	396.9%
SD	2.117724793	21.801287	19.31654944
N	24	57	95
df		79	117
t		-1.3005	-1.6816
2008 to 2013			
VAR	214.4811223	6.759796582	10.52998034
M	287.2%	59.3%	75.8%
SD	14.64517403	2.599960881	3.244993118
N	27	61	99
df		86	124
t		0.8032	0.7453

Percentage Change in Administrative and Support and Waste Management and Remediation Services Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.907946524	0.332287581	0.341334659
M	17.8%	-0.2%	4.0%
SD	0.95286228	0.57644391	0.584238529
N	57	90	138
df		145	193
t		1.2832	1.0175
2008 to 2013			
VAR	69.98716792	0.921271056	0.757248922
M	125.1%	19.0%	20.5%
SD	8.365833367	0.95982866	0.870200507
N	55	91	139
df		144	192
t		0.9367	0.9249

Percentage Change in Educational Services Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.085029362	7.899713835	5.981824307
M	12.2%	44.7%	42.1%
SD	0.291597946	2.810642958	2.445776831
N	54	92	139
df		144	191
t		-1.0986	-1.4149
2008 to 2013			
VAR	4.183524344	1.344985943	0.918363304
M	28.0%	16.4%	12.7%
SD	2.045366555	1.15973529	0.958312738
N	55	92	138
df		145	191
t		0.3844	0.5296

Percentage Change in Health Care and Social Assistance Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.214362751	22.1193837	14.66361178
M	12.0%	87.7%	64.0%
SD	0.462993251	4.703124886	3.829309569
N	56	92	140
df		146	194
t		-1.5316	-1.5788
2008 to 2013			
VAR	0.260488786	0.737079931	0.660931855
M	13.5%	23.3%	23.3%
SD	0.510381021	0.858533594	0.812977155
N	55	92	140
df		145	193
t		-0.8681	-0.9994

Percentage Change in Arts, Entertainment, and Recreation Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	5.128013614	25.82382041	17.48189857
M	65.3%	116.6%	87.0%
SD	2.264511783	5.081714318	4.181136038
N	48	87	132
df		133	178
t		-0.8073	-0.4446
2008 to 2013			
VAR	2.736970931	3.551923025	7.057328194
M	40.6%	61.8%	67.0%
SD	1.654379319	1.884654617	2.65656323
N	52	85	131
df		135	181
t		-0.6919	-0.8108

Percentage Change in Accommodation and Food Services Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	1.497259362	0.09582524	0.424678404
M	39.0%	9.3%	15.1%
SD	1.223625499	0.309556521	0.651673541
N	55	92	140
df		145	193
t		1.7684	1.3730
2008 to 2013			
VAR	0.577105482	0.507777671	0.578019174
M	24.7%	20.2%	23.3%
SD	0.759674589	0.712585203	0.760275722
N	55	92	140
df		145	193
t		0.3519	0.1113

Percentage Change in Arts, Entertainment, and Recreation Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	5.128013614	25.82382041	17.48189857
M	65.3%	116.6%	87.0%
SD	2.264511783	5.081714318	4.181136038
N	48	87	132
df		133	178
t		-0.8073	-0.4446
2008 to 2013			
VAR	2.736970931	3.551923025	7.057328194
M	40.6%	61.8%	67.0%
SD	1.654379319	1.884654617	2.65656323
N	52	85	131
df		135	181
t		-0.6919	-0.8108

Percentage Change in Other Services (except Public Administration) Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.936129992	0.369981409	0.277882345
M	40.8%	19.5%	15.9%
SD	0.967538109	0.608260971	0.527145469
N	56	92	139
df		146	193
t		1.4767	1.8223
2008 to 2013			
VAR	11.41670465	2.241928436	1.64312622
M	67.3%	21.9%	19.3%
SD	3.378861443	1.497307061	1.28184485
N	56	91	139
df		145	193
t		0.9511	1.0347

Percentage Change in Public Administration Employment (QCEW), Highlands Region and Two Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2004 to 2008			
VAR	0.172345396	0.729725057	2.424253169
M	6.0%	15.7%	23.4%
SD	0.415145031	0.854239461	1.557001339
N	51	86	133
df		135	182
t		-0.8899	-1.1806
2008 to 2013			
VAR	0.058644185	0.258300417	0.1882071
M	-15.8%	2.0%	-3.8%
SD	0.242165615	0.508232641	0.433828423
N	50	87	133
df		135	181
t		**-2.7694**	**-2.3461**

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Bergen	Allendale Borough	6,992	8,284	6,721	6,166
Bergen	Alpine Borough	296	301	372	401
Bergen	Bergenfield Borough	3,777	3,725	4,143	4,301
Bergen	Bogota Borough	1,320	1,307	1,755	921
Bergen	Borough of Teterboro	6,590	6,224	5,653	6,331
Bergen	Carlstadt Borough	15,075	15,370	14,681	15,004
Bergen	Cliffside Park borough	2,834	2,825	2,793	2,747
Bergen	Closter Borough	3,096	2,962	2,974	3,249
Bergen	Cresskill Borough	2,316	2,264	2,281	2,445
Bergen	Demarest Borough	728	742	943	718
Bergen	Dumont Borough	1,822	1,742	1,829	1,938
Bergen	East Rutherford Borough	13,667	13,456	11,753	12,726
Bergen	Edgewater Borough	3,521	3,825	3,778	3,924
Bergen	Elmwood Park Borough	7,843	7,862	7,368	7,658
Bergen	Emerson Borough	2,568	2,652	2,577	2,661
Bergen	Englewood City	15,369	15,420	15,411	15,480
Bergen	Englewood Cliffs Borough	8,119	10,500	9,758	9,755
Bergen	Fair Lawn Borough	11,834	12,129	12,445	11,848
Bergen	Fairview borough	3,614	3,333	3,008	2,852
Bergen	Fort Lee borough	14,729	16,302	13,724	14,696
Bergen	Franklin Lakes Borough	7,804	7,444	8,243	7,943
Bergen	Garfield city	6,182	5,981	5,518	5,584
Bergen	Glen Rock Borough	3,840	3,942	3,653	3,856
Bergen	Hackensack City	42,548	42,584	43,904	44,193
Bergen	Harrington Park Borough	962	896	950	924
Bergen	Hasbrouck Heights Borough	4,839	4,648	4,188	4,044
Bergen	Haworth Borough	750	732	662	672
Bergen	Hillsdale Borough	2,688	2,699	2,421	2,538
Bergen	Ho-Ho-Kus Borough	1,124	1,089	1,060	921
Bergen	Leonia Borough	2,119	2,281	2,010	2,231
Bergen	Little Ferry Borough	3,724	3,469	3,220	3,469
Bergen	Lodi Borough	5,773	5,368	5,221	5,350
Bergen	Lyndhurst Township	13,503	11,972	13,435	11,659
Bergen	Mahwah Township	16,596	16,802	15,635	16,503
Bergen	Maywood Borough	4,063	3,822	3,816	3,602
Bergen	Midland Park Borough	4,170	4,482	4,441	4,274
Bergen	Montvale Borough	9,898	9,366	11,019	11,456
Bergen	Moonachie Borough	8,103	8,517	8,238	7,724
Bergen	New Milford Borough	1,909	1,693	1,732	1,826

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Bergen	North Arlington Borough	3,636	3,281	2,961	2,783
Bergen	Northvale Borough	4,274	3,962	4,332	4,276
Bergen	Norwood Borough	1,993	1,965	1,770	1,823
Bergen	Oakland Borough	6,430	6,813	7,386	6,669
Bergen	Old Tappan Borough	1,248	1,237	1,363	1,491
Bergen	Oradell Borough	3,566	2,951	3,165	3,005
Bergen	Palisades Park borough	3,841	3,884	3,503	3,602
Bergen	Paramus Borough	45,841	45,047	43,978	43,977
Bergen	Park Ridge Borough	3,379	3,162	4,768	4,208
Bergen	Ramsey Borough	10,798	10,983	11,232	10,910
Bergen	Ridgefield Borough	4,868	4,984	4,979	5,599
Bergen	Ridgefield Park Village	4,810	4,518	4,386	3,982
Bergen	Ridgewood Village	11,822	12,075	11,803	11,774
Bergen	River Edge Borough	3,281	3,387	3,633	3,492
Bergen	River Vale Township	2,279	2,359	3,037	2,967
Bergen	Rochelle Park Township	4,924	5,425	5,464	5,396
Bergen	Rockleigh Borough	1,046	1,316	1,484	1,583
Bergen	Rutherford Borough	6,436	5,127	5,946	6,397
Bergen	Saddle Brook Township	9,931	10,272	10,161	10,968
Bergen	Saddle River Borough	570	540	833	878
Bergen	South Hackensack Township	7,099	7,491	7,489	7,420
Bergen	Teaneck Township	13,741	14,290	12,332	12,231
Bergen	Tenafly Borough	4,396	3,871	3,790	3,601
Bergen	Upper Saddle River Borough	3,851	3,977	3,710	4,334
Bergen	Waldwick Borough	2,824	2,803	2,718	2,812
Bergen	Wallington Borough	2,525	2,594	2,554	2,409
Bergen	Washington Township	664	785	486	370
Bergen	Westwood Borough	5,392	5,283	4,999	4,800
Bergen	Woodcliff Lake Borough	4,388	4,062	4,321	4,424
Bergen	Wood-Ridge Borough	3,538	3,488	3,363	3,341
Bergen	Wyckoff Township	5,392	5,213	5,378	5,474
Essex	Belleville township	9,232	9,005	9,215	9,106
Essex	Bloomfield township	13,101	13,276	13,304	13,685
Essex	Caldwell borough	3,326	3,326	3,213	3,530
Essex	Cedar Grove township	6,140	5,767	5,765	5,742
Essex	City of Orange township	8,762	8,694	7,251	8,035
Essex	East Orange city	12,487	14,060	13,772	13,645
Essex	Essex Fells borough	240	241	256	291
Essex	Fairfield township	24,928	24,326	23,374	24,794
Essex	Glen Ridge borough	1,122	971	887	891

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Essex	Irvington township	10,021	9,769	9,514	10,252
Essex	Livingston township	24,451	23,670	22,389	23,310
Essex	Maplewood township	6,275	6,338	6,026	5,927
Essex	Millburn township	14,495	15,197	16,930	17,385
Essex	Montclair township	17,130	17,834	17,462	18,023
Essex	Newark city	143,931	138,223	139,404	132,943
Essex	North Caldwell borough	691	671	675	365
Essex	Nutley township	8,132	11,896	11,335	10,727
Essex	Roseland borough	12,741	11,036	9,721	11,178
Essex	South Orange Village township	2,899	5,891	5,827	5,901
Essex	Verona township	5,082	4,988	4,845	4,652
Essex	West Caldwell township	8,723	8,749	8,360	8,390
Essex	West Orange township	16,843	16,928	16,938	16,383
Hudson	Bayonne city	16,095	16,218	16,406	16,338
Hudson	East Newark borough	1,099	1,096	1,135	1,092
Hudson	Guttenberg town	1,241	1,252	1,020	1,169
Hudson	Harrison town	3,681	3,195	3,671	3,440
Hudson	Hoboken city	13,587	14,087	14,929	15,712
Hudson	Jersey City city	100,494	93,236	94,385	102,492
Hudson	Kearny town	14,064	13,682	12,091	13,079
Hudson	North Bergen township	22,578	21,712	20,190	20,075
Hudson	Secaucus town	38,918	40,010	37,524	38,779
Hudson	Union City city	11,904	11,388	12,018	11,161
Hudson	Weehawken township	7,992	6,287	7,375	7,129
Hudson	West New York town	7,353	6,791	7,136	7,289
Hunterdon	Alexandria Township	816	827	863	884
Hunterdon	Bethlehem Township	335	359	337	356
Hunterdon	Bloomsbury Borough	167	195	197	156
Hunterdon	Califon Borough	186	188	175	196
Hunterdon	Clinton Town	4,446	2,649	3,314	3,079
Hunterdon	Clinton Township	4,934	5,327	4,891	5,026
Hunterdon	Delaware Township	581	644	636	722
Hunterdon	East Amwell Township	617	702	713	854
Hunterdon	Flemington Borough	4,261	4,267	4,331	4,103
Hunterdon	Franklin Township	1,285	1,230	1,286	1,116
Hunterdon	Frenchtown Borough	341	276	325	339
Hunterdon	Glen Gardner Borough	131	129	123	106
Hunterdon	Hampton Borough	145	167	186	224
Hunterdon	High Bridge Borough	758	669	620	716
Hunterdon	Holland Township	1,005	1,106	1,268	976

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Hunterdon	Kingwood Township	626	732	796	819
Hunterdon	Lambertville City	1,384	1,337	1,219	1,242
Hunterdon	Lebanon Borough	672	863	753	799
Hunterdon	Lebanon Township	1,389	1,546	1,670	1,658
Hunterdon	Milford Borough	559	583	228	229
Hunterdon	Raritan Township	10,426	10,133	10,929	11,520
Hunterdon	Readington Township	6,498	6,574	6,364	6,018
Hunterdon	Stockton Borough	122	128	149	132
Hunterdon	Tewksbury Township	1,688	1,679	1,744	1,777
Hunterdon	Union Township	2,213	2,847	2,935	3,050
Hunterdon	West Amwell Township	826	791	832	922
Middlesex	Carteret borough	8,503	8,938	8,713	8,612
Middlesex	Cranbury township	7,368	7,625	7,878	7,714
Middlesex	Dunellen borough	1,855	1,962	2,311	2,217
Middlesex	East Brunswick township	24,689	24,278	24,048	25,479
Middlesex	Edison township	80,159	77,963	74,958	76,408
Middlesex	Helmetta borough	147	200	183	214
Middlesex	Highland Park borough	2,854	2,936	2,941	3,093
Middlesex	Jamesburg borough	1,454	1,806	1,634	1,790
Middlesex	Metuchen borough	5,021	5,059	4,813	5,278
Middlesex	Middlesex borough	6,515	6,031	6,060	6,341
Middlesex	Milltown borough	2,510	2,341	2,362	2,258
Middlesex	Monroe township	6,523	6,065	6,147	8,306
Middlesex	New Brunswick city	43,381	41,002	46,392	46,070
Middlesex	North Brunswick township	21,166	20,351	21,685	22,124
Middlesex	Old Bridge township	11,481	11,531	11,928	11,785
Middlesex	Perth Amboy city	12,380	12,629	12,349	12,397
Middlesex	Piscataway township	41,560	42,278	41,509	40,876
Middlesex	Plainsboro township	13,809	13,436	14,350	15,090
Middlesex	Sayreville borough	8,749	8,191	9,007	9,365
Middlesex	South Amboy city	1,916	1,928	1,869	1,997
Middlesex	South Brunswick township	29,651	27,933	27,588	26,261
Middlesex	South Plainfield borough	19,978	19,538	20,852	20,417
Middlesex	South River borough	2,789	3,130	3,180	3,431
Middlesex	Spotswood borough	2,505	2,618	2,513	2,395
Middlesex	Woodbridge township	52,637	49,800	48,462	53,259
Morris	Boonton Town	3,466	3,689	3,662	3,468
Morris	Boonton Township	772	707	678	618
Morris	Butler Borough	3,220	3,158	3,155	3,167
Morris	Chatham Borough	4,159	4,071	3,809	3,939

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Morris	Chatham Township	1,706	1,569	1,589	1,631
Morris	Chester Borough	1,371	1,330	1,461	1,375
Morris	Chester Township	2,398	2,466	2,608	2,572
Morris	Denville Township	9,317	9,794	9,855	10,335
Morris	Dover Town	7,348	6,605	6,507	5,772
Morris	East Hanover Township	16,868	16,319	15,767	15,759
Morris	Florham Park Borough	13,912	14,564	14,370	14,567
Morris	Hanover Township	20,070	19,409	19,183	19,683
Morris	Harding Township	1,120	1,006	1,060	1,093
Morris	Jefferson Township	2,978	2,848	3,096	3,060
Morris	Kinnelon Borough	1,154	1,067	1,188	1,207
Morris	Lincoln Park Borough	3,175	3,510	3,526	3,550
Morris	Long Hill Township	3,089	3,140	3,137	3,275
Morris	Madison Borough	9,876	9,750	9,088	8,747
Morris	Mendham Borough	1,824	1,880	1,903	1,865
Morris	Mendham Township	714	700	758	837
Morris	Mine Hill Township	395	381	384	517
Morris	Montville Township	11,330	11,032	11,761	11,315
Morris	Morris Plains Borough	7,647	6,695	6,424	6,557
Morris	Morris Township	10,471	9,973	10,771	10,203
Morris	Morristown Town	27,094	26,680	26,661	26,526
Morris	Mount Arlington Borough	1,187	1,117	1,026	1,033
Morris	Mount Olive Township	9,252	9,191	8,811	9,030
Morris	Mountain Lakes Borough	2,952	3,061	3,033	3,065
Morris	Netcong Borough	1,626	2,013	2,030	2,178
Morris	Parsippany-Troy Hills Township	57,097	54,459	56,505	60,012
Morris	Pequannock Township	6,182	5,980	6,214	6,319
Morris	Randolph Township	7,947	7,052	7,630	8,323
Morris	Riverdale Borough	2,681	2,755	2,871	2,966
Morris	Rockaway Borough	3,902	3,629	3,681	3,730
Morris	Rockaway Township	9,633	9,794	9,735	10,217
Morris	Roxbury Township	8,524	8,436	9,149	8,968
Morris	Victory Gardens Borough	222	158	160	174
Morris	Washington Township	3,468	3,394	3,415	3,459
Morris	Wharton Borough	2,103	2,109	1,844	2,161
Passaic	Bloomingdale Borough	1,210	1,142	1,089	1,296
Passaic	Clifton City	33,640	33,486	33,593	34,174
Passaic	Haledon Borough	1,441	1,461	1,549	1,607
Passaic	Hawthorne Borough	6,943	7,161	6,597	6,486
Passaic	Little Falls Township	6,620	6,602	6,305	6,949

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Passaic	North Haledon Borough	1,472	1,439	1,477	1,331
Passaic	Passaic city	17,521	17,760	17,586	18,642
Passaic	Paterson city	39,730	38,175	40,551	40,930
Passaic	Pompton Lakes Borough	2,111	2,013	2,251	2,150
Passaic	Prospect Park Borough	451	512	487	409
Passaic	Ringwood Borough	2,396	2,134	2,167	2,316
Passaic	Totowa Borough	14,657	14,431	14,125	14,901
Passaic	Wanaque Borough	1,891	1,781	1,764	1,726
Passaic	Wayne Township	39,278	38,095	40,366	40,294
Passaic	West Milford Township	4,017	4,054	4,215	4,256
Passaic	Woodland Park Borough	4,386	4,177	4,147	4,176
Somerset	Bedminster Township	9,112	8,756	8,579	7,871
Somerset	Bernards Township	7,966	9,203	8,767	9,933
Somerset	Bernardsville Borough	3,057	3,012	3,105	3,314
Somerset	Bound Brook Borough	2,717	2,984	2,851	2,986
Somerset	Branchburg Township	10,110	10,828	9,885	9,738
Somerset	Bridgewater Township	38,239	35,125	34,003	32,931
Somerset	Far Hills Borough	282	253	235	235
Somerset	Franklin Township	29,492	29,585	28,811	29,619
Somerset	Green Brook Township	2,424	2,574	2,507	2,570
Somerset	Hillsborough Township	6,717	7,581	8,358	9,961
Somerset	Manville Borough	2,337	2,522	2,600	2,464
Somerset	Millstone Borough	17	12	6	14
Somerset	Montgomery Township	10,331	11,453	11,541	12,524
Somerset	North Plainfield Borough	3,018	3,083	3,073	2,563
Somerset	Peapack-Gladstone Borough	1,488	1,553	1,665	1,820
Somerset	Raritan Borough	9,742	10,357	9,401	7,754
Somerset	Rocky Hill Borough	391	376	360	363
Somerset	Somerville Borough	12,295	11,859	11,769	9,509
Somerset	South Bound Brook Borough	573	499	492	428
Somerset	Warren Township	12,123	12,642	12,363	12,905
Somerset	Watchung Borough	4,684	5,068	5,257	5,410
Sussex	Andover Borough	161	132	160	182
Sussex	Andover Township	1,513	1,451	2,217	1,981
Sussex	Branchville Borough	277	271	301	292
Sussex	Byram Township	870	903	898	944
Sussex	Frankford Township	2,362	2,317	2,362	2,374
Sussex	Franklin Borough	1,040	1,041	1,380	1,220
Sussex	Fredon Township	226	209	214	245
Sussex	Green Township	1,490	1,379	789	851

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Sussex	Hamburg Borough	1,010	1,060	1,085	1,195
Sussex	Hampton Township	4,065	3,730	4,179	4,195
Sussex	Hardyston Township	1,610	1,492	1,646	1,609
Sussex	Hopatcong Borough	975	917	987	1,059
Sussex	Lafayette Township	848	887	881	842
Sussex	Montague Township	315	435	426	452
Sussex	Newton Town	4,421	4,312	4,478	4,512
Sussex	Ogdensburg Borough	227	198	216	216
Sussex	Sandyston Township	305	333	354	381
Sussex	Sparta Township	6,089	5,919	6,069	6,434
Sussex	Stanhope Borough	2,086	2,112	2,261	2,339
Sussex	Stillwater Township	393	437	431	410
Sussex	Sussex Borough	637	673	675	638
Sussex	Vernon Township	2,711	2,744	2,859	3,673
Sussex	Walpack Township	1			
Sussex	Wantage Township	2,063	1,961	2,015	2,084
Union	Berkeley Heights township	5,719	6,074	6,187	6,352
Union	Clark township	8,782	9,020	8,898	9,197
Union	Cranford township	14,518	14,232	14,290	14,034
Union	Elizabeth city	41,968	43,646	42,385	44,837
Union	Fanwood borough	1,683	1,715	1,722	1,650
Union	Garwood borough	2,452	2,467	2,353	2,342
Union	Hillside township	8,158	7,336	7,446	7,584
Union	Kenilworth borough	12,455	12,397	11,598	12,560
Union	Linden city	21,309	21,092	20,738	21,178
Union	Mountainside borough	5,585	5,999	5,781	6,196
Union	New Providence borough	9,391	8,927	8,372	7,864
Union	Plainfield city	11,369	11,327	10,815	11,479
Union	Rahway city	17,735	17,772	16,950	16,906
Union	Roselle borough	4,430	4,091	4,101	4,194
Union	Roselle Park borough	2,030	2,099	2,014	2,008
Union	Scotch Plains township	5,886	4,918	5,981	5,921
Union	Springfield township	11,374	10,611	11,052	11,112
Union	Summit city	15,410	15,294	14,796	15,299
Union	Union township	34,117	34,802	34,383	34,066
Union	Westfield town	11,013	10,767	10,393	9,004
Union	Winfield township	65	69	67	65
Warren	Allamuchy Township	473	463	685	658
Warren	Alpha Borough	634	620	652	654
Warren	Belvidere Town	585	623	538	404

Total Employment (LEHD)					
County	**Municipality**	**2002**	**2003**	**2004**	**2005**
Warren	Blairstown Township	1,886	1,788	1,860	1,716
Warren	Franklin Township	528	584	607	580
Warren	Frelinghuysen Township	220	230	228	243
Warren	Greenwich Township	656	920	1,267	1,315
Warren	Hackettstown Town	6,841	6,807	7,060	7,329
Warren	Hardwick Township	158	182	194	325
Warren	Harmony Township	524	518	541	512
Warren	Hope Township	399	357	347	362
Warren	Independence Township	781	780	888	882
Warren	Knowlton Township	562	576	520	620
Warren	Liberty Township	116	116	196	179
Warren	Lopatcong Township	2,342	2,266	2,255	2,480
Warren	Mansfield Township	744	761	837	903
Warren	Oxford Township	656	670	562	512
Warren	Phillipsburg Town	5,991	5,934	6,061	6,235
Warren	Pohatcong Township	1,860	1,944	2,160	2,098
Warren	Washington Borough	3,872	3,805	3,656	3,749
Warren	Washington Township	982	899	1,026	1,119
Warren	White Township	2,656	3,096	2,384	2,841

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Bergen	Allendale Borough	7,099	3,226	3,228	3,131
Bergen	Alpine Borough	386	400	396	391
Bergen	Bergenfield Borough	4,056	3,941	3,902	3,883
Bergen	Bogota Borough	988	1,068	987	921
Bergen	Borough of Teterboro	6,842	7,340	7,810	6,790
Bergen	Carlstadt Borough	14,733	14,611	15,114	14,335
Bergen	Cliffside Park borough	2,699	2,732	2,771	2,153
Bergen	Closter Borough	3,292	2,991	2,954	2,873
Bergen	Cresskill Borough	2,665	3,247	3,244	3,288
Bergen	Demarest Borough	843	712	795	802
Bergen	Dumont Borough	1,828	2,296	2,263	1,724
Bergen	East Rutherford Borough	13,190	13,223	12,528	12,662
Bergen	Edgewater Borough	4,358	4,693	4,758	4,434
Bergen	Elmwood Park Borough	8,810	8,576	7,959	8,696
Bergen	Emerson Borough	2,465	2,538	2,666	2,580
Bergen	Englewood City	15,225	15,082	15,474	15,164
Bergen	Englewood Cliffs Borough	9,151	9,052	8,981	7,459
Bergen	Fair Lawn Borough	12,620	13,241	13,069	12,205
Bergen	Fairview borough	2,844	2,720	2,568	2,342
Bergen	Fort Lee borough	14,852	14,696	15,205	15,336
Bergen	Franklin Lakes Borough	8,085	7,884	8,064	8,101
Bergen	Garfield city	5,696	5,465	5,288	5,235
Bergen	Glen Rock Borough	3,784	3,914	3,253	3,188
Bergen	Hackensack City	43,834	43,802	44,469	42,536
Bergen	Harrington Park Borough	973	849	1,058	979
Bergen	Hasbrouck Heights Borough	4,683	4,125	3,940	4,060
Bergen	Haworth Borough	756	766	783	765
Bergen	Hillsdale Borough	2,544	2,448	2,495	2,426
Bergen	Ho-Ho-Kus Borough	1,241	998	1,022	1,006
Bergen	Leonia Borough	2,304	1,994	2,079	2,204
Bergen	Little Ferry Borough	3,566	3,528	3,207	2,830
Bergen	Lodi Borough	5,403	5,492	5,697	5,388
Bergen	Lyndhurst Township	13,931	15,360	14,020	13,006
Bergen	Mahwah Township	16,535	16,825	16,664	15,670
Bergen	Maywood Borough	4,016	3,352	3,256	2,807
Bergen	Midland Park Borough	4,411	4,185	4,100	3,814
Bergen	Montvale Borough	10,796	11,552	12,061	11,908
Bergen	Moonachie Borough	6,982	7,170	6,701	6,061
Bergen	New Milford Borough	1,999	2,161	2,225	2,261
Bergen	North Arlington Borough	2,795	2,642	2,740	2,716

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Bergen	Northvale Borough	4,297	4,448	4,048	3,884
Bergen	Norwood Borough	2,123	2,184	2,394	1,954
Bergen	Oakland Borough	6,330	6,354	6,055	5,470
Bergen	Old Tappan Borough	1,443	1,603	1,660	1,667
Bergen	Oradell Borough	3,124	3,640	3,668	3,823
Bergen	Palisades Park borough	3,480	3,621	3,504	2,751
Bergen	Paramus Borough	41,480	44,096	46,753	44,251
Bergen	Park Ridge Borough	3,954	4,484	4,345	4,430
Bergen	Ramsey Borough	10,712	11,176	11,058	9,635
Bergen	Ridgefield Borough	5,737	6,240	5,900	5,727
Bergen	Ridgefield Park Village	4,374	3,051	2,929	2,765
Bergen	Ridgewood Village	11,695	11,762	12,099	12,170
Bergen	River Edge Borough	3,511	3,716	3,714	3,723
Bergen	River Vale Township	2,996	2,989	2,986	2,991
Bergen	Rochelle Park Township	5,476	5,533	5,429	4,622
Bergen	Rockleigh Borough	1,582	1,723	1,676	1,673
Bergen	Rutherford Borough	6,382	7,254	7,400	7,242
Bergen	Saddle Brook Township	10,732	10,104	9,756	10,092
Bergen	Saddle River Borough	1,057	4,709	4,901	5,427
Bergen	South Hackensack Township	7,390	5,747	6,131	5,516
Bergen	Teaneck Township	12,557	15,586	15,961	15,326
Bergen	Tenafly Borough	3,529	3,699	3,845	5,186
Bergen	Upper Saddle River Borough	4,338	4,143	3,967	3,519
Bergen	Waldwick Borough	2,730	2,996	2,875	2,950
Bergen	Wallington Borough	1,800	2,348	2,606	2,391
Bergen	Washington Township	337	596	868	832
Bergen	Westwood Borough	5,215	5,132	4,103	3,994
Bergen	Woodcliff Lake Borough	4,515	4,670	5,054	5,147
Bergen	Wood-Ridge Borough	3,104	2,805	2,522	2,349
Bergen	Wyckoff Township	5,421	5,412	5,510	5,354
Essex	Belleville township	9,565	9,371	9,267	8,626
Essex	Bloomfield township	13,487	13,681	13,387	12,600
Essex	Caldwell borough	3,725	2,213	2,252	2,476
Essex	Cedar Grove township	5,658	5,396	5,681	5,377
Essex	City of Orange township	8,204	8,018	7,792	6,512
Essex	East Orange city	13,586	13,730	11,405	13,212
Essex	Essex Fells borough	295	293	276	274
Essex	Fairfield township	24,910	24,244	25,477	22,494
Essex	Glen Ridge borough	930	893	937	971
Essex	Irvington township	7,773	10,116	10,029	9,694

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Essex	Livingston township	23,767	22,959	21,548	21,656
Essex	Maplewood township	6,288	6,252	6,104	6,117
Essex	Millburn township	17,028	16,965	17,094	16,944
Essex	Montclair township	18,330	18,832	20,551	21,077
Essex	Newark city	137,197	146,837	143,696	149,113
Essex	North Caldwell borough	409	353	317	316
Essex	Nutley township	11,586	11,909	11,370	11,273
Essex	Roseland borough	12,555	13,544	12,921	12,775
Essex	South Orange Village township	5,870	6,036	3,970	7,511
Essex	Verona township	4,521	4,581	4,499	4,467
Essex	West Caldwell township	9,287	10,762	10,420	10,358
Essex	West Orange township	15,346	15,688	15,091	14,637
Hudson	Bayonne city	16,853	16,323	15,358	13,392
Hudson	East Newark borough	975	648	480	362
Hudson	Guttenberg town	1,145	1,065	1,038	1,047
Hudson	Harrison town	3,852	4,509	4,260	4,341
Hudson	Hoboken city	17,253	17,498	18,394	18,157
Hudson	Jersey City city	88,012	96,605	98,920	93,456
Hudson	Kearny town	13,062	13,995	13,494	13,590
Hudson	North Bergen township	19,742	18,850	18,328	17,882
Hudson	Secaucus town	36,989	36,979	37,903	37,443
Hudson	Union City city	11,831	11,026	10,491	10,590
Hudson	Weehawken township	7,510	7,491	7,575	6,905
Hudson	West New York town	7,286	7,090	7,330	7,304
Hunterdon	Alexandria Township	1,016	886	919	904
Hunterdon	Bethlehem Township	395	2,493	2,356	2,190
Hunterdon	Bloomsbury Borough	232	215	206	188
Hunterdon	Califon Borough	222	232	226	239
Hunterdon	Clinton Town	3,055	2,767	2,764	2,531
Hunterdon	Clinton Township	5,683	5,794	5,653	5,411
Hunterdon	Delaware Township	707	650	648	616
Hunterdon	East Amwell Township	905	839	746	758
Hunterdon	Flemington Borough	4,322	4,084	4,031	4,387
Hunterdon	Franklin Township	1,103	1,337	1,317	1,346
Hunterdon	Frenchtown Borough	415	415	352	407
Hunterdon	Glen Gardner Borough	108	133	72	169
Hunterdon	Hampton Borough	205	237	239	219
Hunterdon	High Bridge Borough	851	852	877	800
Hunterdon	Holland Township	1,078	740	720	761
Hunterdon	Kingwood Township	796	799	688	713

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Hunterdon	Lambertville City	1,352	1,385	1,373	1,334
Hunterdon	Lebanon Borough	800	753	785	796
Hunterdon	Lebanon Township	1,736	1,397	1,334	1,368
Hunterdon	Milford Borough	238	244	254	220
Hunterdon	Raritan Township	11,565	11,591	11,562	11,972
Hunterdon	Readington Township	5,777	5,654	5,815	8,516
Hunterdon	Stockton Borough	140	220	201	174
Hunterdon	Tewksbury Township	1,774	1,857	2,029	1,932
Hunterdon	Union Township	3,123	1,130	1,161	1,425
Hunterdon	West Amwell Township	915	815	841	860
Middlesex	Carteret borough	8,456	7,246	8,234	7,638
Middlesex	Cranbury township	7,374	7,711	7,975	7,586
Middlesex	Dunellen borough	2,212	937	948	940
Middlesex	East Brunswick township	25,918	27,634	26,910	23,867
Middlesex	Edison township	77,911	79,361	77,966	74,748
Middlesex	Helmetta borough	185	166	152	157
Middlesex	Highland Park borough	2,954	2,846	2,689	2,605
Middlesex	Jamesburg borough	3,215	3,380	3,420	3,442
Middlesex	Metuchen borough	5,854	6,009	5,916	5,576
Middlesex	Middlesex borough	6,033	5,734	5,665	5,499
Middlesex	Milltown borough	2,028	1,816	1,700	1,361
Middlesex	Monroe township	8,023	8,345	9,011	8,868
Middlesex	New Brunswick city	46,471	39,995	40,587	42,933
Middlesex	North Brunswick township	22,655	23,675	26,050	25,337
Middlesex	Old Bridge township	11,973	10,666	11,331	10,891
Middlesex	Perth Amboy city	12,364	11,172	12,601	12,712
Middlesex	Piscataway township	40,622	41,288	41,099	40,261
Middlesex	Plainsboro township	15,896	14,619	14,360	14,221
Middlesex	Sayreville borough	9,601	10,093	9,788	9,580
Middlesex	South Amboy city	1,909	1,448	1,878	1,909
Middlesex	South Brunswick township	27,345	27,365	27,082	24,984
Middlesex	South Plainfield borough	21,151	20,831	21,763	21,673
Middlesex	South River borough	3,421	3,594	3,104	2,747
Middlesex	Spotswood borough	2,644	2,196	2,177	2,236
Middlesex	Woodbridge township	52,661	54,355	55,087	50,303
Morris	Boonton Town	3,309	3,633	3,441	3,181
Morris	Boonton Township	639	749	748	661
Morris	Butler Borough	3,294	2,555	2,572	2,537
Morris	Chatham Borough	3,969	4,206	4,072	3,779
Morris	Chatham Township	1,739	1,995	1,987	1,913

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Morris	Chester Borough	1,310	2,846	2,816	2,749
Morris	Chester Township	2,563	1,228	1,595	1,573
Morris	Denville Township	10,332	10,127	10,107	9,701
Morris	Dover Town	6,209	6,283	6,043	5,983
Morris	East Hanover Township	16,369	15,998	17,567	15,954
Morris	Florham Park Borough	12,655	15,373	15,790	16,565
Morris	Hanover Township	19,709	19,499	19,233	16,201
Morris	Harding Township	1,146	1,064	1,051	1,046
Morris	Jefferson Township	3,396	3,904	4,083	3,712
Morris	Kinnelon Borough	1,280	2,042	1,918	1,962
Morris	Lincoln Park Borough	3,726	3,830	3,954	3,895
Morris	Long Hill Township	3,382	3,283	3,306	3,165
Morris	Madison Borough	8,259	8,310	7,375	7,811
Morris	Mendham Borough	1,910	1,805	1,894	1,814
Morris	Mendham Township	816	760	771	766
Morris	Mine Hill Township	506	505	554	461
Morris	Montville Township	12,008	10,483	11,655	11,070
Morris	Morris Plains Borough	5,959	6,011	5,510	5,065
Morris	Morris Township	11,160	10,919	11,240	11,478
Morris	Morristown Town	25,619	24,687	24,380	24,515
Morris	Mount Arlington Borough	1,116	1,262	1,419	1,405
Morris	Mount Olive Township	9,597	10,370	10,617	10,153
Morris	Mountain Lakes Borough	3,028	2,838	2,690	2,854
Morris	Netcong Borough	2,109	1,970	1,958	1,885
Morris	Parsippany-Troy Hills Township	58,675	58,108	57,248	52,959
Morris	Pequannock Township	6,546	6,538	6,380	6,634
Morris	Randolph Township	7,847	8,795	8,372	7,826
Morris	Riverdale Borough	3,022	3,046	2,566	2,474
Morris	Rockaway Borough	3,986	4,129	4,324	4,351
Morris	Rockaway Township	10,533	10,658	11,179	10,053
Morris	Roxbury Township	9,534	9,229	9,437	9,098
Morris	Victory Gardens Borough	160	165	116	131
Morris	Washington Township	3,696	3,913	4,030	3,869
Morris	Wharton Borough	2,165	1,934	1,801	1,747
Passaic	Bloomingdale Borough	1,299	1,306	1,333	1,234
Passaic	Clifton City	32,059	32,139	32,474	29,515
Passaic	Haledon Borough	1,138	1,269	1,296	1,285
Passaic	Hawthorne Borough	6,670	6,338	6,173	5,827
Passaic	Little Falls Township	6,944	6,634	6,455	5,385
Passaic	North Haledon Borough	1,544	1,906	1,863	1,627

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Passaic	Passaic city	18,229	17,348	17,409	15,955
Passaic	Paterson city	41,526	42,507	41,476	40,486
Passaic	Pompton Lakes Borough	2,114	2,007	2,066	2,112
Passaic	Prospect Park Borough	391	511	544	549
Passaic	Ringwood Borough	2,313	2,474	2,363	2,114
Passaic	Totowa Borough	14,621	14,632	14,611	12,581
Passaic	Wanaque Borough	1,667	2,135	1,992	2,047
Passaic	Wayne Township	37,723	42,067	41,830	40,870
Passaic	West Milford Township	4,558	4,708	4,718	4,700
Passaic	Woodland Park Borough	4,100	4,746	4,857	5,355
Somerset	Bedminster Township	8,599	9,205	9,238	9,305
Somerset	Bernards Township	9,883	11,213	12,936	12,094
Somerset	Bernardsville Borough	3,350	3,144	3,048	2,831
Somerset	Bound Brook Borough	2,907	3,073	3,247	3,964
Somerset	Branchburg Township	10,203	12,522	12,530	11,626
Somerset	Bridgewater Township	28,535	34,105	33,743	32,465
Somerset	Far Hills Borough	204	488	471	447
Somerset	Franklin Township	29,267	31,204	31,292	31,453
Somerset	Green Brook Township	2,396	3,953	3,892	3,669
Somerset	Hillsborough Township	10,414	10,722	11,092	10,812
Somerset	Manville Borough	1,699	2,250	2,173	2,245
Somerset	Millstone Borough	21	32	37	23
Somerset	Montgomery Township	12,379	10,578	10,837	10,635
Somerset	North Plainfield Borough	3,031	3,322	3,713	2,720
Somerset	Peapack-Gladstone Borough	1,895	1,487	1,426	1,535
Somerset	Raritan Borough	10,212	10,093	9,491	9,428
Somerset	Rocky Hill Borough	412	432	413	397
Somerset	Somerville Borough	11,679	7,861	7,498	7,898
Somerset	South Bound Brook Borough	445	424	407	424
Somerset	Warren Township	14,591	13,424	13,450	13,708
Somerset	Watchung Borough	4,871	4,856	4,931	4,616
Sussex	Andover Borough	164	203	189	177
Sussex	Andover Township	2,093	2,445	2,514	2,805
Sussex	Branchville Borough	316	288	273	319
Sussex	Byram Township	803	814	740	724
Sussex	Frankford Township	2,345	2,413	2,398	2,363
Sussex	Franklin Borough	1,054	1,048	1,225	1,110
Sussex	Fredon Township	212	3,035	2,783	371
Sussex	Green Township	922	786	859	498
Sussex	Hamburg Borough	1,177	1,185	1,182	1,235

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Sussex	Hampton Township	4,316	1,141	1,241	3,780
Sussex	Hardyston Township	1,756	1,814	1,853	1,836
Sussex	Hopatcong Borough	1,104	1,143	1,179	1,169
Sussex	Lafayette Township	1,031	1,572	1,615	1,465
Sussex	Montague Township	516	519	521	585
Sussex	Newton Town	4,384	4,414	4,513	4,322
Sussex	Ogdensburg Borough	245	198	187	168
Sussex	Sandyston Township	394	362	320	339
Sussex	Sparta Township	6,286	5,458	5,552	5,431
Sussex	Stanhope Borough	1,921	1,680	1,626	1,658
Sussex	Stillwater Township	426	416	415	437
Sussex	Sussex Borough	584	607	620	693
Sussex	Vernon Township	3,386	3,750	3,616	2,649
Sussex	Walpack Township	2006	2007	2008	2009
Sussex	Wantage Township	7,099	3,226	3,228	3,131
Union	Berkeley Heights township	386	400	396	391
Union	Clark township	4,056	3,941	3,902	3,883
Union	Cranford township	988	1,068	987	921
Union	Elizabeth city	6,842	7,340	7,810	6,790
Union	Fanwood borough	14,733	14,611	15,114	14,335
Union	Garwood borough	2,699	2,732	2,771	2,153
Union	Hillside township	3,292	2,991	2,954	2,873
Union	Kenilworth borough	2,665	3,247	3,244	3,288
Union	Linden city	843	712	795	802
Union	Mountainside borough	1,828	2,296	2,263	1,724
Union	New Providence borough	13,190	13,223	12,528	12,662
Union	Plainfield city	4,358	4,693	4,758	4,434
Union	Rahway city	8,810	8,576	7,959	8,696
Union	Roselle borough	2,465	2,538	2,666	2,580
Union	Roselle Park borough	15,225	15,082	15,474	15,164
Union	Scotch Plains township	9,151	9,052	8,981	7,459
Union	Springfield township	12,620	13,241	13,069	12,205
Union	Summit city	2,844	2,720	2,568	2,342
Union	Union township	14,852	14,696	15,205	15,336
Union	Westfield town	8,085	7,884	8,064	8,101
Union	Winfield township	5,696	5,465	5,288	5,235
Warren	Allamuchy Township	3,784	3,914	3,253	3,188
Warren	Alpha Borough	43,834	43,802	44,469	42,536
Warren	Belvidere Town	973	849	1,058	979
Warren	Blairstown Township	4,683	4,125	3,940	4,060

Total Employment (LEHD)					
County	**Municipality**	**2006**	**2007**	**2008**	**2009**
Warren	Franklin Township	756	766	783	765
Warren	Frelinghuysen Township	2,544	2,448	2,495	2,426
Warren	Greenwich Township	1,241	998	1,022	1,006
Warren	Hackettstown Town	2,304	1,994	2,079	2,204
Warren	Hardwick Township	3,566	3,528	3,207	2,830
Warren	Harmony Township	5,403	5,492	5,697	5,388
Warren	Hope Township	13,931	15,360	14,020	13,006
Warren	Independence Township	16,535	16,825	16,664	15,670
Warren	Knowlton Township	4,016	3,352	3,256	2,807
Warren	Liberty Township	4,411	4,185	4,100	3,814
Warren	Lopatcong Township	10,796	11,552	12,061	11,908
Warren	Mansfield Township	6,982	7,170	6,701	6,061
Warren	Oxford Township	1,999	2,161	2,225	2,261
Warren	Phillipsburg Town	2,795	2,642	2,740	2,716
Warren	Pohatcong Township	4,297	4,448	4,048	3,884
Warren	Washington Borough	2,123	2,184	2,394	1,954
Warren	Washington Township	6,330	6,354	6,055	5,470
Warren	White Township	1,443	1,603	1,660	1,667

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Bergen	Allendale Borough	2,852	4,319	3,656	3,691
Bergen	Alpine Borough	430	580	374	451
Bergen	Bergenfield Borough	3,656	4,096	4,079	3,931
Bergen	Bogota Borough	958	967	978	1,070
Bergen	Borough of Teterboro	6,748	7,129	6,964	6,860
Bergen	Carlstadt Borough	13,510	13,416	12,546	12,847
Bergen	Cliffside Park borough	2,657	2,710	2,590	2,597
Bergen	Closter Borough	3,013	2,850	3,043	3,051
Bergen	Cresskill Borough	3,272	3,615	3,848	3,668
Bergen	Demarest Borough	840	864	809	742
Bergen	Dumont Borough	1,913	2,108	2,060	2,212
Bergen	East Rutherford Borough	10,840	11,966	8,859	8,512
Bergen	Edgewater Borough	4,685	4,466	4,810	4,828
Bergen	Elmwood Park Borough	9,000	8,633	8,746	8,464
Bergen	Emerson Borough	2,524	2,500	2,489	2,394
Bergen	Englewood City	15,557	16,400	15,922	15,475
Bergen	Englewood Cliffs Borough	9,523	8,830	8,714	8,712
Bergen	Fair Lawn Borough	12,546	11,373	12,901	13,086
Bergen	Fairview borough	2,456	2,351	2,358	2,411
Bergen	Fort Lee borough	15,726	11,934	12,014	12,724
Bergen	Franklin Lakes Borough	8,363	6,838	7,697	7,507
Bergen	Garfield city	5,478	5,785	5,577	5,697
Bergen	Glen Rock Borough	2,699	3,256	3,352	3,367
Bergen	Hackensack City	43,985	44,731	43,433	44,289
Bergen	Harrington Park Borough	1,073	1,107	1,090	1,128
Bergen	Hasbrouck Heights Borough	3,997	7,546	7,586	7,441
Bergen	Haworth Borough	751	629	714	720
Bergen	Hillsdale Borough	2,291	2,145	2,181	2,166
Bergen	Ho-Ho-Kus Borough	1,068	1,039	1,053	1,048
Bergen	Leonia Borough	2,341	2,280	2,301	2,382
Bergen	Little Ferry Borough	2,960	2,859	3,071	3,238
Bergen	Lodi Borough	5,498	5,623	5,238	5,459
Bergen	Lyndhurst Township	11,166	10,438	10,503	10,999
Bergen	Mahwah Township	16,300	13,870	15,689	15,910
Bergen	Maywood Borough	2,956	3,671	3,276	3,146
Bergen	Midland Park Borough	3,873	3,763	3,608	3,413
Bergen	Montvale Borough	11,552	11,081	11,099	10,461
Bergen	Moonachie Borough	5,851	6,263	9,412	9,484
Bergen	New Milford Borough	2,209	2,171	2,321	2,288
Bergen	North Arlington Borough	2,885	2,684	3,249	3,661

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Bergen	Northvale Borough	3,879	3,803	3,370	3,556
Bergen	Norwood Borough	1,910	2,008	1,757	1,863
Bergen	Oakland Borough	5,156	5,238	5,322	5,349
Bergen	Old Tappan Borough	1,668	1,511	2,215	2,139
Bergen	Oradell Borough	3,891	3,456	3,254	3,311
Bergen	Palisades Park borough	3,129	3,383	3,369	3,350
Bergen	Paramus Borough	44,019	44,159	43,704	44,616
Bergen	Park Ridge Borough	3,663	4,047	4,043	3,664
Bergen	Ramsey Borough	11,067	9,865	10,602	10,517
Bergen	Ridgefield Borough	4,968	4,802	4,728	4,716
Bergen	Ridgefield Park Village	3,834	3,816	4,058	4,049
Bergen	Ridgewood Village	12,054	12,343	11,834	12,337
Bergen	River Edge Borough	3,832	3,909	3,970	3,777
Bergen	River Vale Township	3,019	2,462	1,618	1,612
Bergen	Rochelle Park Township	4,969	5,340	5,063	4,807
Bergen	Rockleigh Borough	1,679	1,819	1,825	1,886
Bergen	Rutherford Borough	7,068	7,133	7,236	7,367
Bergen	Saddle Brook Township	9,496	9,131	9,713	9,532
Bergen	Saddle River Borough	5,219	1,133	1,089	1,021
Bergen	South Hackensack Township	6,386	5,550	4,932	5,128
Bergen	Teaneck Township	15,737	16,015	16,242	17,992
Bergen	Tenafly Borough	3,894	3,861	3,733	4,027
Bergen	Upper Saddle River Borough	4,585	4,809	4,726	4,756
Bergen	Waldwick Borough	2,682	2,823	2,740	2,930
Bergen	Wallington Borough	2,589	2,411	2,222	2,261
Bergen	Washington Township	775	1,418	1,597	1,648
Bergen	Westwood Borough	3,886	3,958	4,038	4,105
Bergen	Woodcliff Lake Borough	5,973	5,793	5,294	5,119
Bergen	Wood-Ridge Borough	2,046	1,923	2,129	2,241
Bergen	Wyckoff Township	5,342	5,577	5,102	5,412
Essex	Belleville township	9,236	8,882	9,033	8,266
Essex	Bloomfield township	12,722	13,239	12,942	13,438
Essex	Caldwell borough	2,359	2,437	2,494	2,516
Essex	Cedar Grove township	4,969	5,763	5,421	5,372
Essex	City of Orange township	8,764	6,665	6,373	6,320
Essex	East Orange city	13,209	15,736	14,718	15,117
Essex	Essex Fells borough	274	259	260	260
Essex	Fairfield township	23,499	22,503	21,420	21,688
Essex	Glen Ridge borough	1,069	1,141	1,148	1,176
Essex	Irvington township	8,916	6,828	9,368	9,098

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Essex	Livingston township	22,228	21,887	22,985	24,048
Essex	Maplewood township	6,153	6,346	6,541	6,480
Essex	Millburn township	16,535	16,415	17,526	17,018
Essex	Montclair township	21,404	20,732	21,047	21,646
Essex	Newark city	150,528	144,020	138,204	140,013
Essex	North Caldwell borough	298	312	982	1,103
Essex	Nutley township	11,090	10,122	8,209	7,034
Essex	Roseland borough	12,604	11,459	11,081	10,863
Essex	South Orange Village township	7,590	4,438	7,465	7,573
Essex	Verona township	4,442	4,073	4,389	4,344
Essex	West Caldwell township	9,967	9,858	8,724	9,198
Essex	West Orange township	15,431	15,024	15,102	15,191
Hudson	Bayonne city	14,458	15,004	14,422	14,702
Hudson	East Newark borough	373	311	192	222
Hudson	Guttenberg town	1,078	999	1,087	1,070
Hudson	Harrison town	4,517	4,541	4,815	4,688
Hudson	Hoboken city	18,961	18,866	18,477	18,882
Hudson	Jersey City city	105,100	108,914	110,838	112,466
Hudson	Kearny town	12,813	13,005	12,913	13,105
Hudson	North Bergen township	18,839	18,630	18,567	18,580
Hudson	Secaucus town	36,178	35,221	35,232	36,585
Hudson	Union City city	11,512	11,526	10,375	10,629
Hudson	Weehawken township	6,291	5,954	6,640	6,313
Hudson	West New York town	7,334	7,632	7,431	7,690
Hunterdon	Alexandria Township	819	784	801	853
Hunterdon	Bethlehem Township	2,042	620	581	596
Hunterdon	Bloomsbury Borough	361	1,214	1,012	991
Hunterdon	Califon Borough	187	212	260	268
Hunterdon	Clinton Town	2,730	2,755	1,608	1,617
Hunterdon	Clinton Township	4,312	4,573	5,871	5,713
Hunterdon	Delaware Township	623	647	617	599
Hunterdon	East Amwell Township	991	1,020	795	794
Hunterdon	Flemington Borough	8,079	9,799	4,206	4,290
Hunterdon	Franklin Township	1,296	1,059	835	831
Hunterdon	Frenchtown Borough	442	411	509	555
Hunterdon	Glen Gardner Borough	74	81	121	124
Hunterdon	Hampton Borough	230	189	275	282
Hunterdon	High Bridge Borough	837	851	877	903
Hunterdon	Holland Township	745	757	650	698
Hunterdon	Kingwood Township	814	839	694	726

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Hunterdon	Lambertville City	1,311	1,352	1,447	1,493
Hunterdon	Lebanon Borough	1,604	1,676	933	1,096
Hunterdon	Lebanon Township	1,228	1,012	916	905
Hunterdon	Milford Borough	222	278	380	374
Hunterdon	Raritan Township	8,157	6,549	11,689	11,969
Hunterdon	Readington Township	8,110	10,048	7,369	10,155
Hunterdon	Stockton Borough	135	139	126	166
Hunterdon	Tewksbury Township	2,047	1,903	1,778	1,852
Hunterdon	Union Township	959	1,296	1,605	1,757
Hunterdon	West Amwell Township	822	864	773	773
Middlesex	Carteret borough	7,782	7,693	7,413	7,961
Middlesex	Cranbury township	7,574	7,228	6,853	7,108
Middlesex	Dunellen borough	983	2,873	948	887
Middlesex	East Brunswick township	23,835	24,881	25,076	25,457
Middlesex	Edison township	73,325	71,686	71,905	72,734
Middlesex	Helmetta borough	193	174	161	171
Middlesex	Highland Park borough	2,542	2,553	2,527	2,668
Middlesex	Jamesburg borough	3,402	3,282	1,943	2,417
Middlesex	Metuchen borough	5,734	5,924	5,749	6,076
Middlesex	Middlesex borough	5,352	5,318	5,231	5,069
Middlesex	Milltown borough	1,472	1,579	1,972	2,022
Middlesex	Monroe township	8,693	9,307	11,588	10,741
Middlesex	New Brunswick city	40,741	43,489	39,857	38,738
Middlesex	North Brunswick township	23,609	22,888	23,151	22,106
Middlesex	Old Bridge township	10,899	11,532	11,902	12,112
Middlesex	Perth Amboy city	13,373	14,497	13,254	13,559
Middlesex	Piscataway township	39,813	37,225	37,503	36,443
Middlesex	Plainsboro township	14,110	14,288	14,799	15,290
Middlesex	Sayreville borough	9,402	9,250	9,384	9,597
Middlesex	South Amboy city	1,897	1,912	1,919	1,952
Middlesex	South Brunswick township	23,625	24,622	24,145	24,924
Middlesex	South Plainfield borough	21,650	21,438	21,876	21,871
Middlesex	South River borough	2,679	2,951	3,211	2,464
Middlesex	Spotswood borough	2,187	2,203	2,243	2,269
Middlesex	Woodbridge township	52,787	50,999	53,204	54,800
Morris	Boonton Town	3,441	3,362	3,436	3,116
Morris	Boonton Township	669	775	916	859
Morris	Butler Borough	2,348	2,903	3,319	3,659
Morris	Chatham Borough	4,170	4,322	4,035	4,117
Morris	Chatham Township	2,178	3,569	3,813	3,952

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Morris	Chester Borough	2,816	2,807	2,102	1,949
Morris	Chester Township	1,402	1,511	1,991	2,017
Morris	Denville Township	9,759	9,784	9,387	9,601
Morris	Dover Town	5,887	6,079	6,341	6,164
Morris	East Hanover Township	17,684	16,434	17,199	17,005
Morris	Florham Park Borough	17,085	17,991	19,897	20,597
Morris	Hanover Township	14,714	15,142	14,894	16,441
Morris	Harding Township	1,203	1,222	2,107	1,966
Morris	Jefferson Township	3,593	3,521	3,903	4,192
Morris	Kinnelon Borough	1,931	2,095	1,462	1,614
Morris	Lincoln Park Borough	3,821	3,746	3,414	3,441
Morris	Long Hill Township	2,992	2,962	2,965	2,978
Morris	Madison Borough	7,245	5,480	4,855	5,137
Morris	Mendham Borough	1,901	1,977	1,818	1,697
Morris	Mendham Township	822	897	953	1,033
Morris	Mine Hill Township	487	505	677	660
Morris	Montville Township	11,169	10,857	9,884	9,574
Morris	Morris Plains Borough	6,254	6,438	3,400	3,894
Morris	Morris Township	10,783	11,198	13,624	13,474
Morris	Morristown Town	24,057	25,397	19,152	19,339
Morris	Mount Arlington Borough	1,407	1,584	1,644	1,654
Morris	Mount Olive Township	9,311	10,842	11,549	11,732
Morris	Mountain Lakes Borough	3,028	3,071	2,512	2,543
Morris	Netcong Borough	1,880	1,546	1,451	1,616
Morris	Parsippany-Troy Hills Township	52,593	49,538	53,349	55,966
Morris	Pequannock Township	6,631	5,337	5,542	5,370
Morris	Randolph Township	8,094	7,880	8,335	8,517
Morris	Riverdale Borough	2,553	4,098	3,788	3,782
Morris	Rockaway Borough	4,678	4,343	4,766	4,634
Morris	Rockaway Township	10,757	11,429	10,774	10,711
Morris	Roxbury Township	8,646	8,473	8,090	8,303
Morris	Victory Gardens Borough	129	157	165	159
Morris	Washington Township	3,398	3,834	3,904	3,926
Morris	Wharton Borough	2,398	2,617	2,825	2,855
Passaic	Bloomingdale Borough	1,362	1,385	1,271	1,237
Passaic	Clifton City	30,788	31,434	30,886	32,412
Passaic	Haledon Borough	1,391	1,401	1,403	1,394
Passaic	Hawthorne Borough	5,977	5,979	6,072	6,184
Passaic	Little Falls Township	7,430	6,614	6,430	6,452
Passaic	North Haledon Borough	1,531	1,538	1,574	1,608

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Passaic	Passaic city	16,475	14,990	18,286	18,163
Passaic	Paterson city	41,319	36,875	41,884	37,094
Passaic	Pompton Lakes Borough	2,111	2,132	2,079	2,090
Passaic	Prospect Park Borough	557	536	521	587
Passaic	Ringwood Borough	2,125	2,077	2,081	2,102
Passaic	Totowa Borough	12,618	13,513	12,800	12,797
Passaic	Wanaque Borough	2,151	2,111	1,986	2,248
Passaic	Wayne Township	37,577	39,963	39,887	37,841
Passaic	West Milford Township	4,456	4,228	4,314	3,971
Passaic	Woodland Park Borough	3,826	3,829	4,876	4,687
Somerset	Bedminster Township	9,321	8,684	9,767	9,516
Somerset	Bernards Township	14,837	15,178	15,103	15,975
Somerset	Bernardsville Borough	2,735	2,700	2,660	2,804
Somerset	Bound Brook Borough	3,777	2,796	3,318	2,419
Somerset	Branchburg Township	9,730	9,495	12,078	12,533
Somerset	Bridgewater Township	31,279	33,574	34,572	35,924
Somerset	Far Hills Borough	560	548	241	276
Somerset	Franklin Township	29,606	30,958	30,524	33,173
Somerset	Green Brook Township	3,748	1,472	3,602	3,612
Somerset	Hillsborough Township	11,046	11,391	11,482	11,421
Somerset	Manville Borough	2,033	1,946	2,245	1,931
Somerset	Millstone Borough	6	9	139	128
Somerset	Montgomery Township	10,904	11,138	11,115	13,058
Somerset	North Plainfield Borough	2,722	2,686	2,984	3,125
Somerset	Peapack-Gladstone Borough	1,924	2,733	3,094	2,893
Somerset	Raritan Borough	9,212	9,372	8,807	8,875
Somerset	Rocky Hill Borough	398	347	341	382
Somerset	Somerville Borough	10,231	10,959	7,956	7,671
Somerset	South Bound Brook Borough	414	432	397	417
Somerset	Warren Township	13,519	13,074	12,508	12,309
Somerset	Watchung Borough	4,558	5,432	5,285	5,364
Sussex	Andover Borough	143	222	176	161
Sussex	Andover Township	2,329	2,539	3,082	3,272
Sussex	Branchville Borough	357	370	1,485	1,419
Sussex	Byram Township	1,095	984	1,254	1,300
Sussex	Frankford Township	2,337	2,234	1,355	1,474
Sussex	Franklin Borough	1,575	1,367	1,193	1,129
Sussex	Fredon Township	3,019	354	811	812
Sussex	Green Township	508	428	327	343
Sussex	Hamburg Borough	1,210	1,169	846	733

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Sussex	Hampton Township	1,086	1,552	2,182	2,056
Sussex	Hardyston Township	1,442	2,031	2,572	2,649
Sussex	Hopatcong Borough	1,309	1,167	1,262	1,225
Sussex	Lafayette Township	1,744	1,385	1,246	1,247
Sussex	Montague Township	575	635	680	682
Sussex	Newton Town	4,247	5,844	3,307	3,625
Sussex	Ogdensburg Borough	178	197	196	192
Sussex	Sandyston Township	321	310	473	481
Sussex	Sparta Township	5,527	5,693	5,592	5,759
Sussex	Stanhope Borough	1,571	1,538	1,278	1,335
Sussex	Stillwater Township	423	325	611	635
Sussex	Sussex Borough	672	473	486	453
Sussex	Vernon Township	3,595	3,482	3,521	3,572
Sussex	Walpack Township	2010	2011	2012	2013
Sussex	Wantage Township	2,852	4,319	3,656	3,691
Union	Berkeley Heights township	430	580	374	451
Union	Clark township	3,656	4,096	4,079	3,931
Union	Cranford township	958	967	978	1,070
Union	Elizabeth city	6,748	7,129	6,964	6,860
Union	Fanwood borough	13,510	13,416	12,546	12,847
Union	Garwood borough	2,657	2,710	2,590	2,597
Union	Hillside township	3,013	2,850	3,043	3,051
Union	Kenilworth borough	3,272	3,615	3,848	3,668
Union	Linden city	840	864	809	742
Union	Mountainside borough	1,913	2,108	2,060	2,212
Union	New Providence borough	10,840	11,966	8,859	8,512
Union	Plainfield city	4,685	4,466	4,810	4,828
Union	Rahway city	9,000	8,633	8,746	8,464
Union	Roselle borough	2,524	2,500	2,489	2,394
Union	Roselle Park borough	15,557	16,400	15,922	15,475
Union	Scotch Plains township	9,523	8,830	8,714	8,712
Union	Springfield township	12,546	11,373	12,901	13,086
Union	Summit city	2,456	2,351	2,358	2,411
Union	Union township	15,726	11,934	12,014	12,724
Union	Westfield town	8,363	6,838	7,697	7,507
Union	Winfield township	5,478	5,785	5,577	5,697
Warren	Allamuchy Township	2,699	3,256	3,352	3,367
Warren	Alpha Borough	43,985	44,731	43,433	44,289
Warren	Belvidere Town	1,073	1,107	1,090	1,128
Warren	Blairstown Township	3,997	7,546	7,586	7,441

Total Employment (LEHD)					
County	**Municipality**	**2010**	**2011**	**2012**	**2013**
Warren	Franklin Township	751	629	714	720
Warren	Frelinghuysen Township	2,291	2,145	2,181	2,166
Warren	Greenwich Township	1,068	1,039	1,053	1,048
Warren	Hackettstown Town	2,341	2,280	2,301	2,382
Warren	Hardwick Township	2,960	2,859	3,071	3,238
Warren	Harmony Township	5,498	5,623	5,238	5,459
Warren	Hope Township	11,166	10,438	10,503	10,999
Warren	Independence Township	16,300	13,870	15,689	15,910
Warren	Knowlton Township	2,956	3,671	3,276	3,146
Warren	Liberty Township	3,873	3,763	3,608	3,413
Warren	Lopatcong Township	11,552	11,081	11,099	10,461
Warren	Mansfield Township	5,851	6,263	9,412	9,484
Warren	Oxford Township	2,209	2,171	2,321	2,288
Warren	Phillipsburg Town	2,885	2,684	3,249	3,661
Warren	Pohatcong Township	3,879	3,803	3,370	3,556
Warren	Washington Borough	1,910	2,008	1,757	1,863
Warren	Washington Township	5,156	5,238	5,322	5,349
Warren	White Township	1,668	1,511	2,215	2,139

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Bergen	Allendale Borough	3,901	-2.0%	-52.0%	3.2%
Bergen	Alpine Borough	373	12.1%	6.5%	-1.0%
Bergen	Bergenfield Borough	4,195	4.7%	-5.8%	1.2%
Bergen	Bogota Borough	1,054	15.3%	-43.8%	1.1%
Bergen	Borough of Teterboro	6,813	-7.4%	38.2%	-2.3%
Bergen	Carlstadt Borough	12,914	-1.3%	2.9%	-2.6%
Bergen	Cliffside Park borough	2,637	-0.7%	-0.8%	-0.8%
Bergen	Closter Borough	3,054	-2.0%	-0.7%	0.6%
Bergen	Cresskill Borough	2,190	-0.8%	42.2%	-6.3%
Bergen	Demarest Borough	775	13.8%	-15.7%	-0.4%
Bergen	Dumont Borough	2,196	0.2%	23.7%	-0.5%
Bergen	East Rutherford Borough	11,012	-7.3%	6.6%	-2.1%
Bergen	Edgewater Borough	4,591	3.6%	25.9%	-0.6%
Bergen	Elmwood Park Borough	8,823	-3.1%	8.0%	1.7%
Bergen	Emerson Borough	2,558	0.2%	3.5%	-0.7%
Bergen	Englewood City	16,097	0.1%	0.4%	0.7%
Bergen	Englewood Cliffs Borough	8,843	9.6%	-8.0%	-0.3%
Bergen	Fair Lawn Borough	12,840	2.5%	5.0%	-0.3%
Bergen	Fairview borough	2,500	-8.8%	-14.6%	-0.4%
Bergen	Fort Lee borough	13,713	-3.5%	10.8%	-1.7%
Bergen	Franklin Lakes Borough	6,632	2.8%	-2.2%	-3.2%
Bergen	Garfield city	6,304	-5.5%	-4.2%	3.0%
Bergen	Glen Rock Borough	3,227	-2.5%	-10.9%	-0.1%
Bergen	Hackensack City	45,730	1.6%	1.3%	0.5%
Bergen	Harrington Park Borough	1,140	-0.6%	11.4%	1.3%
Bergen	Hasbrouck Heights Borough	7,552	-7.0%	-5.9%	11.5%
Bergen	Haworth Borough	764	-6.0%	18.3%	-0.4%
Bergen	Hillsdale Borough	2,078	-5.1%	3.1%	-3.0%
Bergen	Ho-Ho-Kus Borough	1,052	-2.9%	-3.6%	0.5%
Bergen	Leonia Borough	2,285	-2.6%	3.4%	1.6%
Bergen	Little Ferry Borough	3,476	-7.0%	-0.4%	1.4%
Bergen	Lodi Borough	5,744	-4.9%	9.1%	0.1%
Bergen	Lyndhurst Township	10,462	-0.3%	4.4%	-4.8%
Bergen	Mahwah Township	15,999	-2.9%	6.6%	-0.7%
Bergen	Maywood Borough	3,115	-3.1%	-14.7%	-0.7%
Bergen	Midland Park Borough	3,530	3.2%	-7.7%	-2.5%
Bergen	Montvale Borough	11,210	5.5%	9.5%	-1.2%
Bergen	Moonachie Borough	8,361	0.8%	-18.7%	3.8%
Bergen	New Milford Borough	2,234	-4.7%	28.5%	0.1%
Bergen	North Arlington Borough	3,609	-9.8%	-7.5%	4.7%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Bergen	Northvale Borough	3,706	0.7%	-6.6%	-1.5%
Bergen	Norwood Borough	1,830	-5.8%	35.3%	-4.4%
Bergen	Oakland Borough	5,484	7.2%	-18.0%	-1.6%
Bergen	Old Tappan Borough	1,901	4.5%	21.8%	2.3%
Bergen	Oradell Borough	3,250	-5.8%	15.9%	-2.0%
Bergen	Palisades Park borough	3,155	-4.5%	0.0%	-1.7%
Bergen	Paramus Borough	44,979	-2.1%	6.3%	-0.6%
Bergen	Park Ridge Borough	3,918	18.8%	-8.9%	-1.7%
Bergen	Ramsey Borough	10,096	2.0%	-1.5%	-1.5%
Bergen	Ridgefield Borough	5,021	1.1%	18.5%	-2.7%
Bergen	Ridgefield Park Village	4,171	-4.5%	-33.2%	6.1%
Bergen	Ridgewood Village	12,149	-0.1%	2.5%	0.1%
Bergen	River Edge Borough	3,680	5.2%	2.2%	-0.2%
Bergen	River Vale Township	1,746	15.4%	-1.7%	-8.6%
Bergen	Rochelle Park Township	4,642	5.3%	-0.6%	-2.6%
Bergen	Rockleigh Borough	3,416	19.1%	12.9%	12.6%
Bergen	Rutherford Borough	6,906	-3.9%	24.5%	-1.1%
Bergen	Saddle Brook Township	9,269	1.2%	-4.0%	-0.8%
Bergen	Saddle River Borough	1,002	20.9%	488.4%	-23.2%
Bergen	South Hackensack Township	4,828	2.7%	-18.1%	-3.9%
Bergen	Teaneck Township	18,375	-5.3%	29.4%	2.4%
Bergen	Tenafly Borough	4,073	-7.1%	1.5%	1.0%
Bergen	Upper Saddle River Borough	4,966	-1.8%	6.9%	3.8%
Bergen	Waldwick Borough	2,964	-1.9%	5.8%	0.5%
Bergen	Wallington Borough	1,831	0.6%	2.0%	-5.7%
Bergen	Washington Township	1,900	-14.4%	78.6%	13.9%
Bergen	Westwood Borough	4,616	-3.7%	-17.9%	2.0%
Bergen	Woodcliff Lake Borough	5,543	-0.8%	17.0%	1.6%
Bergen	Wood-Ridge Borough	2,228	-2.5%	-25.0%	-2.0%
Bergen	Wyckoff Township	5,694	-0.1%	2.5%	0.5%
Essex	Belleville township	8,918	-0.1%	0.6%	-0.6%
Essex	Bloomfield township	13,458	0.8%	0.6%	0.1%
Essex	Caldwell borough	2,427	-1.7%	-29.9%	1.3%
Essex	Cedar Grove township	5,661	-3.1%	-1.5%	-0.1%
Essex	City of Orange township	5,837	-9.0%	7.5%	-4.7%
Essex	East Orange city	15,471	5.0%	-17.2%	5.2%
Essex	Essex Fells borough	269	3.3%	7.8%	-0.4%
Essex	Fairfield township	22,883	-3.2%	9.0%	-1.8%
Essex	Glen Ridge borough	1,270	-11.1%	5.6%	5.2%
Essex	Irvington township	9,072	-2.6%	5.4%	-1.7%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Essex	Livingston township	24,396	-4.3%	-3.8%	2.1%
Essex	Maplewood township	6,335	-2.0%	1.3%	0.6%
Essex	Millburn township	17,374	8.1%	1.0%	0.3%
Essex	Montclair township	21,324	1.0%	17.7%	0.6%
Essex	Newark city	136,979	-1.6%	3.1%	-0.8%
Essex	North Caldwell borough	1,056	-1.2%	-53.0%	22.2%
Essex	Nutley township	5,876	18.1%	0.3%	-10.4%
Essex	Roseland borough	10,531	-12.7%	32.9%	-3.4%
Essex	South Orange Village township	6,898	41.8%	-31.9%	9.6%
Essex	Verona township	4,625	-2.4%	-7.1%	0.5%
Essex	West Caldwell township	9,099	-2.1%	24.6%	-2.2%
Essex	West Orange township	15,095	0.3%	-10.9%	0.0%
Hudson	Bayonne city	15,340	1.0%	-6.4%	0.0%
Hudson	East Newark borough	165	1.6%	-57.7%	-16.3%
Hudson	Guttenberg town	1,148	-9.3%	1.8%	1.7%
Hudson	Harrison town	4,532	-0.1%	16.0%	1.0%
Hudson	Hoboken city	19,976	4.8%	23.2%	1.4%
Hudson	Jersey City city	113,884	-3.1%	4.8%	2.4%
Hudson	Kearny town	13,225	-7.3%	11.6%	-0.3%
Hudson	North Bergen township	18,036	-5.4%	-9.2%	-0.3%
Hudson	Secaucus town	36,889	-1.8%	1.0%	-0.5%
Hudson	Union City city	10,721	0.5%	-12.7%	0.4%
Hudson	Weehawken township	6,125	-3.9%	2.7%	-3.5%
Hudson	West New York town	8,006	-1.5%	2.7%	1.5%
Hunterdon	Alexandria Township	829	2.8%	6.5%	-1.7%
Hunterdon	Bethlehem Township	1,299	0.3%	599.1%	-9.4%
Hunterdon	Bloomsbury Borough	245	8.6%	4.6%	2.9%
Hunterdon	Califon Borough	223	-3.0%	29.1%	-0.2%
Hunterdon	Clinton Town	1,795	-13.7%	-16.6%	-6.9%
Hunterdon	Clinton Township	5,801	-0.4%	15.6%	0.4%
Hunterdon	Delaware Township	391	4.6%	1.9%	-8.1%
Hunterdon	East Amwell Township	818	7.5%	4.6%	1.5%
Hunterdon	Flemington Borough	4,347	0.8%	-6.9%	1.3%
Hunterdon	Franklin Township	771	0.0%	2.4%	-8.5%
Hunterdon	Frenchtown Borough	579	-2.4%	8.3%	8.6%
Hunterdon	Glen Gardner Borough	124	-3.1%	-41.5%	9.5%
Hunterdon	Hampton Borough	249	13.3%	28.5%	0.7%
Hunterdon	High Bridge Borough	838	-9.6%	41.5%	-0.8%
Hunterdon	Holland Township	680	12.3%	-43.2%	-0.9%
Hunterdon	Kingwood Township	652	12.8%	-13.6%	-0.9%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Hunterdon	Lambertville City	1,647	-6.2%	12.6%	3.1%
Hunterdon	Lebanon Borough	913	5.9%	4.2%	2.5%
Hunterdon	Lebanon Township	886	9.6%	-20.1%	-6.6%
Hunterdon	Milford Borough	374	-36.1%	11.4%	6.7%
Hunterdon	Raritan Township	12,135	2.4%	5.8%	0.8%
Hunterdon	Readington Township	7,907	-1.0%	-8.6%	5.3%
Hunterdon	Stockton Borough	245	10.5%	34.9%	3.4%
Hunterdon	Tewksbury Township	1,705	1.6%	16.3%	-2.9%
Hunterdon	Union Township	1,770	15.2%	-60.4%	7.3%
Hunterdon	West Amwell Township	780	0.4%	1.1%	-1.2%
Middlesex	Carteret borough	7,730	1.2%	-5.5%	-1.0%
Middlesex	Cranbury township	7,387	3.4%	1.2%	-1.3%
Middlesex	Dunellen borough	882	11.6%	-59.0%	-1.2%
Middlesex	East Brunswick township	25,464	-1.3%	11.9%	-0.9%
Middlesex	Edison township	72,913	-3.3%	4.0%	-1.1%
Middlesex	Helmetta borough	173	11.6%	-16.9%	2.2%
Middlesex	Highland Park borough	2,774	1.5%	-8.6%	0.5%
Middlesex	Jamesburg borough	1,897	6.0%	109.3%	-9.4%
Middlesex	Metuchen borough	6,041	-2.1%	22.9%	0.3%
Middlesex	Middlesex borough	5,061	-3.6%	-6.5%	-1.9%
Middlesex	Milltown borough	2,244	-3.0%	-28.0%	4.7%
Middlesex	Monroe township	11,502	-2.9%	46.6%	4.2%
Middlesex	New Brunswick city	43,590	3.4%	-12.5%	1.2%
Middlesex	North Brunswick township	22,596	1.2%	20.1%	-2.3%
Middlesex	Old Bridge township	13,387	1.9%	-5.0%	2.8%
Middlesex	Perth Amboy city	13,888	-0.1%	2.0%	1.6%
Middlesex	Piscataway township	37,517	-0.1%	-1.0%	-1.5%
Middlesex	Plainsboro township	15,590	1.9%	0.1%	1.4%
Middlesex	Sayreville borough	9,948	1.5%	8.7%	0.3%
Middlesex	South Amboy city	2,086	-1.2%	0.5%	1.8%
Middlesex	South Brunswick township	25,847	-3.5%	-1.8%	-0.8%
Middlesex	South Plainfield borough	22,402	2.2%	4.4%	0.5%
Middlesex	South River borough	2,284	6.8%	-2.4%	-5.0%
Middlesex	Spotswood borough	2,186	0.2%	-13.4%	0.1%
Middlesex	Woodbridge township	56,341	-4.0%	13.7%	0.4%
Morris	Boonton Town	3,175	2.8%	-6.0%	-1.3%
Morris	Boonton Township	897	-6.3%	10.3%	3.1%
Morris	Butler Borough	3,851	-1.0%	-18.5%	7.0%
Morris	Chatham Borough	3,827	-4.3%	6.9%	-1.0%
Morris	Chatham Township	3,869	-3.5%	25.0%	11.7%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Morris	Chester Borough	2,069	3.2%	92.7%	-5.0%
Morris	Chester Township	1,947	4.3%	-38.8%	3.4%
Morris	Denville Township	9,863	2.8%	2.6%	-0.4%
Morris	Dover Town	6,037	-5.9%	-7.1%	0.0%
Morris	East Hanover Township	17,608	-3.3%	11.4%	0.0%
Morris	Florham Park Borough	21,803	1.6%	9.9%	5.5%
Morris	Hanover Township	17,052	-2.2%	0.3%	-2.0%
Morris	Harding Township	2,015	-2.7%	-0.8%	11.5%
Morris	Jefferson Township	4,351	2.0%	31.9%	1.1%
Morris	Kinnelon Borough	1,751	1.5%	61.4%	-1.5%
Morris	Lincoln Park Borough	3,416	5.4%	12.1%	-2.4%
Morris	Long Hill Township	2,973	0.8%	5.4%	-1.8%
Morris	Madison Borough	5,276	-4.1%	-18.8%	-5.4%
Morris	Mendham Borough	1,736	2.1%	-0.5%	-1.4%
Morris	Mendham Township	946	3.0%	1.7%	3.5%
Morris	Mine Hill Township	686	-1.4%	44.3%	3.6%
Morris	Montville Township	9,229	1.9%	-0.9%	-3.8%
Morris	Morris Plains Borough	3,634	-8.3%	-14.2%	-6.7%
Morris	Morris Township	11,878	1.4%	4.4%	0.9%
Morris	Morristown Town	22,840	-0.8%	-8.6%	-1.1%
Morris	Mount Arlington Borough	1,682	-7.0%	38.3%	2.9%
Morris	Mount Olive Township	12,012	-2.4%	20.5%	2.1%
Morris	Mountain Lakes Borough	2,443	1.4%	-11.3%	-1.6%
Morris	Netcong Borough	1,678	11.7%	-3.5%	-2.5%
Morris	Parsippany-Troy Hills Township	55,949	-0.5%	1.3%	-0.4%
Morris	Pequannock Township	4,490	0.3%	2.7%	-5.7%
Morris	Randolph Township	8,829	-2.0%	9.7%	0.9%
Morris	Riverdale Borough	3,881	3.5%	-10.6%	7.1%
Morris	Rockaway Borough	4,660	-2.9%	17.5%	1.3%
Morris	Rockaway Township	10,167	0.5%	14.8%	-1.6%
Morris	Roxbury Township	8,408	3.6%	3.1%	-1.9%
Morris	Victory Gardens Borough	227	-15.1%	-27.5%	11.8%
Morris	Washington Township	4,197	-0.8%	18.0%	0.7%
Morris	Wharton Borough	3,156	-6.4%	-2.3%	9.8%
Passaic	Bloomingdale Borough	1,202	-5.1%	22.4%	-1.7%
Passaic	Clifton City	32,123	-0.1%	-3.3%	-0.2%
Passaic	Haledon Borough	1,442	3.7%	-16.3%	1.8%
Passaic	Hawthorne Borough	6,435	-2.5%	-6.4%	0.7%
Passaic	Little Falls Township	6,552	-2.4%	2.4%	0.2%
Passaic	North Haledon Borough	1,643	0.2%	26.1%	-2.1%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Passaic	Passaic city	16,088	0.2%	-1.0%	-1.3%
Passaic	Paterson city	43,143	1.0%	2.3%	0.7%
Passaic	Pompton Lakes Borough	2,260	3.3%	-8.2%	1.5%
Passaic	Prospect Park Borough	561	3.9%	11.7%	0.5%
Passaic	Ringwood Borough	2,120	-4.9%	9.0%	-1.8%
Passaic	Totowa Borough	12,349	-1.8%	3.4%	-2.8%
Passaic	Wanaque Borough	2,194	-3.4%	12.9%	1.6%
Passaic	Wayne Township	37,848	1.4%	3.6%	-1.7%
Passaic	West Milford Township	4,036	2.4%	11.9%	-2.6%
Passaic	Woodland Park Borough	5,340	-2.8%	17.1%	1.6%
Somerset	Bedminster Township	9,877	-3.0%	7.7%	1.1%
Somerset	Bernards Township	16,122	4.9%	47.6%	3.7%
Somerset	Bernardsville Borough	2,913	0.8%	-1.8%	-0.8%
Somerset	Bound Brook Borough	2,674	2.4%	13.9%	-3.2%
Somerset	Branchburg Township	12,832	-1.1%	26.8%	0.4%
Somerset	Bridgewater Township	36,140	-5.7%	-0.8%	1.2%
Somerset	Far Hills Borough	261	-8.7%	100.4%	-9.4%
Somerset	Franklin Township	33,014	-1.2%	8.6%	0.9%
Somerset	Green Brook Township	3,687	1.7%	55.2%	-0.9%
Somerset	Hillsborough Township	11,599	11.5%	32.7%	0.7%
Somerset	Manville Borough	2,077	5.5%	-16.4%	-0.8%
Somerset	Millstone Borough	131	-40.6%	516.7%	23.5%
Somerset	Montgomery Township	12,604	5.7%	-6.1%	2.5%
Somerset	North Plainfield Borough	3,129	0.9%	20.8%	-2.8%
Somerset	Peapack-Gladstone Borough	3,016	5.8%	-14.4%	13.3%
Somerset	Raritan Borough	9,313	-1.8%	1.0%	-0.3%
Somerset	Rocky Hill Borough	363	-4.0%	14.7%	-2.1%
Somerset	Somerville Borough	8,873	-2.2%	-36.3%	2.8%
Somerset	South Bound Brook Borough	399	-7.3%	-17.3%	-0.3%
Somerset	Warren Township	11,852	1.0%	8.8%	-2.1%
Somerset	Watchung Borough	5,273	5.9%	-6.2%	1.1%
Sussex	Andover Borough	177	-0.3%	18.1%	-1.1%
Sussex	Andover Township	3,327	21.0%	13.4%	4.8%
Sussex	Branchville Borough	1,504	4.2%	-9.3%	32.9%
Sussex	Byram Township	1,531	1.6%	-17.6%	12.9%
Sussex	Frankford Township	1,334	0.0%	1.5%	-9.3%
Sussex	Franklin Borough	1,119	15.2%	-11.2%	-1.5%
Sussex	Fredon Township	814	-2.7%	1200.5%	-18.5%
Sussex	Green Township	346	-27.2%	8.9%	-14.1%
Sussex	Hamburg Borough	699	3.6%	8.9%	-8.4%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Sussex	Hampton Township	2,154	1.4%	-70.3%	9.6%
Sussex	Hardyston Township	2,638	1.1%	12.6%	6.1%
Sussex	Hopatcong Borough	1,278	0.6%	19.5%	1.4%
Sussex	Lafayette Township	1,292	1.9%	83.3%	-3.7%
Sussex	Montague Township	774	16.3%	22.3%	6.8%
Sussex	Newton Town	4,079	0.6%	0.8%	-1.7%
Sussex	Ogdensburg Borough	191	-2.5%	-13.4%	0.4%
Sussex	Sandyston Township	527	7.7%	-9.6%	8.7%
Sussex	Sparta Township	5,794	-0.2%	-8.5%	0.7%
Sussex	Stanhope Borough	1,421	4.1%	-28.1%	-2.2%
Sussex	Stillwater Township	629	4.7%	-3.7%	7.2%
Sussex	Sussex Borough	416	2.9%	-8.1%	-6.4%
Sussex	Vernon Township	3,771	2.7%	26.5%	0.7%
Sussex	Walpack Township	22	-100.0%	#DIV/0!	#DIV/0!
Sussex	Wantage Township	1,890	-1.2%	-1.4%	-0.8%
Union	Berkeley Heights township	8,641	4.0%	30.0%	1.2%
Union	Clark township	8,747	0.7%	-2.3%	0.1%
Union	Cranford township	14,102	-0.8%	1.7%	-0.5%
Union	Elizabeth city	51,229	0.5%	7.9%	1.9%
Union	Fanwood borough	1,130	1.2%	-22.8%	-2.7%
Union	Garwood borough	2,342	-2.0%	-10.6%	1.8%
Union	Hillside township	8,830	-4.5%	0.2%	2.9%
Union	Kenilworth borough	7,980	-3.5%	13.5%	-8.0%
Union	Linden city	17,944	-1.3%	-8.0%	-1.0%
Union	Mountainside borough	5,780	1.7%	-0.4%	0.1%
Union	New Providence borough	8,262	-5.6%	-14.1%	2.3%
Union	Plainfield city	8,152	-2.5%	-1.2%	-4.4%
Union	Rahway city	12,536	-2.2%	-37.0%	2.7%
Union	Roselle borough	4,501	-3.8%	4.5%	0.8%
Union	Roselle Park borough	2,214	-0.4%	1.8%	1.3%
Union	Scotch Plains township	6,147	0.8%	6.4%	-0.6%
Union	Springfield township	10,357	-1.4%	6.2%	-2.1%
Union	Summit city	17,654	-2.0%	2.2%	2.6%
Union	Union township	30,502	0.4%	1.1%	-2.2%
Union	Westfield town	10,295	-2.9%	-1.0%	0.0%
Union	Winfield township	91	1.5%	-74.6%	32.3%
Warren	Allamuchy Township	867	20.3%	-0.3%	4.1%
Warren	Alpha Borough	847	1.4%	54.1%	-2.8%
Warren	Belvidere Town	617	-4.1%	183.5%	-14.0%
Warren	Blairstown Township	1,601	-0.7%	-33.7%	4.4%

Total Employment (LEHD)			Compound Annual Growth Rate		
County	Municipality	2014	2002-04	2004-08	2008-14
Warren	Franklin Township	748	7.2%	-9.9%	5.4%
Warren	Frelinghuysen Township	375	1.8%	202.6%	-9.7%
Warren	Greenwich Township	985	39.0%	-8.2%	-2.7%
Warren	Hackettstown Town	5,957	1.6%	2.9%	-3.3%
Warren	Hardwick Township	230	10.8%	64.9%	-5.4%
Warren	Harmony Township	553	1.6%	-4.1%	1.1%
Warren	Hope Township	494	-6.7%	40.1%	0.3%
Warren	Independence Township	779	6.6%	29.1%	-6.2%
Warren	Knowlton Township	482	-3.8%	21.0%	-4.3%
Warren	Liberty Township	206	30.0%	-18.9%	4.4%
Warren	Lopatcong Township	1,988	-1.9%	64.2%	-9.8%
Warren	Mansfield Township	1,810	6.1%	65.8%	4.5%
Warren	Oxford Township	914	-7.4%	-3.6%	9.1%
Warren	Phillipsburg Town	5,286	0.6%	-19.9%	1.4%
Warren	Pohatcong Township	2,548	7.8%	-2.2%	3.2%
Warren	Washington Borough	1,685	-2.8%	-18.5%	-9.1%
Warren	Washington Township	1,821	2.2%	37.2%	4.4%
Warren	White Township	1,118	-5.3%	-39.3%	-4.2%

Compound Annual Growth Rate in Total Employment (LEHD), Highlands Region and Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities	Adjacent Region in New York	Adjacent Region in Pennsylvania
2002 to 2004					
VAR	0.009	0.005	0.005	0.334	0.601
M	0.9%	0.7%	0.6%	10.1%	14.6%
SD	9.3%	7.4%	7.2%	57.8%	77.5%
N	88	122	191	68	125
df		208	277	154	211
t		0.1536	0.2703	-1.3070	-1.9647
2004 to 2008					
VAR	0.540	1.627	1.063	0.334	0.601
M	17.4%	22.6%	14.7%	10.1%	14.6%
SD	73.5%	127.6%	103.1%	57.8%	77.5%
N	88	122	191	68	125
df		208	277	154	211
t		-0.3786	0.2472	0.6874	0.2606
2008 to 2014					
VAR	0.003	0.004	0.003	0.002	0.012
M	0.1%	0.4%	0.3%	0.3%	1.7%
SD	5.4%	6.1%	5.4%	4.8%	11.0%
N	88	122	191	68	125
df		208	277	154	211
t		-0.3399	-0.3089	-0.2390	-1.4272

Compound Annual Growth Rate in Total Employment (LEHD), Low-Population Low-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0170	0.0122	2.9221	2.6228	0.0040	0.0150
M	2.4%	4.3%	72.6%	34.6%	-3.0%	1.5%
SD	0.1304	0.1107	1.7094	1.6195	0.0630	0.1224
N	13	72	13	72	13	72
df		83		83		83
t		-0.5012		0.7429		-1.9678

Compound Annual Growth Rate in Total Employment (LEHD), Low-Population Medium-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0048	0.0166	0.0477	0.2001	0.0061	0.0159
M	-0.1%	4.5%	-14.1%	-0.4%	3.5%	3.7%
SD	0.0690	0.1287	0.2184	0.4473	0.0783	0.1263
N	3	15	3	15	3	15
df		16		16		16
t		-0.8824		-0.8014		-0.0434

Compound Annual Growth Rate in Total Employment (LEHD), Medium-Population Low-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0007	0.0676	0.0549	8.0525	0.0091	0.0109
M	3.8%	-10.5%	4.4%	184.9%	3.4%	6.1%
SD	0.0259	0.2600	0.2344	2.8377	0.0956	0.1045
N	4	7	4	7	4	7
df		9		9		9
t		1.4426		-1.6732		-0.4450

Compound Annual Growth Rate in Total Employment (LEHD), Medium-Population Medium-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0095	0.0031	0.1378	0.2867	0.0021	0.0057
M	1.5%	1.6%	14.7%	13.7%	0.5%	1.5%
SD	0.0976	0.0556	0.3712	0.5355	0.0461	0.0754
N	47	92	47	92	47	92
df		137		137		137
t		-0.0452		0.1240		-0.9237

Compound Annual Growth Rate in Total Employment (LEHD), Medium-Population High-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0041	0.0042	0.0468	0.0212	0.0025	0.0027
M	-3.8%	0.6%	-3.5%	5.1%	-1.2%	0.4%
SD	0.0642	0.0647	0.2162	0.1458	0.0502	0.0518
N	7	25	7	25	7	25
df		30		30		30
t		-1.5876		-0.9907		-0.7332

Compound Annual Growth Rate in Total Employment (LEHD), High-Population Medium-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0080	0.0072	0.0232	0.0563	0.0085	0.0044
M	-3.6%	1.0%	-7.3%	4.1%	3.7%	0.9%
SD	0.0894	0.0848	0.1525	0.2373	0.0921	0.0664
N	4	42	4	42	4	42
df		44		44		44
t		-0.9899		-1.3505		0.5854

Compound Annual Growth Rate in Total Employment, High-Population High-Employment Density Municipalities

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2002 to 2004		**2004 to 2008**		**2008 to 2014**	
VAR	0.0022	0.0040	0.0134	0.0343	0.0016	0.0013
M	0.3%	-0.1%	-6.0%	-1.1%	-0.8%	-0.5%
SD	0.0472	0.0634	0.1157	0.1851	0.0405	0.0362
N	10	129	10	129	10	129
df		137		137		137
t		0.2081		-1.2344		-0.2352

Appendix E
Building Permit Data

Number of Housing Units Authorized by Building Permit, Highlands Region and Comparison Regions, 1990 to 2014

Year	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey (Ex. Highlands Region)	Adjacent NY Region	Adjacent PA Region
1990	1,759	2,506	9,144	3,412	5,879
1991	1,876	2,096	8,232	2,791	5,670
1992	2,598	2,991	11,684	3,019	5,853
1993	3,802	3,434	14,906	3,268	6,160
1994	3,882	3,467	14,505	3,607	6,060
1995	3,510	3,594	13,993	3,612	5,218
1996	3,560	3,517	14,638	4,811	5,091
1997	3,383	3,761	16,058	3,801	5,182
1998	4,154	4,711	17,982	4,458	5,625
1999	4,144	4,114	17,585	4,635	5,944
2000	4,163	5,450	20,722	4,956	6,185
2001	3,723	3,576	15,233	4,845	5,874
2002	3,726	4,004	16,411	5,409	7,067
2003	3,006	3,625	16,483	4,590	7,774
2004	2,799	4,247	18,420	4,808	7,186
2005	3,959	4,662	21,490	4,507	6,783
2006	2,918	3,919	18,756	3,622	5,626
2007	1,825	4,417	16,315	4,237	4,047
2008	1,205	2,454	10,318	2,360	2,676
2009	1,041	1,534	6,741	1,473	1,456
2010	1,000	2,283	9,236	1,902	1,404
2011	940	2,595	9,263	2,371	1,195
2012	1,221	3,755	14,324	1,976	1,404
2013	2,332	3,965	16,281	1,974	1,639
2014	2,012	4,904	20,445	2,222	1,730

Source: PlaceWorks, 2015, using data from the U.S. Census Bureau.

Number of Single-Family Housing Units Authorized by Building Permit, Highlands Region and Comparison Regions, 1990 to 2014

	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey
1990	1,380	1,509	5,561
1991	1,678	1,832	6,999
1992	2,365	2,392	9,370
1993	3,592	2,895	12,511
1994	3,514	2,986	12,060
1995	3,028	2,874	10,986
1996	3,481	2,908	11,988
1997	3,102	3,272	13,011
1998	3,841	3,091	13,803
1999	3,732	3,192	13,729
2000	3,425	3,343	13,132
2001	2,799	2,611	10,312
2002	2,914	2,701	10,635
2003	2,307	2,827	10,583
2004	2,119	2,595	10,441
2005	2,011	2,608	10,679
2006	1,688	2,381	9,107
2007	1,206	2,005	7,065
2008	697	1,378	4,935
2009	696	1,115	4,074
2010	788	1,279	4,736
2011	711	1,139	4,139
2012	819	1,242	4,591
2013	1,067	1,659	6,180
2014	926	1,837	6,369

Number of Multifamily Housing Units Authorized by Building Permit, Highlands Region and Comparison Regions, 1990 to 2014

	Highlands Region	Highlands County Municipalities not in the Highlands Region	Northern New Jersey
1990	384	998	3,867
1991	204	269	1,448
1992	239	604	2,339
1993	232	557	2,713
1994	368	481	2,667
1995	483	719	3,127
1996	79	609	2,764
1997	282	488	3,232
1998	320	1,613	5,723
1999	415	919	5,519
2000	743	2,102	7,991
2001	925	964	5,661
2002	805	1,310	6,908
2003	699	798	7,528
2004	683	1,649	11,021
2005	1,947	2,055	14,715
2006	1,229	1,539	13,369
2007	622	2,409	11,246
2008	509	1,075	7,413
2009	345	419	3,936
2010	214	1,002	4,706
2011	231	1,454	5,936
2012	404	2,511	10,384
2013	1,265	2,306	11,829
2014	1,087	3,066	16,555

Appendix F
Statistical Output for Demographic Analysis

Percent Change in Average Household Size, Highlands Region Municipalities and Municipalities in Comparison Regions

	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
	2000 to 2010		**2010 to 2013**	
VAR	0.001426	0.001568	0.001874	0.001839
M	-2.2%	-0.5%	1.0%	2.0%
SD	0.037766	0.039601	0.043295	0.042889
N	88	382	88	382
df		468		468
t		**-3.7964**		-1.9509

Percent Change in the Percentage of Households without Children, Highlands Region and Comparison Regions, 2000 to 2013

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities	Adjacent Region in New York	Adjacent Region in Pennsylvania
VAR	0.007197	0.006326	0.00523	0.004655	0.007207
M	3.0%	0.6%	0.2%	3.8%	4.8%
SD	0.084833	0.079535	0.072316	0.068231	0.084892
N	88	121	190	67	125
df		207	276	153	211
t		**2.0815**	**2.7037**	-0.6815	-1.5030

Percent Change in Median Age, Highlands Region and Comparison Regions, 2000 to 2013					
	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities	Adjacent Region in New York	Adjacent Region in Pennsylvania
VAR	0.004869	0.004364	0.003804	0.004709	0.006217
M	11.1%	8.4%	7.1%	8.4%	9.8%
SD	0.069779	0.06606	0.061677	0.068619	0.078847
N	88	121	190	67	125
df		207	276	153	211
t		**2.8325**	**4.5391**	**2.3963**	1.2410

	Percentage of the Population without a High School Diploma, 2010		**Percentage of the Population with a College Degree or Higher Education, 2010**	
	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
VAR	0.023725	0.026740	0.025331	0.003576
M	36.7%	31.6%	42.1%	9.4%
SD	0.154028	0.163525	0.159158	0.059802
N	88	402	88	402
df		488		488
t		**2.7555**		**18.9715**

	Percent Change in the Percentage of the Population without a High School Diploma, 2000 to 2010		**Percent Change in the Percentage of the Population with a College Degree or Higher Education, 2000 to 2010**	
	Highlands Region Municipalities	Comparison Regions Municipalities	Highlands Region Municipalities	Comparison Regions Municipalities
VAR	0.05154	0.04549	0.05494	0.05079
M	-42.2%	-34.0%	26.3%	21.9%
SD	0.227032	0.21328	0.234388	0.22538
N	88	399	88	399
df		485		485
t		**-3.0909**		1.5766

Percent Change in Median Household Income, Highlands Region and Comparison Regions, 2000 to 2013

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities	Adjacent Region in New York	Adjacent Region in Pennsylvania
VAR	0.017537	0.022746	0.021351	0.017472	0.021109
M	28.5%	30.3%	30.8%	31.5%	31.4%
SD	0.132426	0.150817	0.146119	0.132182	0.14529
N	88	121	190	67	125
df		207	276	153	211
t		-0.9060	-1.3281	-1.3843	-1.5330

Appendix G
Statistical Output for Real Estate Analysis

Average Single-Family Sales Value, Regional Analysis: Statistical Analysis

The following tables provide summary statistics for the regression analysis of the average sales value for improved single-family properties from 2000 and 2014 for Northern New Jersey municipalities. The analysis compares the difference between the percentage change in average sales value from the prior year for the Highlands Region to the percentage change in the Highlands county municipalities not in the Highlands Region and in Northern New Jersey. The analysis is conducted for three specific time periods: the entire time frame, 2001–2002 to 2013–2014; the time frame potentially affected by the Act, 2004–2005 to 2013–2014; and the time frame potentially affect by the RMP, 2008–2009 to 2013–2014. The analysis uses the difference in the percentage change as the dependent variable and an index value as the independent variable.

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, Entire Time Frame

Multiple R	0.23164		
R Square	0.05366		
Adjusted R Square	-0.03238		
Standard Error	0.05398		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00182	0.03206	0.03387
MS	0.00182	0.002914	
F	0.62367		
Significance F	0.44637		
	Independent Variable	Dependent Variable	
Coefficients	-0.00114	-0.00316	
Standard Error	0.01497	0.00400	
t Stat	-0.07599	-0.78973	
P-value	0.94079	0.44637	
Lower 95%	-0.03409	-0.01197	
Upper 95%	0.03182	0.00565	

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, the Act Time Frame

Multiple R	0.49294
R Square	0.24299
Adjusted R Square	0.13485
Standard Error	0.02157
Observations	9

	Regression	Residual	Total
df	1	7	8
SS	0.00105	0.00326	0.00430
MS	0.00105	0.000465	
F	2.24690		
Significance F	0.17756		

	Independent Variable	Dependent Variable
Coefficients	0.00075	-0.00417
Standard Error	0.00719	0.00278
t Stat	0.10381	-1.49897
P-value	0.92023	0.17756
Lower 95%	-0.01625	-0.01076
Upper 95%	0.01774	0.00241

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, the RMP Time Frame

Multiple R	0.64910
R Square	0.42133
Adjusted R Square	0.22844
Standard Error	0.01349
Observations	5

	Regression	Residual	Total
df	1	3	4
SS	0.00040	0.00055	0.00094
MS	0.00040	0.000182	
F	2.18429		
Significance F	0.23595		

	Independent Variable	Dependent Variable
Coefficients	-0.00431	-0.00630
Standard Error	0.00603	0.00426
t Stat	-0.71458	-1.47794
P-value	0.52645	0.23595
Lower 95%	-0.02350	-0.01987
Upper 95%	0.01488	0.00727

Difference between the Highlands Region and Northern New Jersey, Entire Time Frame

Multiple R	0.05789		
R Square	0.00335		
Adjusted R Square	-0.08725		
Standard Error	0.03700		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00005	0.01506	0.01511
MS	0.00005	0.001369	
F	0.03698		
Significance F	0.85100		
	Independent Variable	Dependent Variable	
Coefficients	-0.00463	-0.00053	
Standard Error	0.01026	0.00274	
t Stat	-0.45084	-0.19231	
P-value	0.66086	0.85100	
Lower 95%	-0.02721	-0.00656	
Upper 95%	0.01796	0.00551	

Difference between the Highlands Region and Northern New Jersey, the Act Time Frame

Multiple R	0.49294		
R Square	0.24299		
Adjusted R Square	0.13485		
Standard Error	0.02157		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00105	0.00326	0.00430
MS	0.00105	0.000465	
F	2.24690		
Significance F	0.17756		
	Independent Variable	Dependent Variable	
Coefficients	0.00075	-0.00417	
Standard Error	0.00719	0.00278	
t Stat	0.10381	-1.49897	
P-value	0.92023	0.17756	
Lower 95%	-0.01625	-0.01076	
Upper 95%	0.01774	0.00241	

Difference between the Highlands Region and Northern New Jersey, the RMP Time Frame

Multiple R	0.64910		
R Square	0.42133		
Adjusted R Square	0.22844		
Standard Error	0.01349		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00040	0.00055	0.00094
MS	0.00040	0.000182	
F	2.18429		
Significance F	0.23595		
	Independent Variable	Dependent Variable	
Coefficients	-0.00431	-0.00630	
Standard Error	0.00603	0.00426	
t Stat	-0.71458	-1.47794	
P-value	0.52645	0.23595	
Lower 95%	-0.02350	-0.01987	
Upper 95%	0.01488	0.00727	

Average Single-Family Sales Value, Highlands Region Analysis: Statistical Analysis

The following tables provide summary statistics for the regression analysis of the average sales value for improved single-family properties from 2000 and 2014 for the subareas of the Highlands Region. The analysis compares the difference between the percentage change in average sales value from the prior year for the Highlands Region to the percentage change in each of the subareas. The analysis is conducted for three specific time periods: the entire time frame, 2001–2002 to 2013–2014; the time frame potentially affected by the Act, 2004–2005 to 2013–2014; and the time frame potentially affect by the RMP, 2008–2009 to 2013–2014. The analysis uses the difference in the percentage change as the dependent variable and an index value as the independent variable.

Difference between the Highlands Region and the Planning Area, Entire Time Frame

Multiple R	0.22480		
R Square	0.05053		
Adjusted R Square	-0.03578		
Standard Error	0.00955		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00005	0.00100	0.00106
MS	0.00005	9.12E-05	
F	0.58546		
Significance F	0.46028		
	Independent Variable	Dependent Variable	
Coefficients	0.00141	0.00054	
Standard Error	0.00265	0.00071	
t Stat	0.53115	0.76515	
P-value	0.60588	0.46028	
Lower 95%	-0.00442	-0.00102	
Upper 95%	0.00723	0.00210	

Difference between the Highlands Region and the Planning Area, the Act Time Frame

Multiple R	0.28080		
R Square	0.07885		
Adjusted R Square	-0.05274		
Standard Error	0.00807		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00004	0.00046	0.00049
MS	0.00004	6.51E-05	
F	0.59920		
Significance F	0.46422		
	Independent Variable	Dependent Variable	
Coefficients	0.00257	0.00081	
Standard Error	0.00269	0.00104	
t Stat	0.95748	0.77408	
P-value	0.37022	0.46422	
Lower 95%	-0.00378	-0.00166	
Upper 95%	0.00893	0.00327	

Difference between the Highlands Region and the Planning Area, the RMP Time Frame

Multiple R	0.51522		
R Square	0.26545		
Adjusted R Square	0.02061		
Standard Error	0.00784		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00007	0.00018	0.00025
MS	0.00007	6.15E-05	
F	1.08416		
Significance F	0.37430		
	Independent Variable	Dependent Variable	
Coefficients	0.00599	-0.00258	
Standard Error	0.00351	0.00248	
t Stat	1.70730	-1.04123	
P-value	0.18631	0.37430	
Lower 95%	-0.00517	-0.01048	
Upper 95%	0.01715	0.00531	

Difference between the Highlands Region and the Conforming Planning Area, Entire Time Frame

Multiple R	0.15936		
R Square	0.02540		
Adjusted R Square	-0.06320		
Standard Error	0.04976		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00071	0.02723	0.02794
MS	0.00071	0.002476	
F	0.28663		
Significance F	0.60304		
	Independent Variable	Dependent Variable	
Coefficients	-0.00156	0.00197	
Standard Error	0.01380	0.00369	
t Stat	-0.11299	0.53538	
P-value	0.91207	0.60304	
Lower 95%	-0.03193	-0.00614	
Upper 95%	0.02881	0.01009	

Difference between the Highlands Region and the Conforming Planning Area, the Act Time Frame

Multiple R	0.43853		
R Square	0.19231		
Adjusted R Square	0.07692		
Standard Error	0.02347		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00092	0.00386	0.00477
MS	0.00092	0.000551	
F	1.66665		
Significance F	0.23771		
	Independent Variable	Dependent Variable	
Coefficients	-0.00150	0.00391	
Standard Error	0.00782	0.00303	
t Stat	-0.19226	1.29099	
P-value	0.85300	0.23771	
Lower 95%	-0.02000	-0.00325	
Upper 95%	0.01699	0.01108	

Difference between the Highlands Region and the Conforming Planning Area, the RMP Time Frame

Multiple R	0.72260		
R Square	0.52214		
Adjusted R Square	0.36286		
Standard Error	0.01934		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00123	0.00112	0.00235
MS	0.00123	0.000374	
F	3.27804		
Significance F	0.16790		
	Independent Variable	Dependent Variable	
Coefficients	-0.00064	0.01107	
Standard Error	0.00865	0.00612	
t Stat	-0.07411	1.81054	
P-value	0.94559	0.16790	
Lower 95%	-0.02817	-0.00839	
Upper 95%	0.02689	0.03054	

Difference between the Highlands Region and the Nonconforming Planning Area, Entire Time Frame

Multiple R	0.01413		
R Square	0.00020		
Adjusted R Square	-0.09069		
Standard Error	0.02371		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00000	0.00618	0.00618
MS	0.00000	0.000562	
F	0.00220		
Significance F	0.96345		
	Independent Variable	Dependent Variable	
Coefficients	0.00215	-0.00008	
Standard Error	0.00658	0.00176	
t Stat	0.32742	-0.04687	
P-value	0.74949	0.96345	
Lower 95%	-0.01232	-0.00395	
Upper 95%	0.01663	0.00379	

Difference between the Highlands Region and the Nonconforming Planning Area, the Act Time Frame

Multiple R	0.00688		
R Square	0.00005		
Adjusted R Square	-0.14280		
Standard Error	0.01137		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00000	0.00090	0.00090
MS	0.00000	0.000129	
F	0.00033		
Significance F	0.98598		
	Independent Variable	Dependent Variable	
Coefficients	0.00299	0.00003	
Standard Error	0.00379	0.00147	
t Stat	0.78809	0.01821	
P-value	0.45650	0.98598	
Lower 95%	-0.00597	-0.00344	
Upper 95%	0.01195	0.00350	

Difference between the Highlands Region and the Nonconforming Planning Area, the RMP Time Frame

Multiple R	0.92270		
R Square	0.85137		
Adjusted R Square	0.80183		
Standard Error	0.00464		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00037	0.00006	0.00043
MS	0.00037	2.15E-05	
F	17.18498		
Significance F	0.02550		
	Independent Variable	Dependent Variable	
Coefficients	0.00695	-0.00608	
Standard Error	0.00207	0.00147	
t Stat	3.35099	-4.14548	
P-value	0.04403	0.02550	
Lower 95%	0.00035	-0.01075	
Upper 95%	0.01355	-0.00141	

Difference between the Highlands Region and the Preservation Area, Entire Time Frame

Multiple R	0.21266		
R Square	0.04523		
Adjusted R Square	-0.04157		
Standard Error	0.03474		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00063	0.01328	0.01390
MS	0.00063	0.001207	
F	0.52105		
Significance F	0.48546		
	Independent Variable	Dependent Variable	
Coefficients	-0.00576	-0.00186	
Standard Error	0.00963	0.00258	
t Stat	-0.59807	-0.72184	
P-value	0.56191	0.48546	
Lower 95%	-0.02697	-0.00753	
Upper 95%	0.01544	0.00381	

Difference between the Highlands Region and the Preservation Area, the Act Time Frame

Multiple R	0.24147		
R Square	0.05831		
Adjusted R Square	-0.07622		
Standard Error	0.03027		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00040	0.00641	0.00681
MS	0.00040	0.000916	
F	0.43344		
Significance F	0.53136		
	Independent Variable	Dependent Variable	
Coefficients	-0.01000	-0.00257	
Standard Error	0.01009	0.00391	
t Stat	-0.99155	-0.65836	
P-value	0.35445	0.53136	
Lower 95%	-0.03386	-0.01181	
Upper 95%	0.01385	0.00667	

Difference between the Highlands Region and the Preservation Area, the RMP Time Frame

Multiple R	0.52293		
R Square	0.27346		
Adjusted R Square	0.03128		
Standard Error	0.03037		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00104	0.00277	0.00381
MS	0.00104	0.000922	
F	1.12915		
Significance F	0.36591		
	Independent Variable	Dependent Variable	
Coefficients	-0.02210	0.01021	
Standard Error	0.01358	0.00960	
t Stat	-1.62729	1.06262	
P-value	0.20216	0.36591	
Lower 95%	-0.06533	-0.02036	
Upper 95%	0.02112	0.04077	

Difference between the Highlands Region and Highlands Centers, Entire Time Frame

Multiple R	0.15068		
R Square	0.02271		
Adjusted R Square	-0.06614		
Standard Error	0.07823		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00156	0.06731	0.06888
MS	0.00156	0.006119	
F	0.25556		
Significance F	0.62316		
	Independent Variable	Dependent Variable	
Coefficients	0.00029	0.00293	
Standard Error	0.02170	0.00580	
t Stat	0.01334	0.50553	
P-value	0.98960	0.62316	
Lower 95%	-0.04746	-0.00983	
Upper 95%	0.04804	0.01569	

Difference between the Highlands Region and Highlands Centers, the Act Time Frame

Multiple R	0.19351		
R Square	0.03745		
Adjusted R Square	-0.10006		
Standard Error	0.05415		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00080	0.02052	0.02132
MS	0.00080	0.002932	
F	0.27233		
Significance F	0.61787		
	Independent Variable	Dependent Variable	
Coefficients	0.01290	-0.00365	
Standard Error	0.01805	0.00699	
t Stat	0.71455	-0.52185	
P-value	0.49802	0.61787	
Lower 95%	-0.02978	-0.02018	
Upper 95%	0.05557	0.01288	

Difference between the Highlands Region and Highlands Centers, the RMP Time Frame

Multiple R	0.31870		
R Square	0.10157		
Adjusted R Square	-0.19790		
Standard Error	0.06361		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00137	0.01214	0.01351
MS	0.00137	0.004046	
F	0.33916		
Significance F	0.60119		
	Independent Variable	Dependent Variable	
Coefficients	-0.00108	0.01171	
Standard Error	0.02845	0.02012	
t Stat	-0.03804	0.58238	
P-value	0.97205	0.60119	
Lower 95%	-0.09161	-0.05230	
Upper 95%	0.08945	0.07573	

Percent Change in Average Sales Value per Acre, Improved Commercial Properties, Highlands Region and Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2000 to 2004			
VAR	5.16198	3191.445	1812.897
M	126.9%	911.8%	609.0%
SD	2.271999	56.49288	42.57813
N	38	60	107
df		96	143
t		-1.0748	-1.1667
2004 to 2008			
VAR	4.210215	0.572769	84.67989
M	76.1%	13.0%	121.3%
SD	2.051881	0.756815	9.202168
N	38	56	101
df		92	137
t		1.8138	-0.4643
2008 to 2013			
VAR	9.097993	2.119864	5.190068
M	51.0%	47.8%	40.6%
SD	3.016288	1.455975	2.278172
N	33	46	92
df		77	123
t		0.0571	0.1813

Percent Change in Average Sales Value per Acre, Improved Commercial Properties, Highlands Region and Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2000 to 2004			
VAR	0.014208	1.371308	0.802518
M	-7.8%	101.0%	69.1%
SD	0.119199	1.171029	0.895833
N	5	13	33
df		16	36
t		**-3.3058**	**-4.6655**
2004 to 2008			
VAR	0.06147	0.867531	1.232949
M	25.4%	53.7%	49.1%
SD	0.247932	0.931414	1.110382
N	7	16	34
df		21	39
t		-1.1302	-1.1160
2008 to 2013			
VAR	0.064925	0.335403	29.72114
M	-17.4%	-6.0%	258.1%
SD	0.254803	0.57914	5.45171
N	5	14	34
df		17	37
t		-0.5940	**-2.9247**

Average Sales Value for Improved and Unimproved Regular Farms Property, Regional Analysis: Statistical Analysis

The following tables provide summary statistics for the regression analysis of the average sales value for improved and unimproved regular farms from 2000 and 2014 for Northern New Jersey municipalities. The analysis compares the difference between the percentage change in average sales value from the prior year for the Highlands Region to the percentage change in the Highlands county municipalities not in the Highlands Region and in Northern New Jersey. The analysis is conducted for three specific time periods: the entire time frame, 2001–2002 to 2013–2014; the time frame potentially affected by the Act, 2004–2005 to 2013–2014; and the time frame potentially affect by the RMP, 2008–2009 to 2013–2014. The analysis uses the difference in the percentage change as the dependent variable and an index value as the independent variable.

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, Entire Time Frame

Multiple R	0.03501		
R Square	0.00123		
Adjusted R Square	-0.08957		
Standard Error	0.36521		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00180	1.46712	1.46893
MS	0.00180	0.133375	
F	0.01350		
Significance F	0.90959		
	Independent Variable	Dependent Variable	
Coefficients	-0.01494	-0.00315	
Standard Error	0.10129	0.02707	
t Stat	-0.14749	-0.11620	
P-value	0.88541	0.90959	
Lower 95%	-0.23788	-0.06273	
Upper 95%	0.20800	0.05644	

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, the Act Time Frame

Multiple R	0.16147		
R Square	0.02607		
Adjusted R Square	-0.11306		
Standard Error	0.36100		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.02442	0.91226	0.93668
MS	0.02442	0.130323	
F	0.18739		
Significance F	0.67812		
	Independent Variable	Dependent Variable	
Coefficients	0.02067	-0.02017	
Standard Error	0.12033	0.04661	
t Stat	0.17174	-0.43289	
P-value	0.86850	0.67812	
Lower 95%	-0.26388	-0.13038	
Upper 95%	0.30521	0.09003	

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, the RMP Time Frame

Multiple R	0.15029		
R Square	0.02259		
Adjusted R Square	-0.30322		
Standard Error	0.52194		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.01889	0.81725	0.83614
MS	0.01889	0.272417	
F	0.06933		
Significance F	0.80937		
	Independent Variable	Dependent Variable	
Coefficients	-0.00994	-0.04346	
Standard Error	0.23342	0.16505	
t Stat	-0.04257	-0.26330	
P-value	0.96872	0.80937	
Lower 95%	-0.75277	-0.56872	
Upper 95%	0.73290	0.48181	

Difference between the Highlands Region and Northern New Jersey, Entire Time Frame

Multiple R	0.01433		
R Square	0.00021		
Adjusted R Square	-0.09068		
Standard Error	0.19953		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00009	0.43791	0.43800
MS	0.00009	0.03981	
F	0.00226		
Significance F	0.96293		
	Independent Variable	Dependent Variable	
Coefficients	0.00280	-0.00070	
Standard Error	0.05534	0.01479	
t Stat	0.05056	-0.04754	
P-value	0.96058	0.96293	
Lower 95%	-0.11900	-0.03326	
Upper 95%	0.12460	0.03185	

Difference between the Highlands Region and Northern New Jersey, the Act Time Frame

Multiple R	0.14364		
R Square	0.02063		
Adjusted R Square	-0.11928		
Standard Error	0.18956		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00530	0.25152	0.25682
MS	0.00530	0.035932	
F	0.14747		
Significance F	0.71236		
	Independent Variable	Dependent Variable	
Coefficients	0.02462	-0.00940	
Standard Error	0.06319	0.02447	
t Stat	0.38967	-0.38402	
P-value	0.70836	0.71236	
Lower 95%	-0.12479	-0.06726	
Upper 95%	0.17403	0.04847	

Difference between the Highlands Region and Northern New Jersey, the RMP Time Frame

Multiple R	0.22086		
R Square	0.04878		
Adjusted R Square	-0.26829		
Standard Error	0.26996		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.01121	0.21863	0.22985
MS	0.01121	0.072878	
F	0.15385		
Significance F	0.72109		
	Independent Variable	Dependent Variable	
Coefficients	0.01359	-0.03348	
Standard Error	0.12073	0.08537	
t Stat	0.11260	-0.39224	
P-value	0.91746	0.72109	
Lower 95%	-0.37062	-0.30517	
Upper 95%	0.39781	0.23820	

Average Sales Value for Improved and Unimproved Regular Farms Property, Highlands Region Analysis: Statistical Analysis

The following tables provide summary statistics for the regression analysis of the average sales value for improved and unimproved regular farms from 2000 and 2014 for the subareas of the Highlands Region. The analysis compares the difference between the percentage change in average sales value from the prior year for the Planning Area to the percentage change in the Preservation Area. Because there are fewer sales of non-residential properties, statistical analysis of the other subareas does not provide useful information. The analysis is conducted for three specific time periods: the entire time frame, 2001–2002 to 2013–2014; the time frame potentially affected by the Act, 2004–2005 to 2013–2014; and the time frame potentially affect by the RMP, 2008–2009 to 2013–2014. The analysis uses the difference in the percentage change as the dependent variable and an index value as the independent variable.

Difference between the Planning Area and the Preservation Area, Entire Time Frame

Multiple R	0.38499		
R Square	0.14821		
Adjusted R Square	0.07078		
Standard Error	1.32881		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	3.37973	19.42323	22.80296
MS	3.37973	1.7657486	
F	1.91405		
Significance F	0.19395		
	Independent Variable	Dependent Variable	
Coefficients	0.38536	0.13627	
Standard Error	0.36855	0.09850	
t Stat	1.04561	1.38349	
P-value	0.31818	0.19395	
Lower 95%	-0.42581	-0.08052	
Upper 95%	1.19652	0.35306	

Difference between the Planning Area and the Preservation Area, the Act Time Frame

Multiple R	0.25088		
R Square	0.06294		
Adjusted R Square	-0.07093		
Standard Error	1.52500		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	1.09342	16.27939	17.37282
MS	1.09342	2.325628	
F	0.47016		
Significance F	0.51497		
	Independent Variable	Dependent Variable	
Coefficients	0.63300	0.13500	
Standard Error	0.50833	0.19688	
t Stat	1.24525	0.68568	
P-value	0.25311	0.51497	
Lower 95%	-0.56902	-0.33054	
Upper 95%	1.83502	0.60053	

Difference between the Planning Area and the Preservation Area, the RMP Time Frame

Multiple R	0.31918		
R Square	0.10188		
Adjusted R Square	-0.19750		
Standard Error	2.00383		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	1.36640	12.04602	13.41242
MS	1.36640	4.015341	
F	0.34029		
Significance F	0.60062		
	Independent Variable	Dependent Variable	
Coefficients	1.18361	-0.36965	
Standard Error	0.89614	0.63367	
t Stat	1.32078	-0.58335	
P-value	0.27829	0.60062	
Lower 95%	-1.66831	-2.38626	
Upper 95%	4.03553	1.64696	

Average Sales Value for Vacant Land, Regional Analysis: Statistical Analysis

The following tables provide summary statistics for the regression analysis of the average sales value for vacant land from 2000 and 2014 for Northern New Jersey municipalities. The analysis compares the difference between the percentage change in average sales value from the prior year for the Highlands Region to the percentage change in the Highlands county municipalities not in the Highlands Region and in Northern New Jersey. The analysis is conducted twice, once for vacant land that includes all lots or parcels .25 acre or larger in size and once for vacant land that includes only lots and parcels that are 5 acres or larger in size.The analysis is conducted for three specific time periods: the entire time frame, 2001–2002 to 2013–2014; the time frame potentially affected by the Act, 2004–2005 to 2013–2014; and the time frame potentially affect by the RMP, 2008–2009 to 2013–2014. The analysis uses the difference in the percentage change as the dependent variable and an index value as the independent variable.

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, with Small Lots, Entire Time Frame

Multiple R	0.16852
R Square	0.02840
Adjusted R Square	-0.05993
Standard Error	0.45705
Observations	13

	Regression	Residual	Total
df	1	11	12
SS	0.06716	2.29787	2.36503
MS	0.06716	0.208897	
F	0.32152		
Significance F	0.58208		

	Independent Variable	Dependent Variable
Coefficients	-0.07258	0.01921
Standard Error	0.12676	0.03388
t Stat	-0.57255	0.56703
P-value	0.57846	0.58208
Lower 95%	-0.35158	-0.05536
Upper 95%	0.20643	0.09378

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, with Small Lots, the Act Time Frame

Multiple R	0.16658		
R Square	0.02775		
Adjusted R Square	-0.11114		
Standard Error	0.52365		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.05478	1.91945	1.97424
MS	0.05478	0.274208	
F	0.19979		
Significance F	0.66839		
	Independent Variable	Dependent Variable	
Coefficients	-0.05573	0.03022	
Standard Error	0.17455	0.06760	
t Stat	-0.31926	0.44698	
P-value	0.75884	0.66839	
Lower 95%	-0.46847	-0.12964	
Upper 95%	0.35702	0.19007	

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, with Small Lots, the RMP Time Frame

Multiple R	0.19971		
R Square	0.03989		
Adjusted R Square	-0.28015		
Standard Error	0.74885		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.06989	1.68235	1.75224
MS	0.06989	0.560782	
F	0.12463		
Significance F	0.74742		
	Independent Variable	Dependent Variable	
Coefficients	-0.03905	0.08360	
Standard Error	0.33490	0.23681	
t Stat	-0.11661	0.35303	
P-value	0.91454	0.74742	
Lower 95%	-1.10485	-0.67003	
Upper 95%	1.02674	0.83723	

Difference between the Highlands Region and Northern New Jersey, with Small Lots, Entire Time Frame

Multiple R	0.08962		
R Square	0.00803		
Adjusted R Square	-0.08215		
Standard Error	0.39859		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.01415	1.74758	1.76173
MS	0.01415	0.158871	
F	0.08907		
Significance F	0.77092		
	Independent Variable	Dependent Variable	
Coefficients	-0.01521	0.00882	
Standard Error	0.11055	0.02955	
t Stat	-0.13763	0.29845	
P-value	0.89302	0.77092	
Lower 95%	-0.25853	-0.05621	
Upper 95%	0.22810	0.07385	

Difference between the Highlands Region and Northern New Jersey, with Small Lots, the Act Time Frame

Multiple R	0.03815		
R Square	0.00146		
Adjusted R Square	-0.14119		
Standard Error	0.49400		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.00249	1.70825	1.71074
MS	0.00249	0.244036	
F	0.01020		
Significance F	0.92238		
	Independent Variable	Dependent Variable	
Coefficients	0.00813	0.00644	
Standard Error	0.16467	0.06378	
t Stat	0.04937	0.10101	
P-value	0.96200	0.92238	
Lower 95%	-0.38124	-0.14436	
Upper 95%	0.39750	0.15725	

Difference between the Highlands Region and Northern New Jersey, with Small Lots, the RMP Time Frame

Multiple R	0.24468		
R Square	0.05987		
Adjusted R Square	-0.25351		
Standard Error	0.72022		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.09910	1.55614	1.65524
MS	0.09910	0.518714	
F	0.19104		
Significance F	0.69160		
	Independent Variable	Dependent Variable	
Coefficients	-0.01368	0.09955	
Standard Error	0.32209	0.22775	
t Stat	-0.04247	0.43709	
P-value	0.96879	0.69160	
Lower 95%	-1.03872	-0.62526	
Upper 95%	1.01136	0.82436	

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, Excluding Small Lots, Entire Time Frame

Multiple R	0.06855
R Square	0.00470
Adjusted R Square	-0.08578
Standard Error	0.53939
Observations	13

	Regression	Residual	Total
df	1	11	12
SS	0.01511	3.20036	3.21547
MS	0.01511	0.290942	
F	0.05193		
Significance F	0.82392		

	Independent Variable	Dependent Variable
Coefficients	-0.17041	0.00911
Standard Error	0.14960	0.03998
t Stat	-1.13908	0.22788
P-value	0.27887	0.82392
Lower 95%	-0.49967	-0.07889
Upper 95%	0.15886	0.09711

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, Excluding Small Lots, the Act Time Frame

Multiple R	0.16354
R Square	0.02674
Adjusted R Square	-0.11229
Standard Error	0.62508
Observations	9

	Regression	Residual	Total
df	1	7	8
SS	0.07516	2.73511	2.81027
MS	0.07516	0.39073	
F	0.19236		
Significance F	0.67418		

	Independent Variable	Dependent Variable
Coefficients	-0.18800	0.03539
Standard Error	0.20836	0.08070
t Stat	-0.90226	0.43859
P-value	0.39690	0.67418
Lower 95%	-0.68069	-0.15543
Upper 95%	0.30470	0.22621

Difference between the Highlands Region and the Highlands County Municipalities not in the Highlands Region, Excluding Small Lots, the RMP Time Frame

Multiple R	0.02887		
R Square	0.00083		
Adjusted R Square	-0.33222		
Standard Error	0.82519		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.00170	2.04283	2.04453
MS	0.00170	0.680943	
F	0.00250		
Significance F	0.96325		
	Independent Variable	Dependent Variable	
Coefficients	-0.13561	0.01305	
Standard Error	0.36904	0.26095	
t Stat	-0.36746	0.05002	
P-value	0.73767	0.96325	
Lower 95%	-1.31005	-0.81740	
Upper 95%	1.03883	0.84351	

Difference between the Highlands Region and Northern New Jersey, Excluding Small Lots, Entire Time Frame

Multiple R	0.03060		
R Square	0.00094		
Adjusted R Square	-0.08989		
Standard Error	0.71138		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.00522	5.56670	5.57191
MS	0.00522	0.506063	
F	0.01031		
Significance F	0.92095		
	Independent Variable	Dependent Variable	
Coefficients	-0.04870	0.00535	
Standard Error	0.19730	0.05273	
t Stat	-0.24682	0.10154	
P-value	0.80959	0.92095	
Lower 95%	-0.48296	-0.11071	
Upper 95%	0.38556	0.12141	

Difference between the Highlands Region and Northern New Jersey, Excluding Small Lots, the Act Time Frame

Multiple R	0.05351		
R Square	0.00286		
Adjusted R Square	-0.13959		
Standard Error	0.88184		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.01563	5.44351	5.45914
MS	0.01563	0.777644	
F	0.02010		
Significance F	0.89126		
	Independent Variable	Dependent Variable	
Coefficients	-0.01210	-0.01614	
Standard Error	0.29395	0.11385	
t Stat	-0.04115	-0.14176	
P-value	0.96832	0.89126	
Lower 95%	-0.70717	-0.28534	
Upper 95%	0.68298	0.25306	

Difference between the Highlands Region and Northern New Jersey, Excluding Small Lots, the RMP Time Frame

Multiple R	0.14964		
R Square	0.02239		
Adjusted R Square	-0.30348		
Standard Error	1.30016		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.11616	5.07128	5.18743
MS	0.11616	1.690426	
F	0.06871		
Significance F	0.81019		
	Independent Variable	Dependent Variable	
Coefficients	-0.07880	0.10778	
Standard Error	0.58145	0.41115	
t Stat	-0.13553	0.26213	
P-value	0.90078	0.81019	
Lower 95%	-1.92924	-1.20068	
Upper 95%	1.77163	1.41623	

Average Sales Value for Vacant, Highlands Region Analysis: Statistical Analysis

The following tables provide summary statistics for the regression analysis of the average sales value for vacant land that is 0.25 acre or larger in size from 2000 and 2014 for the subareas of the Highlands Region. The analysis compares the difference between the percentage change in average sales value from the prior year for the Planning Area to the percentage change in the Preservation Area. Because there are fewer sales of non-residential properties, statistical analysis of the other subareas does not provide useful information. The analysis is conducted for three specific time periods: the entire time frame, 2001–2002 to 2013–2014; the time frame potentially affected by the Act, 2004–2005 to 2013–2014; and the time frame potentially affect by the RMP, 2008–2009 to 2013–2014. The analysis uses the difference in the percentage change as the dependent variable and an index value as the independent variable.

Difference between the Planning Area and the Preservation Area, Entire Time Frame

Multiple R	0.16852		
R Square	0.02840		
Adjusted R Square	-0.05993		
Standard Error	0.45705		
Observations	13		
	Regression	Residual	Total
df	1	11	12
SS	0.06716	2.29787	2.36503
MS	0.06716	0.208897	
F	0.32152		
Significance F	0.58208		
	Independent Variable	Dependent Variable	
Coefficients	-0.07258	0.01921	
Standard Error	0.12676	0.03388	
t Stat	-0.57255	0.56703	
P-value	0.57846	0.58208	
Lower 95%	-0.35158	-0.05536	
Upper 95%	0.20643	0.09378	

Difference between the Planning Area and the Preservation Area, the Act Time Frame

Multiple R	0.16658		
R Square	0.02775		
Adjusted R Square	-0.11114		
Standard Error	0.52365		
Observations	9		
	Regression	Residual	Total
df	1	7	8
SS	0.05478	1.91945	1.97424
MS	0.05478	0.274208	
F	0.19979		
Significance F	0.66839		
	Independent Variable	Dependent Variable	
Coefficients	-0.05573	0.03022	
Standard Error	0.17455	0.06760	
t Stat	-0.31926	0.44698	
P-value	0.75884	0.66839	
Lower 95%	-0.46847	-0.12964	
Upper 95%	0.35702	0.19007	

Difference between the Planning Area and the Preservation Area, the RMP Time Frame

Multiple R	0.19971		
R Square	0.03989		
Adjusted R Square	-0.28015		
Standard Error	0.74885		
Observations	5		
	Regression	Residual	Total
df	1	3	4
SS	0.06989	1.68235	1.75224
MS	0.06989	0.560782	
F	0.12463		
Significance F	0.74742		
	Independent Variable	Dependent Variable	
Coefficients	-0.03905	0.08360	
Standard Error	0.33490	0.23681	
t Stat	-0.11661	0.35303	
P-value	0.91454	0.74742	
Lower 95%	-1.10485	-0.67003	
Upper 95%	1.02674	0.83723	

Appendix H
Statistical Tables for Fiscal Analysis

Percent Change in Equalized Property Values, Highlands Region Municipalities and Municipalities in Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2000 to 2004			
VAR	0.000621	0.000474	0.00319
M	12%	11%	12%
SD	0.024915	0.021775	0.056483
N	88	119	210
df		205	296
t		**2.4209**	0.3180
2004 to 2008			
VAR	0.000434	0.000577	0.00077
M	8%	8%	9%
SD	0.020835	0.024014	0.027752
N	88	119	210
df		205	296
t		-1.4924	**-4.3491**
2008 to 2013			
VAR	0.000213	0.00031	0.000336
M	-4%	-3%	-3%
SD	0.014608	0.017608	0.018331
N	88	119	210
df		205	296
t		**-3.6370**	**-3.0373**

Percent Change in Real Assessed Property Values, Highlands Region Municipalities and Municipalities in Comparison Regions

	Highlands Region Municipalities	Highlands County Municipalities not in the Highlands Region	Northern New Jersey Municipalities
2000 to 2004			
VAR	0.011863	0.003983	0.007476
M	7.7%	4.9%	4%
SD	0.108918	0.063111	0.086464
N	88	119	210
df		205	296
t		**2.1770**	**2.8118**
2004 to 2008			
VAR	0.011863	0.009313	0.034506
M	7.7%	9.9%	11%
SD	0.108918	0.096502	0.185757
N	88	119	210
df		205	296
t		-1.5005	-1.7439
2008 to 2013			
VAR	0.001808	0.001925	0.004171
M	0.9%	1.9%	2.5%
SD	0.04252	0.043875	0.064582
N	88	119	210
df		205	296
t		-1.7654	**-2.6521**